

Finanziato nell'ambito del Piano Nazionale di Ripresa e Resilienza PNRR. Missione 4, Componente 2, Investimento 1.3 Creazione di "Partenariati estesi alle università, ai centri di ricerca, alle aziende per il finanziamento di progetti di ricerca di base"



DELIVERABLE D4.2

REPORT ON

THE CREATION OF A “*PHYGITAL CENTRE FOR ENTREPRENEURSHIP EDUCATION AND SOCIAL INCLUSION*”:

The provision of education/training programme

DOCUMENT DATA	
Title	Spoke 8 Work Package 4 – D4.2 Report on the creation of a “Phygital Centre for entrepreneurship education and social inclusion”: The provision of education/training programmes
Owner	GRINS; UniCT
Contributor/s	UniCT, UniBO, UniCA, UniNA
Document version	Pdf file: GRINS-Deliverable-Spoke8-D-4-2
Last version date	LAST VERSION: 27 th May 2025

Executive summary

Deliverable D4.2 records the development and execution of a Phygital Centre for Entrepreneurship Education and Social Inclusion for migrants, NEETs, women, and imprisoned people. Grounded in a thorough theoretical and empirical study, the research investigates how entrepreneurial education may solve important social issues and promote sustainable development by combining it with inclusive pedagogies and adopting digital technologies.

The first section of the paper offers a thorough literature study on entrepreneurial education, its interaction with artificial intelligence, and its function in urban area complexity management, sustainability, and well-being. Mapping the state of the art and finding underexplored research areas—especially regarding AI's integration into entrepreneurial education ecosystems and its capacity to foster inclusion—it combines several systematic literature reviews and sophisticated text-mining methods.

Empirical design and execution of training programs aimed at underprivileged populations fill the second part. The report describes various methods—from venture philanthropy to digital skill-building, social enterprise incubation, and circular use of confiscated assets—drawing on the input of 14 BACs carried out across Italian universities and partner institutions. These programs stress upskilling and reskilling, individualized learning paths, and the valorization of local socio-economic settings. Each project promotes inclusive growth and social empowerment by means of customized training techniques combining digital tools, community-based resources, and local policy proposals.

The following section presents the framework of the Phygital Hub, an inventive hybrid environment meant to promote inclusive entrepreneurship by combining physical and digital infrastructures. The Hub offers customized, adaptive, and context-sensitive learning experiences using Education 4.0 ideas and upcoming technologies, including artificial intelligence, augmented reality/virtual reality, and gamification.

The last parts describe the assessment of disadvantaged groups, educational program design, value creation KPIs, the infrastructure design and social and economic impact. To assist long-term institutional integration, scalability and policy consequences are also discussed, for expanding phygital, inclusive entrepreneurship education.

TABLE OF CONTENTS

Introduction.....	7
1. Theoretical Background	7
1.1. Definition of Entrepreneurial Education (UNINA)	7
1.2. Entrepreneurial Education and AI. A Systematic Literature Review (UNINA).....	8
1.2.1. Methodology of the Systematic Literature Review	9
1.2.2. Results and discussion.....	10
1.2.3. Research limits and new research avenues.....	12
1.3. A systematic literature review on Entrepreneurship Education Ecosystem Strategy: a Structural Topic Modelling Approach.....	13
1.3.1. Overview of Key Topics.....	15
1.4. Literature review on entrepreneurial support for migrants (2021-2024) (UNIBO)	16
1.4.1. Methodology	17
1.4.2. Findings.....	18
1.4.3. Analysis of the sampled papers	19
1.4.4. Discussion	26
1.5. Entrepreneurship and entrepreneurial education to manage sustainability and well-being in large urban areas (paper D'Allura).....	28
1.5.1. Methodology	29
1.5.2. Results discussion	30
1.5.3. Lacunae in the entrepreneurship literature.....	36
1.5.3.1. The Institutional Perspective on Entrepreneurial Development.....	37
1.5.3.2. Theoretical Foundations of Entrepreneurial Education and Its Role in Shaping Entrepreneurship in Large Urban Areas.....	39
1.5.4. Research limitations	40
1.5.5. Managerial implications	41
1.6. Entrepreneurial attitude for social inclusion across AI-driven Phygital solutions	41
1.7. Entrepreneurial education for women inclusion (paper D'Allura).....	44
1.7.1. Methodology	46
1.7.2. Preliminary results.....	47
1.7.3. Research limitations	50
1.7.4. Managerial implications	51
2. Research design and contents analysis	51
2.1. Entrepreneurial Education program development (UNINA)	51
2.2. Mapping of entrepreneurial programs for migrants in Italy (2021-2024) (UNIBO)	53
2.2.1. Support measures for migrant entrepreneurs	53
2.2.2. Migrant entrepreneurship in Italy	54
2.2.3. The landscape of support measures for migrant entrepreneurs in Italy	55
2.2.4. Conclusions and Policy recommendations.....	56
2.3. Upskilling and reskilling to social inclusion.....	56
2.4. BAC (Com. Sant'Egidio): Business Relationships and Immigrant Development Generating Ecosystems Sustainably (BRIDGES).....	57
2.4.1. The Economic Role of Immigrant Businesses	59
2.4.2. Financial Inclusion and Entrepreneurial Mobility of Immigrants.....	60
2.4.3. Analysis of Research Tools	62
2.5. BAC (Unisi): Confiscated Assets Reuse through Entrepreneurial Startups (CARES)	64
2.5.1. Data collection and analysis	64

2.5.2. Description of the Dataset	65
2.6. BAC (Unisa): Designing new Entrepreneurship Education through venture Philanthropy Effectiveness Rethinking (DEEPER)	98
2.6.1. The impact that matters: Evaluation and scenarios in the Third Sector	100
2.7. BAC (Uniroma1): Digitalisation, finance and firms' market power: database and framework analysis (DIFIMP)	102
2.7.1. Digitalization and market-power	103
2.7.2. Digitalization, financial conditions and performance	107
2.8. BAC (UniSalento): Understanding Digital Technology Integration in Labour, Education and Firms (DIGITAL-LEAF)	108
2.8.1. The Effect of Artificial Intelligence on the Labour Market	109
2.9. BAC (Unicatt-Unisa): Education for Neet (ED4NEET)	114
2.9.1. Objectives of the Systematic Literature Review and Research Questions	114
2.9.2. Methodology	116
2.9.3. Sample analysis	121
2.9.4. Summary of results	133
2.10. BAC (Univr): Entrepreneurial education for (re)skilling Neet people and creating new ventures (ENTREDU4NEET)	137
2.11. BAC (Unicatt): Human Mobility and migration as a resource for organizationS- Entrepreneurial Training (HUMUS)	141
2.11.1. Methodology	143
2.11.2. The co-citation analysis	144
2.11.3. Thematic Overview of Migrant Entrepreneurship Research	145
2.11.4. Fundamental Theories of Migrant Entrepreneurship: Conditions and Implications for Educational Programs	146
2.11.5. What are the main educational programs offered internationally on migrant entrepreneurship, in terms of geographic distribution, training formats, and education levels?	152
2.11.5.1. Sociocultural Factors Shaping Migrant Entrepreneurship	153
2.11.6. What are the training strategies (guidance, educational content, and transferred skills) utilized in the most prominent international programs on migrant entrepreneurship?	154
2.11.6.1. Resource Access and Sustainability	155
2.11.6.2. External Factors	156
2.11.7. Policy Implications for Education Supporting Migrant Entrepreneurship	157
2.12. BAC (Univaq): The Socialization of Young Unemployed Women into Sustainable Entrepreneurship (INTERGEN)	158
2.12.1. Theoretical and contextual framework	158
2.12.2. Intersectionality and transdisciplinarity: dilemmas and perspectives of an integrated analysis approach for the INTERGEN Project	161
2.12.2.1. Why intersectionality: Theoretical-methodological premises	161
2.12.2.2. What intersectionality?	163
2.12.2.3. What contribution from the Italian context?	163
2.12.2.4. The first challenge of intersectionality: how to know and why?	164
2.12.2.5. The second challenge: what is intersectionality?	167
2.12.2.6. Some concluding lines on intersectionality and transdisciplinarity	170
2.12.3. Intergen's values: social justice	171
2.12.4. Youth and female entrepreneurship	172
2.12.5. Female entrepreneurship, women's empowerment and social innovation	173
2.12.6. External constraints to female entrepreneurship: cultural, social and family factors and financial and labour discrimination	174
2.12.7. Gender differences in the motivation and reasons for starting a business	175

3.	<i>The Phygital Hub Concept.....</i>	175
3.1.	<i>The rise of Phygital Reality: insights from Structural Topic Modelling.....</i>	175
3.2.	<i>Education 4.0: reaching disadvantaged groups orchestrating physical and phygital educational systems</i>	176
3.3.	<i>Training programs and tools for experts working in entrepreneurial context of incubation for migrants (UNIBO).....</i>	178
	<i>3.3.1. Competencies for entrepreneurship support professionals.....</i>	<i>178</i>
	<i>3.3.2. The state of competencies development for entrepreneurship support professionals</i>	<i>180</i>
3.4.	<i>LICHENI: Towards a hybrid incubation – from the Mediterranean ecosystem to the metaverse for a new model of business development (UNICA)</i>	183
	<i>3.4.1. Toward Mediterranean Incubation: Inclusion, Impact and Collaboration.....</i>	<i>184</i>
	<i>3.4.1.1. A prototype of inclusive venture incubation.....</i>	<i>184</i>
	<i>3.4.1.2. Mediterranean approach to incubation.....</i>	<i>184</i>
	<i>3.4.1.3. The podcast as dissemination strategy</i>	<i>184</i>
	<i>3.4.2. Developing the logotype: “LICHENI”</i>	<i>185</i>
	<i>3.4.3. LICHENI program – a timeline</i>	<i>185</i>
	<i>3.4.3.1. Participants selection.....</i>	<i>186</i>
	<i>3.4.3.2. Training and Incubation Program (April - July 2025).....</i>	<i>186</i>
	<i>3.4.3.3. Output Production and Follow-up</i>	<i>187</i>
	<i>3.4.4. Towards the Phigital Hub.....</i>	<i>187</i>
3.5.	<i>Social entrepreneurship to enhance value creation through confiscated mafia goods (UNINA).</i>	187
	<i>3.5.1. Entrepreneurship, Ethics and AIs.....</i>	<i>187</i>
	<i>3.5.2. Destructive entrepreneurship and Social Enterprises</i>	<i>189</i>
4.	<i>Business Model of the Phygital Hub</i>	191
4.1.	<i>The assessment of disadvantaged groups needs</i>	191
4.2.	<i>Design personalized training programs and tools.....</i>	191
4.3.	<i>Physical and phygital touch points</i>	192
4.4.	<i>Value creation KPI: interactions, engagement and advocacy.....</i>	193
4.5.	<i>Insights and activities to be adopted on field.....</i>	199
	<i>4.5.1. BAC (Com. Sant'Egidio): Business Relationships and Immigrant Development Generating Ecosystems Sustainably (BRIDGES).....</i>	<i>200</i>
	<i>4.5.2. BAC (Unisi): Confiscated Assets Reuse through Entrepreneurial Startups (CARES).....</i>	<i>202</i>
	<i>4.5.3. BAC (Unisa): Designing new Entrepreneurship Education through venture Philanthropy Effectiveness Rethinking (DEEPER).....</i>	<i>204</i>
	<i>4.5.3.1. Measuring Social Impact: From the Value Chain to International Assessment Tools.....</i>	<i>204</i>
	<i>4.5.3.2. Social Impact in Venture Philanthropy</i>	<i>215</i>
	<i>4.5.4. BAC (Uniroma1): Digitalisation, finance and firms' market power: database and framework analysis (DIFIMP).....</i>	<i>216</i>
	<i>4.5.5. BAC (UniSalento): Understanding Digital Technology Integration in Labour, Education and Firms (DIGITAL-LEAF).....</i>	<i>224</i>
	<i>4.5.5.1. Territorial Divide, Production Chains and Partnerships: descriptive aspects and related phenomena</i>	<i>225</i>
	<i>4.5.5.2. The quality of public procurement in voluntary amalgamated municipalities.....</i>	<i>230</i>
	<i>4.5.6. BAC (Unicatt-Unisa): Education for Neet (ED4NEET).....</i>	<i>232</i>
	<i>4.5.7. BAC (Univr): Entrepreneurial education for (re)skilling Neet people and creating new ventures (ENTREDU4NEET).....</i>	<i>237</i>
	<i>4.5.8. BAC (Unicatt): Human Mobility and migration as a resource for organizationS-Entrepreneurial Training (HUMUS)</i>	<i>237</i>
	<i>4.5.8.1. What is the impact of entrepreneurial education on migrant entrepreneurs, and</i>	

	<i>what are the key skills required, particularly in the hospitality and catering sectors?</i>	<i>237</i>
4.5.9.	<i>BAC (Univaq): The Socialization of Young Unemployed Women into Sustainable Entrepreneurship (INTERGEN).....</i>	<i>239</i>
4.5.9.1.	<i>Education for sustainable entrepreneurship.....</i>	<i>239</i>
4.5.9.2.	<i>Sustainable entrepreneurship education</i>	<i>240</i>
4.5.9.3.	<i>Good practices: definition and identification procedure</i>	<i>253</i>
4.6.	Challenges and solutions in implementing Phygital Hub	255
5.	Guidelines for Service personalization.....	256
5.1.	Digital platform infrastructure design for Phygital Hub	256
5.2.	Methodological and operational integration of the GRINS Phygital Hub: profiling, adaptive learning and inclusive pedagogies.....	257
5.3.	Social and economic impact of GRINS Phygital Centre.....	258
5.4.	GRINS scalability strategies.....	259
	Conclusions	259
	References.....	262

Introduction

Recent advances in digital technologies have catalyzed a shift beyond conventional digitalization, giving rise to a hybrid “phygital” reality that blends physical and digital experiences. This emerging paradigm is transforming how individuals interact with services, access information, and participate in daily life, with applications spanning work, education, entertainment, travel, and beyond. Initially developed in the retail sector, phygital strategies have since expanded into a range of industries, including fashion, banking, healthcare, and education (Ballina et al., 2019).

Phygital solutions are characterized by the convergence of technologies such as artificial intelligence, augmented and virtual reality, and smart computing. Despite its growing presence in practice, the phygital concept remains relatively new in academic literature and is still forming its theoretical foundations. As this hybrid model becomes more embedded in society, examining its broader implications—especially those related to social inclusion—has become increasingly important.

This deliverable provides an initial literature review to outline key areas of scholarly attention and highlight directions for further research. The review is complemented by an empirical study presented in Part Three, which applies Structural Topic Modeling (STM)—a machine learning technique for text analysis—to bibliometric data collected from the Web of Science and Scopus databases.

The analysis identifies seven thematic areas where phygital technologies are actively being explored: the Metaverse, Health Technology, Cultural Heritage and Gaming, Fashion and Luxury, Customer Experience, Education, and Tourism and Retail. These domains illustrate not only the scope of phygital innovation but also reveal a significant gap in research: the potential of phygital tools to foster social inclusion remains largely underexamined.

While phygital applications hold substantial promise for reshaping user engagement and service delivery, their ability to create more inclusive environments has yet to be fully realized.

This deliverable therefore highlights a pressing need for both scholars and practitioners to explore how hybrid technologies can be leveraged to support marginalized and disadvantaged groups. Bridging this gap will be essential to ensure that phygital transformation contributes to more equitable and accessible systems across sectors.

1. Theoretical Background

1.1. Definition of Entrepreneurial Education (UNINA)

The definition of Entrepreneurship Education (EE) has gained the interests of several scholars (Etzkowitz, 2004; Béchar & Grégoire, 2005; de Pablo Valenciano et al., 2019; Loi & Fayolle, 2021; Passavanti et al., 2023). There is a general sense that EE is multidisciplinary field which cannot be associated to a single definition but request a wide discussion which also consider the evolution of the context. In this present work, first the author offers some relevant definitions of EE and then explores such concept associated with the use of AI. This latter has been submitted to EURAM conference 2025 (No accepted yet). The main scope of EE is to stimulate entrepreneurial awareness among students from Universities and from Higher education. Alongside, the present work aims to develop a personalized EE program from pupils (e.g from 5 years old) in collaboration with the University of Strathclyde (Glasgow, UK).

The concept of EE is explained regarding skills and concepts (Passavanti et al., 2023). EE provides individuals with the concepts, skills, and abilities to recognize opportunities and act promptly. This is the capacity to see “out of the box”. EE is also a set of activities to forge new entrepreneurs and improve their knowledge about the entrepreneurial world (Zulfiqar et al., 2019). EE develops an entrepreneurial perspective which highlights the attitude and behavior of being an entrepreneur which can be adopted within and outside a company (Kuratko, 2005). EE is also characterized by specific programs: At the

beginning, EE started as a single course for business and engineering students. Then it was extended to business students. Afterwards, EE assumed a mature program, being transformed into full-fledged, long-duration programs, sometimes integrated with existing management or business programs. For example, the Entrepreneurship Development Institute of India (EDI) started a one-year postgraduate diploma program in 1998 (Joshi, 2014). Nowadays, the approach of EE has moved towards a practical program, shifting from a traditional, passive method to a more interactive one which includes constructivist and experiential learning (Scuotto & Murray, 2018; Murray et al., 2018; Scuotto & Morellato, 2013). In this regard, the discussion on EE and AI has resulted important to argue the evolution of EE and understand the status quo of this concept (see the conference paper below).

Furthermore, EE has been studied considering different theories and approaches such as:

- **Experiential Learning:** this approach involves learning through direct experience, reflection, and action (Lackéus & Williams Middleton, 2018).
- **Constructivism:** this emphasizes active learning where learners construct their own understanding through experience (Bell & Bell, 2024).
- **Social Constructivism:** these views learning as a social and interactive process (Korsgaard & Anderson, 2011).
- **Effectuation Theory:** this approach focuses on the disorderliness of the entrepreneurial process, and how entrepreneurs can use skills and techniques needed for productive entrepreneurship (Sarasvathy & Venkataraman 2011).

Overall, EE has evolved into a complex field with various definitions, approaches, and challenges. It aims to develop not just business skills but also an entrepreneurial mindset and the ability to apply knowledge in real-world contexts. A move towards more active, experiential, and constructivist learning methods is a core aspect of current trends in EE.

1.2. Entrepreneurial Education and AI. A Systematic Literature Review (UNINA)

The use of artificial intelligences (AIs) in education has attracted a diverse range of studies from the engineering domain (Browning & Bustard, 2024) to the entrepreneurship field (Bell & Bell, 2023; Thottoli et al., 2024; Kooli, 2023). This has flourished in a vivid debate on acceptability of these technologies and their benefits. Especially, the literature has been divided in two groups: who are firmly convinced of the benefits stem from AIs and the potentiality that they can bring in both educational and working environments and others who are annoyed and/or scared about the use of such technologies (Bell & Bell, 2023; Del Giudice et al., 2023a;b). For instance, in 2018 already Jennifer Rexford, computer-science chair at Princeton University, claimed the use of AIs emphasizing how this use wants to change not just the acquisition of different skills for students but also the way of teaching (McKinsey, 2018). Whereas, nowadays in the academic world there are universities who have fully embraced the use of AIs in their learning journey; instead of others who are facing challenges due to a lack of AI integration in EE and their incubation centers for young startups. Many institutions do not include the latest technologies, cloud computing, and big data analysis in their innovation and entrepreneurship teaching. However, there is clear evidence that AIs help teachers in organizing and delivering their lectures as well as students in their learning journey (McKinsey, 2020). AI can simplify tasks for educators, making their responsibilities more efficient. Mostly important, the use of AI is becoming pervasive in all types of business settings which in particular “generative AI could enable automation of up to 70 percent of business activities, across almost all occupations, between now and 2030, adding trillions of dollars in value to the global economy” (McKinsey, 2023). We are living in the fourth industrial revolution which requires the use of AIs (Bell & Bell, 2023). Thottoli et al., (2025) and Chen et al., (2024) highlight the need for technology-enabled EE and digital skills to help students launch businesses and become successful entrepreneurs due to high unemployment rates. Business plans could be developed by Generative AI tools like ChatGPT and ChatGen (Winkler et al., 2023). They focus their research in exploring how AI can improve student entrepreneurship. Other studies have explored the role of AI in University incubation centers (Mungila Hilemane et al., 2020)

However, As Chen et al. (2024) claim there is insufficient exploration of AI's potential in entrepreneurship education, compared with other domains. Kooli (2023) entrepreneurial education research has largely ignored new technologies such as gamification, augmented reality, and virtual reality. There is a need for future research to examine how these technologies and the latest AI can be used in educational incubation centers. Thottoli et al. (2025) notice a lack of studies using both

systematic literature review (SLR) and bibliometric analysis to examine the transformation of AI-enabled incubation centers even if the presence of a few studies (Motta and Gallina, 2023; Tiberius & Weyland, 2023). They also state the need of investigating how AI affects EE in various contexts. There is also a need to understand the impact of AI on entrepreneurial intentions and skill development, and real-world experience.

Therefore, the research presents an interesting overview of the current state and future potential of AIs in entrepreneurship education from 2010 to 2024 (Zhai et al., 2021). The scope is the scope to analyse the 'status quo' of the current literature and recommend new research and also to develop a qualitative research that can offer a new teaching and learning design for young students. The research question is: what are the key topics analyzed in the field of entrepreneurial education and AI?

By considering the PICO framework made of Population, Intervention, Comparison, Outcome, and Context, we have conducted a systematic literature review (SLR) to offer valuable insights for organizational, social, and policy-oriented studies. The analysis employs an AI platform known as rayyan which was useful in optimizing the selection papers regarding the inclusion and exclusion criteria.

Notwithstanding, the database choice, the use of keywords and inclusion and exclusion criteria was performed by the Authors. The results offer interesting insights on five key areas:

1. *Population*: Students/Entrepreneurial Education;
2. *Intervention*: Role of AI;
3. *Comparison*: Traditional vs. AI-enhanced Methods;
4. *Outcomes*: Development of Skills;
5. *Context*: Educational and Entrepreneurial Domains.

Overall, AI for entrepreneurial education can revolutionize teaching methods and assessment strategies across different pedagogical approaches ('about', 'for', and 'through' entrepreneurship). It is highly relevant that educators adjust their practices to efficiently embrace AI while fostering critical thinking and practical skills among students. In turn, it also discusses concerns about academic integrity and the ethical use of AI, identifying opportunities and automatic assessments. Furthermore, the use of AI can be useful to improve educational approaches globally (SDG 4).

1.2.1. Methodology of the Systematic Literature Review

The present research employs a SLR which is recognised to be a robust methodology to analyse key findings of a wide topic like entrepreneurial education and AI (Motta and Gallina, 2023; Tiberius & Weyland, 2023; Christofi et al., 2021; Palmatier et al., 2018). The use of AI to conduct a SLR is also considered valid to optimize the relationship between human knowledge and technology efficiency and so improve the quality of the methodology (Tomczyk et al., 2024). Before using the

Rayyan, the Authors have approached the SLR by a standard protocol-driven methodology (Tranfield et al., 2003). The authors use the two main platforms of the database, that are web of science and scopus (Paul et al., 2021) to select over 400 papers and import them to rayyan.ai.

A set of keywords are used to screen those papers by using rayyan.ai such as:

**Core Entrepreneurship or *Entrepreneur* (entrepreneurship, entrepreneurial, entrepreneurs) or *Entrepreneurship education or *Entrepreneurial education/training; *Startup formation; *Student startups or *Education & Pedagogy or *Higher education or *University-level education; *Business education or *Vocational education or *Curriculum design or *Experiential learning or *Pedagogical approach or *Innovative teaching methods or *Artificial Intelligence & Education or * Educational*

*technology (EdTech) or * Comparison (traditional vs. AI-driven methods) or *Blended learning vs. online learning or *University incubators or *Industry-academia collaboration.*

Additionally, the authors have indicated inclusion and exclusion criteria as follows:

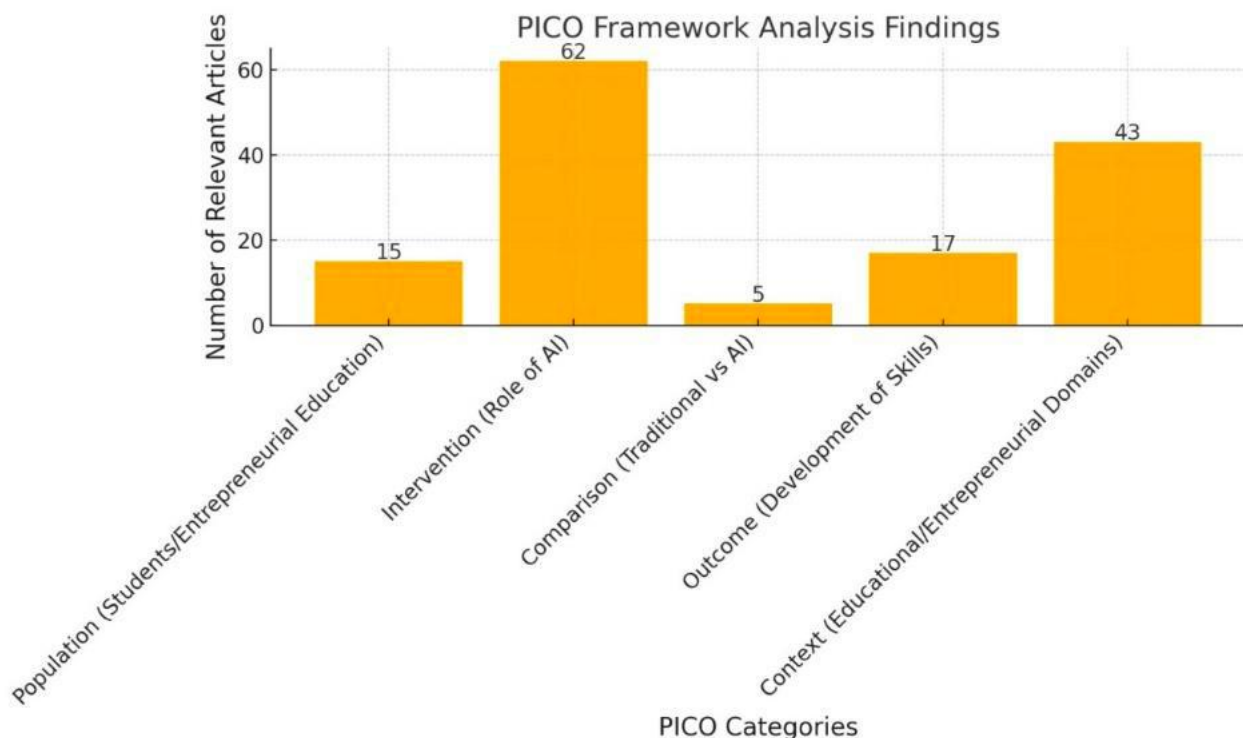
- Inclusion criteria: Academic papers, English-written articles and published in peer-reviewed top journals to ensure the high-standing of the research (e.g. journals with grade 3, 4 and 4* in the Association of Business Schools' Academic Journal Guide 2018 ranking).
- Exclusion criteria: non academic peer-reviewed articles (i.e. book chapters and book reviews, summaries of articles, magazines, editorials, interviews, etc.), duplicates.

Then as the protocol requested, the authors have analysed each paper by reading the title and the abstract in order to understand the consistency of the articles with the research scope. Hence, from over 400 studies, only 142 articles were included. The SLR is developed by the use of an AI platform known as Rayyan. The support of this tool regards the analysis of each paper, optimizing the data analysis of each paper.

1.2.2. Results and discussion

Considering the PICO framework, the results show that there is an increasing interest in the role of AI (n 62 articles) which is accompanied by the educational and entrepreneurial domains (n 43 articles). A lack of studies are mostly noted in the analysis of traditional teaching and learning approaches against the AI one (Figure 1).

Figure 1: PICO Framework Analysis Findings



As emerged, we have grouped the different studies in five key areas:

1. **Population:** Students/Entrepreneurial Education

The analysis aimed to identify records explicitly addressing students or entrepreneurial education. The PICO table reveals that none of the abstracts in the dataset explicitly mentioned students or entrepreneurial education as a core focus. This absence is significant given that entrepreneurial education

is inherently about equipping students with the skills, knowledge, and mindset required to succeed as entrepreneurs.

The lack of explicit mention of students or entrepreneurial education suggests a potential gap in the dataset or the research field. While entrepreneurial education often encompasses various pedagogical approaches, including experiential learning, mentorship, and project-based learning, the dataset did not explicitly reflect these elements. This raises questions about whether the selected studies inadvertently excluded relevant research or whether such themes are underrepresented in the academic discourse.

2. Intervention: Role of AI

The intervention category evaluated the explicit mention of AI in the abstracts. According to the PICO table, none of the abstracts explicitly highlighted the role of AI in entrepreneurial education.

This finding is surprising given the growing recognition of AI's transformative potential in education. AI can support personalized learning, provide adaptive feedback, and simulate entrepreneurial scenarios through virtual platforms. The lack of explicit mention suggests that even if AI tools like chatbots, virtual assistants, and predictive analytics are becoming popular, their integration into entrepreneurial curricula might still be in nascent stages. Alongside, there is a paucity of studies that assess the efficacy of AI tools specifically in fostering entrepreneurial skills.

3. Comparison: Traditional vs. AI-enhanced Methods

The comparison category sought studies contrasting traditional educational approaches with AI-enhanced methods is not clearly showed in the abstract.

Comparing traditional methods (e.g., lectures, workshops) with AI-enhanced approaches is vital for understanding the added value of AI in entrepreneurial education. This absence suggests a missed opportunity to evaluate the effectiveness of AI-based interventions relative to established methods. In turn, new research questions can emerge such as: 1) How does AI influence student engagement compared to traditional pedagogical methods?; 2) Are AI-enhanced methods more effective in developing entrepreneurial competencies, such as problem-solving and creativity?

4. Outcomes: Development of Skills

The outcome category examined whether the development of entrepreneurial skills or competencies was a focal point is not fully mentioned in the abstract. Entrepreneurial education's primary goal is to develop specific skills, including creativity, leadership, risk assessment, and strategic thinking. The lack of these studies requests a deep understanding of measuring skills development which calls for a longitudinal analysis. This would offer new best practices to align theoretical discussions with practical outcomes.

5. Context: Educational and Entrepreneurial Domains

The context category assessed whether the studies were situated within educational or entrepreneurial domains is not clearly presented in the abstract. Despite that, the comprehension of the context is relevant to examine the research findings. In this sense, the educational settings should be more explored. It could be a higher education environment, universities and incubators. This is also connected to different countries and cultures where they make a great impact on the education approach (SDG 4).

Overall, the research recommends the need of addressing the development of students into entrepreneurs; and how the use of AI can facilitate and help this development; exploring the theoretical and managerial implications of AI in entrepreneurial education, and conducting a comparative analysis to evaluate AI's effectiveness relative to traditional methods. The scenario of entrepreneurial education and AI highly requests new collaborations between educators, AI developers, and policymakers to tailor new entrepreneurial education programs and stimulating new studies that intertwine AI, education, and entrepreneurship.

1.2.3. Research limits and new research avenues

- **Recommendations for 1.** Population: Students/Entrepreneurial Education;
 - Refine Inclusion Criteria: Future datasets should prioritize studies that explicitly address student populations and the educational context.
 - Explore Broader Definitions: Incorporating studies with related keywords like “leadership training” or “innovation education” could provide a more comprehensive view of how entrepreneurial skills are developed.
- **Recommendations for 2.** Intervention: Role of AI;
 - Explicit Focus on AI Tools: Researchers should explore how specific AI tools (e.g., natural language processing, machine learning) enhance entrepreneurial learning outcomes.
 - Case Studies: Studies documenting the implementation of AI in entrepreneurial education (e.g., AI-driven mentorship programs or business simulations) would fill critical gaps.
 - Collaborations: Partnerships between AI developers and educational institutions can lead to innovations that are directly evaluated in academic studies.
- **Recommendations 3.** Comparison: Traditional vs. AI-enhanced Methods;
 - Design Comparative Studies: Future research should involve controlled studies comparing AI tools and traditional methods in entrepreneurial education.
 - Outcome Metrics: Researchers should develop standardized metrics for evaluating both traditional and AI-enhanced educational approaches.
 - Longitudinal Studies: Assessing long-term outcomes, such as entrepreneurial success rates, could provide valuable insights.
- **Recommendations 4.** Outcomes: Development of Skills
 - Focus on Skill Metrics: Future research should emphasize measurable outcomes, such as improved decision-making or business creation rates.
 - Practical Frameworks: Developing frameworks for assessing entrepreneurial competencies in AI-enhanced environments is essential.
 - Skill-specific Studies: Research could focus on specific skills, such as how AI supports creativity or decision-making in entrepreneurial contexts.
- **Recommendations 5.** Context: Educational and Entrepreneurial Domains
 - Contextual Relevance: Future studies should clearly define their context, such as university-level entrepreneurial programs or startup ecosystems.
 - Case Studies: Documenting real-world applications of AI in entrepreneurial education would provide valuable insights.
 - Interdisciplinary Approaches: Combining insights from education, entrepreneurship, and AI research could enhance contextual relevance.

Overall, new experimental studies should be provided to provide new pedagogical frameworks designs based on the following six steps: 1. diagnosis, 2. prediction, 3. intervention, 4. prevention, 5. recommendation, and 6. entrepreneurial content. (Chen et al., 2024; Tarabasz et al., 2018). Integrating the literature with new research that examine incubation centers needful to support the development of business plan for students (Kooli, 2023; Al Hawamdeh, 2021). Future research that evaluate the intertwining of entrepreneurial education and AI should consider ethical implications (Thottoli et al., 2025); best practices to generate students’ entrepreneurial skills (Liang et al., 2020), new teaching practices and assessments, students’ perceptions on, approach to and feedback on AIs.

Overcoming Barriers: Research should focus on potential barriers and challenges to integrating AI into the entrepreneurship classroom from the perspectives of educators, students, and administration (Bell & Bell, 2023),

In summary, while there's a growing recognition of AI's potential to transform EE, there are significant gaps in research and implementation, especially within university incubation centers. Future research

should focus on practical applications of AI tools, pedagogical designs, ethical considerations, and the development of critical and reflective thinking to support students in using AI effectively in their entrepreneurial endeavors. The application of the PICO framework to the dataset highlights significant gaps and opportunities in the research on entrepreneurial education and AI. While the dataset reflects broad themes, it lacks specificity in addressing core PICO elements. To advance the field, researchers must prioritize targeted studies that explicitly focus on students, the role of AI, and measurable outcomes in entrepreneurial education. By addressing these gaps, the academic community can better understand and leverage AI's transformative potential in shaping the next generation of entrepreneurs.

1.3. A systematic literature review on Entrepreneurship Education Ecosystem Strategy: a Structural Topic Modelling Approach

To investigate how phygital reality is addressed in the academic literature, we conducted a structured search using the keyword "phygital" in the Web of Science and Scopus databases. We applied no time or publication-type restrictions, considering the novelty of the topic. The initial dataset comprised 324 records. Text mining was performed using KNIME Analytics, following standard preprocessing steps (Tursi & Silipo, 2018). Duplicate entries were removed, yielding a final sample of 196 abstracts. Stop words and non-descriptive terms were excluded, and stemming was applied using the Kuhlen algorithm. A bag-of-words model was created, incorporating single terms and common bi-grams.

Structural Topic Modeling (STM), as developed by Roberts et al. (2019), was then applied to extract latent themes from the corpus. Compared to the traditional Latent Dirichlet Allocation (LDA), STM offers a more flexible framework, as it models variations in topic prevalence across documents and accounts for potential correlations between topics. These characteristics made STM particularly suited to the objectives of our study, which required capturing the nuanced and interconnected nature of the textual data.

The process of selecting the optimal number of topics (K) was guided by a systematic evaluation based on four well-established diagnostic criteria: exclusivity, semantic coherence, held-out likelihood, and residual variance. Each of these metrics provides complementary insights into model quality: exclusivity reflects the uniqueness of words associated with each topic; semantic coherence indicates the degree of interpretability of the topics based on word co-occurrence patterns; held-out likelihood measures the model's predictive accuracy on unseen data; and residual variance assesses how much variance remains unexplained.

As illustrated in Figure 2, the diagnostic results converged around a limited range of candidate solutions. Specifically, maximum exclusivity was observed at K=7, suggesting a high degree of topic distinctiveness. Semantic coherence reached its peak at K=6 and K=8, pointing to slightly more interpretable topics at those levels. The minimum residual variance was also achieved at K=7, indicating an efficient modeling of the data structure. In terms of held-out likelihood, the best performance was registered around K=6 and K=8, although differences with K=7 were not substantial.

Taking into account these partially competing indications, the final choice was made by complementing quantitative metrics with a qualitative assessment of topic interpretability. Although the eight-topic solution showed promising scores on certain criteria, the seven-topic model offered a clearer and more parsimonious thematic structure. In particular, it minimized semantic overlaps and enhanced the internal coherence of each topic, facilitating both the interpretation of the results and their subsequent theoretical elaboration (Figure 3). For these reasons, the seven-topic solution was ultimately selected as the most appropriate representation of the corpus' underlying thematic organization.

Figure 2: Topics overview

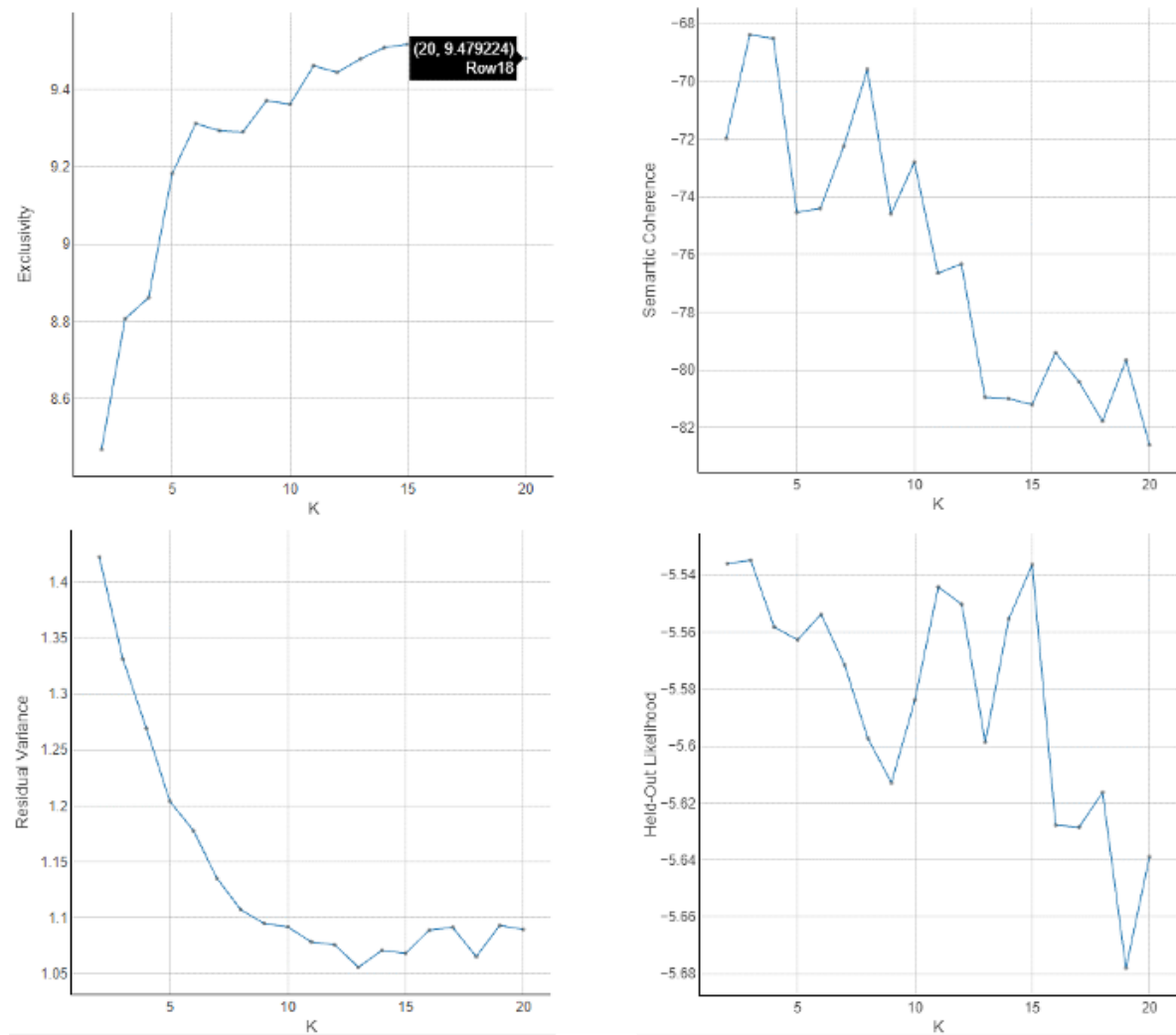


Figure 3: Topic distribution and overlapping

Topic	Min year	Max year	N. papers
topic 1	2015	2024	32
topic 2	2007	2024	55
topic 3	2019	2024	25
topic 4	2015	2023	21
topic 5	2020	2023	24
topic 6	2018	2024	17
topic 7	2018	2024	18

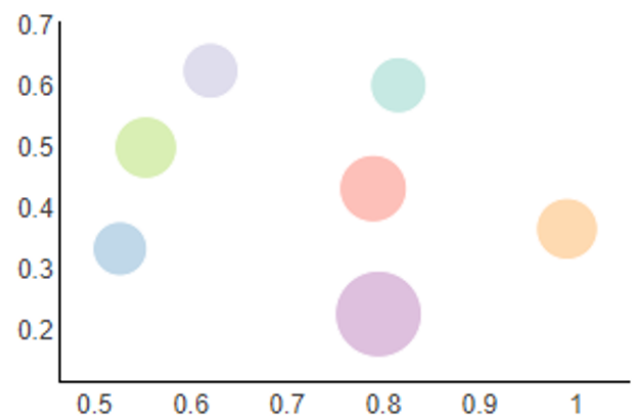


Figure 4 provides a concise summary of the subjects and keywords that have been identified.

Figure 4: Identified topics and keywords

Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7
business	data	consumer	brand	development	approach	behavior
concept	design	customer	consumer	digital	art	customer
digital	digital	customer-experience	consumption	education	cultural	dimension
emerg	game	design	experience	educational	digital	experience
future	information	engagement	fashion	generation	experience	play
metaverse	interaction	experience	luxury	learn	innovation	positive
potential	physical	journey	online	proces	museum	retail
technology	robot	market	product	student	social	service
virtual	space	physical-digital	retail	support	tool	store
world	system	strategy	strategy	teacher	tourism	technology

1.3.1. Overview of Key Topics

The STM analysis reveals seven main thematic areas through which the integration of physical and digital realities is reshaping user experience, interaction models, and organizational practices. The first of these is the *metaverse*, where phygital convergence is enabling new forms of socio-economic interaction, value creation, and hybrid consumption experiences. Research in this area has emphasized how the fusion of physical environments with immersive virtual layers facilitates novel marketing strategies, enhances customer engagement, and opens up new models of interaction in retail, education, and entertainment (Omarali, 2023; Mancuso et al., 2023; Chrétien-Ichikawa, 2022; Del Vecchio et al., 2023; Tse & Pun, 2024). The second topic concerns *health technologies, cultural heritage, and gaming*, where scholars have explored the role of phygital tools in improving healthcare delivery and wellbeing through personalized, immersive interventions, often based on wearable sensors, AR/VR applications, and AI-driven platforms (Bini et al., 2023; Gelsomini et al., 2021; Barresi et al., 2023). In parallel, these technologies have also been used to enhance engagement with cultural content, allowing users to explore reconstructed historical sites and artifacts through gamified and narrative-driven formats, with significant implications for education, accessibility, and cross-cultural empathy (Brusaporci & Maiezza, 2021; Prajapati & Das, 2023; Turco & Giovannini, 2020). The third topic, *fashion and luxury*, investigates how high-end brands are leveraging phygital approaches to reinforce storytelling, exclusivity, and experiential retail, often through virtual fashion shows, interactive displays, and personalized services across omnichannel touchpoints (Banik & Gao, 2023; Mele et al., 2021; Pangarkar et al., 2022). Studies highlight how the integration of digital components into physical shopping experiences contributes to deeper emotional resonance, customer loyalty, and brand value (Jacob et al., 2023; Samy Soliman & Erakat, 2023). The fourth area is *customer experience*, where phygital technologies are being deployed to bridge the online-offline gap, enabling more fluid, connected, and sensorial consumer journeys (Mele & Russo-Spena, 2022; Kumar, 2023). Literature in this field emphasizes how tools such as mobile applications, digital touchpoints, and augmented feedback environments influence key relationship management metrics including satisfaction, retention, and social connectedness (Lawry, 2023; Mishra et al., 2023). A fifth research stream focuses on *education*, where scholars have examined how phygital learning environments—combining physical presence with digital content—support personalized, inclusive, and collaborative pedagogies. This is particularly effective for Generation Z learners and students with special educational needs (Zaitseva et al., 2023; Chaturvedi et al., 2021; Goretti et al., 2020). Technologies such as AR, serious games, and smartphone-

based collaboration are highlighted as key tools for delivering immersive and adaptive education (Fonseca & Mealha, 2022; Prajapati, 2023). The sixth topic addresses *tourism*, with a focus on the transformation of cultural institutions and tourist destinations through phygital experiences. Museums in particular have implemented immersive and hybrid exhibitions using AR/VR to increase accessibility, personalize visits, and extend user engagement beyond the physical visit (Baldi, 2022; Clemente et al., 2024; Zhuang & Zheng, 2023). Prominent international institutions, including the Louvre and the British Museum, are already offering virtual exhibitions that personalize user engagement while extending the boundaries of traditional interaction. These experiences are aligned with the four dimensions of phygitality—extended socialization, self, sensation, and setting—and are also being adapted for wine tourism and experiential learning (Lorey et al., 2023). However, scholars also caution against overstimulation, calling for a balanced dialogue between content, object, and user (Zhuang & Zheng, 2023). Finally, in the seventh domain of *retail*, phygital solutions are enabling interactive, sensory-rich shopping environments through virtual try-ons, digital signage, and immersive product experiences that respond to evolving consumer preferences (Roten & Vanheems, 2023; Van Rheden et al., 2023; Bonfanti et al., 2023; Ray et al., 2023). Retailers are encouraged to adopt customer-centric approaches that blend data analytics, personalization, and emotional appeal to enhance satisfaction and long-term brand loyalty (Boudkouss & Djelassi, 2021; Guzzetti et al., 2024; Lecointre-Erickson et al., 2021). Collectively, these seven domains reveal a dynamic and interdisciplinary field of research in which phygital innovation is not only enhancing user-centered experiences, but also reshaping institutional practices, participatory cultures, and the boundaries between technology and society.

1.4. Literature review on entrepreneurial support for migrants (2021-2024) (UNIBO)

Entrepreneurial support initiatives provided to migrant entrepreneurs are on the rise (Berntsen et al., 2022). We follow Ratinho et al. (2020, p. 2) in defining entrepreneurial support as the “provision of valuable resources to entrepreneurs by individuals or organizations, which carry structured activities to facilitate the imminent establishment of a new independent firm, increase survival chances, or promote long-term growth.” These initiatives are gaining increasing scholarly attention as they are seen as tools to nurture entrepreneurial knowledge in individuals (Bhagat & Roderick, 2020) while supporting them on the path to new business creation (Crea et al., 2017). Support initiatives for migrants, similar to the ones tracked in broader entrepreneurship literature (e.g., Ratinho et al., 2020; Bergman & McMullen, 2022), intervene in the conception and idea development phase of the business idea (Crea et al., 2017), and offer different types of support theoretical and practical support, such as coaching (Harima et al., 2019), counseling, and financial assistance (Birdthistle, 2019).

Recently, such entrepreneurship support initiatives have taken various forms, thanks to the growing impulse of private and public actors, such as government (Birdthistle, 2019) and non-governmental organizations, including civil society and social economy organizations (Bernsten et al., 2022; Nijhoff, 2021). On the one hand, the increasing facilitation of entrepreneurial careers for migrants is linked to their otherwise poor paid labor market outcomes and the tentative to support them in reaching economic integration and decent living standard in the host country (Alrawadieh et al., 2019; Berntsen et al., 2022). On the other hand, some entrepreneurial support initiatives have been developed to attract talented entrepreneurs with innovative and impactful ideas, potentially benefitting the host country (e.g., De Lange, 2018; Patuzzi, 2019).

In general, entrepreneurial support initiatives specifically focused on migrant entrepreneurs are justified by the more significant restraints and challenges they approach in the host country's business sector (European Commission, 2016; Solano, 2023). Besides the bureaucratic difficulties and entry barriers in the market sector of interest, they are endowed with the liability of foreignness and outsidership (e.g., Verduijn & Essers, 2013; Gurău et al., 2020), so they might face language barriers, cultural and social differences, and structural inequalities. Therefore, specific entrepreneurial support policies and programs aim to close this gap and encourage migrants' business ideas conception, development, and growth.

The related academic literature has acknowledged the relevance of this phenomenon and flourished, resulting in a fragmented field in need of systematization. This study, therefore, reviews 69 published peer-reviewed international articles to address the following research question: What is the landscape of entrepreneurial supports available to migrant entrepreneurs? By bringing together and synthesizing knowledge on external entrepreneurial support for migrant entrepreneurs, this work provides important insights that contribute to the literature about migrant entrepreneurship and about entrepreneurial support initiatives and organizations, along with policy and practice recommendations. The chapter is structured as follows: Firstly, it provides an overview of the research methodology, describing the data collection process and analysis. Subsequently, the chapter presents an overview of the reviewed articles and a comprehensive review of the findings, followed by a discussion of key learning points and future research directions.

1.4.1. Methodology

This systematic literature review can be described as a structured theme-based review (Paul et al., 2021), and followed several stages for identifying, assembling, organizing, cleaning, synthesizing, and reporting literature insights based on available methodological recommendations (e.g., Moher et al., 2015; Paul et al., 2021). The search was carried out in July 2022 on Scopus, combining the following three sets of keywords in the title, abstract, and keywords of documents: (1) entrepreneurial activities (entrepr*/enterpr*/business*); (2) entrepreneurial subjects (refugee*/“asylum seeker”*/foreign*/migrant*/immigrant*); and (3) entrepreneurial support (support/incubat*/accelerat*). The search was then narrowed to journal articles written in English. The results of different searches were merged, eliminating redundant documents, resulting in a sample of 397 articles.

A two-step cleaning of the retrieved articles was organized to ensure that their content was in line with the core of the research interests of the chapter. In the first step, the titles and abstracts of the articles were read, coding documents for inclusion or exclusion. In this first phase of coding, the inter-rater agreement was close to 67% for two main reasons: (a) the inclusion/exclusion of 47 papers (12% of the total) was uncertain based only on the abstract and title; (b) the retrieved papers adopted a variety of definitions and operationalizations of entrepreneurial support and migrant entrepreneurs; and (c) entrepreneurial support was not one of the key variables studied by the paper, even if it was mentioned in the abstract. Any disagreement was resolved by including the articles which were difficult to classify (cases (a) above), discussing which definitions and operationalizations of entrepreneurial support to adopt, and excluding the articles where entrepreneurial support was just mentioned but not core to the research (e.g., Baycan-Levent & Kundak, 2009). In particular, articles dealing with entrepreneurial support provided by family and friends (e.g., Almohaddam et al., 2021) or by the co-ethnic community (e.g., Apa et al., 2020) were excluded, since these are not part of the external support that the chapter would like to revise here. At the end of this first coding phase, 102 articles were retained as potentially relevant to our study.

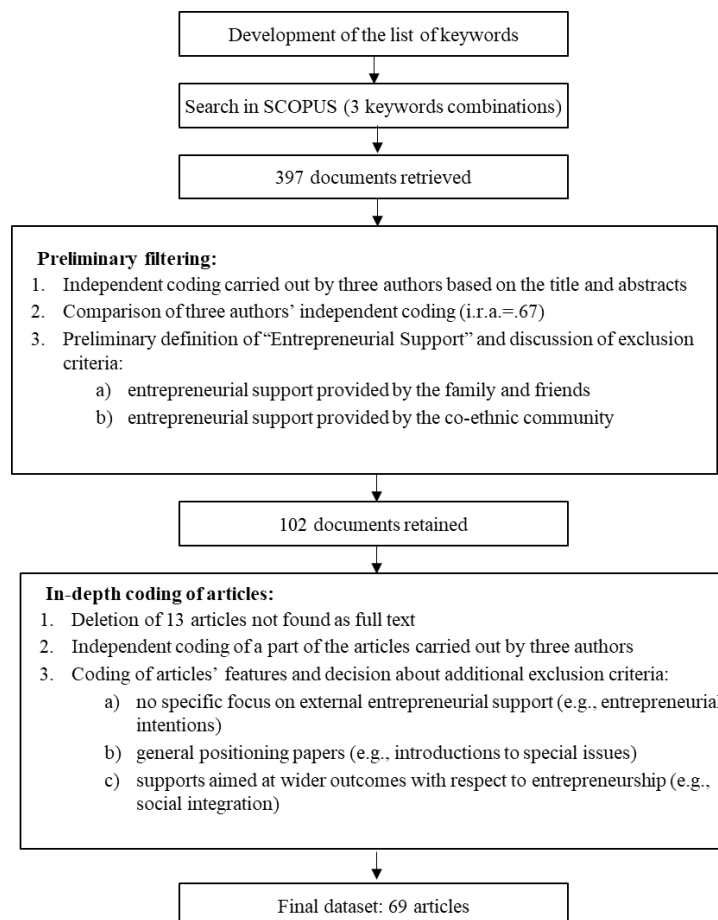
In the second coding phase, the articles for which it was impossible to find the full text online, by contacting the authors, or in any available repositories at our institution (n = 13) were excluded. Each author separately read a part of the articles, coding the following fields for each document: aim; definition of entrepreneurial support; definition of migrant; research question; theory; method (including sample size, industry, migrants' country of origin, and country of residence); hypotheses; dependent, independent, and moderating/mediating variables; key findings; and contributions/implications. Based on this work, the team of authors organized a meeting to discuss whether each paper should be included/excluded and ensure consistent coding practices across the team. As a result of this second step, other articles were further excluded: (1) articles not explicitly focused on external entrepreneurial support (e.g., about family support, De Luca & Ambrosini, 2019; entrepreneurial intentions, Khaw et al., 2021; relationships with suppliers, Zolfagharian & Iyer, 2020); (2) general positioning papers, such as introductions to special issues (e.g., Gibbs et al., 2018); (3) supports aimed at broader outcomes than entrepreneurship (e.g., social integration, Goodkind, 2005; employment, Loosemore et al., 2020). At the

end of this process, 69 articles were retained. The data collection process is summarized in Figure 5.

The starting point to analyze the papers was the categorization of the types of business support defined by Ratinho et al. (2020), which included government, environment, entrepreneurship centers and programs, business incubators, investors and financiers (venture capitalists and business angels), universities, and science parks. However, after a first round of coding, some important differences in the types of business support examined in the reviewed papers appeared. This categorization was thus extended to include the following types of business support for migrants: government, environment, entrepreneurship centers and programs, investors and financiers, universities, science parks, civil society and social economy organizations, and social networks outside family and friends. The analysis provides an in-depth summary of the papers for each type of entrepreneurial support for migrants, providing a detailed summary of each document, identifying the findings, limitations, and future research directions.

During the review, it became evident that studying the domain of entrepreneurial support for migrants entails considering not only different categories of support but also different categories of entrepreneurs. First, there is an issue about the context where support and migrants are embedded: the analysis, therefore, framed the available literature by looking at the host country and home country of migrants studied in the selected papers, adopting the United Nations geographical regions for statistical analyses (1999). Second, migrant entrepreneurs are a super-diverse population (Ram et al., 2017) and are likely to need, search for, and receive different entrepreneurial support. Consequently, it seemed important to disentangle the definition of migrant entrepreneurs provided by each paper and the categories of beneficiaries of entrepreneurial support discussed in the papers.

Figure 5: The process of data collection

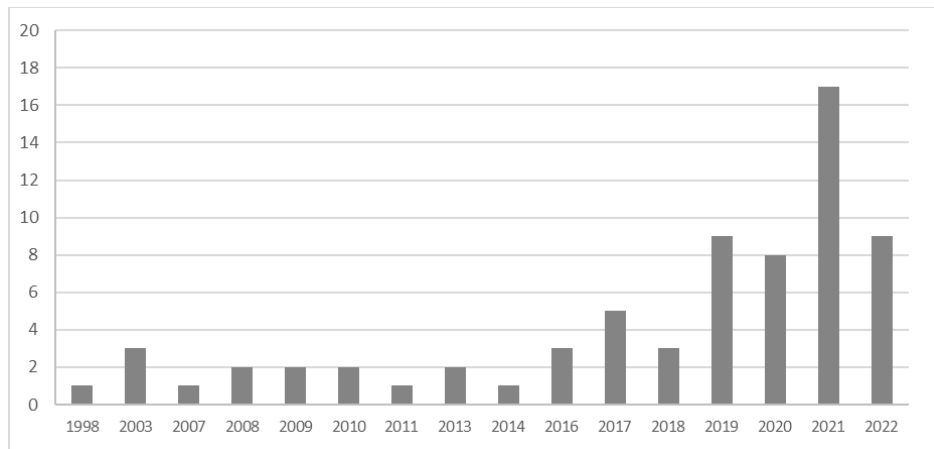


1.4.2. Findings

The articles included in the study were published in 1998-2022, with a substantial increase beginning

in 2019 (Figure 6).

Figure 6: Number of published papers per year



The literature in this field is fragmented, appearing in 43 journals. Around 50% of articles were published in 11 outlets (Figure 7): mainly entrepreneurship and small business journals, but also connected to regional studies and demography.

Figure 7: Top ten outlets of sampled articles

Source Title	N. articles	% on total
International Journal of Entrepreneurial Behaviour and Research	7	10%
Journal of Enterprising Communities	6	9%
International Migration	4	6%
Sustainability (Switzerland)	4	6%
Entrepreneurship and Regional Development	3	4%
Journal of Developmental Entrepreneurship	3	4%
Academy of Entrepreneurship Journal	2	3%
Contemporary Issues in Entrepreneurship Research	2	3%
Journal of Small Business and Enterprise Development	2	3%
Annals of Anthropological Practice	1	1%
Asian Population Studies	1	1%

Eight articles (12%) were theoretical/conceptual, among which two papers offered a literature review. The majority of papers (88%) were empirical, either using qualitative (69%), quantitative (20%), or mixed methods (11%).

From a theoretical standpoint, most papers in the sample (64%) did not directly describe using a specific theory. For those who adopt some theoretical perspective, the most used framework is the mixed embeddedness framework (Kloosterman, 2010) (17%), also in conjunction with other perspectives such as super-diversity (Vertovec, 2007) or welfare regimes (Leung, 2003). In addition, 9% of papers used theories belonging to the cultural or sociological tradition in immigrant entrepreneurship studies, such as middleman minority, ethnic resources (Light & Bonacich, 1988), ethnic enclave (Waldinger, 1993), or transnationalism (Rehan et al., 2019) theories. Around 4% of the papers draw on psychological or educational perspectives, such as the theory of planned behavior (Ajzen, 1991), self-categorization theory (Rashid & Cepeda-García, 2021), and self-regulated learning (Zimmerman, 1989). Just 3% of papers are based on institutional theories, such as location theory (North, 1955) or discursive institutionalism (Schmidt, 2008).

1.4.3. Analysis of the sampled papers

- *Entrepreneurial support by the government.*

The boundaries of governments' role in migrant entrepreneurship are often fuzzy, often producing some voids that deter migrants from starting a business in the host country. While the reviewed papers often do not explicitly mention the government as the provider of many entrepreneurial support factors, it is possible to identify them as the variety of public policies, the welfare state, and the physical, commercial, and legal infrastructures that might have a role in promoting, encouraging and supporting business creation and growth among migrants.

Ozasir-Kacar & Essers (2023, p. 108) give a comprehensive definition, which can represent a good starting point for the analysis. In their words, government support is “the regulatory environment consisting of the sets of rules, regulations, practices, taxes, programs, policy interventions and initiatives from governmental and non-governmental actors. [...] Entrepreneurship policies are formed based on certain assumptions informed by discourses on gender, ethnicity and entrepreneurship”. This characterization underlines two recurring aspects in the literature: the role of public actors and the existing narratives about entrepreneurship and individual migrants.

Scholars agree that migrant entrepreneurship is a relevant form of integration in the country of destination: as a viable path of decent and sustainable employment; and as a driver of economic growth, job creation, and technological advances in the country of destination (Yu et al., 2021; Simarasl et al., 2021). Setting up a business is not straightforward, in any case. When asked about their entrepreneurial intentions and the choice for locating the enterprise, to-be migrant entrepreneurs consider government support, access to financial resources, educational programs, and existing network support, which increase the likelihood of starting a business. Nevertheless, personal attitude, individual background, gender, and education appear to be the decisive factors. Migrants are a heterogeneous group but are often treated as homogeneous, especially by governmental policies (Solano, 2023). This approach often leads to a lack of institutional opportunities and policy support that hinders the establishment of entrepreneurial projects. A mismatch between what governments intend for and adopt as entrepreneurial support and what migrants need is at the core of the lack of clarity about governmental support we underlined at the beginning.

Several papers find that underlying assumptions, prejudices, stereotypes, and institutional and cultural differences are ingrained in governmental policies, therefore hindering the development and growth of migrant entrepreneurship (Billore, 2011; Eimermann et al., 2019; Graham & Pottie-Sherman, 2021; Kontos, 2003; Ozasir-Kacar & Essers, 2023). Such discrepancy gives origin to a lack of trust between the governmental bodies and the migrants, which in turn translates into miscommunication problems and a lack of information on the existing policies in support of entrepreneurship (Kushnirovich, 2009; Santamaria-Alvarez & Śliwa, 2016). For example, some early papers showed that migrants were influenced by prejudices about governmental policies and lacked awareness of state assistance by feeling that it was not “meant for them” (Kontos, 2003; Leung, 2003).

Migrants have what Kushnirovich (2009) calls the “comparative disadvantage”: they have to face several structural and sociocultural barriers to entrepreneurship that add up to the set of challenges native entrepreneurs encounter as well. Indeed, both categories of entrepreneurs share difficulties related to bureaucracy, access to resources, and business skills. In addition, migrants have to confront the liability of newness (Stinchcombe, 1965), which is often overcome through ethnic resources and pre-existing networks. Migrant entrepreneurs often adopt strategies to solve major hindrances based on their individual characteristics and personal resources (Leung, 2003). However, the government is the missing actor on the stage.

On the other hand, the government is present and proactive regarding returning migrants. Wei & Zhu (2020) and Croitoru (2021a, 2021b) find that, besides household attributes and social networks, government policy support is the most important factor for successfully attracting returning migrant entrepreneurs back to their home countries.

The diversity of migrants' backgrounds is not accounted for in most reviewed literature. However, as Dzomonda and Fatoki (2018) and Ozasir-Kacar and Essers (2023) state, understanding the migrants'

backgrounds is paramount to designing policies supporting migrant entrepreneurship. Specifically, policies should address both entrepreneurs' challenges and needs, and opportunities they might characterize and spot as external actors (Curci & Mackoy, 2010; Santamaria-Alvarez & Sliwa, 2016). As a tentative of looking at the diversity of migrant entrepreneurs concerning policy design, the framework provided by Curci and Mackoy (2010) is a starting point. While categorizing migrant enterprises according to the market they serve and their products and services, the authors reveal the different levels of integration into a host country's mainstream business community and the individual and business factors that matter for policy design. The authors emphasize that governments, business development organizations, and researchers should put more effort into developing the untapped potential of migrant entrepreneurship.

Some authors have discussed entrepreneurship support as part of active labor policies, which should be preferred over passive ones (Marcu et al., 2018). Passive policies, such as unemployment benefits and early retirement schemes, disincentive the active participation of migrants in the labor market and limit their integration into society. Instead, active policies might be represented by accessible and welcoming entrepreneurial support programs, through which migrants can avoid deskilling, receive bureaucratic guidance, and find technical/business language intermediates. By reviewing this work, education emerges as the crucial milestone to encourage migrant entrepreneurs to leverage and increase their skill set and individual background. Coupled with place-based approaches, it may connect migrant-owned businesses to customers and markets in the mainstream economy. This strategy might lower the entry barriers to the labor market and access to resources and, at the same time, increase engagement in the local economy.

When building on a theoretical background, the majority of the studies refer to the theory of mixed embeddedness by Kloostermann et al. (1999) (e.g., Graham and Pottie-Sherman, 2021; Kontos, 2003; Kushnirovich, 2009; Leung, 2003; Solano, 2023), pointing to the mismatch between demand and supply of policies for migrant entrepreneurship and the low level of inclusion in the society. The theory of mixed embeddedness is paired with models and frameworks (Esping-Andersen, 1990; Waldinger & Aldrich, 1990) that emphasize the role of governmental actors in supporting the entrepreneurial development of ethnic businesses. Following the same reasoning, Dzomonda and Fatoki (2018) refer to the middleman minority theory, the ethnic market niche theory, and the ethnic enclave economies theory. The authors, in particular, argue that migrants as minority entrepreneurs develop businesses in sectors with low barriers to entry, profitable in the short-term, devoted to their ethnic group, and not populated by native entrepreneurs.

Most of the studies report the point of view of migrant entrepreneurs, thus mirroring a bounded perspective on entrepreneurial support by governments. Studies about the supply side are lacking, and it is crucial that researchers further develop these aspects. As highlighted above, there is a lack of clarity on the diverse groups of migrants those policies should address. Lastly, the studies are situated in specific contexts and are only sometimes comparable or generalizable.

- *Entrepreneurial support by the environment.*

Environment and institutions partially overlap with government and social networks, in that they include all those formal and informal bodies belonging to the social, economic, and political spheres that might support migrant entrepreneurs. Lyon et al. (2007) and Price and Chacko (2009) describe what is meant by the environment and institutions from the perspective of migrants, defining both formal organizations, such as migration offices, the National Asylum Support Service, or job centers; and informal organizations, in both migrant communities and civil society, for example ethnic groups, political and cultural associations.

The local environment is critical in determining obstacles and supporting migrant entrepreneurs (Barth & Zalkat, 2020; Malerba & Ferreira, 2020), especially in the early stages of business development. In particular, adequate support from the environment can leverage migrants' skills and thus increase the opportunities for the local economy and add value to the host society (Backman et al., 2021; Zighan, 2021). Support might derive from the interaction of formal and informal bodies from the business, social,

and political spheres of the ethnic and non-ethnic communities (Ruan et al., 2022). In doing so, the obstacles that entrepreneurs face – difficult access to finance, suspicion, lack of information, mismatch in capacities and skills, and linguistic and bureaucratic barriers - can be overcome (Barth and Zalkat, 2020; de Queiroz Falcao et al., 2021; Lyon et al., 2007).

Some studies in this cluster have looked at spatial embeddedness and the sense of belonging of migrants in a place. The sense of belonging to the host country, fostered by the environment, can represent a motivation to become an entrepreneur, going beyond the concepts of necessity entrepreneurs and enclave economy, often linked to migrant entrepreneurship (Munkejord, 2017). Migrants can become significant elements for local socio-economic development when the environment and the local institutions are able to attract and retain migrants and increase their sense of belonging. However, it is key that migrants get involved in social networks, internal or external to the ethnic group, and receive tailor-made support to reduce cultural differences, language barriers, and discrimination. Entrepreneurial support initiatives in this domain should fuse social networks and political/social/economic environments to foster spatial embeddedness and, in turn, push forward business development.

The majority of the studies in this group rely on the embeddedness theory, either in the seminal form of Polanyi (1957) and Granovetter (1985), or according to the mixed embeddedness framework developed by Kloosterman and Rath (2001). One of the major limitations of the reviewed papers is the poor definition of the environment, and the overlap with institutions and social networks hinders its understanding and its part in supporting migrant entrepreneurs. Furthermore, the literature is anchored to the perspective of migrants. It does not account for the experience of environmental actors, such as professionals and managers belonging to the entrepreneurial ecosystem, the migration system, the labor market, or the welfare/reception system. Further research should examine the environment's actors in depth to grasp their positioning and role in leveraging existing capacities.

- *Entrepreneurial support by entrepreneurship programs and incubators.*

Several entrepreneurship programs and incubators (Berntsen et al., 2022) exist to support refugees (Nijhoff, 2021) and other migrant entrepreneurs (Högberg et al., 2016). They can nurture entrepreneurial knowledge (Bhagat & Roderick, 2020; Harima et al., 2019) and provide migrants with support to start or grow a business (Barth & Zalkat, 2021; Crea et al., 2017).

According to the studies in this review, entrepreneurship programs and incubators are funded by international donors, financial actors (Bhagat & Roderick, 2020), the government (Birdthistle, 2019), and non-government organizations (Nijhoff, 2021). They provide participants with theoretical and practical support within a limited timeframe, usually six months (Harima et al., 2019). Among the different types of support they provide, there are coaching (Harima et al., 2019), networking (Högberg et al., 2016), mentoring, counseling, and financial assistance (Birdthistle, 2019).

Many studies in this cluster describe the motivational factors and entrepreneurial barriers as antecedents for migrants to enter entrepreneurship support programs (Birdthistle, 2019; Högberg et al., 2016). Motivations to take part in such initiatives and programs are the need to access business guidance, assistance for company registration and financial statements writing, as well assistance in accessing social welfare, as in the case of migrants in Europe – e.g., Germany (Harima et al., 2019) and Sweden (Barth & Zalkat, 2021); and in other continents – e.g., Nigeria (Birdthistle, 2019) and Kenya (Bhagat & Roderick, 2020). Participation in these initiatives and programs is also explained by entrepreneurial barriers for migrants (Lyon et al., 2007; Rashid & Cepeda-García, 2021), such as lack of educational qualifications (Barth & Zalkat, 2021), cultural differences (Barth & Zalkat, 2021), ethnic/racial discrimination (Rashid & Cepeda-García, 2021), complex laws, policies, and regulations (Qin, 2023). Some benefits migrants experience, on an individual level, by participating in entrepreneurship programs are changes in risk perception, empowerment, and self-efficacy (Marchand & Dijkhuizen, 2018).

To date, the published studies are not providing sufficient information to assess whether entrepreneurship programs and incubators are oriented toward certain types of industries. Only two studies in our review provide information about this, discussing initiatives in the agro-food industry (Barth & Zalkat, 2021) and retail, creative industries, services, and hospitality (Berntsen et al., 2022).

Only three articles in this cluster refer to some theory: mixed embeddedness and social network theory (Meister & Mauer, 2019), cognitive dissonance theory (Qin, 2023), and self-categorization theory (Rashid & Cepeda-García, 2021). From a methodological point of view, the papers included in this cluster suffer from several limitations, being single case studies conducted at a specific time and looking at the individual level of analysis.

- *Entrepreneurial support by civil society and social economy organizations.*

Civil society and social economy organizations support migrants to access resources to satisfy basic needs and pursue career development (Berntsen et al., 2022). These organizations include non-governmental organizations, civil society organizations, associations, and social enterprises (Birdthistle, 2019). Within these support organizations, the role of the educator is that of a “specialist” who offers networking opportunities, specific mentorship for migrant entrepreneurs (e.g., language mentoring), or financial assistance (Birdthistle, 2019). Even though many migrant entrepreneurs benefit from these programs, others are unaware of training programs targeting migrants' needs (Birdthistle, 2019).

The papers in this cluster do not make use of any specific theory. Many studies describe the challenges faced by migrants and refugees (Au & Yew, 2022; Crea et al., 2017) in the host country, e.g., Malaysia, the Netherlands, Ireland, and South Africa. The most recurrent themes include a lack of educational qualifications (Birdthistle, 2019), language barriers (Au & Yew, 2022), and limited access to education and training due to the inability to afford expensive tuition fees (Au & Yew, 2022), which in turn blocks opportunities in the host country's labor market (Crea et al., 2017). Other specific challenges facing refugees are legal constraints (Au & Yew, 2022), and problems with the authorities and the police, related to the latter's corruption (Crea et al., 2017). Given the lack of legal protection and rights for refugees in the host country, they must engage in entrepreneurial activities as the only way to earn their livelihood, hoping to avoid incurring into institutional voids (Au & Yew, 2022). In light of these issues, civil society and social economy organizations provide small amounts of money for vocational skills training to help migrants start their businesses (Crea et al., 2017). However, in most cases, funds are limited, and only a tiny proportion of people can afford attendance to the course.

The studies included in this cluster suffer from one major limitation: they were conducted in only one country. Therefore, to strengthen the findings and advance research on the topic, further research should provide a detailed comparative analysis of the different contexts and legal frameworks that refugees and migrants might encounter, thus providing the reader with a deeper understanding of the kinds of institutional voids they might encounter when starting a new business.

- *Entrepreneurial support by financiers and investors.*

The papers in this cluster acknowledge the relevance of accessing financial resources for the survival and growth of migrant-owned businesses. To this extent, Kushnirovich and Heilbrunn (2008, p. 169) provide an overview of funding sources for migrant businesses, which has been revised to include additional sources of finance (e.g., venture capital and crowdfunding), as shown in Figure 8. While the funding sources are comparable to the ones needed and available to other entrepreneurs, migrants can count on transnational and co-ethnic sources of finance. However, the literature is generally consistent in finding that migrant entrepreneurs have more difficulties obtaining formal, non-ethnic forms of capital due to a lack of language proficiency, formal credit history, and problems with financial administration and bureaucratic legislation.

Kushnirovich and Heilbrunn (2008) investigate the relationship between some characteristics of migrant entrepreneurs/businesses concerning the scope (size) of funding, the proportion of informal vs. formal funding, and the sources (ethnic vs. non-co-ethnic funding). By comparing a variety of companies and entrepreneurs selected among Israeli-born or entrepreneurs from Former Soviet Union (FSU) countries, the authors find that the scope of funding in migrant business is smaller than the one in natives, which means that migrants work with smaller amounts of initial capital. In addition, migrant entrepreneurs prefer informal sources of capital. However, in the study sample, native and migrant entrepreneurs draw equally on personal savings, whereas natives have more family-sourced funding.

The paper by Fatoki (2014) shows the same trends in a different context: new and established small companies in South Africa. Based on a sample of 29 respondents, the author finds that owners' contributions, family, and co-ethnic support are the most widely used forms of finance. The needs for financing and the sources slightly change during the company's growth. In fact, during the start-up phase, migrant entrepreneurs face difficulties accessing formal, non-ethnic capital (e.g., trade creditors and banks) due to a lack of adequate equity of collateral and unwillingness to provide information. Instead, the use of formal, external non-ethnic sources of finance increases as migrant entrepreneurs become more established. Here, migrants use a combination of internal equity and debt from commercial banks and trade creditors. External equity from venture capitalists is nonexistent in this context of research.

Another missing piece in entrepreneurial finance for migrants, according to Kushrinovic and Heilbrunn (2008), is access to public schemes/donors – around 90% of the respondents in the study never applied to these schemes, and almost none were aware of additional forms of government support. This gap is relevant because receiving a designated debt (i.e., a debt supported by the government) significantly increases the scope of initial investment by favoring additional debt and reducing informal resources (but not the ratio of ethnic resources).

Some other papers in this cluster analyzed the support provided by financiers with respect to a specific context, i.e., refugee entrepreneurs. As described by Kachkar et al. (2016, 2017), while the situation of refugees might be considered temporary, reality shows that they can spend decades in camps, shelters, or poor urban areas. Therefore, many initiatives have proposed durable solutions to these "protracted" situations, mainly through economic engagement, to stimulate refugees' local inclusion. Some of these initiatives and programs regard the establishment of refugee-led micro-enterprises. NGOs and humanitarian agencies often run these support programs, providing financial services (i.e., start-up capital) and non-financial services (e.g., training, consultation, and monitoring). While some works show a positive impact of these initiatives, they are challenged by legal issues (e.g., restrictions on refugees' economic rights), low availability of adequate funding (e.g., microfinance and microcredit programs), lack of marketing assistance (e.g., access to market, financial and human resources, skills, resources), high financing costs (i.e., interest rates and hidden charges), limited access for refugees, and lack of willingness to invest from private and public actors.

As highlighted by the two papers by Kachkar et al. (2016, 2017), compliance with Islamic finance rules can represent an additional aspect complicating or limiting the development of financial support to these micro-enterprises – not only for refugee entrepreneurs but also for displaced and war-affected entrepreneurs. The authors, therefore, propose cash Waqf as a model for refugee entrepreneurship – implying fundraising by NGOs and NPOs that issue shares and certificates with various denominations, either temporary or perpetual in time, purchased by individuals or institutions. The NGOs and NPOs manage the fund and channel the profits for specified charitable purposes. In addition to financing and marketing services, the model can include a training division to improve refugees' business skills. Microfinance groups can also facilitate access to finance by refugees. In this regard, Easton-Calabria and Hakiza (2021) have studied refugee-led microfinance groups in Uganda, which not only allow access to capital and a reasonable time to repay the loans, but also provide a space for social support and business mentoring through the provision of advice and companionship to discuss business challenges. In addition, locals and refugees come together to receive and offer financial and emotional support; thus, these groups represent spaces for integration. Refugee-led microfinance groups are often based on same-language (rather than nationality) affinity and owned only by community members. The groups primarily interact with organizations such as NGOs or formal microfinance institutions to receive training. Overall, their impact is financial (e.g., the collected interests contribute to individual members' earnings), social (e.g., community cohesion), and practical (e.g., allowing access to flexible and convenient credit).

Analyzing the specific support from financiers and investors for migrant entrepreneurship requires balancing the uniqueness linked to migrant entrepreneurs' liabilities in accessing capital and the similitudes with other entrepreneurs in the same business class. On the one hand, the "liability of outsidership" faced by migrant entrepreneurs is manifest in difficulties in mastering the local language,

and thus building interpersonal trust and sharing knowledge in business settings (e.g., Lagerström & Andersson, 2003), the lack of formal credit history, and lack of understanding of the regulatory, administrative, and bureaucratic environment. At the same time, migrant entrepreneurs can count on co-ethnic and co-linguistic networks in the host country, home country, or internationally. However, the diversity of migrant entrepreneurs is also a factor that should always be taken into account: different ethnic groups look for different sources of funding (Kushrinovic & Heilbrunn, 2008), religion might represent a sensitive topic to take into account (Kachkar et al., 2017), and individual characteristics (e.g., economic status, gender, number of dependents, social networks, human capital; Kushrinovic & Heilbrunn, 2008) can complement or substitute other group- or context-level dynamics. It is recommended that future research includes diverse groups of migrants and their businesses (e.g., Wang & Warn, 2019).

A striking aspect of the papers retrieved for this review is that none deals with the specific support provided by venture capitalists, business angels, or crowdfunding. This gap might be related to the research design employed by these studies, mainly focusing on small samples of micro-small companies operating in low-value-added activities or traditional sectors. Only one paper compared migrant and native entrepreneurs (Kushrinovic & Heilbrunn, 2008), but using convenience sampling and therefore being unable to isolate statistical differences concerning financing support.

Another critical yet neglected topic concerns public finance tools' role in supporting migrant entrepreneurs. While bottom-up or migrant-led initiatives might become more readily accessible and known to migrant entrepreneurs (e.g., Easton-Calabria & Hakiza, 2021), the lack of awareness and access to government-led finance is a negative aspect, which signals inefficiency in the existing governmental policy in reaching diverse target groups, and communication failures (Kushrinovic & Heilbrunn, 2008).

Figure 8: Funding sources for migrant businesses

Equity	Personal savings: - money brought from the home country - money saved in the host country	Ethnic Non-ethnic	Informal
	Venture capital	Ethnic/non-ethnic	Formal
	Business angels	Ethnic/non-ethnic	Formal
	Equity crowdfunding	Ethnic/non-ethnic	Formal
Debt	Family	Ethnic	Informal
	Friends	Ethnic/non-ethnic	Informal
	Rotating credit associations	Ethnic	Informal
	Government financial support	Non-ethnic	Formal
	Bank loans: - non-ethnic commercial banking - ethnic banking	Non-ethnic Ethnic	Formal
	Credit company	Non-ethnic	Formal
	Trade credit (business associates): - from ethnic suppliers - from non-ethnic suppliers	Ethnic Non-ethnic	Formal
	Miscellaneous sources	Non-ethnic	Formal

- *Entrepreneurial support by social networks.*

One of the recurring topics in this cluster is the language and communication barriers faced by different groups of migrants (Arslan et al., 2022; Barth & Zalkat, 2021; Ruan et al., 2004), together with other critical factors such as lack of business understanding, distrust, poor awareness of laws and legislation, cultural differences, ethnic/racial discrimination, complex regulations, limited access to finance, and lack of business skills (Alexandre et al., 2019; Arslan et al., 2022; Au et al., 2022). In this regard, social network support in the host country plays a crucial role (e.g., Bart et al., 2020; Bouk et al., 2013).

Arslan et al. (2022) found that language and education barriers might prevent ethnic minority entrepreneurs from establishing and maintaining supply relationships with local companies (e.g., needing to contact headquarters formally), thus being pushed to resort to co-ethnic suppliers or same-language suppliers. A similar conclusion can be seen in the study by Au et al. (2022), which found that language diversity increased the vulnerability of refugees, limiting market participation and shaping interactions with economic actors. On the contrary, Alexandre et al. (2019), who discuss the situation of Syrian refugees in Lebanon, offer a different perspective. They argue that the primary solution for those who want to settle in the country is to create their own jobs. Syrians in Lebanon have the advantage of knowing Lebanese culture, as they speak the same language. This "nonlinguistic" barrier is less of a constraint for new business creation. It helps would-be entrepreneurs in the host country to build and maintain business relationships and to manage the liability of newness (Barth & Zalkat, 2020).

Social interactions with social ventures and mainstream society can help refugee entrepreneurs establish relationships and receive support beyond their entrepreneurial activities (Au et al., 2022). Migrant entrepreneurs often rely on cultural and public networks to access information, financial support, and business relationships (Barth & Zalkat, 2020; Bouk et al., 2013). The pull factors that motivate entrepreneurial activities include the availability of social networks within the diaspora, which facilitate adaptation and communication, and the competitive advantage offered by lower prices in the market (Alexandre et al., 2019).

1.4.4. Discussion

The steadily growing but still fragmented literature about entrepreneurial support for migrant entrepreneurs motivated embarking on this systematic literature review. The analyses of 69 international articles, retrieved from Scopus, highlighted the following sources of entrepreneurial support: government, environment, entrepreneurship programs and incubators, civil society and social economy, financiers and investors, and social networks.

After providing an in-depth overview of the themes covered by the papers in each of these clusters, the chapter summarizes the most studied outcomes and the lesson learned in Figure 9, and it discusses shortly the implications in terms of future research recommendations.

Figure 9: Most studied outcomes and lessons learned for different sources of entrepreneurial support

Source of support	Most studied outcomes	Lessons learned
Government	• Factors driving entrepreneurial activities • Policies to support entrepreneurship • Barriers to entrepreneurial activities	• Governments should understand the background of migrant entrepreneurs to design supports that address the needs, challenges, and opportunities incomers might face. • Policies focused on education and active labor involvement have shown to be more beneficial for the local economy and society in the long run.
Environment	• Integration in the local economy and society	• The environment is crucial to boost business development since it helps to reduce cultural differences, language barriers, and discrimination. • The sense of belonging and the spatial embeddedness of migrants in the environment is positive for the local society, the local economy, and the migrants themselves.
Entrepreneurship programs and incubators	• Enterprise growth • Entrepreneurial knowledge • Intention to start a business • New venture creation • Career opportunities	• Migrant entrepreneurs are considered "diverse entrepreneurs." • Entrepreneurship programs and incubators supporting refugees and migrants should combine their focus from increasing individual knowledge and skills to helping aspiring entrepreneurs overcome contextual barriers. • Refugee business incubators are often public or nonprofit organizations that cannot offer refugees financial capital. Moreover, they have a limited capacity to offer industry-specific support because of the heterogeneous nature of refugees.
Civil society and social economy organizations	• Intention to start a business • Enterprise growth	• Most often, migrants and refugees engage in entrepreneurial activities because it is the only way to earn money for their livelihood. • Although civil society and social economy organizations provide support to migrants and refugees, resources are limited, and only a small portion of applicants are able to take advantage of them.

The reviewed studies generally lack a clear theoretical framework, being rather descriptive about

specific initiatives. In terms of methods, many studies are qualitative, focused on a single research context, thus limiting generalizability and showing a prevalence of European-centric studies.

This chapter suggests that scholars, to advance future research in this field, need to conduct comparative analyses to explore how different demographic and socio-economic factors, also originating from the refugees' and other migrants' home countries and in a transnational perspective, influence their access to entrepreneurship support, and the obtained benefits. Furthermore, there is a need for research that encompasses comparative analysis across diverse contexts and legal frameworks (Au et al., 2020) and the incorporation of more diverse samples.

To achieve this, scholars should adopt comparative methodologies, such as multiple case studies or accessing/collecting comparative data about entrepreneurship support programs in different national and cultural contexts. Another line of inquiry should address the dynamics of the processes regarding migrant entrepreneurs' support, for instance, by conducting supply-side investigations (e.g., inquiring inclusiveness of entrepreneurial ecosystems; Martinelli & Bolzani, 2021). Finally, it would be imperative to study the outcomes of access to and provision of entrepreneurship support to migrant entrepreneurs, implementing robust methodologies to assess causality, such as randomized control trials or other experimental techniques.

1.5. Entrepreneurship and entrepreneurial education to manage sustainability and well-being in large urban areas (paper D'Allura)

In an era marked by unprecedented urban expansion and escalating global challenges, entrepreneurship is no longer just an engine of economic growth—it is increasingly framed as a critical lever for systemic transformation. From youth unemployment to environmental degradation and social inequality, the promise of entrepreneurial action lies in its potential to address deep-rooted urban problems while fostering sustainable, inclusive futures (Dissanayake, Iddagoda, & Popescu, 2022).

Large urban areas stand at the heart of this promise—and this tension. These environments concentrate both the problems and the possibilities of our time: they are hubs of innovation, diversity, and economic activity, yet also hotspots of social fragmentation, infrastructural strain, and ecological vulnerability (Mets, Holbrook, & Läänelaid, 2021; Fan et al., 2023). In such complex ecosystems, entrepreneurship is not simply shaped by context—it is challenged, constrained, and at times redefined by it.

Despite the growing body of work linking entrepreneurship and sustainability, a critical blind spot remains: how entrepreneurship unfolds in large urban settings, and how entrepreneurial education can play a transformative role in enhancing well-being and resilience in these environments. While scholars have examined the role of entrepreneurship in promoting economic inclusion and social innovation, the urban lens remains underdeveloped—particularly in connection to how individuals are equipped to act entrepreneurially in response to complex urban dynamics (Testa & Frascheri, 2015).

This paper tackles that gap. It offers a systematic literature review of studies at the intersection of entrepreneurship, education, sustainability, and well-being within large urban contexts. Building on management and entrepreneurship research, we aim to uncover how entrepreneurial education is conceptualized and whether it is positioned as a strategic enabler of sustainable development and individual flourishing in cities.

We argue that entrepreneurship education, when effectively designed and delivered, can serve as a powerful intervention—not only fostering entrepreneurial intent and skills but also contributing to social cohesion and long-term urban sustainability. However, our review reveals a fragmented and often superficial treatment of these links in the existing literature.

Our goal is to bring clarity and depth to this conversation. Through a rigorous, systematic review grounded in established methodologies (Tranfield et al., 2003; Cook et al., 1997), we identify critical gaps and future research directions, highlighting the urgent need to better integrate entrepreneurship education into the broader urban sustainability agenda.

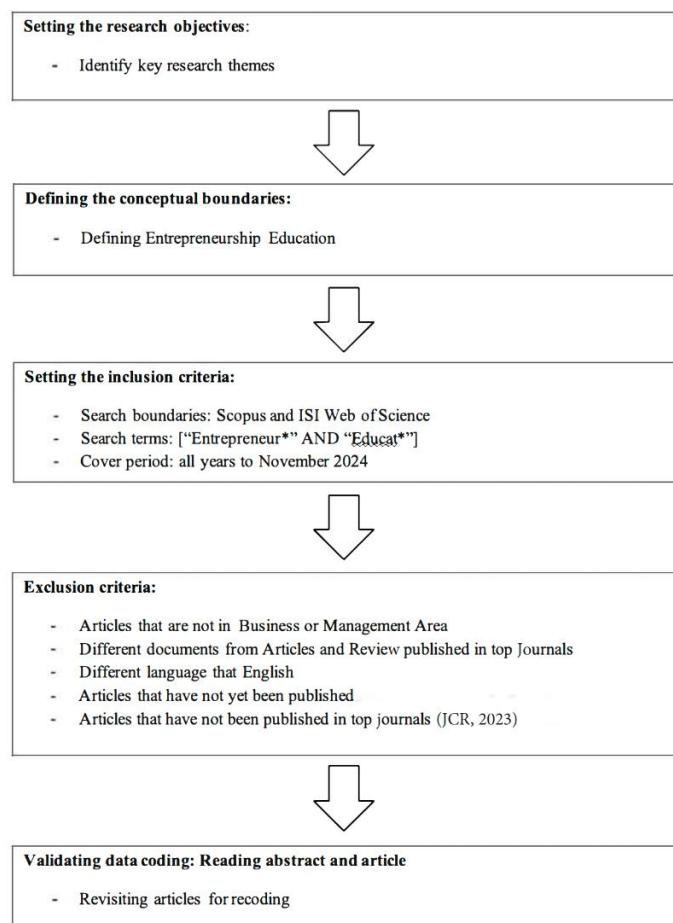
Ultimately, this paper challenges the field to rethink how we prepare entrepreneurs—not only to build

ventures, but to build futures. Futures that are sustainable, equitable, and attuned to the complex realities of life in today's urban landscapes.

1.5.1. Methodology

Literature reviews identify important knowledge gaps and motivate researchers to fill them (Webster & Watson, 2002). In this paper, we conduct a systematic literature review (Cook, Mulrow, & Haynes, 1997) of relevant studies examining the Entrepreneurship Education drives social cohesion and individual well-being in large urban areas. In this sense, according to Tranfield, Denyer, and Smart, (2003), to more clearly establish the conceptual boundaries, we first examined pertinent findings that were published in management publications (selected studies that applied Tranfield et al. (2003) approach are: Hoskisson, Chirico, Zyung, & Gambeta, 2017; Terjesen, Hessels, & Li, 2016). Then, we used Scopus and ISI Web of Science database to search for articles published from all years to present (November 2024) using the search terms “Entrepreneur*” and “Educat*”. Manually tracking citations for additional relevant articles in highly ranked journals is an important part of the literature review (Rashman, Withers, & Hartley, 2009); however, the manual search did not produce any additional contribution on the topic (Figure 10).

Figure 10: Review Process



To build a comprehensive database of the Entrepreneurship Education in literature, we first used an inclusive approach to select all the papers present in the two databases. We performed a keyword search only in the management area of study following the steps described below for each database. Our systematic review included only articles and review, already published and written in English.

In Scopus, we searched using the phrases ["Entrepreneur*" and "educat*"] in [Article title AND

Abstract AND Keywords] and obtained 3.357 works. We then limited the research to Subject Area (1) [Business, Management and Accounting] using the command [LIMIT TO] since Scopus database has two different commands to filter research: [LIMIT TO (selected items)] and [EXCLUDE (selected time)]. Considering their internal criteria, the suggestion is to use the command [LIMIT TO] to filter the [SUBJECT AREA] because it is a more inclusive command. In this step, we obtained 1.617 articles. The Scopus Database includes different type of documents, including articles, book chapters, articles in press, books, and reviews. According to our research protocol, the systematic review included only published articles and reviews in English in journal as source type and hence we obtained 1.267 articles. Considering the most relevant journals according to Journal Citation Report (2023), we selected results from the following journals: Administrative Sciences; Entrepreneurship Theory and Practice; European Journal of Innovation Management; European Research on Management and Business Economics; IEEE Transactions on Engineering Management; International Entrepreneurship and Management Journal; International Journal of Contemporary Hospitality Management; International Journal of Entrepreneurial Behavior & Research; International Journal of Management Education; Journal of Business Ethics; Journal of Business Research; Journal of Business Venturing; Journal of Business Venturing Insights; Journal of Innovation and Knowledge; Journal of Intellectual Capital; Journal of Knowledge Management; Journal of Small Business Management; Journal of Technology Transfer; Research Policy; Review of Managerial Science; Small Business Economics; Technological Forecasting and Social Change; Technovation; The International Journal of Management Education. We thus obtained 214 articles.

In ISI Web Of Science, we searched for the phrases [“Entrepreneur*” and “educat*”] in [Article title AND Abstract AND Keywords AND Topic] and obtained 2.443 results. Then, according to the exclusion criteria, we first considered if the article was in our area of interest. The Web of Science Categories have two commands, [REFINE] and [EXCLUDE]. We used the command [REFINE] to filter the articles to include those in the following categories: (1) Business OR (2) Management. We obtained 860 works. Second, we applied [REFINE] to the search to filter by Document types and Language. In the Web of Science database, the Document types available include articles, proceeding papers, reviews, and editorial material. We applied [REFINE] to the results to include only articles and reviews and obtained 552 articles. Then, using the Language filter (set to English), we obtained 540 works. Then, to ensure a complete coverage of the literature on the specific topic, we used the command [REFINE] to select from the Publication Title filter the highest impact journal in the considered fields and we obtained 179 works.

The final step was to merge the two databases obtained to exclude common items. Thus, the last result is one database of 234 articles.

Once completed the traditional literature review process as illustrated before, we have developed an implementation of the already completed systematic review by exploiting the potential of text mining through the application of specific codes in Python. In particular, it was possible to further analyze the sample of 234 papers selected through algorithms that compare the textual content of multiple PDF files using various Python libraries for natural language processing and graphical visualization.

The adopted code involves widely-used libraries to implement advanced sequential processes, as text extraction and cleaning, tokenization and lemmatization to generate word clouds, frequency analysis of keywords in the considered papers.

A word cloud is generated for each analyzed PDF, displaying the most common words with a specified minimum frequency (10). Subsequently, the analysis results of each file are aggregated and compared. Specific words and prefixes are counted and compared across papers (urban area; urban areas; educ*; entrepren*; well*), and averages are calculated to provide an overview of key words and themes discussed in the documents. Finally, an overall word cloud is generated to visually represent the distribution of words across all analyzed papers. This process provides a detailed and visual analysis of textual content, useful for identifying recurring themes and differences.

1.5.2. Results discussion

Our systematic literature review on entrepreneurial education as a tool for managing sustainability and well-being in large urban areas would explore the existing research and insights in this specific domain. The examination on how entrepreneurship contributes to sustainability in urban contexts may be instrumental to highlight potential benefits and challenges to investigate the role of entrepreneurial education in fostering sustainability.

Following the selection of literature to be investigated, we manually compared the two data collections and finalized the dataset, which consisted of 234 articles for final analysis.

Figure 11 clearly demonstrates a continuous upward trend in the number of annual publications on the issue under consideration during a timeframe of 26 years (1998-2024). Specifically:

- 1998-2013, very limited amount of publications per year (0-4 papers published);
- 2014-2020, the upward trajectory becomes increasingly prominent (up to 20 papers published) suggesting a heightened interest and potential progress in the field of research;
- 2020-2024, substantial increase in the number of publications (up to 48 papers published), with an average value of 33.6.

In general, there has been a prolonged period of minimal activity, which has been succeeded by a substantial growth in research papers in recent years. This indicates the increasing significance and attention that the academic community is giving to this topic.

Figure 11: Distribution of papers on annual basis

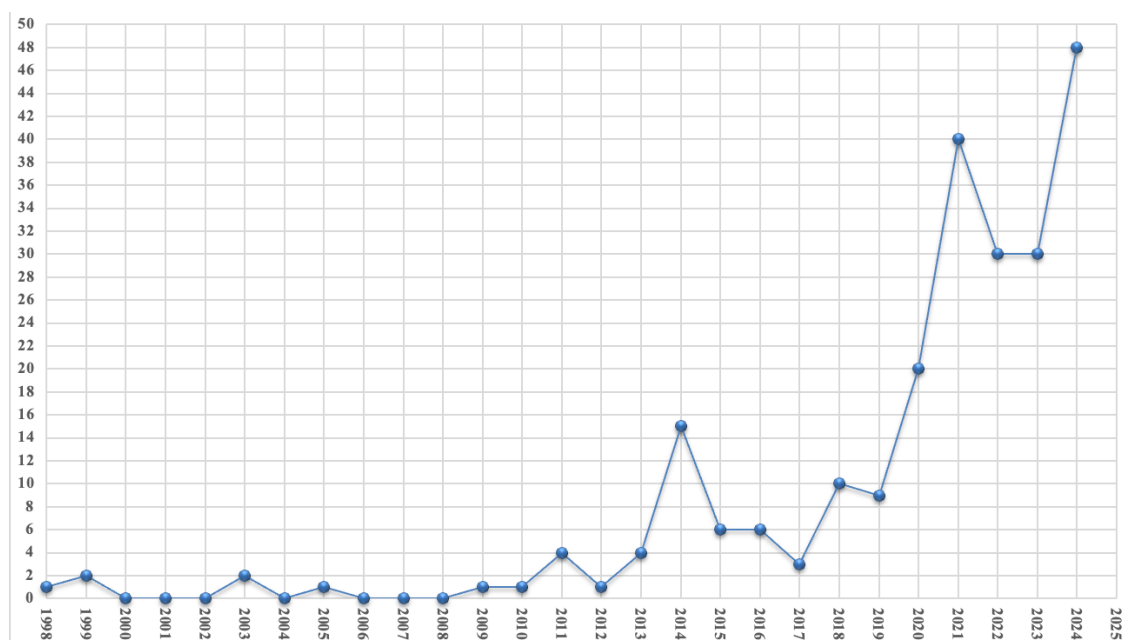
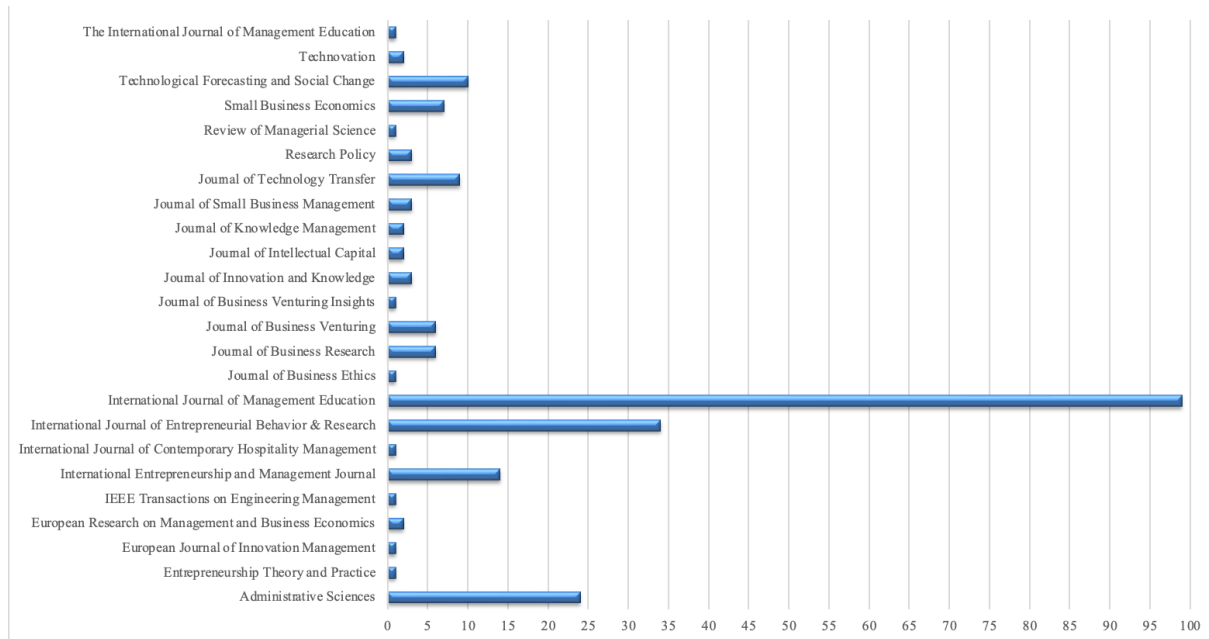


Figure 12 illustrates also the distribution of 234 papers on the considered top Journals, according to the Journal Citation report (2023), selected in the field of Business, Management and Accounting.

The ranking of the top three journals in order of number of published papers contains: International Journal of Management Education (99), International Journal of Entrepreneurial Behavior & Research (34), Administrative Sciences (24).

Figure 12: Distribution of papers on top journals (JCR, 2023)



The following resulting Figure 13 is a word cloud, created using the extensive text mining procedure illustrated before, applied to all the 234 selected papers.

This visualization highlights the most frequent and significant keywords within these papers. This graphic showcases the most prevalent and noteworthy terms found in the articles, with bigger words representing a higher frequency.

In particular, top 10 keywords are: entrepreneurship (30.511); education (26.915); entrepreneurial (23.279); business (12.969); management (8.329); intention (7.192); entrepreneur (6.559); learn 6.513); social (6.168); international (5.464). Averages of specific word counts and prefixes considered are: 'urban area' (0.0); 'urban areas' (0.0); 'educ*' (139.013); 'entrepren*' (260.427); 'well' (3.474).

The research demonstrates that the literature under examination mostly centers on entrepreneurship and education, highlighting the growing academic focus on 'entrepreneurial education', even more considered as a key driver for entrepreneurship development.

The next most frequent words are 'business' and 'management', bringing out the link, not only theoretical but also practical, between training courses and companies organization; the terms 'intention' and 'learn' reflect the interest in analyzing how the willingness to undertake entrepreneurial initiatives is influenced and guided by learning paths.

Finally, the last two terms 'social' and 'international' indicate the inclusive global vision of entrepreneurial development that must necessarily involve all categories and all parts of the world to generate collective well-being. This aspect is also supported by the analysis of the territorial distribution of papers analyzed in this review, which cover all continents, albeit with very different concentrations, making Europe and North America dominate the international scene (Figure 14).

As regards, on the other hand, the results of the average frequencies calculated for the specific terms of our topic, the total absence of references to urban areas brings out the lack of an analysis specifically focused on these geographical contexts that can identify any relationships between the territorial context and the accentuated entrepreneurial development.

On the contrary, even in this case the strong relevance and relationship between all the terms that complete the prefixes 'educ*' and 'entrepren*' emerges. However, observing the wordcloud, the limited presence of terms referring to technologies and sustainability, first of all brings out a significant gap in the literature in this area but potentially also a systemic gap in the practical approach to the offer of entrepreneurial education, thus suggesting a significant direction for future research explorations.

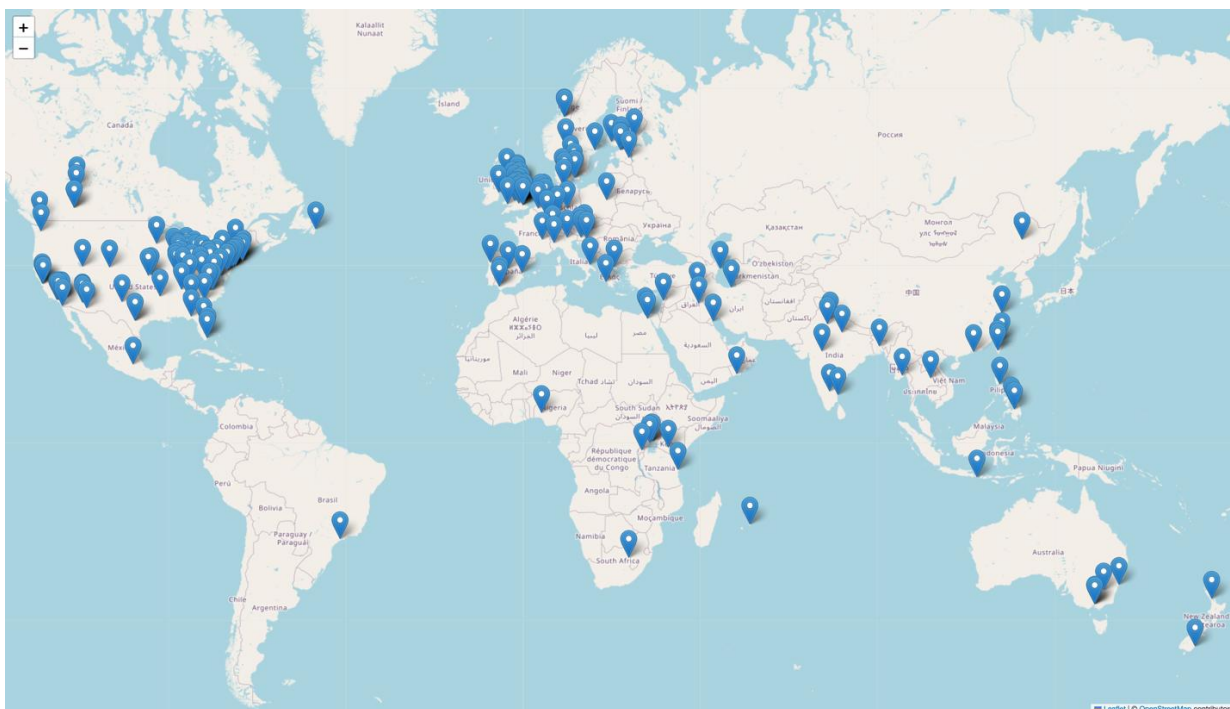
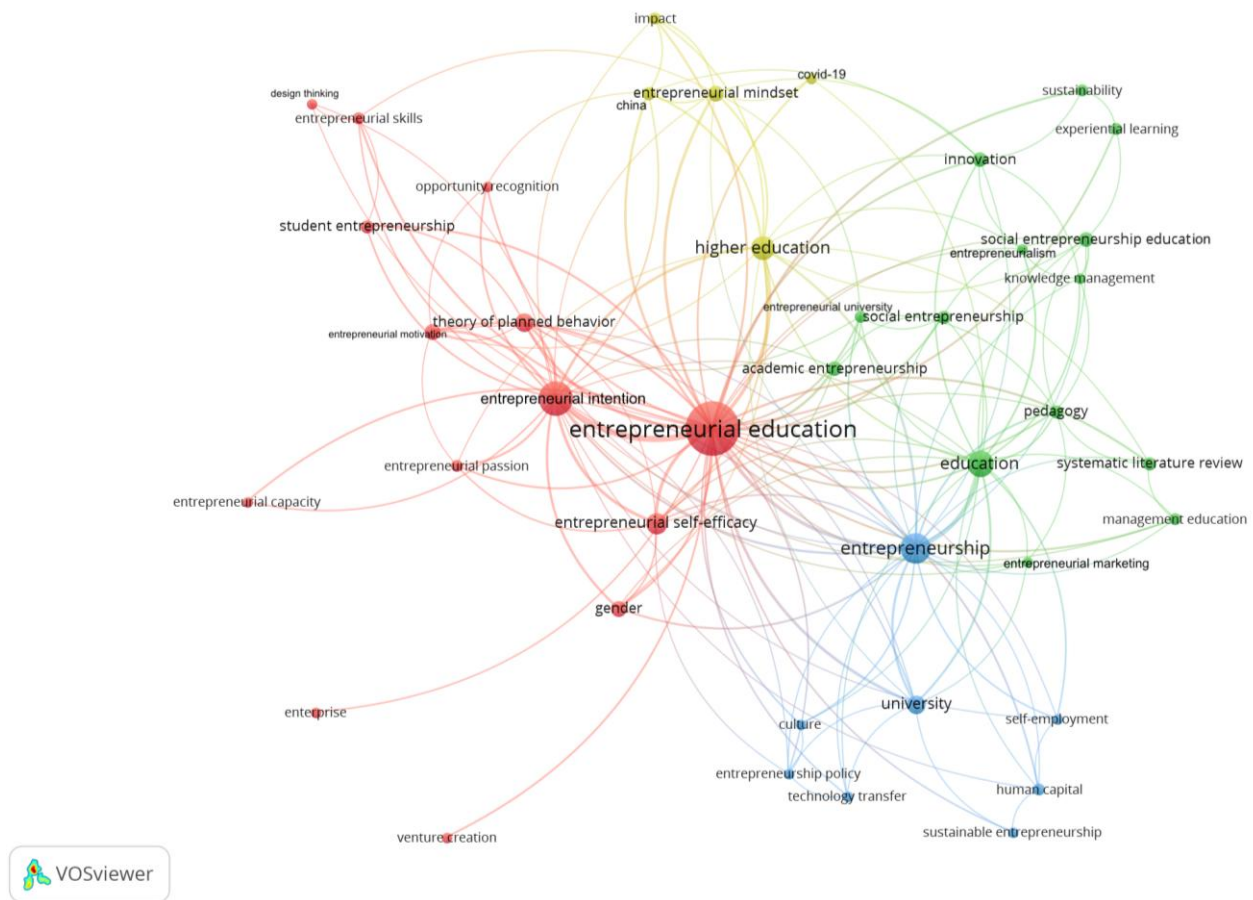


Figure 15: Co-occurrence Keywords



The circle size representing each term indicates the corresponding co-occurrence; the closeness demonstrates the frequency of terms co-occurrence into each of the 4 obtained clusters (see Appendix A for papers clusterization).

As illustrated, the term 'entrepreneurial education' (188 links, 163 occurrences) occurs the most and is located relatively in the center; this shows that it is strongly connected across all clusters, confirming its pivotal role. In particular, this term dominates the red cluster which is characterized by the terms referring to psychological and motivational factors ('entrepreneurial motivation', 16 links, 7 occurrences) related to 'entrepreneurial intention' (104 links, 51 occurrences), with the 'Theory of planned behavior' (21 links, 10 occurrences) serving as the main theoretical framework and concepts such as 'self-efficacy' (32 links, 15 occurrences) which emphasizes the importance of personal perceptions for entrepreneurial success. The green cluster reflects the interest in the role of 'innovation' (12 links, 6 occurrences) and 'Social entrepreneurship' (8 links, 5 occurrences) in the educational context ('pedagogy', 14 links, 5 occurrences; 'knowledge management', 8 links, 3 occurrences); moreover, the presence of the term "sustainability" (6 links, 4 occurrences) suggests attention to this topic as well, although still emerging in the considered literature, so further future research should explore how entrepreneurial education can integrate the principles of sustainability. The blue cluster highlights the role of 'university' (24 links, 11 occurrences), crucial for 'technology transfer' (6 links, 3 occurrences) and the development of 'human capital' (8 links, 4 occurrences), linked to the term 'entrepreneurship' (70 links, 38 occurrences) indicating a direct connection between entrepreneurship and academic institutions. Finally, the yellow cluster highlights the centrality of 'higher education' (44 links, 21 occurrences) in the development of an 'entrepreneurial mindset' (20 links, 8 occurrences) and in having a measurable 'impact' on entrepreneurship (11 links, 4 occurrences), especially in more recent times after the Covid-19 pandemic (5 links, 3 occurrences) which influenced the change in mindset, pushing educational institutions and

young people to develop new skills to deal with uncertainty and rapid change, aspects in which China (17 links, 5 occurrences) is often seen as an example of rapid economic transformation through key drivers as entrepreneurship and innovation.

From the analysis of the clusters, some prevalent topics and theories emerge as follow:

1. Red Cluster:

- The evaluation of the impact of entrepreneurial education programs, suggesting as future lines of research the implementation of measurement tools suitable for its evaluation, a significant work is of Yi et al. (2022) the purposes of this study are to (a) synthesize the methodological issues that prevent entrepreneurship education from meeting rigorous educational evaluation practices and standards and (b) propose standards for impact evaluation research in entrepreneurship education.
- How entrepreneurship education can influence individual motivation, believing that motivation is the main driver for business creation, according to Dana (2021) motivation acts as a mediator between entrepreneurial education and the development of technology-based enterprises. This means that the impact of entrepreneurial education on enterprise development is influenced by the level of motivation individuals possess.
- Human Capital Theory (HCT): According to Mambali et al. (2024) this theory emphasizes that individuals with knowledge and skills that are more effective thinkers, leading to increased productivity. It highlights the importance of viewing individuals as valuable assets in entrepreneurship, as their expertise can facilitate innovation and networking opportunities. Indeed, the authors used this theory focusing on how an entrepreneur's experiences can reinforce their commitment to promoting environmental friendliness as their business prospers.
- Institutional Theory: This framework examines how regulatory, normative, and cognitive environments influence individuals' objectives and actions. It categorizes institutions into formal (laws and regulations) and informal (cultural norms), impacting entrepreneurial behaviour, Zhuang et al. (2023) through the application of the theory studied the mediating role of opportunity recognition in the relationship between the institutional environment and entrepreneurial intention, and the moderating effect of entrepreneurship education on the relationship between the institutional environment, opportunity recognition and entrepreneurial intention.

2. Green Cluster:

- Social entrepreneurship involves identifying and exploiting opportunities to create products and services that generate both social and economic value, reflecting a dual mission of social change and economic outcomes. Social entrepreneurs are often seen as change agents in the social sector, adopting missions to create social value, innovating, and acting boldly to pursue their goals. In this sense a significative study of Solomon et al. (2019) investigate student enrollment in social entrepreneurship courses in comparison to other entrepreneurship courses; the frequency of offering social entrepreneurship courses and programs compared to other entrepreneurship courses and programs; and future trends in SEE. The results revealed a strong demand for social entrepreneurship from students, room for improvement in terms of the supply of course offerings, and a strong belief in the continued growth of social entrepreneurship.
- Innovation is a process that involves developing new ideas, products, or services that address specific challenges or needs in the market, in educational settings, innovation projects can provide students with real-world experiences, allowing them to think like business developers and engage with actual companies to solve management problems. Blankesteyn et al. (2024) emphasize the importance of experiential learning in science and technology-based entrepreneurship education (SBEE). This approach helps students engage with real-world challenges, enhancing their understanding of innovation.
- Theory of Planned Behaviour (TPB): TPB posits that individual intentions are shaped by attitudes toward the behaviour, subjective norms, and perceived behavioural control. This theory is widely used to predict entrepreneurial intentions and behaviours, Al Issa et al. (2024) applied the theory to provide a comprehensive overview of Social Entrepreneurship Education (SEE) by examining

the evolution, current state, and future research directions. It seeks to identify key themes, best practices, and the integration of social entrepreneurship principles within educational frameworks.

3. Blue Cluster:

- Universities are key institutions in fostering job creation and wealth generation within an entrepreneurial society, facing increasing pressure to actively engage in new business activities for socioeconomic impact. They play a crucial role in entrepreneurship education, which is essential for raising awareness and developing competencies among students, ultimately leading to the commercialization of science and technology. The concept of university-based entrepreneurial ecosystems highlights the importance of universities in analyzing and supporting entrepreneurial activities, with successful ecosystems often characterized by strong leadership and resource bundling. Bolzani et al. (2021) analyze how the characteristics of Technology transfer offices and universities potentially influence the scope of science and technology entrepreneurship education involvement in terms of breadth of contents, target audiences and duration. They find that older, strategically autonomous TTOs that are located in universities attributing strong relevance to technology transfer activities are particularly active in STEE. The active role of TTOs in STEE has implications for understanding the entrepreneurship education eco-system of universities and offers interesting opportunities for further research.
- Stakeholder Theory: This theory focuses on the relationships between a business and its stakeholders, suggesting that the success of an enterprise is closely linked to how well it manages these relationships, Bischoff et al., (2018) used the theory to examine the collaboration of stakeholders from the entrepreneurial ecosystem in entrepreneurship education at European higher educational institution.

4. Yellow Cluster:

- Higher education institutions, particularly universities, are pivotal in fostering entrepreneurial skills and intentions among students, contributing to the development of entrepreneurial human capital (ErHC) necessary for new venture creation. The effectiveness of EE is influenced by the type of courses offered, with training-based programs showing a more significant impact on developing entrepreneurial competencies compared to traditional theoretical courses. Huang et al. (2021) use the 2017 China Household Finance Survey (CHFS), to estimate the effect of higher education on entrepreneurship for prime-aged males. They use the higher education expansion in China starting in 1999 and instruments of pre-school hukou status to help identify causal effects, and distinguish between own-account workers and employers of small and large businesses, respectively. They found that people with more education are generally less likely to become entrepreneurs.
- Social Cognitive Theory (SCT): SCT suggests that learning and behaviour result from the interaction of personal characteristics, environmental factors, and behavioural outcomes. It provides a framework for understanding how these elements influence entrepreneurial intentions, Cui et al. (2021) investigate entrepreneurial mindset (EM) as a novel impact of entrepreneurship education (EE) and addresses the scarcity of research on the relationship between EE and EM. Results revealed that the impact of EE on EM is complex. EE significantly enhanced students' entrepreneurial inspiration, which, in turn, promoted formation of students' EM. Entrepreneurial inspiration also mediated the impact of EE on EM at a significant level.

1.5.3. Lacunae in the entrepreneurship literature

Based on the analysis of the identified clusters, several key research directions emerge that can shape the future of entrepreneurship education and research. These avenues span across different theoretical perspectives and levels of analysis, highlighting critical gaps and opportunities for further exploration.

Studying entrepreneurship is essential for understanding how innovative approaches can address societal challenges, ultimately contributing to sustainable development and social progress. The most familiar sustainability definition was presented in the Brundtland World Commission report (1987),

which defines sustainable development as "the development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs." However, there is now a growing recognition that without addressing the social dimension—particularly social inclusion and cohesion—it will be challenging to achieve the 17 Sustainable Development Goals. This awareness is especially evident in the key objective outlined by the 2030 Agenda, which emphasizes leaving no one behind and promoting greater well-being for all (Shabbir, 2023). The 2030 Agenda, adopted by the United Nations in 2015, requires active engagement and cooperation from all sectors of society, including public institutions, governments, the private sector, civil society, and non-governmental organizations.

In this context, entrepreneurship has demonstrated its capacity to advance not only economic sustainability but also social and environmental sustainability. For example, promoting female entrepreneurship contributes to women's emancipation, enhances quality of life, fosters economic growth, and diversifies entrepreneurial endeavors. Likewise, migrant entrepreneurship enhances social integration, empowerment, and individual well-being, while reducing dependency on welfare and foreign aid. These examples underscore entrepreneurship's potential to diminish inequality and foster social cohesion (Apetrei et al., 2019). To comprehend the relationship between entrepreneurship and individual well-being, it is imperative to consider the latter as a crucial outcome of entrepreneurship, which should be integrated with traditional outcomes such as business performance and failure (Wiklund et al., 2019).

Future research should focus on two primary aspects: first, on the role of institutional theory in understanding how institutions support entrepreneurship development; second, on the role of entrepreneurial education in fostering entrepreneurship, particularly in large urban areas.

1.5.3.1. The Institutional Perspective on Entrepreneurial Development

Entrepreneurship has emerged as a crucial driver of sustainable development, offering innovative solutions to pressing social, environmental, and economic challenges (Bruton et al., 2010). Various research streams, including social (Juntti and Ozsezer-Kurnuc, 2023), environmental (Neumann, 2021), and sustainable entrepreneurship (Hall et al., 2010), highlight the capacity of entrepreneurs to develop opportunities for sustainability through social and technological innovations. The Institutional Theory provides a valuable framework for analyzing how regulatory, normative, and cognitive environments influence entrepreneurial behavior. Institutional factors shape entrepreneurship by determining the extent to which it thrives in different contexts through government policies, regulatory frameworks, and societal perceptions (Bischoff et al., 2018).

A key contribution in this area is Aldrich and Fiol (1994), who link entrepreneurship with institutional theory, emphasizing the challenges entrepreneurs face in gaining legitimacy in new industries. Later, Johnson and Schaltegger (2020) acknowledged that existing frameworks only partially capture the links between contextual influences on venture development and transformational outcomes. Understanding how institutions interact with entrepreneurial processes is essential for analyzing their impact on sustainability outcomes. Future research should explore the role of institutional factors in fostering sustainable entrepreneurship, particularly in urban settings where regulatory complexities and social expectations interact dynamically. Specifically, accordingly with our review we propose:

1. Institutional influences –As explored by Zhuang et al. (2023), institutional theory suggests that formal and informal institutional structures shape entrepreneurial intentions. Walter and Block (2016) highlight how institutional factors influence entrepreneurial legitimacy, while Bischoff et al., (2018) emphasize the role of governmental policies in entrepreneurship education. Future research should explore the relationship between institutional settings and entrepreneurial behaviors, particularly in urban environments where regulatory complexities are pronounced. Further, future research should focus on understanding how entrepreneurial ecosystems function in large urban areas and how different stakeholders (universities, policymakers, investors)

contribute to their development.

- a. How do formal and informal institutional structures shape entrepreneurial intentions in urban environments?
 - b. What role do governmental policies play in enhancing entrepreneurship education and fostering startup growth in metropolitan areas?
 - c. How do different stakeholders (universities, policymakers, investors) interact to develop and sustain entrepreneurial ecosystems in large cities?
2. The role of universities - Universities are key players in developing entrepreneurial competencies. Bolzani et al. (2021) highlight the role of Technology Transfer Offices (TTOs) in shaping science and technology entrepreneurship education. Future research should explore the effectiveness of university-based entrepreneurial ecosystems and how institutional policies influence the commercialization of research and innovation.
- d. How do university-based entrepreneurial ecosystems influence the development of entrepreneurial competencies among students and researchers?
 - e. What is the impact of institutional policies on the effectiveness of Technology Transfer Offices (TTOs) in facilitating research commercialization?
 - f. How do universities balance academic objectives with the need to foster science and technology entrepreneurship?
3. Stakeholder engagement - Stakeholder Theory suggests that successful ventures requires collaboration between academic institutions, businesses, and policymakers. Bischoff et al., (2018) examines stakeholder involvement in European higher education institutions, yet further research is needed to understand the dynamics of stakeholder partnerships in different cultural and economic contexts. Future studies should explore how universities can effectively engage with industry partners to enhance entrepreneurial learning opportunities.
- g. How do cultural and economic contexts influence the dynamics of stakeholder partnerships in university-based entrepreneurial ecosystems?
 - h. What strategies can universities adopt to effectively engage with industry partners and enhance entrepreneurial learning opportunities?
 - i. How does stakeholder collaboration between academic institutions, businesses, and policymakers impact the success of entrepreneurial ventures?
4. Interplay between Micro, Meso, and Macro Levels - To develop a holistic understanding of entrepreneurship, future research should bridge the gaps between individual (micro), institutional (meso), and societal (macro) perspectives. Institutional contexts shape individual entrepreneurial actions, while meso-level organizational structures influence decision-making and innovation. At the macro level, policy frameworks set the stage for entrepreneurial activity. By exploring these interconnections, researchers can develop more comprehensive models of entrepreneurship and innovation dynamics.
- j. How do institutional contexts at the meso level mediate the relationship between individual entrepreneurial intentions and macro-level policy frameworks?
 - k. What are the key interconnections between micro-, meso-, and macro-level factors in shaping entrepreneurial decision-making and innovation?
 - l. How can a holistic, multi-level approach improve the development of comprehensive models of entrepreneurship and innovation dynamics?

1.5.3.2. Theoretical Foundations of Entrepreneurial Education and Its Role in Shaping Entrepreneurship in Large Urban Areas

Entrepreneurial education plays a crucial role in promoting sustainable development in urban settings. Hall, Daneke, and Lenox (2010) emphasize the significance of entrepreneurship in addressing environmental and societal challenges in metropolitan areas. Entrepreneurial education fosters sustainable innovation by encouraging individuals to develop skills that enable them to create innovative solutions.

The Knowledge Spillover Theory of Entrepreneurship (Acs, Audretsch, & Lehmann, 2013) provides a framework for understanding how entrepreneurial education stimulates the use of existing knowledge to develop new businesses. This theory suggests that entrepreneurial education can facilitate the transfer of knowledge into sustainable entrepreneurial ventures. Proximity to research-intensive universities enhances the process of converting knowledge into economic value, as areas with strong knowledge-generation capabilities foster entrepreneurship through knowledge spillovers.

Additionally, research highlights the importance of education quality in shaping entrepreneurial competencies. Hanushek and Woessmann (2007) argue that cognitive skills, rather than formal educational attainment, are strongly correlated with earnings and economic growth. Ahn and Winters (2023) further emphasize the role of education in developing entrepreneurial skills, particularly in urban areas where population density fosters knowledge exchange and innovation.

Urban density plays a crucial role in entrepreneurship by facilitating interactions among diverse groups, thereby enhancing innovation potential (Fan et al., 2023). However, research also suggests that high-density urban areas can lead to socio-economic disparities. Behrens and Robert-Nicoud (2014) developed a theoretical framework integrating natural advantage, agglomeration economies, and firm selection to explain why large cities exhibit higher productivity and inequality compared to smaller towns. Future research should explore how entrepreneurial education can address these disparities and promote inclusive economic growth. Specifically, accordingly with our review we propose:

1. **Role of Education** - One of the most significant gaps in the literature pertains to the assessment of entrepreneurial education programs. Future research should focus on developing and refining measurement tools to evaluate the true impact of these programs on entrepreneurial outcomes. As Yi et al. (2022) suggest, rigorous methodological frameworks are needed to establish standardized evaluation criteria that can accurately measure the effectiveness of entrepreneurial education. Further studies should explore longitudinal impacts, considering how different pedagogical approaches influence entrepreneurial behavior over time. Additional research is needed on how entrepreneurial education can address socio-economic disparities in urban areas, particularly among marginalized groups such as women, migrants, and low-income populations.
 - a. How can standardized measurement tools be developed to accurately assess the impact of entrepreneurial education programs on entrepreneurial outcomes?
 - b. What are the longitudinal effects of different pedagogical approaches in entrepreneurial education on entrepreneurial behavior and success over time?
 - c. How can entrepreneurial education programs be designed to address socio-economic disparities in urban areas, particularly for marginalized groups such as women, migrants, and low-income populations?
2. **Role of Feeling** - We also observed the role of motivation. In addition, we observe that motivation remains a critical factor in entrepreneurial success, yet its role in entrepreneurial education requires further exploration. Dana (2021) highlights the mediating role of motivation in the relationship between entrepreneurial education and business creation. Future research should examine how different educational approaches foster motivation and whether specific

interventions can enhance students' intrinsic and extrinsic motivation to engage in entrepreneurial activities.

- d. How do different educational approaches in entrepreneurial education influence students' intrinsic and extrinsic motivation to engage in entrepreneurial activities?
 - e. What is the mediating role of motivation in the relationship between entrepreneurial education and business creation, and how can this be measured effectively?
 - f. How can specific interventions within entrepreneurial education programs be designed to enhance students' motivation and improve their entrepreneurial outcomes?
3. Education on social entrepreneurship and entrepreneurial engagement - Social entrepreneurship is gaining increasing academic and practical attention. Solomon et al. (2019) emphasizes the growing demand for social entrepreneurship courses, yet gaps remain in understanding how these courses translate into long-term entrepreneurial engagement. Future studies should examine the impact of social entrepreneurship education on students' career trajectories and explore best practices for integrating social entrepreneurship principles into traditional business curricula.
- g. How does social entrepreneurship education impact students' career trajectories and long-term entrepreneurial engagement?
 - h. What are the best practices for integrating social entrepreneurship principles into traditional business curricula to enhance students' entrepreneurial outcomes?
 - i. How can social entrepreneurship courses be designed to foster both social and business-focused entrepreneurial activities among students?
4. Experiential Learning in Entrepreneurship Education - Innovation-driven entrepreneurship is a critical driver of economic growth. Blankesteyn et al. (2024) underscore the importance of experiential learning in science and technology-based entrepreneurship education (SBEE). Future research should focus on the effectiveness of experiential learning models, particularly in equipping students with problem-solving and business development skills. Additionally, studies should investigate how universities can foster innovation ecosystems that support student-led entrepreneurial ventures.
- j. How effective are experiential learning models in equipping students with problem-solving and business development skills in science and technology-based entrepreneurship education (SBEE)?
 - k. What are the key factors that influence the success of experiential learning approaches in fostering innovation-driven entrepreneurship among students?
 - l. How can universities create and sustain innovation ecosystems that support and nurture student-led entrepreneurial ventures through experiential learning?

1.5.4. Research limitations

This study, while comprehensive in its approach to understanding the role of entrepreneurial education in managing sustainability and well-being in large urban areas, encounters some limitations that warrant mention. Firstly, the systematic literature review methodology, while rigorous, is inherently limited by the scope and quality of existing research. As such, emerging or under-represented themes in the literature may not be fully captured, the rapid pace of urbanization and technological advancements presents a moving target for researchers, suggesting that our findings, while current, may require continuous updating to remain relevant (Tranfield et al., 2003). Secondly, the focus on high-impact entrepreneurship journals, while ensuring a high quality of sourced literature, may inadvertently overlook critical insights from emerging fields or interdisciplinary studies that straddle urban planning,

public health, and environmental science, potentially skewing the comprehensiveness of the review (Adams et al., 2017). Additionally, the study's conceptual framework, which attempts to bridge the diverse and sometimes divergent theories of entrepreneurship, sustainability, and urban well-being, may not fully capture the complexity and specificity of these interactions in different urban contexts. For instance, the scalability of entrepreneurial solutions in megacities compared to smaller urban settings may vary significantly, a nuance that our framework might not fully address (George & Bock, 2011).

1.5.5. Managerial implications

The implications of our study for practitioners, particularly urban policymakers, educational leaders, and community planners, are multifaceted and underscore the transformative potential of entrepreneurial education in urban sustainability and well-being initiatives. To maximize this potential, it is imperative for policymakers to not only integrate entrepreneurial education into urban development strategies but also to ensure these educational programs are deeply embedded within the local context. Tailoring programs to address the unique sustainability challenges and opportunities of each urban area can enhance their effectiveness and impact (Yunus, Moingeon, & Lehmann- Ortega, 2010).

O'Connor (2013) argues for the necessity of a theoretically sound foundation to guide policymakers and educators in aligning entrepreneurship education with specific economic goals: a policy framework is proposed that builds upon economic theory, with the objective of serving as a foundation for entrepreneurship education; it emphasizes seeing entrepreneurship as a social process that involves individuals engaging in enterprise activities to foster economic growth, suggesting that social entrepreneurship can contribute to economic utility by addressing social issues through market-driven models. To reach these goals, entrepreneurship education programs should be designed with a focus on contributing to distinct economic objectives, such as economic development, productivity, and utility.

According to Lyons and Zhang (2018), considering the growing prevalence of these programs, it is crucial to acquire understanding regarding the specific demographic that these programs cater to. The findings of their study align with the notion that the program facilitates the development of entrepreneurship by providing participants with additional resources and competencies that are not already available to them. Consequently, both aspiring and established entrepreneurs might derive advantages from such initiatives and, in particular, their findings suggest that specific entrepreneurial skills may be taught within firms among existing employees.

Moreover, the role of urban planners and local governments in creating conducive ecosystems for entrepreneurial activities cannot be overstated. This includes not just the physical infrastructure, but also supportive policies, such as tax incentives for green businesses and streamlined processes for start-up registration. Additionally, fostering a culture of collaboration among universities, industry, and government can lead to more innovative solutions to urban challenges. For instance, public-private partnerships could be instrumental in scaling up successful pilot (Isenberg, 2010).

Finally, the dynamic nature of urban challenges necessitates a commitment to ongoing monitoring and evaluation of the impact of entrepreneurial education on urban sustainability and well-being. This could involve developing metrics to assess the social and environmental impact of start-ups and incorporating these findings into continuous curriculum improvement. Such an evidence-based approach can ensure that entrepreneurial education remains relevant and effective in contributing to the sustainable development of urban areas. Engaging with local communities in this evaluation process can also provide valuable insights and foster a sense of ownership and participation in urban development projects (Bacq & Janssen, 2011).

1.6. Entrepreneurial attitude for social inclusion across AI-driven Phygital solutions

The “phygital” experience gives rise to hybrid experiences that combine the best of both worlds, which enables increased personalization, accessibility, and scalability. From an educational and social inclusion perspective, phygital environments provide a feasible approach to engaging disadvantaged

populations, such as NEETs (young adults not in employment, education, or training), migrants, and inmates, who are often excluded from traditional services (Del Vecchio et al., 2023).

Theoretically, a phygital model is rooted in accessibility and inclusiveness principles underpinning service innovation and social policies. Providing a path to transcend socio-economic barriers, it offers an opportunity to re-think traditional models service design and delivery. The integration of digital tools (for example, AI-based learning platforms) with physical support systems creates a holistic ecosystem capable of tackling the educational and social challenges faced by marginalized groups (Schneider, 2021). That ability to adapt and respond is especially critical in connecting with students without formal schooling or the means to engage fully in a digital-first world.

Digital platforms provide global access to learning assets and individualized support, while physical hubs facilitate meaningful interaction with mentors and peers. This dual-channel approach promotes deeper engagement and stronger learning results, validating the theoretical premise that hybrid settings can meet a wider range of learner needs more efficiently than either digital-only or physical-only models (Mele et al., 2023). In doing so, the phygital environment's scalability emerges highlighting positive impacts.

The creation of the Phygital Center for GRINS Project is part of the ecosystemic strategy of entrepreneurial education by the a vision of University third mission that follows the perspective of Audretsch (2014) of an Entrepreneurial University that contributes to the generation of entrepreneurship capital also thanks to entrepreneurial education which, in an ecosystemic key, must involve the entire organization and go beyond it by interacting with the surrounding society. In this perspective, Entrepreneurial Education encompasses a path that leads from knowledge, to skills, to entrepreneurial attitude through a wide range of activities that see as potential users of the didactic action not only students, researchers and actors within the University, but also external actors operating in the reference ecosystem (Bischoff, Volkmann, and Audretsch 2017). These external actors especially include disadvantaged groups to stimulate them to develop their entrepreneurial spirit and previously unrecognized skills by supporting their social inclusion thanks to personalized training experiences through AI-driven technologies in the Phygital Center (Nicotra et al., 2021).

In order to optimize the re-skills and up-skills educational pathways within the Phygital Center, the project also includes the creation of a Data dictionary to skill management for customization of the experiences, solutions and services offered to disadvantaged groups that can be scaled up to the national level. Although digital transformation and new digital business models have significantly influenced various sectors, academic research has only lately commenced a systematic investigation of digitization, digitalization, and digital transformation (Verhoef et al., 2021; Venkatraman, 2017). User behavior has undergone significant changes due to digital transformation, with online buying and digital touchpoints becoming essential components of each kind of experience (Kannan & Li, 2017). Digital transformation is especially crucial for established organizations, since they encounter difficulties in assimilating new digital business models due to legacy limitations (Christensen et al., 2016; Markides, 2006). Some organizations are progressively undergoing digitization and digitalization, while others face the threat of obsolescence if they do not adapt (Teece, 2010). This transformation allows organizations to utilize digital technologies for cross-border interactions (Singh & Hess, 2017), thereby fostering the achievement of a competitive advantage through the enhancement of existing core competencies or the creation of new ones (Liu et al., 2011).

Recent search and social media tools have enabled users to be more interconnected and knowledgeable (Lamberton & Stephen, 2016; Verhoef et al., 2017). Digital platforms currently enable co-creation, allowing consumers to build and customize items, engage in last-mile distribution activities, and share product feedback (Beckers, van Doorn, & Verhoef, 2018; Grönroos & Voima, 2013).

By incorporating these principles in aims of social inclusion, the Phygital Hub approach visualizes and edit the digital customization for socially disadvantaged populations of NEETs, migrants, prisoners, and people with disabilities. AI-based data platform assess user data to tailor learning path, ensuring that academic content aligns with individual growth and needs. Augmented reality (AR) technologies intensively enhance personalization, while community-oriented physical hubs provide essential face-to-

face support (Silvia et al., 2023).

Digital agility, which is the ability to detect and leverage opportunities offered by digital technology, is vital for survival in today's fast-paced markets (Lee et al., 2015; Lu & Ramamurthy, 2011; Tallon & Pinsonneault, 2011). Organizations using this capability adapt to changing users demands and technological upheaval quickly (Chakravarty et al., 2013). Managing the complexities of digital transformation requires organizations to constantly reconfigure their existing digital resources and capabilities (Eggers & Park, 2018; Lavie, 2006; Romano et al, 2021). Digital agility in Phygital Hubs drives integration between digital assets and organizational resources towards creating innovative business models and training programs (Karimi & Walter, 2015; Sambamurthy et al., 2003; Teece, 2010) This approach can foster continuous improvement, ensuring that educational programs remain relevant, impactful, and accessible to underserved communities.

Digital networking skills allow to connect users in different areas through digital channels, and have emerged as a condition of success in modern digital contexts (Koch & Windsperger, 2017; Libert et al., 2016). Digital transformation is facilitating Phygital Hubs to widen their reach by working with schools, businesses, and local governments. In addition, Phygital Hub success is strongly driven by big data analytics. Accessing and processing big datasets is necessary for decision-making in the context of digital transformation (Dremel et al., 2017; Loebbecke & Picot, 2015). In the following, we will demonstrate how data platform puts these concepts into practice by giving real-time, data-driven insights for better educational personation and learner engagement.

To address digital transformation, organizations need to adopt adaptable frameworks (Eggers & Park, 2018; Sklyar et al., 2019). The IT function has to transform from a supportive role into an active facilitator who creates digital value (Leonhardt et al., 2017). To maximize the benefits achieved through digital transformation, organizations should track KPIs representative of digital adoption, learner engagement, as well as social inclusion impact (Verhoef et al., 2016). Key performance indicators of Phygital Hubs go beyond monetary factors, such as ROI, profitability and revenue growth, to include additional measures of engagement, completion rates and employment outcomes for learners (Lemon & Verhoef, 2016; Verhoef et al., 2015).

Through this lens, the Phygital Hub model represents an integrated approach to educational system that leverages digital platforms and physical spaces to provide tailored learning experiences. By studying content digitally within a framework of hybrid learning and receiving in-person mentorship and support, a learner is afforded a dual-channel learning model that can enhance engagement and improve outcomes. This kind of structure provides includes an essential data-dictionary further tailored to the learner's preferences with digital paths, as well as physical community spaces where workshop sessions, training and mentoring processes take place. The Phygital Hub is designed to cater to the diverse needs of various learner communities in a flexible manner. Its decentralized framework makes it an excellent scalable model for targeting marginalized populations across different geographic and socio-economic modalities.

Digital and physical components are intertwined not only to enrich the user experience but also to enable sustainable resource management. This is lower than the average cost of the education process, hence, through widespread ICT-enabled delivery of content, Phygital Hubs can reduce the educational costs, while also providing a significant amount of high-touch support which can make the difference in student success (Mele et al., 2023).

Digital tools in education were widespread but the reliance on them increased with COVID-19 pandemic as did the acknowledgment of the limitations of purely digital model especially for disadvantaged groups. While technology-driven learning websites provide the flexibility and scalability required to teach large audiences, in most cases, they compromise on the human touchpoints needed to engage and retain modern learners. But phygital is a better and more durable solution: something that combines the benefits of digital learning with a physical space where you can get some kind of engagement or support (Del Vecchio et al., 2023).

In vocational training, for example, the phygital model allows learners to participate in digital simulations and theoretical lessons in an online format, while also engaging in tangible, practical, hands-

on training in physical workshops. This combination is particularly good for such people as inmates, NEETs or migrants, who take part in the online education but need also social interaction, building up practical skills and foster social connections (Gelsomini et al., 2021). Phygital models in education have undergone a similar evolution to those taking place in many service systems because services more generally are becoming more personalized and adaptive through hybridization.

Phygital education integrates conventional classroom techniques with digital learning, surpassing the digital educational practices established during the pandemic and reconfiguring the educational process to transform the roles of both students and teachers (Zaitseva et al., 2023). It is especially suitable for pupils of Generation Z, referred to as the phygital generation. Researchers in the education sector have begun to explore the potential enhancement of teaching efficacy through a phygital approach.

Literature demonstrates that phygital surroundings can enhance the teaching process in several ways. It presents innovative teaching methodologies that utilize cellphones to enhance sociability and collaborative learning (Fonseca & Mealha, 2022), alongside the implementation of phygital textbooks to facilitate an immersive learning experience that promotes collaborative active learning.

More recently, studies have stressed the aim of Entrepreneurial Education (EE) as being oriented towards teaching to enable students to be entrepreneurial, improving in students the general attitude (Nicotra et al., 2021) to answer to the uncertainty, to environmental turbulence and crises thanks to the acquisition of certain entrepreneurial competencies (Gibb, 2005). The nature of work is constantly changing and economic security is increasingly dependent on the ability to adapt to new skills requested. Besides Entrepreneurial Education can have a certain effect also on the individual perceived relevancy, engagement and motivation in education and in the job (Malsch and Guieu, 2019).

In the context of Entrepreneurial Education, the Phygital Hub can serve as a valuable model for integrating theoretical knowledge with practical application, offering a balance between the digital and the non-digital. The learning environment is characterized by its digital component, which provides access to online courses, ensuring flexibility and accessibility for users. Furthermore, the physical spaces within the Hub facilitate essential opportunities for mentorship, professional networking, and hands-on problem-solving, thus complementing the digital aspect of the learning experience. This is especially beneficial for disadvantaged groups, as it equips them with the cognitive and applied skills required to start and run their own businesses.

The phygital perspective aligns with experiential learning theories that highlight the role of action and reflection in the learning process (Mele et al., 2021). And with practical applications in real business environments, the Phygital Hub bridges the gap between learner and employment, supporting a pathway directly into the economy. This is crucial for marginalized populations, who frequently encounter systemic obstacles to entering conventional entrepreneurial ecosystems.

1.7. Entrepreneurial education for women inclusion (paper D'Allura)

Studies on women entrepreneurship have noticed a rapid growth over the past 30 years; the field is in an initial phase but with a considerable number of journal articles, literature reviews and books being published on women entrepreneurs.

For decades, entrepreneurship research has been dominated by a male-centric perspective, treating the male entrepreneur as the default model for business ventures. This bias shaped the field from its origins in the 1930s, with the assumption that male and female entrepreneurs were fundamentally the same—an oversight that delayed the recognition of women entrepreneurship as a legitimate research subject (Bruni et al., 2004). It was not until the late 1990s and early 2000s, with the launch of dedicated conferences such as the 1998 Conference on Women Entrepreneurs in Small and Medium-Sized Enterprises and the 2003 Diana International Conference, that the study of women entrepreneurs began to gain momentum (Jennings & Brush, 2013).

The traditional business model was long considered gender-neutral, yet research on women entrepreneurs has shattered this illusion, revealing that entrepreneurship is inherently gendered and often embedded within family dynamics (Jennings & Brush, 2013). This realization has led to an increasing

recognition that women are not merely participants in entrepreneurship but are key drivers of economic and social transformation (Sarfaraz et al., 2014).

Despite this progress, mainstream entrepreneurship theories remain outdated, failing to account for the structural barriers, unique motivations, and alternative business models that characterize female-led ventures. Theoretical frameworks must evolve to reflect the realities of women entrepreneurs, rather than treating them as deviations from a male norm (Yadav et al., 2016).

The stakes are high. Women entrepreneurs do not just contribute to economic growth—they reshape social and familial structures, elevate their communities, and challenge entrenched power dynamics (Kaviarasu et al., 2022; Sajjad et al., 2020). A failure to critically engage with female entrepreneurship as a distinct and transformative force risks perpetuating the very inequalities that have historically sidelined women in business. It is not just about inclusion—it is about rewriting the narrative of entrepreneurship itself.

Women entrepreneurs contribute to creating employment opportunities, leading to income increase, and more new products and services available to society leading to greater benefits for society, in addition are more likely to reinvest the money they earn leading to an increase in the local economy (Atonye et al., 2024). Therefore, investing in women entrepreneurship helps in closing the gender gap, as research suggests that women owners are more likely to hire women employees (Quak et al., 2022).

Despite this, women entrepreneurs still face numerous challenges (Kaviarasu et al., 2022), the number of women-owned businesses is still in the minority and the challenges faced by them are relatively different from the challenges faced by men-owned businesses (Strawser et al., 2021).

Nonetheless, Anderson and Ojediran (2022) highlight a peculiar characteristic of female entrepreneurship: women in developed countries are attracted by opportunities, whereas those in developing countries seem to be pushed by necessity.

However, literature identifies in general, seven main barriers:

1. Gender discrimination (Albattat et al. 2023)
2. Work-family conflict (Ahmetaj et al. 2023)
3. Financial obstacles (Albattat et al. 2023)
4. Lack of infrastructural support (Ramadani et al. 2015)
5. Unfavourable business, economic and political environments (Zhu et al. 2015)
6. Lack of entrepreneurship training and education (Sengupta et al. 2013)
7. Personality-based barriers (fear of failure and low self-confidence) (Al-Sadi et al. 2011)

The lack of access is caused by gender discrimination in the financial market in which they operate (Vita et al., 2023). Moreover, research has also shown that institutional support plays a vital role in the development of women entrepreneurship. Traditional gender roles and cultural roles have also been identified by researchers to be a challenge for women entrepreneurs (Patel & Deshpande, 2018).

One of the greatest difficulties for the recognition of female entrepreneurship as an autonomous research subject is certainly a lack of theoretical concepts of the phenomenon: most studies focus on exclusively quantitative analyses, and few analyses study the phenomenon through theoretical lenses.

Theoretical frameworks such as feminist epistemology highlight the barriers women face in entrepreneurship, emphasizing the need to challenge male-dominated norms and advocate for gender equity in business contexts, but linking feminist theories to entrepreneurship reveals that existing research often adopts a feminist empiricism perspective, which may inadvertently reinforce women's subordination by failing to question male norms (Wu et al. 2019).

The application of critical theory on female entrepreneurship seems to highlight a lack of universality, this narrow focus can be seen as limiting, in particular in a globalized world with different social and cultural contexts (Said, 1993), furthermore the influence of postmodernist thought in critical theory can lead to a form of relativism that underestimates the potential for a shared understanding of justice and ethical norms, making it difficult to ground objective criteria for critique (Lyotard, 1984). The emphasis on data collection and analysis without a strong pre-existing theoretical framework of the Grounded Theory can sometimes lead to superficial findings or theories that lack strong theoretical foundation (Bryant et al. 2007), thus the theoretical support necessary for female entrepreneurship to be

recognized as an autonomous research subject is lacking; in addition building theory from data leads a risk that researchers might over-interpret data or make claims that are not adequately supported by the evidence. This can bring to theories that are speculative or not grounded enough in the data itself (Glaser et al. 1967).

Literature recognizes the importance of female entrepreneurship, both in terms of economic growth and for its strong social impact. However, to recognize female entrepreneurship as an autonomous research subject, more contributions on theoretical concepts of the phenomenon are needed. At the moment, and as previously written, most of the studies deal with exclusively quantitative analyses using little or no theoretical lenses.

The aim of this field of research is to identify the barriers and obstacles to female entrepreneurship and to analyse the different theoretical perspectives applied to the study of these barriers on the different levels of analysis:

- Micro Level: psychological constraints, internal doubts and insecurities of women with respect to their capabilities and strengths; feelings of isolation.
- Meso Level: firm's structure and organization and their relationships with trade associations or banks which they promote entrepreneurship development
- Macro Level: institutional context and social policies which they support female entrepreneurship.

1.7.1. Methodology

Literature reviews identify important knowledge gaps and motivate researchers to fill them (Webster & Watson, 2002). In this paper, we aim to conduct a systematic literature review (Cook, Mulrow, & Haynes, 1997) of relevant studies examining the barriers and obstacles to female entrepreneurship. In this sense, according to Tranfield, Denyer, and Smart (2003), to more clearly establish the conceptual boundaries, we first examined pertinent findings that were published in Management publications (select studies that applied Tranfield et al. (2003) approach are: Hoskisson, Chirico, Zyung, & Gambeta, 2017; Terjesen, Hessels, & Li, 2016). Then, we used Scopus database to search for all articles published from all years to present (March 2025) using the search terms, [women or female and entrepreneur* and incl* and barr* or obstacl*]. Manually tracking citations for additional relevant articles in highly ranked journals is an important part of the literature review (Rashman, Withers, & Hartley, 2009); however, the manual search did not produce any additional contribution on the topic.

We searched on Scopus database widely recognized in the scientific community, with more than 27 million abstracts, and is currently considered the largest database of scientific literature (Burnham, 2006), using the phrases [women or female and entrepreneur* and incl* and barr* or obstacl*], in [Article title, abstract keywords], and obtained 413 works.

We then limited the research to Subject Area (1) [Business, Management and Accounting], using [LIMIT TO].

Considering their internal criteria, the suggestion is to use the command [LIMIT TO] to filter the [SUBJECT AREA] because it is a more inclusive command. In this step, we obtained 155 documents.

The Scopus Database includes different types of documents, including articles, book chapters, articles in press, books, and reviews. According to our research protocol, the systematic review included only articles and reviews published on journals in English at the final stage. We therefore excluded the other documents. We used both commands and determined that in this case, use of either of the commands, [LIMIT TO (selected items)] or [EXCLUDE (selected items)], with 139 articles.

The bibliometric method known as VOSviewer software version 1.6.10 (Van Eck and Waltman, 2010, 2014) was also employed. This software enables the visual description, recognition, and categorization of groups in a related strategic matrix according to their similarities and differences (distance based mapping). This approach addresses the issue of author subjectivity influencing the qualitative study of the literature. It is possible to lessen the distortion caused by subjective variables by using the authors' own keywords. Additionally, the graphic creation of maps enables the examination of

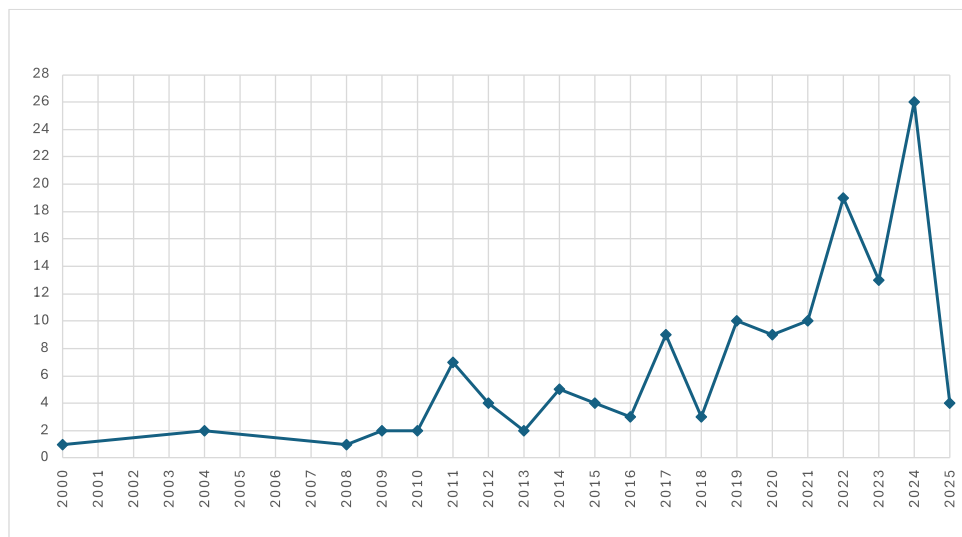
the intricate relationships between the variables, which aids in a better understanding of the nature of a research field and has become an unquestionable analysis tool (Vallaster et al., 2019; Martínez-López et al., 2018).

1.7.2. Preliminary results

Figure 16 illustrates the advancement of scientific inquiry about potential impediments and challenges to female entrepreneurship over the years. This study topic has mostly evolved in recent years, with a notable surge since 2019 ($n = 10$) and attaining its apex of publications in 2024 ($n = 26$), with 2025 still underway. This increase may indicate a shift in attention towards scientific study and a persistent, expanding evolution of research in the domain of female entrepreneurship as a legitimate trend.

To delineate the "research front" (Price, 1965) regarding barriers to female entrepreneurship through temporal overlap, we additionally employed an analysis of term co-occurrence (with a minimum of three occurrences). This is a dynamic analysis influenced by alterations in the research domain and the significance of a particular research line over time. The identification of the research frontier assists scholars in delineating the most contemporary tendencies in literature (Boyack and Klavans, 2010).

Figure 16: Distribution of papers on annual basis

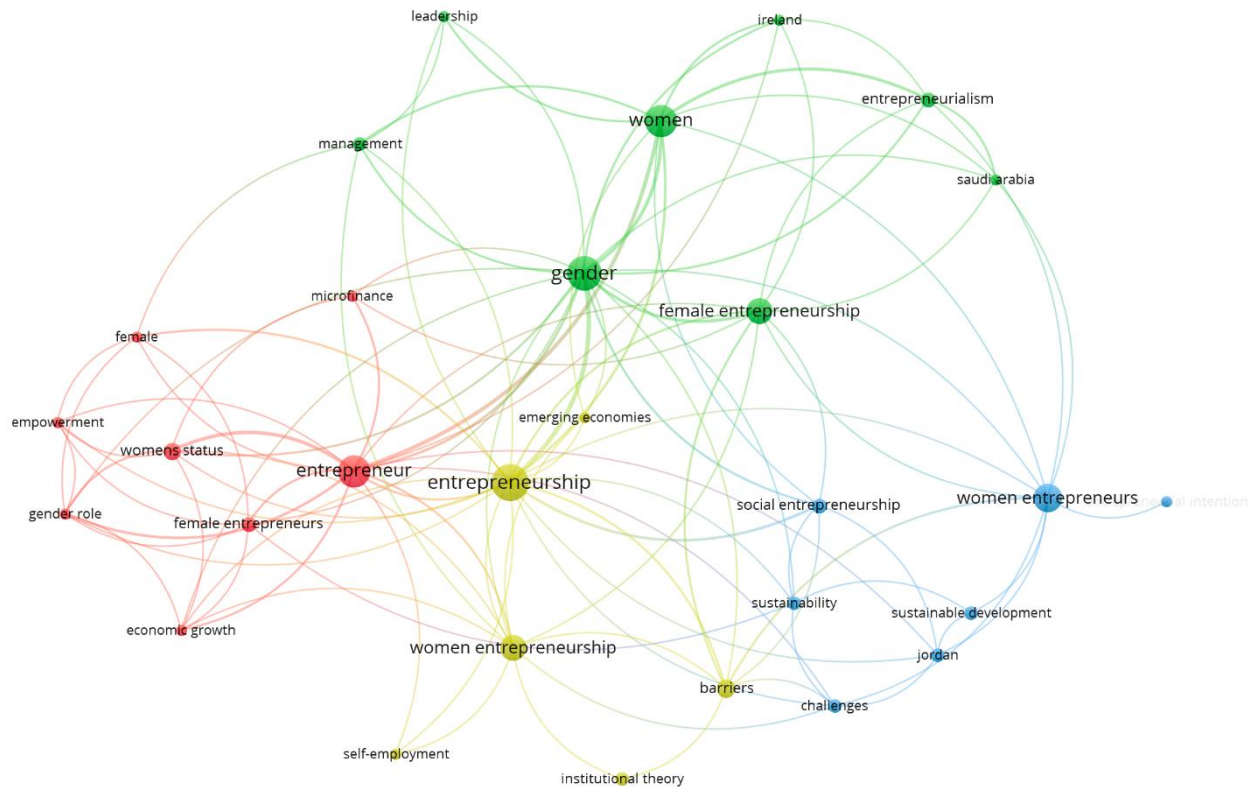


Keyword co-occurrences map (Figure 17) offer a visual representation of the thematic landscape and progression of research on female entrepreneurship and associated concepts. Each node identifies a keyword that has emerged in the considered literature with more than three occurrences, with the node size generally indicating its frequency. The lines represent co-occurrence relationships: the greater the thickness or quantity of connections, the more frequently those keywords co-occur.

Specifically, red cluster focuses on “entrepreneur” and encompasses terms like “female entrepreneurs”, “empowerment”, “women's status”, “empowerment”, “economic growth” and “microfinance”, underscoring the socio-economic aspect of women's entrepreneurship and its connection to economic development. The green cluster concentrates on “gender” “female entrepreneurship”, “management”, “leadership”, highlighting the impact of social norms, roles, and circumstances on women's engagement in entrepreneurial endeavors. The yellow cluster encompasses “entrepreneurship”, “women entrepreneurship”, “self-employment”, “emerging economies”, “barriers” and “institutional theory,” indicating a focus on structural considerations and the obstacles faced by female-led companies in emerging nations. The blue cluster encompasses “social entrepreneurship”, “sustainability”, “challenges”, “women entrepreneurs” and “sustainable development” illustrating an organizational and cross-cultural viewpoint, with a growing interest in the social and sustainable

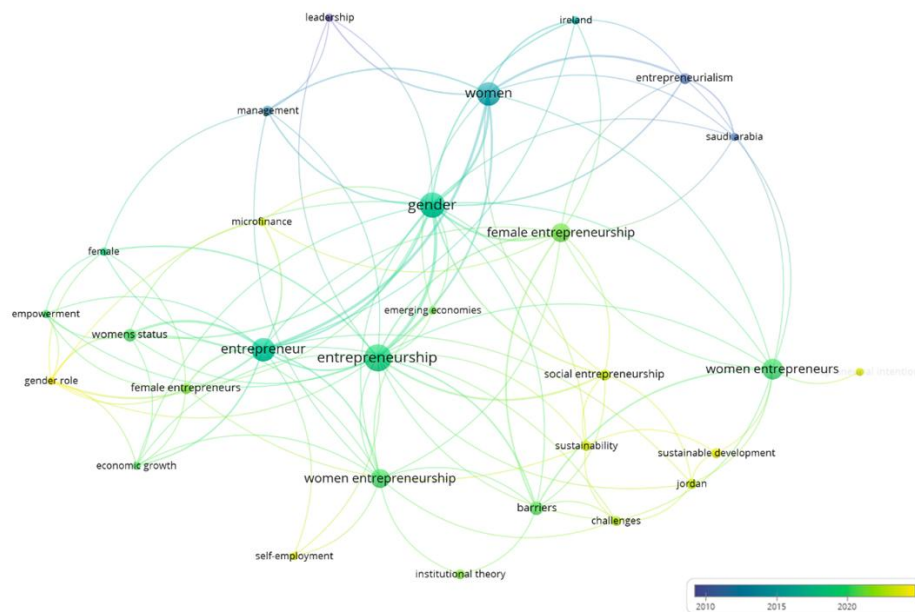
dimension of entrepreneurship.

Figure 17: Keywords co-occurrences



The second keywords map (Figure 18), color-coded by time, utilizes a gradient ranging from dark blue for earlier years to yellow/green for more recent years, illustrating the evolution of attention on various topics over time. Earlier keywords such as “leadership,” “management,” and “entrepreneurialism” indicate that initial study concentrated on the essential definitions and functions of leadership and management within entrepreneurial settings. Emerging topics, indicated in lighter green or yellow, encompass “sustainability,” “sustainable development,” “challenges,” “institutional theory,” “gender role”, and “self-employment,” reflecting an increasing interest in the relationship between female entrepreneurship and sustainability, re-evaluating theoretical foundations to identify solutions to contemporary challenges, and subsequently adopting this novel entrepreneurial perspective as a viable occupational choice for women through self-employment. The map clearly indicates that “women entrepreneurship” with “gender” are consistently central theme throughout the time frame, linking to concepts such as “social entrepreneurship” and “barriers”, thereby illustrating that research on women's entrepreneurial activities encompasses both historical and contemporary studies, maintaining significant relevance.

Figure 18: Keywords co-occurrences over time



Next two co-citation maps, featuring countries as nodes, depict the nations that are frequently referenced in conjunction within the academic literature on female entrepreneurship. In the first map (Figure 19), the United Kingdom (796 citations) and the United States (1480 citations) appear as the most significant nodes, acting as crucial reference points and signifying their frequent co-citation with various other nations. Countries like as India (121), Saudi Arabia (236), Canada (131) and Italy (204) exhibit significant connections to the UK, indicating a concentration of research that frequently cites work from or pertaining to those areas. Simultaneously, the United States maintains a distinct yet intersecting network of affiliations, particularly with Australia (444), China (136), South Africa (133), and several European countries, indicating that research referencing US-based studies frequently includes literature from these nations. The second map (Figure 20) employs a color gradient, transitioning from dark blue in 2010 to bright yellow in more recent years, to illustrate the variation in the average publication year of citations across different countries. India and some Middle Eastern nations (e.g., Qatar, Bangladesh) are depicted in almost yellow tone, indicating a comparatively recent influx of referenced research, while countries illustrated in mid-green (e.g., the UK, US) represent a corpus of work extending from slightly earlier to mid-range years.

Figure 19: Co-citation countries

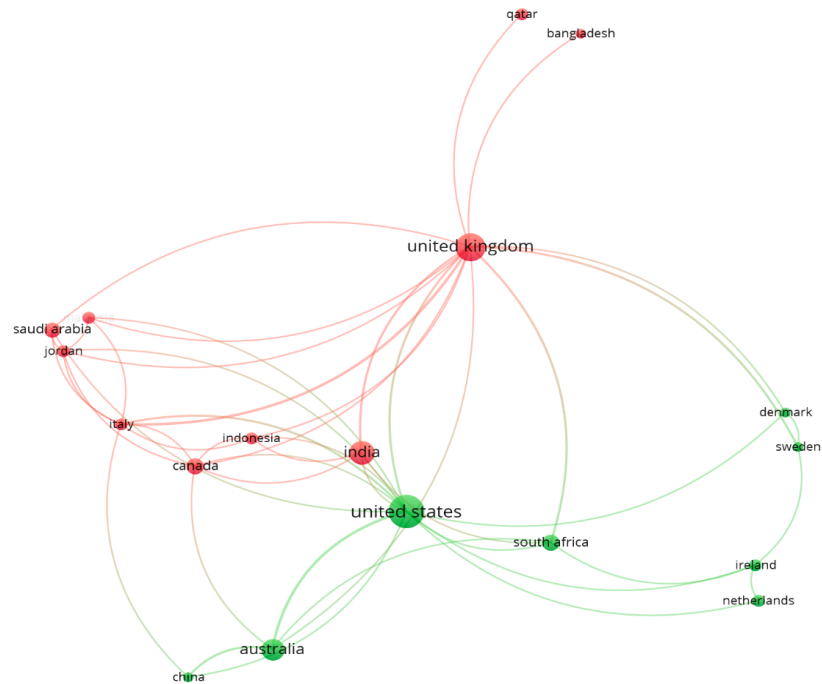
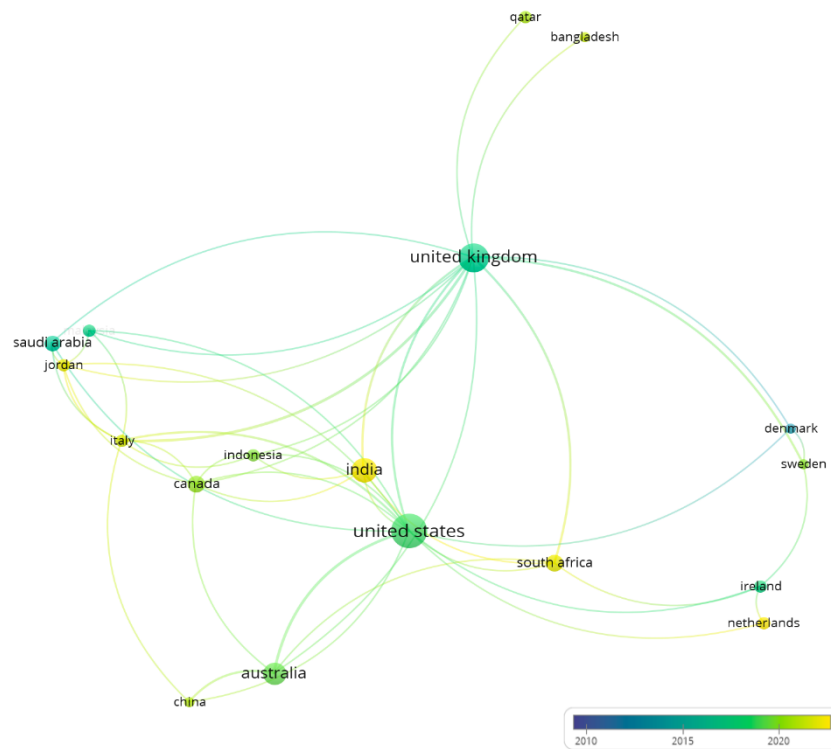


Figure 20: Co-citation countries over time



1.7.3. Research limitations

This study, despite offering new insights into the barriers to women entrepreneurship and on the

theoretical perspectives applied to its analysis, encounters some limitations that need to be highlighted. Firstly, articles are limited to the analysis of certain geographical areas, but the barriers women face in entrepreneurship are often influenced by local cultural, economic, and institutional factors, meaning that findings from one geographical area may not be applicable to other regions. For example, while women in developed countries may face barriers related to access to capital or work-life balance, women in developing countries may face more challenges related to access to education and legal rights. Thus, research focusing on one area may not capture the broader, global landscape of women's entrepreneurial experiences. (Marlow et al. 2005).

For instance, the study of women's entrepreneurship in conservative cultures like those in the Middle East or North Africa may emphasize the role of patriarchal system and gender restrictions, whereas Western societies may have a different focus on issues like entrepreneurial ambition and work-life balance. This can lead to an overemphasis on specific barriers related to culture without considering how economic or political factors also affect women's entrepreneurship in these regions (Welter et al. 2011). Secondly, the Institutional theory is the predominant theoretical lens to study the phenomenon, but often focuses on macro-level structures, such as legal systems, cultural norms, and market dynamics, but it pays less attention to micro-level factors, such as the personal motivations, psychological constraints, decision-making processes, and social networks that influence individual women entrepreneurs. Women's entrepreneurial behaviours can be influenced by factors like self-confidence, personal aspirations, and the availability of role models, which institutional theory may not adequately capture (McAdam et al. 2013).

1.7.4. Managerial implications

This research can guide policymakers, managers and educational communities in addressing these challenges and empowering women entrepreneurs.

Governments and organizations should create gender-sensitive policies that specifically address the unique barriers faced by women entrepreneurs. This includes initiatives aimed at improving women's access to capital, training, networks, and mentorship. Policies should also address gender biases and discriminatory laws that affect women (Marlow et al. 2005).

Managers in financial institutions and investors should be aware of gender biases in decision-making processes and actively seek to overcome them by ensuring gender diversity in investment teams, implementing bias training, and developing financial products tailored to women entrepreneurs (Brush et al. 2009).

Educational institutions and training providers should develop entrepreneurial programs that are not only accessible but also tailored to the specific needs of women entrepreneurs, providing support from both a skill-building and mentorship perspective (Ghosh, 2017).

2. Research design and contents analysis

2.1. Entrepreneurial Education program development (UNINA)

Going more in depth, EE program is composed of objectives, curriculum, pedagogy, assessment, takeaways, and educators. Especially, the objectives of EE programs can range from developing an entrepreneurial mindset to the specific goal of setting up businesses. In turn, the objectives influence the design of the new program and the learning pathways. The curriculum is often interdisciplinary, it is based on skills, project-based learning that intertwine business, entrepreneurial, and relational skills. EE Involves experiential learning, active learning, and other learner-centered approaches. Assessment is structured not just to evaluate knowledge acquisition but also to recognize skills and competences learned. Takeaways includes the process of creating a business and developing new skills and competences. This requests that educators comprehend the theory behind the practice in order to deliver effective lectures. The role of educators relies on “stimulate appetite” as opposed to “causing

indigestion”. The goal is to capture the attention of the students and interest them in the topic. He/she concentrates on the core concepts from the topic and present them with multi-media methods. Those include videos, photos, recordings, etc. These usually succeed in making the topic “come alive” and come across as interesting. Aside from making the topic more interesting, the use of audio-visual material also maximizes students’ memories of the educator. It is noticed that the involvement of more than one sense during a lecture makes the learning stage more firmly in mind (based on Allan Paivio’s dual coding theory, Paivio, 1991). Once students are able to see the relevance of the topic and they remember the core aspects, they are more likely to take the initiative and want to find out more by studying the academic material at their disposal.

Supporting knowledge assimilation (early stages of Bloom’s taxonomy, Bloom, 1956)

Having created the interest for the subject as well as a basic knowledge of it, the educator ensures that students have access to the material they need to assimilate further knowledge. The educator provides them with a balanced mix of seminal theories and recent theoretical developments both in the content of the lectures and in the reading lists. The latter usually include core textbook readings as well cutting edge peer reviewed academic publications.

Developing critical understanding (later stages of Bloom’s taxonomy, Bloom, 1956)

Providing students with a range of sources also enables them to compare and contrast the content of those sources and learn to critically evaluate the strengths and weaknesses of each. The educator encourages students to never take theory at face value but to challenge it and critically evaluate it. This goes towards fostering the critical thinking skills that are paramount in higher education social science.

In order to develop a critical understanding of the discipline, students need to be able to evaluate the extent to which theoretical approaches not only compare to each other but also compare to practice. To this end, the educator makes an extensive use of case studies. Whenever possible the educator invites guest speakers from the practitioners’ world into class. The educator gives case materials to students in advance of classes or seminars, so that they have time to study them in conjunction with the relevant theory or concept.

Cultivating ability to communicate effectively

As students become more and more acquainted with the subject area, the educator develops their ability to communicate their knowledge and thinking in different forms (written reports as well as oral presentations) and to different audiences.

They get the opportunity to receive feedback on the first essay before writing their second essay, thus gradually developing their academic writing skills. Equally important is their ability to develop oral presentation skills early on. Therefore, the educator encourages students to actively participate during the lecture, asking them simple questions so as to develop their confidence over time.

Each time a new concept is explained, the educator checks the facial expressions of students looking for non-verbal feedback (i.e. nodding or confident faces indicate that the student understands the content of the tutorial, whereas puzzled, inquisitive or blank expressions indicate that students are not grasping the content) and then the educator tries to summarize the key concepts by asking some of the students (mainly those who’s facial expression indicate that they are unsure about the concepts) whether:

1. Applications of theories into realms (critical thinking).
2. Understanding of theories (checking understanding).
3. Understanding the level of comprehension (gaging existing knowledge).

And then the educator makes a final check by some practical exercises during the tutorial class.

To more maturity and experienced students, the educator likes to apply an open approach concerning an interactive discussion of case study which students have to read in advance of the class. The case discussion aims to create a problem-based learning environment (Toohey, 1999). This technique improves the learning approach and the application of theory to practice (Huey, 2001). Following the cases discussion, the educator delivers a lecture covering theoretical concepts and frameworks relevant

to the case study discussion. The present approach aims to encourage students to reflect on the case study discussion by situating each aspect of the case study within a specific theoretical framework as well as critically evaluate those frameworks in relation to complex situations. Such approach is intended to encourage students to move beyond memorizing declarative knowledge and towards consciously applying these concepts to the way they think and function (Biggs, 1999). The educator prefers to apply students' experiences with theory so as to reflect entrepreneurial situations, like most business situations, are ambiguous in nature; there is no right or wrong answer and, once in a real life context, the student will need to be able to decide what to do and how. In this respect, students are able to outline the rationale of their choices and make convincing, thoughtful arguments in support of their decisions.

As a result, the educator has acquired a varied perception of teaching based on the kind of subject taught, on the size of the class, and on the students' engagement.

In terms of content, one of the key notions learned by the student is that of theoretical issues in social science research by comparison with real-world, practical issues. As well as describing it, the educator sketches out a model of the shift from real-world issues to conceptual/theoretical issues on paper as a visual aid (Atkins & Brown, 2002) reinforcing the point.

Concluding, in order to support student learning, the educator endeavored to stay open and friendly in order to create a positive emotional climate whereby the student could feel that he is able to share his doubts and anxieties with an educator as a facilitator (based on Goleman, 1998).

2.2. Mapping of entrepreneurial programs for migrants in Italy (2021-2024) (UNIBO)

Migrant entrepreneurship plays a crucial role in economic integration, job creation, and innovation. However, as testified by the extant academic and policy literature, migrant entrepreneurs face significant barriers, including limited access to finance, bureaucratic challenges, and restricted business networks. First, they encounter a limited access to finance, especially in securing start-up capital due to lack of credit history, collateral, and financial literacy (Desiderio, 2014; Solano et al., 2019). Traditional banking institutions often perceive them as high-risk borrowers, leading to reliance on informal financial sources. Second, they face bureaucratic and administrative barriers, as they are unfamiliar with the host country's regulatory framework (Desiderio, 2014; OECD, 2023). Issues such as business registration, taxation, and licensing procedures often pose significant obstacles (Solano et al., 2019). Third, they have a limited knowledge about local consumer behavior, business practices, and supply chains further hinders their ability to scale up (Human Safety Net, 2021). Lastly, migrants often lack access to professional networks, mentorship, and industry connections, which are critical for business success (Bolzani & Scandura, 2021). Without strong ties to local entrepreneurs and investors, their opportunities for business expansion and market penetration are constrained (Solano et al., 2019).

2.2.1. Support measures for migrant entrepreneurs

In light of the main challenges faced by migrant entrepreneurs, several authors have recommended that entrepreneurship support organizations (ESOs) specifically tailor and design incubation and acceleration programs to address migrant entrepreneurs' needs, while offering workspace, business development support, and integration with broader economic networks (Solano et al., 2019). The main support measures identified by previous studies regard:

1. *Business training and capacity building*: structured training programs on business planning, financial management, and marketing can significantly enhance migrant entrepreneurs' competencies. These programs should also include guidance on navigating legal and regulatory frameworks (Desiderio, 2014; Solano et al., 2019).
2. *Access to finance*: microfinance programs, alternative lending schemes like crowdfunding, and credit unions tailored for migrants can help overcome financial barriers, eventually together with financial literacy and advisory services (Desiderio, 2014).
3. *Mentorship and networking*: Connecting migrant entrepreneurs with experienced business

professionals and local industry stakeholders, for instance through culturally-sensitive mentorship programs, can bridge knowledge gaps and enhance business growth (Human Safety Net, 2021).

4. *Digital and technological support:* Providing digital tools, e-learning platforms, and online business resources can help migrant entrepreneurs access essential knowledge and market insights. Digital literacy programs can further support their adaptation to new business environments (Human Safety Net, 2021).

2.2.2. Migrant entrepreneurship in Italy

Migrant entrepreneurship is a consolidated phenomenon in Italy, where the latest data report more than 660,000 firms, representing around 11% of the firms in the country (Infocamere, 2023). Around 73% of these firms are solo enterprises (Infocamere, 2023), which are active across many sectors, especially in retail trade, specialized constructions, restaurants, and manufacturing activities (Infocamere, 2023). Migrants' entrepreneurial activities in Italy have an even geographically distribution, even if the majority is located in the north of Italy, comparing well with the distribution of the migrant population in the country and the different factors of attraction at the local level, such as the available opportunities for work and socio-economic integration (Ministero del Lavoro, 2023). Liguria, Tuscany, and Lombardy are the three regions preferred by non-EU migrant entrepreneurs (respectively 13.4%, 12.8% and 11.4% of the regional total, Infocamere, 2023), but also the localization of activities is stronger in provinces with metropolitan cities, such in the case of Milan, Rome, Turin, and Naples (Ministero del Lavoro, 2023). It is important to underline that some of these territories are characterized by a strong ethnicization of business activities. Most of the time, this ethnicization is accompanied by a specialization into specific industries serving the local economy (e.g., Chinese entrepreneurs in manufacturing; Moroccan or Senegalese entrepreneurs in retail trade and vehicle maintenance; Albanian entrepreneurs in construction) (Infocamere, 2023).

Migrant entrepreneurs generally supply essential business activities for urban economies, such as filling vacancy chains or providing low-skilled servile activities (e.g., Sepulveda et al., 2011; Kloosterman, 2014; Solano, 2020). On the other side, however, the number of migrant entrepreneurs also in high-tech, innovative industries is increasing. For example, our analysis of Italian innovative startups active in 2022 has shown that there were around 1,200 foreign-born directors in 720 firms (around 5% of the innovative startups). In addition, in 2014, the Italian Ministry of Economic Development introduced the Italia Startup Visa (ISV) program, with the goal of facilitating the issue of self-employment visas to non-EU citizens who wish to establish, individually or in a team, an innovative start-up company in Italy. As for other startup visas programs (e.g., Chile in 2010, Canada 2013, South Korea 2013, New Zealand 2014, Taiwan 2015, Australia 2016, Thailand 2018, Japan 2019; Patuzzi, 2019), ISV aims to value the contribution of migrant entrepreneurship to the economy, focusing on early-stage, high-risk, and innovative projects and requiring less bureaucracy (Desiderio, 2010; Patuzzi, 2019).

As Bolzani (2021) highlights, the Italian program is an example of programs focusing on the application process, thus being a “lean” scheme aimed at speeding up the admission process but not at providing entrepreneurs with a more comprehensive set of services. According to the latest report by the Ministry of Economic Development (Ministero dello Sviluppo Economico, 2020), applicants were mostly highly-skilled migrants, i.e., university graduates (around 86%) with backgrounds in IT and engineering, economics and business, and social sciences. Applicants came from 49 different countries, with Russia (22%) and China (21%) leading the list, followed by the U.S. (9%) and Pakistan (9%). While applicants could apply either directly or through a certified incubator, this second route was far less common (9%). Another program named Italian Startup Hub was launched at the end of 2014 to offer a similar fast-track procedure for the conversion of residence permits, allowing non-EU citizens who already hold a residency permit to convert it to one of self-employment and to establish an innovative start-up.

According to the latest data (Ministero dello Sviluppo Economico, 2020), this program received

applications from only 21 individuals and resulted in a successful visa conversion for 17 entrepreneurs. In most cases, these were international students who decided to remain in Italy after obtaining a graduate or post-graduate degree, with the purpose of establishing an innovative start-up. They were 34 years old on average, mostly males (67%). The countries of origin were very diverse, the most common ones being the U.S., India, Iran, South Korea, and Russia (Bolzani, 2021).

2.2.3. The landscape of support measures for migrant entrepreneurs in Italy

Through a desk research and interviews with ten entrepreneurship support organizations in Italy, we have mapped the landscape of entrepreneurship support initiatives specifically available for migrant entrepreneurs in Italy in the period 2021-2025. It is therefore important to underline that this work excludes mainstream, generalist entrepreneurship support organizations or programs which are open to every aspiring entrepreneur, among which those with a migratory background.

In this work, we adopt a wide definition of entrepreneurial support to include any form of dynamic process of business enterprise development, for instance by providing hands-on management assistance, access to financing and orchestrated exposure to critical business or technical support services, in addition to infrastructures for administrative, commercial or productive activities (Serpente et al., 2024). We also maintain a wide definition of migrant entrepreneurs, and adopt the self-description of the target groups of the programs in this regard. In mapping these support programs, we classified their services using the framework developed by Mrkajic (2017) in the following categories:

1. Infrastructure: Providing infrastructural support for basic business operations (e.g. coworking space, access to internet, laboratories for developing prototypes, administrative support, etc.)
2. Business capability development: Providing support in developing business skills of incubated firms and entrepreneurs, such as business training, coaching and mentoring, and link to knowledge sources (e.g., university, incumbent companies, industry experts).
3. Market reach development: Providing support in launching products (goods or services) to the market and accruing financial support, linking the incubated firms to the other relevant stakeholders in the market (e.g. investors, universities, etc.), actors along the value chain (e.g. domestic and international suppliers and clients), and other organizations or institutions that support market reach of the incubated firms.

The mapping exercise resulted in a population of 9 migrant-focused incubation services that were active in the period 2021-2024. A summary of their specific targets and activities is provided in Appendix 1. The population mainly consist of programs offered through the sponsorship of public funding (e.g., European projects) (55%) by diverse organizations – civil society organizations and NGOs (44.4%), social enterprises (33.3%) and private companies oriented to social innovation (22.3%). The majority of programs rely on public or mixed public-private sponsorships (67%) whereas only 33% is privately funded. Therefore, these data suggest that entrepreneurship support programs specifically targeting migrants are not able to survive only with private funds, yet they are more effective if they mix public and private investors.

While several programs are rather open in their definition of the target group, such as “migrants” or “people with migratory background, including second generations”, other programs have more specific targets either from a demographic point of view (e.g., migrant women), from a social status perspective (e.g., migrants, asylum seekers and refugees facing the risk of social exclusion), or an business/industry perspective (e.g., social enterprises; or enterprises with an international vocation).

All of the mapped initiatives offer business capability development, among which three of them (33%) through a virtual platform. Just one initiative offers infrastructures. As suggested by Martinelli and Bolzani (2021), this could be a sign of the different stages of business life that the incubators address. Migrant-specific incubators may concentrate their attention to early-stage projects (e.g., business idea) or on entrepreneurs lacking the basis of entrepreneurship and business development. The lack of infrastructural and market reach development services is a severe limitation in terms of opportunities for the development of the enterprise in later stages.

One final consideration on the population concerns the territorial distribution. By looking at the list of the headquarters of the organizations and the locations where programs are offered, the initiatives are clustered in Milan or across a variety of cities in the Center and South of Italy (Bari, Catanzaro, Palermo, Roma).

2.2.4. Conclusions and Policy recommendations

Migrant entrepreneurship offers significant economic and social benefits, but requires targeted support to overcome financial, administrative, and networking barriers. A comprehensive approach combining business training, financial assistance, mentorship, and policy reforms can create a more enabling environment for migrant entrepreneurs. A number of programs have been created to support migrant entrepreneurship, but some policy recommendations are important to make these initiatives sustainable and effective.

First, there is a need to avoid a fragmented landscape in the domain of migrant entrepreneurship support. Therefore, collaboration between governments, financial institutions, and private sector actors should be fostered to create more sustainable support structures for migrant entrepreneurs. For example, policies should encourage partnerships between incubators, corporate entities, and migrant-led businesses (Desiderio, 2014).

Second, there is a need to design policies based on key insights offered by migrant entrepreneurs. They need to be put center-stage in policy design, implementation and evaluation. To this end, there is a need to build credible pipelines of migrant professionals in public bodies, private companies, universities, entrepreneurial support organizations, and in all the other entrepreneurial ecosystems' institutions (Martinelli & Bolzani, 2021).

Third, migrant entrepreneurship – while certainly needing ad-hoc supports – should be integrated into broader entrepreneurship and economic policies. Rather than treating migrant entrepreneurship as a niche issue, governments should integrate it into national economic policies, ensuring that mainstream business support programs are accessible to migrants (Solano et al., 2019). Similarly, encouraging programs that foster interaction between migrant and native entrepreneurs can help bridge cultural gaps and create mutually beneficial business opportunities. Networking events, co-working spaces, and trade fairs can enhance the chances to make entrepreneurial team more diverse (Solano et al., 2019).

Lastly, continuing simplification of administrative procedures for business registration, taxation, and compliance, together with promoting financial inclusion and alternative finance models (e.g., microcredit, crowdfunding) would significantly ease the evaluation of migrant entrepreneurs' business potential and entry into formal and more diverse business sectors (Desiderio, 2014; Human Safety Net, 2021).

2.3. Upskilling and reskilling to social inclusion

In GRINS, the innovative implementation of the Phygital Centre aims to promote social and economic inclusion of disadvantaged groups by integrating digital solutions with face-to-face involvements for customized re-skilling and up-skilling educational pathways for economic independence and social inclusion.

We recognize a significant gap within the province of Catania that seeks to cover social and educational struggles of marginalized people, through an entrepreneurial educational intervention model that is scalable and offers strong empirical evidence of positive impact. Several case studies demonstrate the success of customized phygital learning environments for disadvantaged groups. The project focuses on blending of digital content with in-person supports to give learners the ability to engage with educational resources at their own pace through mentorship.

Another interesting use of phygital tools is the one for training inmates in vocational programs. These programs use digital replicas of real world tasks that traditional behavioral entrepreneurship can help with and combine it with in-person workshops to get inmates the skills to re-enter society and the

workforce post-release. This balanced approach of theory and application, within a spacious and accommodating environment, guarantees preparedness to join the workforce, as well as to face the challenges of reintegration (Mele et al., 2023).

This Phygital Centre is structured around two key components (a) digital learning platforms and (b) physical community hubs to deliver personalized educational content to target audiences based on their individual needs and progress, as disadvantaged groups, including NEETs, migrants, inmates. The physical hubs, meanwhile, provide spaces for in-person mentorship, practical training, and peer-to-peer interaction.

It should be noted that Phygital Centre offers a comprehensive digital data dictionary based on a carefully organized collection of data sets classified in different categories. Consequently, target audiences identified above are able to receive and utilize personalized contents.

The use of AI in the Phygital Centre aligns with the broader theoretical principles of adaptive learning, which suggest that educational content should be tailored to the individual learner's needs and learning style. By offering a personalized learning experience, the project increases the likelihood that disadvantaged learners will remain engaged and complete their courses (Silvia et al., 2023). Furthermore, the strongly based on AI customization contributes to create a tailored learning experience inside the Phygital Centre in terms of re-skilling and up-skilling, which is one of the key elements of the model of action designed and implemented to support and encourage the development of an entrepreneurial attitude to enhance social inclusion. The focus on NEETs, inmates, and migrants reflects the project's commitment to addressing the needs of some of the most marginalized groups in society.

By focusing on practical, vocational training, the Project ensures that learners are prepared with the skills necessary to thrive in the workforce. This benefits their individual outcomes, while also supporting the broader goal of creating a more inclusive, equitable society (Mele et al., 2023).

GRINS Phygital Centre in Catania was intentionally designed as a scalable, replicable model that can be applied to other territorial contexts, especially those in which it is necessary to improve the entrepreneurial approach to accelerate socio-economic development. The available modules make the project highly adaptable to varied societal and economic settings, presenting a national strategy to tactics addressing social and educational issues. By partnering with local governments, NGOs, and private enterprises, this Phygital Centre aims to expand its reach and impact, creating a network of Phygital centres that serve disadvantaged groups across the country.

Going into more detail, to effectively structure personalized learning paths based on the needs of the target categories, that is disadvantaged groups as NEETs, migrants, inmates, the Phygital Centre will equip itself with a software platform that will fulfill the functions of Data Dictionary with structured data from relational databases, semi-structured data from web pages, social media feeds, raw feed directly from a sensor source, geospatial, e-mail, etc., or unstructured data from video, images, audio, clicks. Data dictionary, in fact, is defined as a centralized repository containing details about the data, including its meaning, links to other data, origin, usage, and format. Data dictionaries are vital for various data management activities, such as facilitating data conversion, testing data generation, validating data, and documenting data usage criteria (Rashid et al., 2020).

2.4.BAC (Com. Sant'Egidio): Business Relationships and Immigrant Development Generating Ecosystems Sustainably (BRIDGES)

Over the last few years, foreign entrepreneurship has undergone significant changes, increasingly emerging as an essential component in Italy's socio-economic development. Despite cultural differences, foreign entrepreneurs—thanks to their adaptability and resilience—have made a substantial contribution to the growth of key sectors and to the creation of new jobs.

The literature for this analysis was compiled using a methodical and selective approach, combining both qualitative and quantitative criteria to ensure a broad representativeness of sources, thereby outlining a multidimensional view of foreign entrepreneurship. The selected documents address specific

aspects of foreign entrepreneurship at the national level, laying the groundwork for further study at the local level. The main statistical source outlining the characteristics of Italy's entrepreneurial landscape and activities led by migrant entrepreneurs is the set of Chambers of Commerce registries. These registries categorize as “immigrant businesses” all enterprises in which the owner (in the case of sole proprietorships) or the majority of shareholders/directors (in the case of corporate business entities) were born abroad. Another noteworthy example is the Unioncamere report (2023), which adopts a quantitative approach to describe the main characteristics of foreign entrepreneurs in Italy, offering a strong statistical basis due to the reliability of the source and the wide scope of the analyzed sample. Compared side by side, these sources present an intriguing balance between breadth and specificity. Nevertheless, two key gaps emerge: the lack of longitudinal local-level studies that track how the phenomenon has evolved over the years and the limited consideration of local support policies.

The literature on foreign entrepreneurship is grounded in well-established analytical models that explain the dynamics behind the phenomenon. Below are some of the most important examples:

- ***Interactive Model by Waldinger (1990)***

Waldinger's (Aldrich and Ward, 1990) model explores interactions between immigrant entrepreneurs and the local socio-economic context, highlighting how ethnic businesses develop in market niches often ignored by native competitors and how these businesses can quickly adapt to economic changes. According to Waldinger, many immigrant entrepreneurs launch their ventures in marginal markets—such as small grocery stores or ethnic restaurants—using family resources and ethnic networks. When these entry markets become saturated and profit margins remain low (often characterized by reduced barriers and minimal regulation), immigrant entrepreneurs develop adaptive strategies to survive in challenging environments, such as cutting operating costs, utilizing family labor, or offering specialized products to ethnic communities.

- ***Mixed Embeddedness Theory by Kloosterman and Rath (2001)***

Developed by Kloosterman and Rath, this model examines the interdependencies among individual, cultural, social, and structural factors that affect how immigrants enter the market and how their businesses succeed, with a focus on both structural and relational embeddedness (Solano and Gaspani, 2017). The theory emphasizes the need to consider not only the entrepreneur's personal resources but also the institutional and market context in which they operate, shaped by local regulations, access to credit, and labor market dynamics.

- ***Kloosterman's Model***

Kloosterman introduces a model that analyzes market opportunities according to the level of human capital required and the potential for growth, classifying markets into four categories: high-skilled stagnant (not very attractive for migrants), “replacement” (low-skilled, stagnant demand, intense price competition), post-industrial low-skilled, and post-industrial high-skilled. Entrepreneurial strategies follow the structure of these markets. In “replacement” markets, for example, entrepreneurs heavily rely on ethnic networks, which provide cohesion to lower costs and support the business. At the same time, such networks can limit expansion if institutional integration to reduce bureaucratic barriers does not take place.

- ***Ethnic and Transnational Networks***

Particular focus should be placed on ethnic and transnational networks, as they serve as social shock absorbers and sources of financial and human resources, helping entrepreneurs adapt to the specific challenges of the local economic system. A noteworthy example is the Chinese community in Italy, which intensively uses ethnic networks to support its businesses, especially in sectors like trade and catering. These local networks not only provide initial capital through informal mechanisms—such as “loan chains” among community members—but also offer flexible, highly reliable labor. Furthermore, cultural embeddedness plays a key role: although migrant-run businesses (like those of the Chinese

community) often introduce work practices and products aimed at specific market niches—such as traditional cuisine, thereby generating a strong cultural identification with the product—they are also able to engage with Italy's institutional and market environment by adapting and diversifying their activities to meet a growing variety of customer needs.

- ***Types of Immigrant Entrepreneurship (Ambrosini, 2011)***

In his study, Ambrosini examines various forms of immigrant entrepreneurship, classifying activities based on the type of product offered and the target market. In particular, he distinguishes between businesses serving only the immigrant community and those addressing a mixed audience, comprising both immigrants and local residents. He also differentiates between activities offering products tied to the immigrants' country of origin and those selling other types of goods. An “ethnic product” is defined as a good reflecting the traditions and cultural characteristics of the immigrants' country or region of origin—for instance, Moroccan tea. An “ethnic market,” meanwhile, is one that caters exclusively to immigrants or people of the same ethnicity, as in the case of call centers that provide services for foreign communities. When a business caters to both foreigners and natives, we speak of a “mixed” market, such as a tour operator organizing trips to immigrants' home countries or a website offering culturally specific information. A market is considered “generalist” when it does not differentiate between immigrants and natives, serving a broader and more diverse public.

Within this framework, “ethnic businesses” are defined by the goods and services they offer to meet immigrants' needs. A typical example is a butcher shop selling Halal meat, prepared according to Islamic religious practices. Another type of business, described as “intermediate,” is not directly tied to ethnic culture but still provides services useful to the immigrant community—such as phone centers that allow immigrants to stay in touch with their families.

Extended Ethnic Businesses offer ethnically oriented products but cater to a mixed clientele of both immigrants and natives. These businesses sell goods from various parts of the world that are not readily available in traditional stores. An example of this type of enterprise is small convenience shops (minimarkets) that stock international products. ***Proximity Businesses***, although focused on providing services for immigrants, also manage to attract local customers due to affordability or service quality, such as travel agencies that offer special packages for immigrants but are also frequented by residents. Another type of business, referred to as ***Exotic***, offers items typical of the owner's country of origin but targets primarily nonforeign customers who are drawn by the novelty and distinctive nature of the products. Restaurants serving traditional international cuisine are an example of exotic businesses, particularly popular among natives for their originality. Lastly, ***Open Businesses*** are those selling products unrelated to the owner's culture of origin. In these cases, the only “foreign” element is the owner. An example might be clothing or leather goods culture of origin. These various types of businesses reflect the range of entrepreneurial initiatives that immigrants have launched to meet their own needs. At the same time, they often attract a broader customer base, fostering cross-cultural exchange and contributing to the diversification of the local market.

2.4.1. The Economic Role of Immigrant Businesses

Immigrants in Italy consistently account for over 8% of the population, with more than 2.3 million immigrant workers contributing over 9% of the country's GDP. In certain sectors, the share goes beyond 14%, for example, in agriculture (15.7%) and construction (14.5%) (Di Pasquale et al., 2023). Analyzing the immigrant workforce shows a predominance of low-skilled or unskilled labor, mainly in seasonal and manual jobs. Meanwhile, foreign workers who hold tertiary degrees (university-level education) and occupy low- or medium-skilled positions surpass 50% on average (Di Pasquale et al., 2023).

Over the last decade, the presence of migrants in Italy's entrepreneurial fabric has risen by 39.7%, according to ISTAT data. On a national scale, most migrant enterprises are micro, small, or medium-sized. The data indicate a “continuous increase in immigrant entrepreneurs, reaching 776,000 in 2023

(10.4% of the total). Over ten years (2013–2023), the number of immigrants grew (+27.3%), while the number of Italians declined (–6.4%). The highest incidence is found in Central-Northern Italy and in Construction, Commerce, and Catering.”¹

Immigrant enterprises are characterized by a strong presence in traditional sectors such as retail, food service, and construction, with a marked geographical concentration in northern regions and economically dynamic urban areas. Statistics indicate that, despite their steady growth, these businesses often face markets characterized by low growth and intense price competition. Migration scholars agree that foreign workers face systematic disadvantages compared to natives in the labor markets of destination countries.

Such disadvantages include greater vulnerability to unemployment and precarious working conditions, downward occupational mobility, and difficulty in accessing higher-level or more specialized positions. These factors also shed light on the motivations driving immigrants toward entrepreneurship, which research shows is largely fueled “from the bottom up” through self-employment and social self-promotion, rather than top-down governance measures by institutions.

National-level literature confirms a growing need for governmental support sought by migrant entrepreneurs—support that is often challenging to access due to factors like language barriers or the complexity of required bureaucratic procedures². From a financial standpoint, migrants are at a disadvantage compared to the native population because they often lack an established credit and financial history, which is crucial for accessing various banking and credit services. Moreover, migrants typically have limited or nonexistent assets, and their earning capacity is generally below average—both because it can be hard to find well-paid jobs and because their professional qualifications may go unrecognized. This economic disadvantage is compounded by the difficulty in having prior work experience fully valued in the host country.

All of these factors contribute to a heightened state of financial vulnerability, increasing the risk of economic and social insecurity among migrants. The lack of economic stability and limited access to financial resources also make them more vulnerable to social exclusion, as persistent financial hardship can hinder full integration into society. At the same time, migrant entrepreneurship is widely recognized as a driver of sustainable growth and a means of bolstering regional competitiveness. It also offers an important pathway for the integration of foreign entrepreneurs into the social fabric of the host community—through engagement with the surrounding environment, the exchange of know-how, and processes of mutual learning.

2.4.2. Financial Inclusion and Entrepreneurial Mobility of Immigrants

An emerging topic in the recent literature on immigrant entrepreneurship, as noted in the previous section, is the importance of financial inclusion³, which stands out as a key factor for the success of businesses run by foreign nationals. According to the Osservatorio Nazionale sull’Inclusione Finanziaria dei Migranti (National Observatory on Financial Inclusion for Migrants), financial inclusion goes beyond merely accessing basic banking services (such as checking accounts and payment cards) to

¹ (<https://integrazionemigranti.gov.it/it-it/Ricerca-news/Dettaglio-news/id/4002/Dai-lavoratori-immigrati-l88--del-PILitaliano>)

² Direzione Generale dell’Immigrazione e delle Politiche di Integrazione. (2012). *Quattrocento idee, zero confini. Progetto Start it up: nuove imprese di cittadini stranieri*. Unioncamere

³ “The set of activities developed to facilitate access to and the effective use of banking services by individuals and organizations not yet fully integrated into the mainstream financial system. These services include credit, savings, insurance, and payment solutions, along with fund and remittance transfers, financial education programs, in-branch reception services, as well as support for small business start-ups.”

(Cespi (ed.), *Le imprese a titolarità immigrata in Italia e l’inclusione finanziaria dei cittadini stranieri*, July 2024, p. 7)

include more advanced tools, such as subsidized loans for businesses, microfinance programs, and financial education support. In most cases, the lack of a solid credit history proves to be an insurmountable barrier for many foreign entrepreneurs, who often find themselves relying on informal financing channels within their own ethnic networks.

The “*Start It Up*” report by Unioncamere highlights how financial education and institutional support form the core of the issue. Specific programs—like “Start It Up” itself—have been set up to provide targeted training aimed at facilitating access to credit and supporting the establishment of new businesses by immigrants. The project was structured in several operational phases, including initial guidance, specialized short courses (8–40 hours) on business culture, relevant legislation, and access to finance, drafting a business plan with personalized mentoring, and microcredit programs. The report also outlines the profiles of aspiring entrepreneurs, focusing on their age (between 25 and 45), level of education (30% holding a university degree), and geographic origin (Sub-Saharan Africa, North Africa, and Asia). The results include 492 supported participants (exceeding the initial goal of 400), 434 completed business plans, and 12 successfully launched new businesses. The project demonstrated a positive impact not only economically, but also socially, fostering integration through entrepreneurship and enhancing perceptions of immigrant entrepreneurs’ skills.

It is worth highlighting the critical issues identified by the report, starting with access to credit, which remains an unresolved challenge: even with the project’s support, many participants struggled to convince banks to grant them financing, often due to a lack of suitable guarantees. Additionally, there is a clear gap in entrepreneurial skills. Although the training courses provided useful tools for managing a business, many participants showed weaknesses in long-term sustainability, particularly during critical stages of growth and consolidation. Another noteworthy aspect for this study was the initial mistrust of institutions. Many participants hesitated to rely on government programs, often due to previous negative experiences with Italy’s complex bureaucratic system. Finally, as mentioned earlier, language and cultural barriers also posed a significant obstacle. Understanding Italy’s complex regulations and local bureaucratic procedures proved particularly difficult for many participants, thus slowing down the entire process of starting a business.

These factors, often underestimated, turned out to be just as critical as the economic and financial barriers. Barriers related to language, culture, and institutional mistrust can be just as critical as economic and financial hurdles. Alongside financial integration, entrepreneurial mobility is another pivotal theme. Studies by Avola and Cortese (2012) on the mobility and career trajectories of immigrant entrepreneurs highlight how these careers often follow non-linear paths, marked by periods of both upward and downward mobility. The ability to exploit market opportunities—combined with personal and social resources—largely determines the success of entrepreneurial ventures. In their work, Solano and Gaspani (2017) delve deeper into the concept of transnational entrepreneurship, showing how many immigrant entrepreneurs build business models that link local and international markets. Such enterprises not only reinforce economic ties between the country of origin and the destination country but also frequently serve as platforms for cultural and commercial exchange. Drawing on Ambrosini’s earlier theories, as already mentioned, the authors identify various types of transnational entrepreneurship, each characterized by specific operating dynamics and economic objectives.

One of the earliest forms is circulatory transnationalism, characterized by frequent physical travel between two geographic contexts. Entrepreneurs move continually to oversee operations, maintain commercial relationships, and ensure the continuity of financial flows between different business locations. A typical example is traders or couriers who run parallel activities in multiple countries, crossing borders regularly to keep each segment of their enterprise functioning efficiently.

Connective transnationalism, on the other hand, does not necessarily require the physical mobility of entrepreneurs. Instead, the entire business model relies on immaterial connections, often enabled by digital or financial tools. Connective entrepreneurs focus on services such as money transfers and telecom hubs (phone centers), using technology and digital networks to maintain both commercial and cultural ties between the two contexts. This model underscores how distance communication and the capacity to connect networks of people and resources are crucial for success.

Another variant is mercantile transnationalism, which centers on the trade of material goods between the countries of origin and destination. In this case, entrepreneurs often do not need to move constantly, relying instead on intermediaries or well-established commercial networks to handle product flows. This approach is common in ethnic shops that import goods directly from origin countries, targeting both immigrant communities and local consumers eager to explore new cultural traditions.

Finally, symbolic transnationalism highlights the cultural dimension of entrepreneurial activities. Here, entrepreneurs employ cultural, symbolic, and identity-based elements from their home countries to create unique commercial experiences in the host country. Ethnic restaurants, traditional dance schools, or cultural centers exemplify this model, tying their commercial value to the ability to offer an authentic representation of the entrepreneur's culture of origin. These venues often become hubs for immigrant communities, reinforcing their sense of identity and belonging in a context that can sometimes feel distant or unfamiliar.

In conclusion, financial inclusion and entrepreneurial mobility are two fundamental pillars for understanding the dynamics of immigrant businesses. Nevertheless, significant challenges remain, including unequal access to financial resources, a lack of specialized training, and the risk of exclusion from formal economic circuits. Additional difficulties arise from regulatory instability, limited access to international markets, and the complexities of managing transnational networks in increasingly dynamic contexts. It is, therefore, essential for public policies to prioritize greater financial inclusivity and to introduce tools that facilitate sustainable economic mobility for immigrant entrepreneurs.

2.4.3. Analysis of Research Tools

The research tools examined below seek to investigate the phenomenon of foreign-owned businesses in the territories of Catania and Messina, which are the focus of the Bridges project. Before delving into an analysis of each tool, it is necessary to clarify what is meant by “foreign-owned business” within the scope of the project and to outline the main objectives that the project aims to achieve.

A necessary starting point for our analysis is the concept of a foreign-owned business. The definition commonly accepted by economic operators is the one formulated by the Ministry of Economy and Finance, according to which a business is considered foreign if its ownership and control are predominantly held by individuals not born in Italy.

The degree of “foreign entrepreneurship” is determined by the greater or lesser involvement of people not born in Italy in the business's controlling bodies and ownership shares. Specifically, the degree of foreign involvement is inferred from the company's legal form, the share of capital held by each partner who was not born in Italy, and the percentage of people not born in Italy serving as directors, owners, or partners. In this sense, the degree of foreign entrepreneurship is categorized as follows: majority (> 50% partners or directors), strong (> 60% partners or directors), and exclusive (100% partners and directors).

Sector-specific studies indicate that this definition does not fully capture the phenomenon of immigrant entrepreneurs in Italy, excluding a substantial share of businesses in which the risk is borne by second generation immigrants. Even though they were born in Italy, they are not immune to the financial and other difficulties faced by foreign entrepreneurs.

The study aims to outline the characteristics of migrant entrepreneurship in Italy through two different types of investigations to be carried out in the metropolitan areas of Catania and Messina: one quantitative and one qualitative. The quantitative approach will be employed to engage with foreign entrepreneurs, using multiple-choice questionnaires designed to bring out the fundamental features of local businesses (origins, development, workforce composition, etc.). The qualitative approach, on the other hand, will be used with the main institutional stakeholders in entrepreneurship, such as the local Chambers of Commerce. During these meetings, a comprehensive interview will be conducted to identify the primary difficulties entrepreneurs encounter in accessing institutional resources.

A reasoned analysis of the results obtained from these two investigative methods will serve as the necessary starting point for developing practical solutions and effective responses to the economic-financial, linguistic, and bureaucratic obstacles foreign entrepreneurs face on a daily basis.

• *The Quantitative Survey: The Questionnaire*

A fundamental part of the research involves administering a questionnaire to foreign entrepreneurs in the local area. At this initial stage of the research, quantitative data prove particularly useful because they allow for precise measurement and analysis of numerical information related to the characteristics of immigrant-owned businesses in Catania and Messina. These data provide objective, generalizable findings.

In fact, the specialized literature reveals differences in how widespread the phenomenon is across Italy. The new *Rapporto Immigrazione e Imprenditoria*, published by the IDOS Study and Research Center in collaboration with CNA—an exhaustive socio-statistical analysis of the characteristics and impact of immigrant entrepreneurship in Italy, extending to regional and local levels in the broader European context — indicates that while foreign-owned businesses are present across the country, they tend to concentrate in economically dynamic urban areas. Further differences can be seen in the legal forms most commonly chosen and the economic sectors in which foreign entrepreneurs typically operate (e.g., food service, trade, construction). Sole proprietorships dominate the entrepreneurial landscape among immigrants, accounting for nearly three-quarters (480,000, i.e. 74.1%) of all immigrant-run businesses. Nevertheless, corporate forms are not uncommon in food service and trade, with a gradual increase in incorporated companies (119,000, or 18.4%). Lastly, a clear majority of owners are male, with women making up 24.6% of the total.

Given the multitude of variables, numerical knowledge of every aspect of the phenomenon—and the subsequent generalization of the results—becomes a necessary starting point for developing a set of shared solutions that could be the subject of institutional support for migrants' economic and entrepreneurial initiatives.

The questionnaire itself consists of 59 multiple-choice questions, divided into dedicated sections. From the outset, it is evident that, at this initial stage of the research, the way questions are formulated and grouped in specific sections is provisional. Based on the results of the first round of administration, certain questions—and their placement—may be adjusted to ensure better clarity and closer alignment with the phenomenon under study.

1. *Section One* is devoted to outlining personal data protection regulations (EU Regulation 2016/679, Italian Legislative Decree no. 196/2003, and Legislative Decree no. 101/2018).
2. *Section Two* focuses on getting to know the entrepreneur, the legal form of the business, and the economic activity performed (via inclusion of the ATECO code).
3. *Section Three* covers the socio-demographic characteristics of the interviewee. They are asked about their family unit, whether they have children born in Italy, and whether they rely on a community of reference for support. These details are crucial, considering that, in many cases, having a community of reference is the only source of assistance when starting a business.
4. *Section Four* aims to reconstruct the interviewee's migration path and subsequent integration in Italy. Here, the interviewee is invited to discuss their arrival in Italy, any stays in other towns in the country, and the reasons that led them to settle in Italy.
5. *Section Five* presents a series of questions focused on the entrepreneur's business activities. The respondent is asked about the business from its inception, including any partners or collaborators involved and the financial resources needed to establish it. Many of the questions in this section explore whether the entrepreneur accessed public funding, loans, or other forms of assistance provided by financial institutions. The section then moves on to outline the work practices within the company.
6. *Section Six* features questions aimed at depicting the company's structure. The entrepreneur is asked about the number of partners and employees, their nationality, and the language they speak. These elements are critical for assessing the extent of foreign entrepreneurship. This section may also reveal the involvement of intermediaries such as accountants or volunteer-

based associations—often the primary points of contact for bureaucratic requirements, which frequently represent one of the greatest challenges to starting and growing a business.

7. *Section Seven* seeks to gauge the level of overall life satisfaction and satisfaction with the entrepreneurial experience in Italy.
8. *Final Section* is reserved for the interviewer's evaluation of the quality of the interview.

- ***The Qualitative Survey: Interviews with Key Stakeholders for Economic Operators***

In addition to quantitative data, qualitative data are also necessary. Qualitative research is crucial for meeting the project's objectives because it allows for an in-depth understanding of the participants' perceptions, motivations, and experiences. The results of this qualitative research aim to provide a rich and nuanced perspective on the phenomenon—particularly regarding the difficulties entrepreneurs face when accessing services—an aspect that becomes critical for the project.

Indeed, as previously mentioned, the project seeks to build a stable, readily navigable “bridge” for foreign nationals who wish to start a business in Italy.

During this initial phase of the research, the qualitative survey was confined to dialogue with the main contacts for economic operators, such as Chambers of Commerce, labor unions, and trade associations. The interviews were designed to shed light on the scope of services available to foreigners who intend to establish a business in the country. In this phase, the interviewer poses very general questions to the subjects, beginning with the level of services offered to foreigners and granting them ample freedom in their responses and the topics they discuss. Although the primary challenges related to accessing services tend to emerge spontaneously, the interviewer must approach this topic carefully, offering relevant points of reflection that the interviewee might otherwise overlook.

From the interviews conducted so far (with the Secretary Generals of the Chambers of Commerce of Catania and Messina), it appears that the main difficulties for both aspiring and established foreign entrepreneurs include the excessive bureaucratization of services, the transition to fully digital processes, and linguistic barriers—such as the lack of translated web pages for registration services. Another noteworthy point is the limited involvement of trade associations and labor unions, which only occasionally agree to meet with foreign entrepreneurs, leading to negative repercussions for training in workplace health and safety. By contrast, individual professionals—such as accountants, who often become key contacts for entire communities of foreign entrepreneurs—and volunteer organizations seem to be more actively engaged.

2.5. BAC (Unisi): Confiscated Assets Reuse through Entrepreneurial Startups (CARES)

The project aims to enhance the management and reuse of assets confiscated from criminal organizations by integrating them into entrepreneurial initiatives that foster social and economic development.

2.5.1. Data collection and analysis

So far, we have interviewed over 100 contacts of social cooperatives that manage one or more confiscated assets from mafia. As you may know, these assets – often land, apartments, buildings, villas, or shops – are granted under temporary concessions (typically for 5, 10, or more years), almost always through public tenders and only rarely through direct allocation.

The interviews have allowed us to identify the main characteristics of these third-sector entities and to understand the predominant management approaches based on their core activities. We aimed to uncover, through direct interviews (each lasting approximately one hour), the possible existence of best practices or successful business models in a highly relevant field – both in terms of the social return of confiscated assets and the symbolic message conveyed in areas with a strong presence of organized crime. This phenomenon is not limited to the South but extends across the entire country.

We asked respondents about the main challenges their entities face and the strategies they have adopted to overcome them. In Appendix, you find the interview guide, which provides further details on the questions and the aspects under investigation.

We are currently systematizing the collected information into a dataset, incorporating both categorical and continuous variables based on interview responses. Our interview process follows a semi-structured format, allowing interviewees greater freedom of expression and enabling a deeper understanding of their perspectives. We experienced delays in the interviews scheduled for early 2025, which prevented us from conducting and transcribing a certain number of interviews, as well as coding the associated variables. By the deadline set for the end of February 2025, we will therefore present a subsample of the total interview data collected – approximately half of the final sample – but we aim to complete this task by the end of March 2025 or as soon as possible.

Next Steps:

1. Sampling a group of social cooperatives that do not manage confiscated assets but are as similar as possible to those that do in terms of geographic location, activities, size, etc.;
2. Conducting semi-structured interviews with the managers of these entities to identify potential differences between the two groups of cooperatives that are not known a priori, considering the scarcity of systematic empirical studies on this topic.

2.5.2. Description of the Dataset

The dataset compiled for this research project provides a structured overview of social cooperatives managing confiscated assets. It includes both categorical and continuous variables derived from phone interviews with cooperative managers, covering key aspects such as economic performance, governance, workforce composition, operational challenges, and strategic approaches. The dataset aims to capture the diversity of experiences among these entities, shedding light on best practices, recurring difficulties, and factors influencing success. By systematically analyzing these variables, we seek to identify patterns that contribute to the effective reuse of confiscated assets for social and economic development.

So far, we have coded and entered data for *48 entities*, managing *84 confiscated assets from mafia* (1 of them has been just assigned). This is slightly less than *half of the final sample*, which consists of just over 100 interviewed entities managing confiscated assets from the mafia.

Let's start with the respondent's profile.

Variable	N	Mean	SD	Min	Max
Età	48	49.62	9.56	26	76

The average respondent's age is 49.6, being 26 and 76 the min and max age, respectively. The age distribution is rather positively skewed.

Gender	Freq.	Percent	Cum.
woman	20	41.67	41.67
man	28	58.33	100.00
Total	48	100.00	

Among our respondents, there are 28 men and 20 women.

Title	Freq.	Percent	Cum.
Diploma Scuola Superiore	1	2.08	2.08
Diploma di Geometra	1	2.08	4.17

Diploma di istituto tecnico	1	2.08	6.25
Diploma di maturità	1	2.08	8.33
Diploma di maturità (liceo scientifico)	1	2.08	10.42
Laura Magistrale in Ortofrutticoltura..	1	2.08	12.50
Laurea	4	8.33	20.83
Laurea	1	2.08	22.92
Laurea Magistrale in Economia con foc..	1	2.08	25.00
Laurea Magistrale in Economia e Gestì..	1	2.08	27.08
Laurea Magistrale in Servizi Sociali ..	1	2.08	29.17
Laurea Magistrale in Sociologia	1	2.08	31.25
Laurea in Agraria	1	2.08	33.33
Laurea in Economia	2	4.17	37.50
Laurea in Economia Aziendale e Gestio..	1	2.08	39.58
Laurea in Economia e Commercio	1	2.08	41.67
Laurea in Economia e master sul terzo..	1	2.08	43.75
Laurea in Farmacia	1	2.08	45.83
Laurea in Filosofia	1	2.08	47.92
Laurea in Giurisprudenza, Master di p..	1	2.08	50.00
Laurea in Lettere	1	2.08	52.08
Laurea in Lettere Moderne	1	2.08	54.17
Laurea in Lingue e specializzazione i..	1	2.08	56.25
Laurea in Medicina, Laurea Scienza de..	1	2.08	58.33
Laurea in Psicologia, master in psico..	1	2.08	60.42
Laurea in Scienze Politiche	1	2.08	62.50
Laurea in Scienze Politiche, Laura ma..	1	2.08	64.58
Laurea in Scienze dell'Educazione	6	12.50	77.08
Laurea in Scienze dell'Educazione e L..	1	2.08	79.17
Laurea in Servizio Sociale	1	2.08	81.25
Laurea in Servizio Sociale, specializ..	1	2.08	83.33
Laurea in Sociologia	2	4.17	87.50
Laurea in Sociologia e Scienze della ..	1	2.08	89.58
Laurea in Teologia	1	2.08	91.67
Laurea in scienze internazionali e di..	1	2.08	93.75
Laurea magistrale in programmazione e..	1	2.08	95.83
Laurea triennale in discipline dell'a..	1	2.08	97.92
Terza media	1	2.08	100.00
-----+-----			
Total	48	100.00	

Our data reveals a high level of educational attainment among the respondents. A significant majority (about 90%) hold university-level degrees, with a notable concentration of master's degrees in fields such as economics, sociology, social services, and political science. This suggests that the sample is predominantly composed of highly educated individuals with advanced expertise in social sciences and management-related disciplines. There is also a strong representation of degrees in education sciences and social services, reflecting the relevance of these fields to the mission and operations of organizations managing confiscated assets. These qualifications likely align with the need for specialized knowledge in social policy, community engagement, and organizational management.

Role	Freq.	Percent	Cum.
-----+-----			
amministratore delegato	1	2.08	2.08
coordinatore	1	2.08	4.17
coordinatore della direzione	1	2.08	6.25
coordinatrice di area	1	2.08	8.33
direttore	1	2.08	10.42
membro CdA	4	8.33	18.75
presidente	21	43.75	62.50
rappresentante legale	1	2.08	64.58
referente	12	25.00	89.58
responsabile	1	2.08	91.67
responsabile area	1	2.08	93.75
responsabile progetto	1	2.08	95.83
vicepresidente	2	4.17	100.00
-----+-----			

Total | 48 100.00

The respondents typically occupy high-level roles (e.g., Presidente or Legal Representative), suggesting that the interviewees hold decision-making and leadership positions within our sample.

Professional Roles	Freq.	Percent	Cum.
----- -----			
agente di sviluppo locale	1	2.08	2.08
agronomo	1	2.08	4.17
assistente sociale	2	4.17	8.33
assistente sociale (giustizia minori)	1	2.08	10.42
assistente sociale, progettista della..	1	2.08	12.50
commercialista, contabile	1	2.08	14.58
coordinatrice servizi di accoglienza,..	1	2.08	16.67
dipendente pubblico, volontario (gest..	1	2.08	18.75
direttore di produzione e sviluppo	1	2.08	20.83
dirigente area strategica, operativa	7	14.58	35.42
dirigente gestione strategica, operat..	2	4.17	39.58
dirigente gestione strategica, operat..	1	2.08	41.67
educatore professionale	3	6.25	47.92
educatore professionale socio pedagog..	1	2.08	50.00
educatrice socio pedagogica	1	2.08	52.08
educatrice, dirigente area strategica..	1	2.08	54.17
educatrice, ricercatrice, progettista	1	2.08	56.25
farmacista	1	2.08	58.33
operatore sociale	2	4.17	62.50
operatore sociale e educatore	6	12.50	75.00
operatore sociale, dipendente ministe..	1	2.08	77.08
operatore sociale, educatore e medico	1	2.08	79.17
ragioniere, gestione servizi sociali	1	2.08	81.25
ragioniere, pedagogista	1	2.08	83.33
responsabile ufficio gare e progettaz..	1	2.08	85.42
sacerdote	1	2.08	87.50
socio con gestione operativa e ammini..	1	2.08	89.58
socio fondatore, consulente commercia..	1	2.08	91.67
socio fondatore, geometra, responsabi..	1	2.08	93.75
socio fondatore, progettista, respons..	1	2.08	95.83
socio lavoratore, formatrice professi..	1	2.08	97.92
socio lavoratore, potatore innestatore	1	2.08	100.00
----- -----			
Total	48	100.00	

We observe a diverse range of professional roles among the respondents, with a significant presence of strategic and operational management positions, and social operators and educators. Additionally, there is notable representation of founding partners involved in consultancy, project management, and administrative responsibilities, reflecting a mix of leadership, technical expertise, and hands-on operational roles. This distribution suggests a workforce combining managerial, social, and technical competencies, essential for the effective management of social initiatives and asset-related operations.

Areas of expertise	Freq.	Percent	Cum.
----- -----			
agricoltura e gestione operativa e st..	1	2.08	2.08
agricoltura e gestione operativa, con..	1	2.08	4.17
agricoltura sociale	1	2.08	6.25
agricoltura sociale, progetti, svilup..	1	2.08	8.33
assistenza sociale, inclusione lavora..	1	2.08	10.42
cooperazione sociale e welfare, inser..	1	2.08	12.50
coordinamento dei servizi sociosanita..	1	2.08	14.58
gestione agricola e trasformazione al..	1	2.08	16.67
gestione amministrativa e finanziaria..	1	2.08	18.75
gestione area finanziaria, operativa ..	1	2.08	20.83
gestione d'impresa, percorsi per adul..	1	2.08	22.92

gestione dei progetti sociali e del t..	1	2.08	25.00
gestione della produzione agricola, t..	1	2.08	27.08
gestione di progetti di inserimento l..	1	2.08	29.17
gestione e coordinamento dell'area "a..	1	2.08	31.25
gestione operativa e sviluppo progett..	1	2.08	33.33
gestione produzione agricola biologic..	1	2.08	35.42
inserimento nel mercato del lavoro di..	1	2.08	37.50
produzione agricola e gestione delle ..	1	2.08	39.58
progettazione di servizi educativi e ..	1	2.08	41.67
progettazione e gestione di servizi s..	1	2.08	43.75
progettazione sociale con focus sulla..	1	2.08	45.83
progetti di politiche attive del lavo..	1	2.08	47.92
pulizie civili industriali	1	2.08	50.00
servizi alle imprese antirackett antiu..	1	2.08	52.08
servizi di tipo socioeducativo, assis..	1	2.08	54.17
servizi educativi e sociali (formazio..	1	2.08	56.25
servizi educativi e sociali (inclusio..	1	2.08	58.33
servizi educativi e sociali (inclusio..	1	2.08	60.42
servizi educativi e sociali (inclusio..	1	2.08	62.50
servizi educativi e sociali (inclusio..	1	2.08	64.58
servizi educativi e sociali (inclusio..	1	2.08	66.67
servizi educativi e sociali (inclusio..	1	2.08	68.75
servizi educativi e sociali (inclusio..	1	2.08	70.83
servizi educativi e sociali, sostegno..	1	2.08	72.92
servizi medici e sociali (inclusione,..	1	2.08	75.00
servizi medici e sociali (inclusione,..	1	2.08	77.08
servizi medici e sociali (inclusione,..	1	2.08	79.17
servizi sociali (casa-famiglia) per d..	1	2.08	81.25
servizi sociali (reinserimento social..	1	2.08	83.33
servizi sociali e agricoltura sociale..	1	2.08	85.42
servizi sociali e gestione di progett..	1	2.08	87.50
servizi sociali, assistenza a giovani..	1	2.08	89.58
servizi sociosanitari (riabilitazione..	1	2.08	91.67
servizi sociosanitari (riabilitazione..	1	2.08	93.75
servizi sociosanitari e gestione di p..	1	2.08	95.83
sviluppo locale, la promozione dell'i..	1	2.08	97.92
sviluppo locale, sviluppo rurale e ge..	1	2.08	100.00
-----+-----			
Total	48	100.00	

The data on respondents' areas of expertise highlights a diverse range of competencies among respondents, with a certain emphasis on agriculture and operational management, and social and educational services – particularly focused on inclusion and social reintegration – which represent a substantial portion of the sample. Additionally, there is notable representation in health and social care services and project management roles, underscoring the importance of social impact, community development, and specialized support services. This distribution reflects the multidimensional nature of the organizations involved, combining expertise in both social welfare and operational management, which are essential for effectively managing socially driven initiatives and community-based projects.

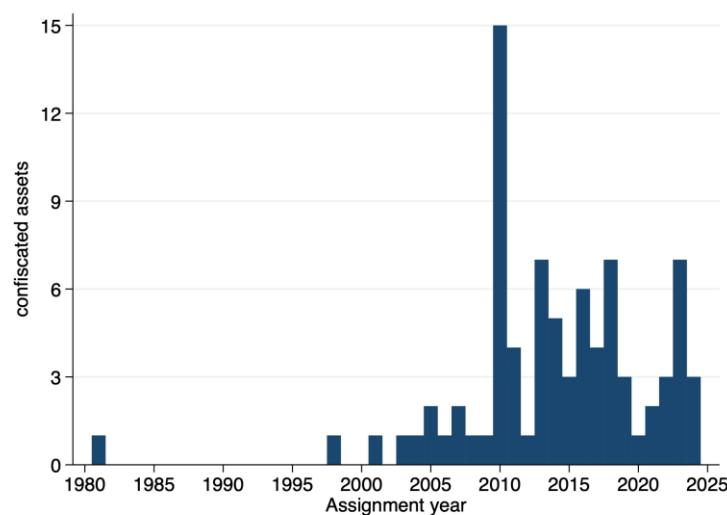
Prior			
experience			
managing			
confiscated			
asset	Freq.	Percent	Cum.
-----+-----			
no	38	79.17	79.17
si	10	20.83	100.00
-----+-----			
Total	48	100.00	

About 10% of respondents already have prior experience managing a confiscated asset.
Now, let's focus on variables regarding the confiscated assets.

Province	Freq.	Percent	Cum.
Agrigento	2	2.41	2.41
Brindisi	1	1.20	3.61
Caltanissetta	1	1.20	4.82
Caserta	11	13.25	18.07
Catania	1	1.20	19.28
Como	1	1.20	20.48
Crotone	1	1.20	21.69
Foggia	2	2.41	24.10
Forlì-Cesena	2	2.41	26.51
Lecco	1	1.20	27.71
Lucca	1	1.20	28.92
Milano	10	12.05	40.96
Napoli	6	7.23	48.19
Novara	1	1.20	49.40
Palermo	15	18.07	67.47
Reggio Calabria	11	13.25	80.72
Roma	2	2.41	83.13
Torino	5	6.02	89.16
Trapani	6	7.23	96.39
Verona	2	2.41	98.80
Viterbo	1	1.20	100.00
Total	84	100.00	

Consistent with the geographical distribution of confiscated assets, our sample shows that the majority of confiscated assets assigned to entities are located in regions with historical criminal activity, particularly Southern Italy, while the presence in the North highlights the transregional expansion of organized crime over time.

Figure 21: Time-distribution of confiscated asset



The distribution of confiscated asset management start dates in our sample highlights a clear trend of increasing activity over time (Figure 21). Early assignment instances of confiscated asset management are few, with only isolated cases recorded between 1981 and 2009, representing a small portion of the total sample (less than 15%). A significant shift emerges from 2010 onwards, with a notable peak in 2010 alone, accounting for 18.07% of the sample. This sharp rise suggests a possible turning point, potentially linked to strengthened institutional support for managing confiscated assets. The momentum continues in subsequent years, with particularly high concentrations in 2013, 2018, and 2023 (each

representing 8.43% of the sample). The steady increase in recent years, including cases from 2022 to 2024, indicates that the phenomenon is not only ongoing but also expanding, reflecting sustained engagement and a growing commitment to utilizing confiscated assets for social purposes. In line with the aim of the CARES project, this distribution suggests that most organizations in our sample are relatively recent in their asset management experience, which could influence both operational strategies and the challenges they face in managing these assets effectively.

Co-management	Freq.	Percent	Cum.
no	74	89.16	89.16
si	10	10.84	100.00
Total	84	100.00	

Only about 10% of the confiscated assets are managed by more than one social cooperative.

Allocation Mode	Freq.	Percent	Cum.
affidamento diretto	10	12.05	12.05
affidamento diretto - bando	18	20.48	32.53
bando	56	67.47	100.00
Total	84	100.00	

The majority of confiscated assets (67.47%) are allocated through public calls (bando), ensuring a competitive and transparent selection process. However, a significant portion (32.53%) involves some form of direct assignment, either fully (12.05%) or in combination with a public call (20.48%). This suggests that, in some cases, direct allocation mechanisms may still play a role, possibly to expedite the process or address specific organizational needs. Overall, the prevalence of public calls highlights a structured approach to asset redistribution, aimed at ensuring fairness, transparency, and the effective use of confiscated assets.

Types of confiscated assets	Freq.	Percent	Cum.
appartamenti, ex maneggio, terreni	1	1.20	1.20
appartamento	12	14.46	15.66
appartamento e terreno	1	1.20	16.87
edifici	2	2.40	19.28
edifici con terreni	2	2.41	21.69
edificio	6	7.23	28.92
edificio (abitazione)	3	3.61	32.53
edificio (appartamento)	1	1.20	33.73
edificio (villa) con terreni	1	1.20	34.94
edificio con terreno	1	1.20	36.14
fabbricato con terreni	1	1.20	37.35
fabbricato con terreno	1	1.20	38.55
immobili e terreni	1	1.20	39.76
negozio	4	4.82	44.58
palazzina	1	1.20	45.78
terreni	14	16.87	62.65
terreni (11 lotti)	1	1.20	63.86
terreni (22 lotti)	1	1.20	65.06
terreni (3 lotti)	2	2.41	67.47
terreni (6 lotti)	2	2.41	69.88
terreni (N/A)	2	2.41	72.29
terreni agricoli	3	3.61	75.90
terreni agricoli e strutture ricettive	1	1.20	77.11
terreni con edifici	2	2.41	79.52

terreni con edificio	1	1.20	80.72
terreni con piccola abitazione	1	1.20	81.93
terreni e casale	1	1.20	83.13
terreno	4	4.82	87.95
terreno boschivo	1	1.20	89.16
terreno con edificio	1	1.20	90.36
terreno con fabbricato	1	1.20	91.57
terreno e complesso di case	1	1.20	92.77
villa	2	2.41	95.18
villa con giardino	3	3.61	98.80
villetta e terreni	1	1.20	100.00

Total	83	100.00	

Our data provides an overview of the types of confiscated assets, showing a prevalence of residential properties and land. Apartments (14.46%) and various types of buildings (over 10%) make up a significant portion, highlighting the frequent confiscation of real estate assets. Additionally, land (terreni) in different forms accounts for a substantial share (over 30%), often in combination with buildings or agricultural use. This distribution reflects the diverse nature of confiscated assets, ranging from individual apartments and villas to larger estates, agricultural land, and commercial spaces. Our sample suggests that many of these properties require adaptive reuse strategies, depending on their size, location, and prior function.

Activities in the confiscated assets	Freq.	Percent	Cum.

[Ancora non gestito]	1	1.20	1.20
[Bene in fase di ristrutturazione e c..	1	1.20	2.41
accoglienza e il reinserimento social..	1	1.20	3.61
accoglienza residenziale per donne vi..	1	1.20	4.82
accoglienza temporanea e accompagname..	1	1.20	6.02
accoglienza temporanea e accompagname..	1	1.20	7.23
agricoltura biologica con una diversi..	9	10.84	18.07
agricoltura biologica con una diversi..	7	8.43	26.51
agricoltura biologica con una diversi..	1	1.20	27.71
agricoltura biologica e sperimentale,..	1	1.20	28.92
agricoltura biologica e trasformazion..	1	1.20	30.12
agricoltura biologica, struttura rice..	1	1.20	31.33
agricoltura sociale	1	1.20	32.53
agricoltura sociale biologica	1	1.20	33.73
alloggio per autonomia per donne sole..	1	1.20	34.94
asilo nido, corsi e attività per fam..	1	1.20	36.14
casa dell'autonomia per ragazze dai 1..	1	1.20	37.35
casa per autonomia dopo di noi per pe..	1	1.20	38.55
case-famiglia, supporto psicologico e..	1	1.20	39.76
centro cottura pasti, centro di accog..	1	1.20	40.96
centro di aggregazione per giovani NE..	1	1.20	42.17
centro di riabilitazione per le perso..	1	1.20	43.37
centro diurno per anziani che offre s..	1	1.20	44.58
centro diurno per giovani adulti con ..	1	1.20	45.78
centro polifunzionale: centro di aggr..	1	1.20	46.99
centro ricreativo ed educativo per ba..	1	1.20	48.19
cioccolateria sociale (commercio e se..	1	1.20	49.40
co-housing	1	1.20	50.60
coltivazione e vendita prodotti agric..	2	2.41	53.01
coltivazione e vendita prodotti agric..	1	1.20	54.22
coltivazione, trasformazione e vendit..	1	1.20	55.42
coltivazione, trasformazione e vendit..	3	3.61	59.04
coltivazione, trasformazione e vendit..	1	1.20	60.24
comunità alloggio per donne in diffic..	1	1.20	61.45
comunità dopo di noi per persone con ..	1	1.20	62.65
comunità minori da 4/5 a 18 anni	1	1.20	63.86
comunità minori, servizi per anziani,..	1	1.20	65.06
comunità residenziale per bambini da ..	1	1.20	66.27

doposcuola per ragazzi, supporto per ..	1	1.20	67.47
ente di formazione professionale, age..	1	1.20	68.67
gestione agricola del terreno con pro..	1	1.20	69.88
gestione di un Bike Hostel con attivi..	1	1.20	71.08
housing sociale, educazione e sostegn..	3	3.61	74.70
inizialmente un centro per lo sportel..	1	1.20	75.90
negozio di prodotti tipici siciliani	1	1.20	77.11
parco pubblico ad accesso libero e sp..	1	1.20	78.31
percorsi riabilitativi per persone co..	1	1.20	79.52
produzione agricola (olio e uva), tra..	1	1.20	80.72
produzione agricola biologica	4	4.82	85.54
produzione agricola biologica, lavora..	1	1.20	86.75
produzione agricola, trasformazione e..	2	2.41	89.16
produzione agricola, trasformazione e..	1	1.20	90.36
sartoria sociale: inclusione lavorati..	1	1.20	91.57
scuola per burattinai e cantastorie, ..	1	1.20	92.77
sede legale, ente di formazione profe..	1	1.20	93.98
sentiero natura per passeggiate e for..	1	1.20	95.18
servizi al disagio psichico, laborato..	1	1.20	96.39
spazio per attività socio aggregative	1	1.20	97.59
uffici e punto di ascolto per il coor..	1	1.20	98.80
uffici, più ambienti da destinare al ..	1	1.20	100.00
-----+-----			
Total	83	100.00	

We observe the various range of activities carried out on confiscated assets, highlighting their social impact and multifunctionality. A significant portion of these assets is used for agricultural initiatives, particularly organic and social farming, which together account for a substantial share of the sample. These activities not only promote sustainable agriculture but also provide employment and social reintegration opportunities. Another key category includes social services and housing initiatives, such as temporary housing for vulnerable groups, community homes, and rehabilitation centers. These uses emphasize the role of confiscated assets in supporting marginalized communities, including women victims of violence, young people, and individuals with disabilities. Additionally, some assets have been repurposed for educational, training, and cultural activities, including after-school programs, vocational training centers, and recreational spaces. This suggests an effort to maximize public benefit and foster community engagement through innovative and inclusive projects. Overall, the data show that confiscated assets are being transformed into valuable social resources, reinforcing their potential in local development, social inclusion, and economic regeneration.

Asset condition	Freq.	Percent	Cum.
-----+-----			
very poor	23	28.75	28.75
poor	20	25.00	53.75
fair	17	21.25	75.00
good	17	21.25	96.25
very good	2	2.50	98.75
excellent	1	1.25	100.00
-----+-----			
Total	80	100.00	

Given that this data represents the condition of the asset at the time of assignment to the cooperative, it highlights the significant challenges these organizations face upon receiving confiscated properties. More than half of the assets (53.75%) are in very poor or poor condition, indicating that many require substantial restoration efforts before they can be operational. An additional 21.25% are rated as fair, suggesting that while these assets may be usable, they still need improvement. Only a small fraction (24%) of assets are assigned in good, very good or excellent condition, meaning that in most cases,

cooperatives must invest considerable resources in renovations before they can effectively utilize the properties. These findings underscore the structural and financial burdens placed on cooperatives, which often have to secure funding, manage bureaucratic processes, and undertake renovations to transform these assets into viable social or economic projects.

Asset improvement since assignment	Freq.	Percent	Cum.
N/A	3	3.61	3.61
alto	51	61.45	65.06
basso	14	16.87	81.93
medio	15	18.07	100.00
Total	83	100.00	

The responses on commitment to improving the asset since assignment shows that most cooperatives have made significant efforts in enhancing the condition of confiscated properties. Over 60% of respondents report a high level of commitment, indicating that most organizations invest considerable resources—financial, managerial, and operational—into improving the assets they receive. Around 18% report a medium level of commitment, suggesting a moderate but still relevant effort. Only 16.87% indicate a low level of commitment, which may be due to financial constraints, bureaucratic hurdles, or good conditions of the asset's initial condition. The high engagement levels reflect the importance of these assets for the cooperatives' activities and their willingness to invest in their restoration and functionality.

Motivation	Freq.	Percent	Cum.
affrontare direttamente le criticità ..	1	1.20	1.20
bando pubblico per costituzione coope..	1	1.20	2.41
bando pubblico per costituzione coope..	1	1.20	3.61
inserimento lavorativo persone con sv..	1	1.20	4.82
opportunità economica (basso costo) e..	1	1.20	6.02
opportunità economica e ritorno socia..	9	10.84	16.87
opportunità economica e ritorno socia..	2	2.41	19.28
opportunità economica e ritorno socia..	18	21.69	40.96
opportunità economica, ampliamento se..	1	1.20	42.17
ritorno sociale delle attività	10	12.05	54.22
ritorno sociale delle attività (crear..	1	1.20	55.42
ritorno sociale delle attività (forma..	1	1.20	56.63
ritorno sociale delle attività (la vo..	1	1.20	57.83
ritorno sociale delle attività (proge..	1	1.20	59.04
ritorno sociale delle attività (proge..	1	1.20	60.24
ritorno sociale delle attività (proge..	1	1.20	61.45
ritorno sociale delle attività (scelt..	1	1.20	62.65
ritorno sociale delle attività (valor..	1	1.20	63.86
ritorno sociale delle attività e oppo..	1	1.20	65.06
ritorno sociale delle attività e oppo..	1	1.20	66.27
ritorno sociale delle attività e oppo..	4	4.82	71.08
ritorno sociale delle attività e oppo..	6	7.23	78.31
ritorno sociale delle attività e oppo..	1	1.20	79.52
ritorno sociale delle attività e oppo..	1	1.20	80.72
ritorno sociale delle attività e oppo..	1	1.20	81.93
ritorno sociale delle attività, inse..	1	1.20	83.13
ritorno sociale delle attività, ampli..	3	3.61	86.75
ritorno sociale delle attività, assun..	1	1.20	87.95
ritorno sociale delle attività, inser..	3	3.61	91.57
ritorno sociale delle attività, inser..	1	1.20	92.77
ritorno sociale delle attività, inser..	1	1.20	93.98

ritorno sociale delle attività, inser..	1	1.20	95.18
ritorno sociale delle attività, oppor..	1	1.20	96.39
ritorno sociale delle attività, sede ..	1	1.20	97.59
ritorno sociale delle attività, valor..	1	1.20	98.80
valorizzare i beni confiscati per evi..	1	1.20	100.00
-----+-----			
Total	83	100.00	

The motivations behind the reuse of confiscated assets highlight a strong focus on social impact and economic opportunities. A large portion of initiatives emphasize the *"ritorno sociale delle attività"* (social return of activities), which includes efforts to promote social inclusion, support for vulnerable groups (e.g., women victims of violence, people with disabilities, former detainees, and young people in difficulty), and community engagement. At the same time, many projects also incorporate an *"opportunità economica"* (economic opportunity) component, particularly in the form of job creation, vocational training, and sustainable local development. Agricultural activities, social enterprises, and cultural initiatives frequently emerge as means of combining legal, economic, and environmental regeneration.

What follows concerns the profile of the recipient organization.

Surveyed entities	Freq.	Percent	Cum.
-----+-----			
ATI - Cooperative sociali - Tipo A e B	1	2.08	2.08
Associazione di promozione sociale (A..	2	4.17	6.25
Associazione di volontariato	1	2.08	8.33
Associazione di volontariato (ODV)	1	2.08	10.42
Consorzio - 13 Cooperative (di tipo A..	1	2.08	12.50
Consorzio di cooperative sociali, reg..	1	2.08	14.58
Cooperativa sociale - Tipo A	12	25.00	39.58
Cooperativa sociale - Tipo A e B	15	31.25	70.83
Cooperativa sociale - Tipo B	14	29.17	100.00
-----+-----			
Total	48	100.00	

Social cooperatives are the predominant types of surveyed entities to which confiscated assets are assigned, with “Cooperativa sociale - Tipo A e B” (31.25%), “Cooperativa sociale - Tipo B” (29.17%), and “Cooperativa sociale - Tipo A” (25.00%) collectively making up over 85% of the total. Other recipients include associations for social promotion and volunteer organizations, as well as consortia of cooperatives, although they represent a much smaller share of the total.

Action Plan	Freq.	Percent	Cum.
-----+-----			
N/A	1	1.20	1.20
no (predisposto già dal comune)	1	1.20	2.41
si	81	97.59	100.00
-----+-----			
Total	83	100.00	

Level of formalization	Freq.	Percent	Cum.
-----+-----			
N/A	1	1.20	1.20
alto	4	4.82	6.02
basso	45	54.22	60.24
medio	33	39.76	100.00
-----+-----			
Total	83	100.00	

Our interviews indicate that almost all entities (97.59%) have an action plan in place, confirming a widespread commitment to structured asset management. However, when examining the degree of formalization, a different picture emerges. A relatively low or medium level of formalization is predominant, with 54.22% of entities reporting a low degree of formalization and 39.76% a medium one. This suggests that while action plans exist, they are often not extensively documented or institutionalized. Only a small fraction (4.82%) of entities reports a high degree of formalization, highlighting a gap in structured planning and written documentation. This pattern may reflect resource constraints, a preference for flexible approaches, or a lack of standardized procedures, which could impact long-term sustainability and strategic implementation.

Objectives	Freq.	Percent	Cum.
N/A	2	2.41	2.41
aumento capacità produttiva e ricetti..	1	1.20	3.61
aumento redditività, crescita fattura..	4	4.82	8.43
inserimento al lavoro di persone svan..	1	1.20	9.64
inserimento lavorativo di persone sva..	4	4.82	14.46
inserimento lavorativo di persone sva..	1	1.20	15.66
inserimento lavorativo di persone sva..	1	1.20	16.87
inserimento lavorativo di persone sva..	5	6.02	22.89
inserimento lavorativo di persone sva..	1	1.20	24.10
inserimento lavorativo di persone sva..	1	1.20	25.30
massima capacità accoglienza	5	6.02	31.33
massima capacità accoglienza, autonom..	1	1.20	32.53
massima capacità accoglienza, raggiun..	1	1.20	33.73
massima capacità accoglienza, raggiun..	1	1.20	34.94
massima capacità accoglienza, raggiun..	3	3.61	38.55
massima capacità accoglienza, tutela ..	1	1.20	39.76
massima fruibilità dei servizi offert..	4	4.82	44.58
massima fruibilità dei servizi offert..	1	1.20	45.78
massima fruibilità dei servizi offert..	1	1.20	46.99
massima fruibilità dei servizi offert..	1	1.20	48.19
massima fruibilità dei servizi offert..	1	1.20	49.40
massima fruibilità dei servizi offert..	1	1.20	50.60
massima fruibilità dei servizi offert..	1	1.20	51.81
massima fruibilità e inserimento al l..	1	1.20	53.01
massimo numero di iniziative	1	1.20	54.22
massimo numero di iniziative, rientro..	1	1.20	55.42
massimo supporto a privati e piccoli ..	1	1.20	56.63
offrire un servizio educativo di qual..	1	1.20	57.83
ricerca profitto oltre a sostenibilit..	1	1.20	59.04
sostenibilità economica (chiudere la ..	5	6.02	65.06
sostenibilità economica (consolidare ..	1	1.20	66.27
sostenibilità economica progetto (aum..	1	1.20	67.47
sostenibilità economica progetto (aum..	1	1.20	68.67
sostenibilità economica progetto, mas..	1	1.20	69.88
sostenibilità economica progetto, mas..	1	1.20	71.08
sostenibilità economica, aumentare il..	1	1.20	72.29
sostenibilità economica, inserimento ..	11	13.25	85.54
sostenibilità economica, inserimento ..	1	1.20	86.75
sostenibilità economica, inserimento ..	1	1.20	87.95
sostenibilità economica, inserimento ..	4	4.82	92.77
sostenibilità economica, inserimento ..	1	1.20	93.98
sostenibilità economica, inserimento ..	1	1.20	95.18
sostenibilità economica, inserire rag..	1	1.20	96.39
sostenibilità economica, massima capa..	1	1.20	97.59
sostenibilità economica, massima frui..	1	1.20	98.80
trovare lavoro alle badanti e di sup..	1	1.20	100.00
Total	83	100.00	

The objectives of the entities managing confiscated assets reflect a dual focus on social impact and economic sustainability. A recurring priority is the inclusion of disadvantaged individuals (e.g., former detainees, people with disabilities, migrants, and individuals facing social or economic hardship) through job placement, vocational training, and economic empowerment. Many initiatives aim to make confiscated assets productive, particularly in agriculture, sustainable tourism, and social enterprises, ensuring that these properties generate long-term value. Additionally, a strong emphasis on community engagement and awareness-raising emerges, with entities seeking to promote legality, social justice, and responsible citizenship. The concept of "massima fruibilità" (maximum accessibility and service provision) also appears frequently, underlining a commitment to making these spaces open and beneficial to the broader community. Finally, economic sustainability is a key concern, with many organizations striving to increase revenues, optimize resources, and develop self-sustaining business models. The combination of economic and social objectives highlights the transformative potential of confiscated assets, turning them into vehicles for local development, inclusion, and ethical entrepreneurship.

Indicators	Freq.	Percent	Cum.
indicatori economici attività agrico..	1	1.20	1.20
indicatori economici attività agrico..	4	4.82	6.02
indicatori economici delle attività ..	1	1.20	7.23
indicatori economici delle attività ..	4	4.82	12.05
N/A	3	3.61	15.66
afflusso di persone, visite scuole, e..	1	1.20	16.87
afflusso di persone, visite scuole, i..	1	1.20	18.07
indicatori economici (analisi costi, ..	1	1.20	19.28
indicatori economici (analisi costi, ..	1	1.20	20.48
indicatori economici (fatturato e ana..	1	1.20	21.69
indicatori economici (fatturato e ana..	1	1.20	22.89
indicatori economici (fatturato, cost..	8	9.64	32.53
indicatori economici (fatturato, moni..	5	6.02	38.55
inserimento persone svantaggiate, num..	1	1.20	39.76
inserimento persone svantaggiate, ric..	4	4.82	44.58
inserimento persone svantaggiate, ric..	2	2.41	46.99
inserimento persone svantaggiate, tar..	1	1.20	48.19
integrazione sociale e economica (red..	3	3.61	51.81
integrazione/affido/adozione minori	1	1.20	53.01
monitoraggio periodico del bilancio e..	1	1.20	54.22
numero di accessi e soddisfazione ute..	1	1.20	55.42
numero di badanti formate e inserite ..	1	1.20	56.63
numero di eventi culturali e artistic..	1	1.20	57.83
numero di iniziative, attività assoc..	1	1.20	59.04
numero di iscrizioni al nido e percen..	1	1.20	60.24
numero di persone coinvolte nei perco..	1	1.20	61.45
numero iniziative, soddisfazione degl..	1	1.20	62.65
numero utenti e loro caratteristiche,..	1	1.20	63.86
numero utenti, soddisfazione utenti	2	2.41	66.27
numero utenti, target raggiunti del p..	1	1.20	67.47
partecipazione ragazzi, questionari e..	1	1.20	68.67
percezione positiva di quello che si ..	5	6.02	74.70
produttività (resa agricola e vendit..	1	1.20	75.90
produttività e redditività coltivazio..	2	2.41	78.31
produttività e redditività coltivazio..	1	1.20	79.52
registro affluenza, progressi sociali..	1	1.20	80.72
registro presenze, ricavi commerciali..	2	2.41	83.13
saturazione posti letto, numero di ra..	2	2.41	85.54
soddisfazione degli utenti	1	1.20	86.75
soddisfazione degli utenti, afflusso ..	1	1.20	87.95
soddisfazione degli utenti, numero pr..	1	1.20	89.16
soddisfazione degli utenti, target ra..	1	1.20	90.36
soddisfazione degli utenti, target ra..	1	1.20	91.57

soddisfazione degli utenti, utente ab..	1	1.20	92.77
soddisfazione e inserimento persone s..	1	1.20	93.98
soddisfazione e numero utenti	3	3.61	97.59
target P.E.I. (Piano Educativo Indivi..	1	1.20	98.80
tasso saturazione posti e servizi, qu..	1	1.20	100.00

Total | 83 100.00

Measurement	Freq.	Percent	Cum.
N/A	3	3.61	3.61
altro	11	13.25	16.87
semplice e diretta	69	83.13	100.00
Total	83	100.00	

Communication	Freq.	Percent	Cum.
N/A	3	3.61	3.61
alta	39	46.99	50.60
bassa	2	2.41	53.01
media	39	46.98	100.00
Total	83	100.00	

Transparency	Freq.	Percent	Cum.
N/A	3	3.61	3.61
alta	61	73.49	77.11
media	19	22.89	100.00
Total	83	100.00	

The indicators used by the entities to measure their activities and target achievements reflect a combination of economic, social, and impact-driven "metrics". A major focus is on social inclusion, with many entities tracing the number of disadvantaged individuals integrated into the workforce, their progress in personalized social or educational programs, and their economic and housing autonomy. This highlights a strong commitment to empowerment and long-term social sustainability. At the same time, economic indicators such as revenues, agricultural productivity, cost analysis, and profitability play a crucial role, ensuring, at least in principle, that the projects are financially sustainable while generating social value. Other key indicators include community engagement measures, such as attendance at educational and cultural events, participation in training programs, and collaboration with schools and associations, showing that these initiatives aim not only at economic viability but also at spreading awareness on legality, ethical entrepreneurship, and responsible citizenship. It is worth highlighting that the mentioned indicators are often measured directly rather than formally, although they are frequently communicated transparently to the workforce and other stakeholders.

Monitoring	Freq.	Percent	Cum.
N/A	3	3.61	3.61
alto	2	2.41	6.02
basso	4	4.82	10.84
medio	14	16.87	27.71
medio-alto	35	42.17	69.88
medio-basso	25	30.12	100.00
Total	83	100.00	

Feedback employee	Freq.	Percent	Cum.
N/A	3	3.61	3.61
alto	13	15.66	19.28
basso	13	15.66	34.94
medio	54	65.06	100.00
Total	83	100.00	

The analyses of collected responses show that while some level of monitoring and feedback is in place, organizations could further standardize and formalize these processes to enhance transparency, effectiveness, and responsiveness to both performance targets and employee experiences.

Founding Sources	Freq.	Percent	Cum.
N/A	2	2.41	2.41
altre attività cooperativa, bandi pub..	1	1.20	3.61
altre attività cooperativa, quota aff..	1	1.20	4.82
altre attività del consorzio	1	1.20	6.02
altre attività della cooperativa	1	1.20	7.23
altre attività della cooperativa, rep..	1	1.20	8.43
altre attività della cooperativa, rep..	1	1.20	9.64
altre attività della cooperativa, rep..	1	1.20	10.84
bandi pubblici, ricavi bistrot	1	1.20	12.05
contributi famiglie	1	1.20	13.25
contributi soci, donazioni	1	1.20	14.46
fondazione privata, quota affitto ben..	1	1.20	15.66
fondi da bandi pubblici	1	1.20	16.87
fondi da progetti	1	1.20	18.07
fondi da progetti (pubblici)	2	2.41	20.48
fondi pubblici e privati per la ristr..	1	1.20	21.69
reperimento fondi (bandi fondazioni)	1	1.20	22.89
reperimento fondi (bandi fondazioni),..	1	1.20	24.10
reperimento fondi (bandi fondazioni, ..	1	1.20	25.30
reperimento fondi (bandi fondazioni, ..	1	1.20	26.51
rette e integrazioni pubbliche	1	1.20	27.71
rette pubbliche	7	8.43	36.14
rette pubbliche (comuni, distretti, A..	1	1.20	37.35
rette pubbliche da progetto	1	1.20	38.55
rette pubbliche sociosanitarie, quota..	1	1.20	39.76
rette pubbliche, bandi di progettazio..	1	1.20	40.96
rette pubbliche, contributi privati p..	1	1.20	42.17
rette pubbliche, reperimento fondi pe..	3	3.61	45.78
ricavi commerciali agricoli	11	13.25	59.04
ricavi commerciali agricoli e servizi..	1	1.20	60.24
ricavi commerciali agricoli e servizi..	1	1.20	61.45
ricavi commerciali agricoli e servizi..	1	1.20	62.65
ricavi commerciali agricoli, bandi pu..	1	1.20	63.86
ricavi commerciali agricoli, fondi pr..	1	1.20	65.06
ricavi commerciali agricoli, fondi pr..	1	1.20	66.27
ricavi commerciali agricoli, fondi pr..	3	3.61	69.88
ricavi commerciali agricoli, fondi pr..	1	1.20	71.08
ricavi commerciali agricoli, fondi pr..	5	6.02	77.11
ricavi commerciali agricoli, ricavi a..	8	9.64	86.75
ricavi commerciali negozio	1	1.20	87.95
ricavi commerciali prodotti agricoli	1	1.20	89.16
ricavi commerciali prodotti agricoli,..	1	1.20	90.36
ricavi commerciali, reperimento fondi..	1	1.20	91.57
ricavi dai servizi dell'ostello e fin..	1	1.20	92.77
ricavi dalle attività della cooperati..	1	1.20	93.98
ricavi delle attività di manutenzione..	1	1.20	95.18
servizi di accoglienza per migranti e..	4	4.82	100.00

Total | 83 100.00

The data on primary sources of funding highlights a diverse mix of revenue streams among the entities managing confiscated assets. A significant portion of organizations rely on commercial revenues from agricultural activities, agritourism, and other cooperative services, indicating an effort to achieve economic sustainability through productive activities. At the same time, public funding plays a crucial role, particularly through public fees (rette pubbliche) for social and healthcare services, as well as grants from public and private calls (bandi pubblici e privati, fondazioni). Some entities also diversify their income through project-based funding, donations, and micro-revenues, such as renting spaces or providing specialized services (e.g., maintenance, education, tourism, and social services). This variety of funding mechanisms suggests a hybrid financial model, where organizations balance self-sustaining revenues with external financial support to ensure long-term viability and impact.

Economic performance	Freq.	Percent	Cum.
N/A	5	6.02	6.02
negativa	24	28.92	34.94
neutrale	27	32.53	67.47
positiva	27	32.53	100.00
Total	83	100.00	

Evolution of economic performance	Freq.	Percent	Cum.
N/A	6	7.23	7.23
crescente	36	43.37	50.60
decrescente	11	13.25	63.86
decrescente (ultimi anni)	6	7.23	71.08
stabile	24	28.92	100.00
Total	83	100.00	

Economic Sustainability	Freq.	Percent	Cum.
N/A	4	4.82	4.82
negativa (copertura costi volutamente..	1	1.20	6.02
negativa (di per sé non si ha una cop..	1	1.20	7.23
negativa (dipende quasi esclusivamente..	1	1.20	8.43
negativa (dipende totalmente dagli ap..	1	1.20	9.64
negativa (dipende totalmente dalle al..	1	1.20	10.84
negativa (dipende totalmente dalle al..	3	3.61	14.46
negativa (in balia delle fluttuazioni..	13	15.66	30.12
negativa (partiti recentemente, si st..	2	2.41	32.53
positiva	7	8.43	40.96
positiva (coprire i costi di gestione..	1	1.20	42.17
positiva (coprire i costi di gestione..	5	6.02	48.19
positiva (coprire i costi di gestione)	43	51.81	100.00
Total	83	100.00	

Our data presents a mixed picture regarding the economic performance and sustainability of the entities managing confiscated assets.

About 32.53% of entities report positive economic performance, while an equal share remains neutral. However, a significant 28.92% report negative performance, indicating financial struggles for some organizations. 43.37% of organizations report economic growth, suggesting that many have been able

to strengthen their financial position over time. However, 13.25% indicate a decline, with an additional 7.23% experiencing deterioration in recent years, signaling potential vulnerabilities. 28.92% describe their performance as stable, which may reflect financial resilience or limited capacity for expansion.

More than half (51.81%) of the entities report positive sustainability, meaning they can cover operational costs. 15.66% state that they are highly dependent on external financial fluctuations, making their stability uncertain. Several entities still rely entirely or significantly on external funding (public or private grants, subsidies, or voluntary contributions), highlighting ongoing financial dependency risks.

Therefore, it turns out that while many organizations are financially stable or improving, a substantial portion faces economic challenges, external funding dependence, or declining revenues. This underscores the need for diversified and sustainable revenue models to ensure long-term viability and reduce financial uncertainty.

Social Performance	Freq.	Percent	Cum.
N/A	4	4.82	4.82
media	25	30.12	34.94
molto positiva	10	12.05	46.99
positiva	44	53.01	100.00
Total	83	100.00	

Evolution of social performance	Freq.	Percent	Cum.
N/A	5	6.02	6.02
negativa	2	2.41	8.43
positiva	69	83.13	91.57
stabile	7	8.43	100.00
Total	83	100.00	

Social sustainability	Freq.	Percent	Cum.
N/A	4	4.82	4.82
negativa	1	1.20	6.02
neutrale	10	12.05	18.07
ottima	13	15.66	33.73
positiva	55	66.27	100.00
Total	83	100.00	

In our sample, we observe an overall positive picture regarding the social performance and sustainability of the entities managing confiscated assets.

The vast majority of entities report positive (53.01%) or very positive (12.05%) social performance, indicating a strong impact on communities and beneficiaries. 30.12% describe their performance in average terms, suggesting that while they are achieving some social outcomes, there may still be room for improvement.

Concerning the evolution of social performance, we find that most of the entities (83.13%) indicate that their social impact has been improving, demonstrating consistent progress in delivering meaningful social value. Only 2.41% report a decline, while 8.43% maintain a stable social performance, indicating resilience among many organizations.

Furthermore, 66.27% of entities report positive social sustainability, and another 15.66% describe it

as "excellent", reflecting their ability to maintain and expand their social impact over time. A small portion (12.05%) rate their sustainability as neutral, meaning that their ability to sustain long-term impact might still be uncertain. Only 1.20% report negative social sustainability, suggesting that social impact is a key strength for most organizations.

The findings highlight a strong and growing social impact among these entities, with most reporting improvements and long-term sustainability. However, while social performance is generally robust, some organizations may still face challenges in maximizing or sustaining their outreach. This suggests that further efforts in capacity building, community engagement, and long-term funding strategies could help maintain and expand their positive contributions.

	Collaboration	Freq.	Percent	Cum.
N/A	3	3.61	3.61	
comune, Libera e altre associazioni, ..	3	3.61	7.23	
comune, altri enti del terzo settore	1	1.20	8.43	
comune, altri enti del terzo settore ..	1	1.20	9.64	
comune, altri enti del terzo settore ..	5	6.02	15.66	
comune, altri enti del terzo settore ..	1	1.20	16.87	
comune, altri enti del terzo settore ..	1	1.20	18.07	
comune, altri enti del terzo settore, ..	1	1.20	19.28	
comune, altri enti del terzo settore, ..	1	1.20	20.48	
comune, associazioni, chiesa, scuole, ..	3	3.61	24.10	
comune, aziende, Centro di Giustizia ..	1	1.20	25.30	
comune, aziende, altri enti del terzo..	1	1.20	26.51	
comune, aziende, altri enti del terzo..	9	10.84	37.35	
comune, aziende, altri enti del terzo..	1	1.20	38.55	
comune, aziende, cooperative, organiz..	1	1.20	39.76	
comune, aziende, fondazioni, altri en..	1	1.20	40.96	
comune, aziende, fondazioni, scuole, ..	1	1.20	42.17	
comune, famiglie, Libera	1	1.20	43.37	
comune, famiglie, altri enti del terz..	1	1.20	44.58	
comune, famiglie, asili, fondazioni, ..	1	1.20	45.78	
comune, famiglie, fondazioni	2	2.41	48.19	
comune, famiglie, qualche ente del te..	2	2.41	50.60	
comune, famiglie, scuole, aziende, re..	1	1.20	51.81	
comune, qualche ente del terzo settor..	1	1.20	53.01	
comune, regione, altre cooperative, c..	1	1.20	54.22	
comune, regione, altri enti del terzo..	2	2.41	56.63	
comune, regione, altri enti del terzo..	1	1.20	57.83	
comune, regione, altri enti del terzo..	1	1.20	59.04	
comune, regione, altri enti del terzo..	1	1.20	60.24	
comune, regione, aziende, altri enti ..	5	6.02	66.27	
comune, regione, aziende, altri enti ..	1	1.20	67.47	
comune, regione, aziende, cooperative..	3	3.61	71.08	
comune, regione, aziende, famiglie, f..	1	1.20	72.29	
comune, regione, aziende, fondazioni, ..	4	4.82	77.11	
comune, regione, aziende, fondazioni, ..	1	1.20	78.31	
comune, regione, aziende, fondazioni, ..	4	4.82	83.13	
comune, regione, aziende, scuole, alt..	1	1.20	84.34	
comune, regione, conferenza dei sinda..	1	1.20	85.54	
comune, regione, enti locali, chiesa, ..	1	1.20	86.75	
comune, regione, famiglie, aziende, L..	1	1.20	87.95	
comune, regione, famiglie, fondazioni	5	6.02	93.98	
comune, regione, famiglie, scuole, im..	1	1.20	95.18	
comune, regione, fondazioni, altri en..	1	1.20	96.39	
comune, regione, fondazioni, minister..	1	1.20	97.59	
comune, università, famiglie, Libera ..	1	1.20	98.80	
regione, famiglie, reti nazionali, mi..	1	1.20	100.00	
Total	83	100.00		

From the responses we observe widespread collaboration across multiple sectors that may enhance

the social, educational, and economic impact of these entities. These partnerships strengthen the sustainability of confiscated asset reuse projects, supporting job creation, social reintegration, and legal awareness efforts. We identify the following types of collaboration:

- **Local and Regional Governments:** Nearly all entities collaborate with municipalities (comuni), and many extend partnerships to regional authorities, underlining the institutional support behind their activities.
- **Other non-profit organizations:** Strong connections exist with other social cooperatives, associations, Caritas, and major networks like Libera and Confcooperative, reflecting a collective effort in the nonprofit sector to support social inclusion and legality.
- **Educational Institutions:** Many entities engage with schools and universities, indicating a focus on awareness-raising, youth education, and training programs.
- **Private Sector and Foundations:** Collaborations with businesses, trade organizations, and philanthropic foundations suggest an effort to ensure financial sustainability, skill development, and project funding.

Social Innovation	Freq.	Percent	Cum.
N/A	25	30.12	30.12
accanto al laboratorio artigianale si..	1	1.20	31.33
agricoltura sostenibile e valorizzazi..	1	1.20	32.53
attività educative basate sulla soste..	1	1.20	33.73
centro culturale accessibile e condiv..	1	1.20	34.94
coinvolgimento attivo della comunità ..	1	1.20	36.14
coinvolgimento delle famiglie per int..	1	1.20	37.35
coinvolgimento delle famiglie per int..	1	1.20	38.55
coinvolgimento di altri enti per l'of..	1	1.20	39.76
coinvolgimento di altri enti per la g..	1	1.20	40.96
coivolgimento delle famiglie per inte..	1	1.20	42.17
collaborazione con altri enti, divers..	1	1.20	43.37
collaborazione con università e istit..	1	1.20	44.58
coltivazione di piante che assorbono ..	1	1.20	45.78
costituzione di cooperativa ad hoc pe..	1	1.20	46.99
creazione di un ecosistema multifunzi..	1	1.20	48.19
creazione di una rete di collaborazio..	1	1.20	49.40
creazione rete nazionale e internazio..	1	1.20	50.60
diversificazione produttiva per migli..	5	6.02	56.63
economia solidale e di rete con altri..	1	1.20	57.83
essere un incubatore di imprese con I..	4	4.82	62.65
implementazione di agricoltura rigene..	1	1.20	63.86
inclusione sociale attraverso un prod..	1	1.20	65.06
intervenire su un target specifico po..	1	1.20	66.27
orti familiari	1	1.20	67.47
orto sociale come strumento di inclus..	1	1.20	68.67
progetto MEMO: un percorso multimedia..	1	1.20	69.88
sviluppare il laboratorio di quartier..	3	3.61	73.49
turismo responsabile e programmi educ..	3	3.61	77.11
un modello che unisce turismo sosteni..	1	1.20	78.31
uso di reti etiche (consorzio) per la..	9	10.84	89.16
uso di reti etiche (consorzio) per la..	9	10.84	100.00
Total	83	100.00	

Some interviewees report initiatives supporting the hypothesis that the reuse of confiscated assets can drive systemic change, integrating economic, social, and environmental objectives. The widespread use of ethical networks, participatory governance, and social business models highlights an innovative and replicable approach to sustainable local development.

We identify the following types of social innovation:

- Sustainable and Ethical Networks: Many entities emphasize the use of ethical networks and consortia for the distribution and promotion of agricultural products (Libera Terra), fostering solidarity-based economies and cooperative business models.
- Education, Awareness, and Civic Engagement: Several initiatives focus on promoting legality and anti-mafia culture, including multimedia experiences (MEMO project), responsible tourism, and collaborations with schools and universities to raise awareness.
- Social Inclusion through Work and Training: Many projects provide vocational training, work integration for disadvantaged groups (NEETs, people with disabilities, former detainees), and structured employment pathways, often in partnership with research institutions and enterprises.
- Sustainable Agriculture and Environmental Regeneration: The introduction of organic and regenerative farming practices, use of ancient grains, and projects focused on soil restoration emphasize the environmental and social value of land reclamation.
- Innovative Economic and Community Models: Some organizations act as incubators for new enterprises, offering business training and consultancy on confiscated asset management (Invitalia, PON Legalità). Others create multifunctional ecosystems, combining welfare services, cultural promotion, environmental education, and social inclusion.
- Participatory Urban and Community Development: Initiatives such as the *"Prato della Memoria"* and social shops integrate digital tools (QR codes for historical memory), collaborative urban spaces, and community-based social enterprises, strengthening neighborhood and civic engagement.

Main challenges	Freq.	Percent	Cum.
N/A	3	3.61	3.61
accesso al credito e finanziamenti, c..	1	1.20	4.82
accogliere le persone con fragilità i..	1	1.20	6.02
adempimenti burocratici	2	2.41	8.43
adempimenti burocratici e pratici ass..	1	1.20	9.64
adempimenti burocratici, finanziament..	1	1.20	10.84
adempimenti burocratici, gestione con..	1	1.20	12.05
assicurare convivenza nei condomini	3	3.61	15.66
attivandalici ripetuti impediscono l'..	1	1.20	16.87
comunicazione e visibilità nel territ..	4	4.82	21.69
comunicazione e visibilità nel territ..	1	1.20	22.89
comunicazione e visibilità nel territ..	1	1.20	24.10
comunicazione e visibilità nel territ..	1	1.20	25.30
consolidare l'impresa, renderla sempr..	5	6.02	31.33
costruire credibilità e affidabilità ..	1	1.20	32.53
creare consapevolezza nella comunità ..	3	3.61	36.14
creazione di un team coeso partendo d..	1	1.20	37.35
dare valore sociale oltre che economi..	1	1.20	38.55
difficoltà legate ai costi di ristrut..	1	1.20	39.76
difficoltà nell'approvvigionamento di..	1	1.20	40.96
difficoltà nell'integrazione sociale ..	1	1.20	42.17
difficoltà nell'ottenere finanziament..	1	1.20	43.37
diffidenza dei vicini	1	1.20	44.58
diffidenza della comunità locale vers..	8	9.64	54.22
diffidenza della comunità locale vers..	1	1.20	55.42
diffidenza iniziale della comunità lo..	3	3.61	59.04
diffidenza iniziale della comunità lo..	4	4.82	63.86
incertezza legata alle gare d'appalto..	1	1.20	65.06
manca di un piano strategico chiar..	1	1.20	66.27
mantenere e rafforzare la rete di col..	1	1.20	67.47
mantenere livelli alti di qualità e r..	1	1.20	68.67
mantenere viva la memoria del bene co..	1	1.20	69.88
offerta e qualifiche dei dipendenti	1	1.20	71.08

ostacoli burocratici e istituzionali,..	1	1.20	72.29
partecipazione	1	1.20	73.49
recupero del bene, finanziamenti, mer..	1	1.20	74.70
recupero del bene, gestione biologica..	1	1.20	75.90
reperire finanziamenti per ristruttur..	1	1.20	77.11
reperire finanziamenti per ristruttur..	1	1.20	78.31
riqualificazione del bene, diffidenza..	4	4.82	83.13
riuscire a entrare in un contesto abi..	1	1.20	84.34
scarsa sensibilità delle persone locali	1	1.20	85.54
sostenibilità del progetto dal punto ..	1	1.20	86.75
sostenibilità economica del progetto,..	2	2.41	89.16
sostenibilità economica e gestione im..	1	1.20	90.36
superare le resistenze iniziali della..	1	1.20	91.57
superare l'ostilità iniziale della co..	5	6.02	97.59
tempi eccessivamente lunghi da presen..	2	2.41	100.00
-----+-----			
Total	83	100.00	

In the interviews, we aimed at gathering information on the main challenges faced by entities managing confiscated assets. The analysis of challenges reveals a complex set of obstacles that these entities must navigate to ensure the successful and sustainable reuse of confiscated assets. The main challenges can be grouped into the following key categories:

- **Economic and Financial Sustainability:** Access to funding is a major challenge, with many entities struggling to secure resources for renovations, maintenance, and operational costs. Ensuring economic viability while preserving the social mission remains difficult, as these initiatives often compete with irregular market actors. Long waiting times for public funding and project approvals create uncertainty and delay implementation.
- **Bureaucratic and Institutional Barriers:** Complex administrative procedures and slow bureaucratic processes make it difficult for organizations to access resources and fully utilize assets. Issues related to property registration, legal compliance, and tendering processes create additional delays and inefficiencies. A lack of institutional support and cooperation from public authorities further complicates the work of these entities.
- **Community and Social Acceptance:** Many projects face initial resistance and skepticism from local communities, especially when attempting to integrate marginalized individuals into the workforce. There is a need to change public perceptions of confiscated assets, overcoming the negative stigma associated with these properties. Vandalism and hostility from criminal networks pose security risks and slow down progress.
- **Workforce and Organizational Challenges:** Finding skilled and motivated workers is an ongoing issue, especially in rural areas or for specialized tasks. The need to build credibility and trust within the territory is crucial for long-term sustainability. Ensuring a cohesive and democratic management structure within cooperatives is also a challenge.
- **Market and Business Development:** Many initiatives struggle to identify a stable market for their products and services, particularly in agriculture and ethical business sectors. Balancing quality and cost efficiency in services while maintaining economic sustainability is a key issue. Visibility and communication efforts need to be strengthened to attract consumers, investors, and supporters.
- Overall, we may conclude that while these challenges present significant barriers, they also highlight the need for stronger institutional support, financial stability, and community engagement. According to our interviewees, overcoming these obstacles requires policy reforms, streamlined bureaucratic procedures, and increased public awareness of the value of socially responsible asset reuse.

Professionalism of the personnel	Freq.	Percent	Cum.
almost no challenging	16	20.25	20.25
slightly challenging	17	21.52	41.77
moderately challenging	22	27.85	69.62
challenging	17	21.52	91.14
very challenging	7	8.86	100.00
Total	79	100.00	

The collected responses suggest that professionalism and commitment of personnel are perceived as a challenge by a significant portion of respondents. Nearly 29% find it highly challenging, while 26.51% consider it moderately challenging. At the same time, 39.76% indicate that it is less of a challenge, suggesting that for some, personnel engagement is not a major issue. These percentages indicate that while in some cases the staff's professionalism may not pose significant difficulties, in other instances, ensuring commitment and engagement remains a considerable challenge.

Relationships within Supply chain	Freq.	Percent	Cum.
almost no challenging	8	10.26	10.26
slightly challenging	22	28.21	38.46
moderately challenging	26	33.33	71.79
challenging	12	15.38	87.18
very challenging	10	12.82	100.00
Total	78	100.00	

Relationships within the supply chain are perceived as a moderate challenge overall. While 28.2% of respondents consider them slightly challenging and 10.3% not challenging at all, a notable 33.3% rate them as moderately challenging. Additionally, 28.2% find them particularly difficult, highlighting issues in managing upstream and downstream interactions. Hence, while some organizations navigate supply chain relationships with relative ease, for many, establishing and maintaining effective partnerships remains a significant challenge.

Funding Sources	Freq.	Percent	Cum.
almost no challenging	1	1.33	1.33
slightly challenging	8	10.67	12.00
moderately challenging	33	44.00	56.00
challenging	10	13.33	69.33
very challenging	23	30.67	100.00
Total	75	100.00	

The data indicates that accessing funding sources is widely perceived as a challenge. While only 12% of respondents find it not or slightly challenging, the majority (44%) rate it as moderately challenging, suggesting that financial sustainability requires significant effort. Additionally, 44% consider it a major difficulty, with 30.7% finding it very challenging. These statistics underline that securing financial resources is one of the most pressing issues, requiring strategic planning, diversified funding sources, and potentially greater institutional support.

Networking capacity	Freq.	Percent	Cum.
---------------------	-------	---------	------

almost no challenging	17	25.00	25.00
slightly challenging	17	25.00	50.00
moderately challenging	23	33.82	83.82
challenging	6	8.82	92.65
very challenging	5	7.35	100.00
Total	68	100.00	

We observe that networking capacity is generally not perceived as a major challenge. Half of the respondents (50%) consider it not or only slightly challenging, indicating that many entities manage to build and maintain partnerships with relative ease. However, 33.8% find it moderately challenging, while a smaller but notable 16.2% see it as a significant obstacle. Overall, we find that networking is a manageable task for most organizations, but some still struggle to establish and strengthen collaborative relationships.

Communication campaigns	Freq.	Percent	Cum.
almost no challenging	14	18.92	18.92
slightly challenging	10	13.51	32.43
moderately challenging	20	27.03	59.46
challenging	23	31.08	90.54
very challenging	7	9.46	100.00
Total	74	100.00	

Regarding communication campaigns, we find that 32.4% of respondents consider them not or only slightly challenging, however, a notable 27% rate them as moderately difficult. Importantly, 40.5% find them particularly challenging, indicating that effectively reaching audiences and conveying messages remains a struggle for a substantial number of entities. This descriptive evidence highlights the need for stronger communication strategies, resource allocation, and possibly external support to improve outreach and visibility.

Market demand	Freq.	Percent	Cum.
almost no challenging	8	11.11	11.11
slightly challenging	7	9.72	20.83
moderately challenging	32	44.44	65.28
challenging	19	26.39	91.67
very challenging	6	8.33	100.00
Total	72	100.00	

The data suggests that market demand represents a moderate to significant challenge for many organizations. While 20.8% of respondents consider it not or only slightly challenging, the majority (44.4%) rate it as moderately difficult. Additionally, 34.7% perceive it as a major obstacle, indicating that securing a stable customer base and maintaining market relevance require significant effort. These findings show the importance of strategic market positioning, competitive pricing, and effective marketing efforts to sustain demand.

Low public awareness	Freq.	Percent	Cum.
almost no challenging	11	13.75	13.75
slightly challenging	10	12.50	26.25
moderately challenging	19	23.75	50.00

challenging	25	31.25	81.25
very challenging	15	18.75	100.00

Total	80	100.00	

We observe that low public awareness is a considerable challenge for many organizations. While 26.3% of respondents consider it not or only slightly challenging, a notable 23.8% find it moderately difficult. However, 50% perceive it as a significant or very significant obstacle, suggesting that raising awareness and engaging the community remain key difficulties. It emerges the need for stronger public outreach efforts, education campaigns, and advocacy strategies to foster greater civic engagement and support.

Institutional absence/obstacles	Freq.	Percent	Cum.

almost no challenging	18	22.50	22.50
slightly challenging	19	23.75	46.25
moderately challenging	19	23.75	70.00
challenging	14	17.50	87.50
very challenging	10	12.50	100.00

Total	80	100.00	

Institutional absence or obstacles are perceived as a moderate challenge overall, but with mixed views. Nearly 46.3% of respondents consider it not or only slightly challenging, indicating that for some, institutional support is not a major concern. However, 23.8% find it moderately difficult, while a notable 30% see it as a significant or very significant obstacle. Therefore, some organizations manage to navigate institutional frameworks effectively, while others struggle with bureaucratic inefficiencies, lack of support, or institutional barriers.

PA Bureaucratic complexity-inefficiency	Freq.	Percent	Cum.

almost no challenging	8	10.00	10.00
slightly challenging	7	8.75	18.75
moderately challenging	30	37.50	56.25
challenging	11	13.75	70.00
very challenging	24	30.00	100.00

Total	80	100.00	

Bureaucratic complexity and inefficiency in public administration are widely perceived as a challenge. While 18.8% of respondents consider it not or only slightly challenging, the majority (37.5%) rate it as moderately difficult. Additionally, a notable 43.8% find it a significant or very significant obstacle, suggesting that administrative inefficiencies and bureaucratic hurdles create substantial difficulties for many organizations. Here, it emerges the need for streamlined procedures, greater institutional efficiency, and improved public sector support to facilitate operations.

Retaliation, Intimidation, damages	Freq.	Percent	Cum.

almost no challenging	38	50.67	50.67
slightly challenging	8	10.67	61.33
moderately challenging	16	21.33	82.67
challenging	5	6.67	89.33
very challenging	8	10.67	100.00

Total | 75 100.00

Our data suggests that retaliation, intimidation, and damages are not a significant challenge for the majority of respondents. Over 50% consider them not challenging at all, while an additional 10.7% find them only slightly challenging. However, 21.3% rate them as moderately challenging, and a notable 17.3% (scores 4 and 5) perceive them as a serious obstacle. These findings indicate that while most organizations do not face direct threats, a subset still experiences significant security concerns, highlighting the need for continued vigilance, protection measures, and institutional support.

Workers			
Weel-being	Freq.	Percent	Cum.
low	5	6.49	6.49
medium	26	33.77	40.26
high	31	40.26	80.52
very high	15	19.48	100.00
Total	77	100.00	

Interviewed			
Weel-being	Freq.	Percent	Cum.
very low	1	1.33	1.33
low	11	14.67	16.00
medium	21	28.00	44.00
high	23	30.67	74.67
very high	19	25.33	100.00
Total	75	100.00	

According to the respondents, the overall well-being and job satisfaction among both workers and interviewed managers are relatively high, but with some notable variations. For interviewed managers, 50.6% report high or very high satisfaction, while 25.3% rate it as moderate. However, 14.5% indicate low satisfaction, highlighting some challenges in maintaining work-life balance or job fulfillment. A small portion (1.2%) reports very low satisfaction. Among workers, the distribution is similar, with 56% expressing high or very high satisfaction, while 28% rate it as moderate. However, 16% report low or very low well-being, suggesting that while many employees experience positive work conditions, a significant subset may face difficulties related to workload, job expectations, or organizational challenges. This evidence underlines the importance of ensuring a sustainable work-life balance and providing adequate support mechanisms to improve overall well-being within these organizations.

Relations with local context	Freq.	Percent	Cum.
N/A	3	3.61	3.61
molto positivo	6	7.23	10.84
neutrale	6	7.23	18.07
positivo	54	65.06	83.13
positivo ma limitante nelle attività	14	16.87	100.00
Total	83	100.00	

Community			
engagement	Freq.	Percent	Cum.
N/A	3	3.61	3.61

alto	24	28.92	32.53
basso	25	30.12	62.65
medio	31	37.35	100.00

Total	83	100.00	

Local authority			
role	Freq.	Percent	Cum.

N/A	3	3.61	3.61
alto	38	45.78	49.40
basso	18	21.69	71.08
medio	24	28.92	100.00

Total	83	100.00	

We observe that the relationship with the local context is generally positive, with 65% of respondents describing it as such, although 16.9% note some limitations in their activities due to contextual constraints. Only a small percentage (7.2%) report a neutral relationship, while a very limited number perceive it as highly positive. Regarding community engagement, responses are more mixed: 28.9% report high levels of involvement, while the majority fall into the medium (37.3%) or low (30.1%) engagement categories, suggesting room for improvement in fostering stronger community participation. Local authorities play a key role, with 45.8% of respondents indicating strong institutional involvement, though a notable 21.7% perceive it as low. Meanwhile, 28.9% consider their role moderate, implying that while local governments often provide support, it is not always consistent or sufficient.

Non-local			
entity role	Freq.	Percent	Cum.

N/A	3	3.61	3.61
alto	33	39.76	43.37
basso	16	19.28	62.65
medio	31	37.35	100.00

Total	83	100.00	

It emerges that non-local entities play a significant role for many organizations, with 39.8% of respondents rating their involvement as high and another 37.3% considering it moderate. However, 19.3% perceive their role as low, suggesting that while external support is present, it is not uniformly strong across all cases. A small fraction (3.6%) did not provide an assessment.

Strategies	Freq.	Percent	Cum.

espansione della produzione per dive..	5	6.02	6.02
N/A	6	7.23	13.25
adattare la gestione al contesto terr..	3	3.61	16.87
anticipare spese con fondi propri e f..	1	1.20	18.07
avere esperienza pregressa nel settor..	1	1.20	19.28
beneficiare delle diverse competenze ..	1	1.20	20.48
beneficiare delle diverse competenze ..	1	1.20	21.69
cercare finanziamenti e sviluppare re..	1	1.20	22.89
cercare finanziamenti per stabilizzar..	1	1.20	24.10
chiarezza degli obiettivi, modelli di..	2	2.41	26.51
chiedere supporto rete Libera	2	2.41	28.92
coinvolgere altri partner locali e Li..	1	1.20	30.12
collaborazione con enti pubblici e te..	1	1.20	31.33
competenze trasversali dei lavoratori..	1	1.20	32.53
comunicazione istituzionale e sui soc..	3	3.61	36.14
continuo cambiamento coltivazioni cau..	1	1.20	37.35

costruzione di una rete di collaboraz..	2	2.41	39.76
costruzione di una rete di supporto p..	2	2.41	42.17
cura della rete	1	1.20	43.37
determinazione nel portare avanti il ..	1	1.20	44.58
diversificazione delle produzioni per..	1	1.20	45.78
diversificazione produzione, adattame..	8	9.64	55.42
employer branding per assunzioni, pro..	1	1.20	56.63
essere coerenti e credibili nei valor..	5	6.02	62.65
essere reattivi, sguardo al futuro	4	4.82	67.47
fare lavoro, tenere il posto aperto a..	1	1.20	68.67
formazione manageriale, approccio imp..	1	1.20	69.88
fundraising e attività di lobbying su..	1	1.20	71.08
gestione partecipata, piano progettua..	1	1.20	72.29
ingresso in una rete consolidata per ..	1	1.20	73.49
integrazione strategica con le altre ..	1	1.20	74.70
lavorare con professionalità e qualit..	1	1.20	75.90
lavoro di rete e adattamento	3	3.61	79.52
maggior coinvolgimento di altri enti	1	1.20	80.72
monitoraggio costante dei procediment..	1	1.20	81.93
operatori coinvolti nella sensibilizz..	1	1.20	83.13
partecipazione, senso di autoimprendi..	1	1.20	84.34
perseveranza, promozione prodotti per..	1	1.20	85.54
piano strategico, puntare sulla quali..	3	3.61	89.16
promozione e conoscenza dei prodotti ..	1	1.20	90.36
rafforzamento del legame con il munic..	1	1.20	91.57
resilienza, problem solving	1	1.20	92.77
ricerca del mercato di riferimento ad..	1	1.20	93.98
sviluppare una rete nazionale di clie..	1	1.20	95.18
tenacia, professionalità, diversifica..	4	4.82	100.00

Total	83	100.00	

The strategies adopted to overcome challenges revolve around financial sustainability, network building, and adaptability. Many organizations diversify their economic activities, such as expanding agricultural production, seeking alternative markets, and applying for funding from public and private sources. A strong emphasis is placed on collaboration and partnerships, leveraging networks with local institutions, third-sector entities, and national alliances like Libera to strengthen visibility and financial stability. Additionally, communication and public engagement strategies are used to raise awareness and build credibility within the community. Operationally, professionalization and strategic planning play a key role, with several entities focusing on long-term sustainability, training, and structured project management. Flexibility and continuous adaptation to market conditions also emerge as crucial factors, ensuring resilience against economic and bureaucratic constraints.

Changes to achieve objectives	Freq.	Percent	Cum.

N/A	7	8.64	8.64
Nessun rilievo	4	4.94	13.58
adattamento del modello produttivo pe..	1	1.23	14.81
cambiamenti strutturali	6	7.41	22.22
cambiamenti strutturali e attrezzature	13	16.05	38.27
cambiamenti strutturali, ottimizzazio..	5	6.17	44.44
cambiamenti strutturali, sensibilità ..	4	4.94	49.38
cambiamento coltivazioni, cambiamenti..	1	1.23	50.62
cambiamento in relazione ai bisogni d..	1	1.23	51.85
cambiare coltivazioni e prodotti per ..	3	3.70	55.56
cambiare coltivazioni in relazione an..	1	1.23	56.79
cambiare destinazione d'uso all'immob..	1	1.23	58.02
cercare di essere ascoltati in tutti ..	1	1.23	59.26
comunicazione e informazione più effi..	1	1.23	60.49
comunicazione più efficace	7	8.64	69.14

comunicazione più efficace, trovare f..	2	2.47	71.60
continua valorizzazione del bene conf..	1	1.23	72.84
dipendenti in linea con le attenzioni..	1	1.23	74.07
diversificare attività	1	1.23	75.31
diversificare attività, comunicazione..	4	4.94	80.25
facilitare e promuovere la collaboraz..	2	2.47	82.72
maggior flessibilità gestione delle ..	2	2.47	85.19
migliorare la comunicazione e il coin..	1	1.23	86.42
migliorare la valutazione e feedback	2	2.47	88.89
modalità di gestione (diversa grazie ..	3	3.70	92.59
monitorare le esigenze del mercato e ..	1	1.23	93.83
reperimento delle risorse finanziarie	2	2.47	96.30
rivedere accordo con comune e comunic..	1	1.23	97.53
selezione risorse umane	1	1.23	98.77
spese oculate e virtuose	1	1.23	100.00

The responses suggest that structural improvements, better communication, and financial stability are the primary areas where managers see room for improvement. Many highlight the need for structural changes (including facilities and equipment) to optimize operations. More effective communication, both internally and externally, is frequently mentioned as a way to enhance engagement and visibility. Additionally, funding remains a critical concern, with calls for easier access to financial resources and better collaboration with institutions. Some also emphasize greater workforce alignment with project goals and enhanced flexibility in management practices to better respond to market needs.

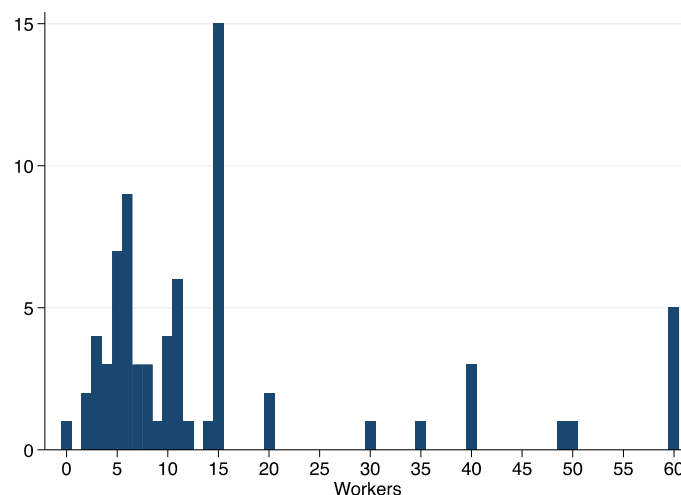
Start-up Tips	Freq.	Percent	Cum.
Investire nelle competenze educative ..	3	3.61	3.61
N/A	6	7.23	10.84
Nessun consiglio	2	2.41	13.25
adottare metodi agricoli sostenibili ..	1	1.20	14.46
affidarsi a personale qualificato e c..	1	1.20	15.66
andare oltre il vantaggio di costo ne..	3	3.61	19.28
avere un controllo di gestione e budg..	4	4.82	24.10
avere un piano strategico chiaro	2	2.41	26.51
avere un piano strategico chiaro e co..	1	1.20	27.71
avere un progetto dettagliato dal pun..	1	1.20	28.92
business plan sul lungo periodo con c..	1	1.20	30.12
cercare fonti di finanziamento	2	2.41	32.53
competenze e conoscenze riguardo l'og..	1	1.20	33.73
confrontarsi con altri enti e aziende	8	9.64	43.37
creare reti e consorzi per avere magg..	1	1.20	44.58
creare un consorzio, beneficiare di p..	2	2.41	46.99
creare una rete di supporto, fare pro..	1	1.20	48.19
creare una rete di supporto, valutare..	1	1.20	49.40
dedicare risorse alla progettazione s..	5	6.02	55.42
determinazione, formazione adeguata,..	4	4.82	60.24
emulare e imparare dalle altre esperi..	1	1.20	61.45
essere flessibili e pronti a modifica..	1	1.20	62.65
evitare la presunzione e imparare da ..	1	1.20	63.86
fare rete, non perdere la memoria del..	1	1.20	65.06
fare un piano di azione e di volta in..	1	1.20	66.27
impegno e tenacia	1	1.20	67.47
logica imprenditoriale, adattarsi ai ..	1	1.20	68.67
modello di gestione basato su traspar..	1	1.20	69.88
non mollare alle prime difficoltà (bu..	1	1.20	71.08
offrire un servizio che soddisfi i bi..	1	1.20	72.29
piano strategico chiaro, ricerca e st..	2	2.41	74.70
preparare un business plan e cercare ..	1	1.20	75.90
professionalità nella compagine socia..	1	1.20	77.11
progetto chiaro e solido, fare rete	1	1.20	78.31
puntare all'eccellenza	1	1.20	79.52
puntare sulla qualità, avere un contr..	3	3.61	83.13

rete e collaborazioni solide sia con ..	1	1.20	84.34
scegliere accuratamente il bene (evit..	1	1.20	85.54
studiare approfonditamente la situazi..	1	1.20	86.75
studiare,formarsi e conoscere realtà ..	1	1.20	87.95
unirsi a organizzazioni di rappresent..	1	1.20	89.16
valori e principi forti	5	6.02	95.18
valutare attentamente condizioni bene..	1	1.20	96.39
valutare attentamente lo stato del be..	3	3.61	100.00
-----+-----			
Total	83	100.00	

The advice provided to startups managing confiscated assets highlights several key success factors. A clear strategic plan, financial planning, and business-oriented mindset are frequently recommended to ensure long-term sustainability. Many emphasize the importance of networking and collaboration, suggesting that building strong partnerships with institutions, other entities, and consortia can provide critical support. Flexibility and adaptability are also seen as essential, along with professional expertise and ongoing learning from existing experiences. Lastly, a strong commitment to values, resilience, and persistence are considered crucial in overcoming initial challenges and ensuring impactful and sustainable operations.

Suggested legislative-procedural changes	Freq.	Percent	Cum.
-----+-----			
Durate di concessioni compatibili al ..	2	2.41	2.41
Fare in modo che gli impegni reciproc..	1	1.20	3.61
Migliorare i criteri per le procedure..	1	1.20	4.82
Migliorare la comunicazione (bandi un..	2	2.41	7.23
N/A	3	3.61	10.84
Nessun rilievo	4	4.82	15.66
Possibilità di finanziamento per il m..	3	3.61	19.28
accelerare i processi di assegnazione..	5	6.02	25.30
accelerare i processi di assegnazione..	1	1.20	26.51
accelerare i processi di assegnazione..	1	1.20	27.71
accelerare i processi di assegnazione..	3	3.61	31.33
accelerazione tempi di confisca e ass..	4	4.82	36.14
controlli, richiesta business plan e ..	1	1.20	37.35
controllo approfondito preliminare al..	3	3.61	40.96
durata assegnazioni più lunghe	2	2.41	43.37
durate di concessioni compatibili al ..	1	1.20	44.58
durate di concessioni compatibili al ..	1	1.20	45.78
durate di concessioni compatibili al ..	1	1.20	46.99
edistribuire i costi di gestione tra ..	1	1.20	48.19
finanziamenti per ristrutturazione be..	1	1.20	49.40
fondi destinato al recupero dei beni ..	5	6.02	55.42
fondo destinato al recupero dei beni ..	1	1.20	56.63
garantire la manutenzione del bene du..	1	1.20	57.83
gestione da programmare con il territ..	2	2.41	60.24
incentivare l'assunzione di personale..	1	1.20	61.45
introdurre valutazioni di sostenibili..	3	3.61	65.06
iter burocratico di assegnazione più ..	4	4.82	69.88
l'attivazione obbligatoria dei tavoli..	1	1.20	71.08
maggiore trasparenza e controllo sull..	8	9.64	80.72
migliorare i criteri per le procedure..	3	3.61	84.34
migliorare l'informazione e formazion..	1	1.20	85.54
migliorare la coprogettazione pubblic..	5	6.02	91.57
possibilità di avere più beni confisc..	1	1.20	92.77
rimuovere la gestione dei beni confis..	1	1.20	93.98
sanare abusi e problematiche legate a..	1	1.20	95.18
snellimento delle procedure di assegn..	1	1.20	96.39
stabilire una durata minima di conces..	1	1.20	97.59
sviluppo co-programmazione e co-proge..	1	1.20	98.80
vicinanza delle istituzioni pubbliche..	1	1.20	100.00
-----+-----			
Total	83	100.00	

The suggested legislative and procedural changes emphasize faster asset allocation, longer concession periods, and greater financial and institutional support for entities managing confiscated assets. Many respondents advocate for streamlining bureaucratic processes, ensuring preliminary checks and maintenance before assignment, and allowing financial support through dedicated funds. Additionally, there is strong demand for improved public-private co-programming, better access to credit, and enhanced transparency in the asset management process. Some suggest shifting management from municipalities to specialized prefectures, while others propose rewarding best practices and socially impactful initiatives. Lastly, calls for greater communication, training, and institutional support reflect the need for a more structured and sustainable approach to confiscated asset reuse.



The distribution of workers dedicated to the confiscated assets varies significantly, with a concentration in the mid-range workforce. Most cases have between 5 and 15 workers, indicating a relatively small but stable operational structure. However, there are some larger entities with up to 60 employees, suggesting a higher capacity for scaling activities. The presence of a few cases with only one or two workers also highlights potential resource constraints or part-time employment structures. Overall, while many organizations operate with a moderate workforce, the variation suggests different levels of organizational complexity and resource availability.

Turnover	Freq.	Percent	Cum.
N/A	9	10.84	10.84
alto	5	6.02	16.87
assente	5	6.02	22.89
basso	54	65.06	87.95
medio	10	12.05	100.00
Total	83	100.00	

The workforce turnover appears to be generally low, with 65% of cases reporting a low turnover and an additional 12% reporting a moderate level. A small fraction (6%) indicates high turnover, while another 6% reports no turnover at all, suggesting a stable workforce in these cases. The presence of 10% of "N/A" responses might indicate organizations where turnover data is not traced or not relevant. Overall, while most entities experience workforce stability, some cases of higher turnover suggest potential challenges in retaining staff, ensuring continuity, or managing employment conditions effectively.

Worker resignations	Freq.	Percent	Cum.
N/A	31	37.35	37.35
altre opportunità lavorative	9	10.84	48.19
altre opportunità lavorative, bassa r..	2	2.41	50.60
bassa retribuzione	1	1.20	51.81
bassa retribuzione in relazione alle ..	2	2.41	54.22
bassa retribuzione, eccesso di dispon..	11	13.25	67.47
bassa retribuzione, eccesso di dispon..	3	3.61	71.08
bilanciamento lavoro/vita privata basso	1	1.20	72.29
completamento della pena per i lavora..	1	1.20	73.49
fine progetti, poca flessibilità lavo..	1	1.20	74.70
lavoro stagionale	3	3.61	78.31
manca motivazione	4	4.82	83.13
opportunità lavorative migliori	1	1.20	84.34
possibilità di vita diverse per le pe..	1	1.20	85.54
problemi personali	1	1.20	86.75
retribuzione non sempre regolare, alt..	1	1.20	87.95
ricerca di un lavoro meno stressante ..	1	1.20	89.16
ricerca di un lavoro più stabile (pub..	1	1.20	90.36
ricerca di un lavoro più stabile (pub..	2	2.41	92.77
ricerca di un lavoro più stabile (pub..	3	3.61	96.39
scelte personali di cambio lavoro	1	1.20	97.59
trasferimento abitativo	1	1.20	98.80
visione non precisa	1	1.20	100.00
Total	83	100.00	

The main reasons for worker resignations appear to be low wages, excessive shift availability, and better job opportunities elsewhere. Many employees leave due to unstable salaries or high job-related stress, while others seek more secure public sector positions. Additionally, some departures are linked to personal circumstances, seasonal work, or the completion of judicial reintegration programs. A few cases also mention workers opting for self-employment or shifting career paths. Overall, the data suggests that economic instability and demanding work conditions play a significant role in workforce turnover, posing a challenge for long-term retention in these entities.

Causes of firings	Freq.	Percent	Cum.
N/A	26	31.33	31.33
gravi inadempienze	23	27.71	59.04
incapacità di interagire con persone ..	1	1.20	60.24
incapacità di svolgere le loro mansioni	23	27.71	87.95
incapacità di svolgere le loro mansio..	3	3.61	91.57
incapacità di svolgere le loro mansio..	5	6.02	97.59
scarsa motivazione, visione dissimile..	2	2.41	100.00
Total	83	100.00	

The main causes of firings within these entities primarily revolve around two key issues: (a) Inability to perform job tasks – A significant portion of terminations is due to employees being unable to fulfill their job responsibilities effectively. This includes general inefficiency as well as specific challenges in working with disadvantaged individuals. (b) Serious misconduct – Many cases of dismissal are linked to serious breaches of conduct or non-compliance with organizational values. These inexcusable actions lead to terminations despite the organizations' generally inclusive and rehabilitative approach. Additionally, some responses highlight lack of motivation or misalignment with the entity's mission as factors contributing to dismissals.

Gender balance	Freq.	Percent	Cum.
N/A	8	9.64	9.64
alto	11	13.25	22.89
basso (più donne)	5	6.02	28.92
basso (più uomini)	15	18.07	46.99
basso (solo donne)	1	1.20	48.19
basso (solo uomini)	1	1.20	49.40
medio-alto	13	15.66	65.06
medio-basso	4	4.82	69.88
medio-basso (più donne)	8	9.64	79.52
medio-basso (più uomini)	17	20.48	100.00
Total	83	100.00	

The gender balance among workers in these entities appears highly variable, with only 13% of cases reporting a high balance. The most common scenario (38%) is a "medium-low" or "low" balance favoring men. On the other hand, cases where women are more represented (low or medium-low balance) account for around 16% combined. Extreme cases of workplaces composed only of men or only of women are rare (1% each). Meanwhile, nearly 10% of responses are marked as N/A. Overall, the data suggests a tendency toward male prevalence in several organizations, but also some level of diversity, with a portion of entities maintaining a moderate to high gender balance.

Education	Freq.	Percent	Cum.
N/A	8	9.64	9.64
alta	28	33.73	43.37
bassa	13	15.66	59.04
media	34	40.96	100.00
Total	83	100.00	

The workforce's education and experience levels show a generally strong background but with some variation. In terms of education, a high level is reported for 34% of workers, while 41% have a medium level, and 16% have a low level. This indicates that while many employees have a solid educational foundation, there is still a portion with lower qualifications.

Experience	Freq.	Percent	Cum.
N/A	8	9.64	9.64
alta	50	60.24	69.88
bassa	2	2.41	72.29
bassa	2	2.41	74.70
media	21	25.30	100.00
Total	83	100.00	

On the experience side, the picture is even stronger: 60% of workers have high experience, while only 5% have low experience, and 25% fall into the medium category. This suggests that despite some variability in education, practical expertise is well-developed among employees. However, the presence of N/A responses (about 10% in both cases) may indicate that these aspects have not been assessed formally during the interviews. Overall, the data suggests that most organizations benefit from a workforce with significant experience, even if formal educational levels vary.

Unemployed	Freq.	Percent	Cum.
N/A	8	9.64	9.64

no	19	22.89	32.53
si	56	67.47	100.00

Total	83	100.00	

The data shows that a significant majority (67%) of entities actively hire unemployed individuals, indicating a strong commitment to social inclusion and labor reintegration. However, 23% do not engage in hiring unemployed workers, which may be due to sector-specific constraints, skill requirements, or funding limitations. Additionally, about 10% of responses are N/A. Overall, the findings suggest that most entities recognize the importance of offering job opportunities to unemployed individuals, aligning with broader social and economic objectives.

Workers Training	Freq.	Percent	Cum.

N/A	8	9.64	9.64
no	6	7.23	16.87
si, professionale (molto limitata)	6	7.23	24.10
si, professionale (regolare)	3	3.61	27.71
si, professionale (saltuariamente)	19	22.89	50.60
si, professionale (saltuariamente), s..	5	6.02	56.63
si, professionale (saltuariamente, si..	1	1.20	57.83
si, professionale e tematiche (molto ..	4	4.82	62.65
si, professionale e tematiche (molto ..	1	1.20	63.86
si, professionale e tematiche (regola..	3	3.61	67.47
si, professionale e tematiche (regola..	6	7.23	74.70
si, professionale e tematiche (saltua..	6	7.23	81.93
si, professionale e tematiche (saltua..	11	13.25	95.18
si, professionale e tematiche (una ta..	1	1.20	96.39
si, solo formazione obbligatoria (sic..	3	3.61	100.00

Total	83	100.00	

The training of workers appears to be inconsistent across entities, with many offering only occasional or limited professional development opportunities. Training is often focused on professional skills and thematic areas, sometimes provided upon employee request. A significant portion of entities only conduct mandatory safety training, while a smaller group provides regular and structured training programs. Our data suggests that investment in workforce education varies widely, with some organizations emphasizing skill development while others offer minimal support. This discrepancy could impact both employee retention and the long-term sustainability of the projects.

Incentive			
system			
linked to			
objectives	Freq.	Percent	Cum.

N/A	9	10.84	10.84
assente	38	45.78	56.63
basso	27	32.53	89.16
medio	9	10.84	100.00

Total	83	100.00	

The incentive system linked to objectives appears to be largely absent or weak in most entities. Nearly 46% of respondents report no incentive mechanisms at all, while an additional 33% describe them as low. Only a small fraction (10.84%) reports a medium-level incentive system, with no mentions of high incentives. This suggests that performance-based rewards are not a common practice, potentially affecting employee motivation and engagement. The lack of structured incentives could limit productivity and long-term commitment to the goals of the initiatives.

Career progression opportunities	Freq.	Percent	Cum.
N/A	14	16.87	16.87
alta	7	8.43	25.30
assente	11	13.25	38.55
bassa	46	55.42	93.98
media	5	6.02	100.00
Total	83	100.00	

The career progression opportunities within these entities appear to be very limited. Over 55% of respondents describe career advancement as low, and an additional 13% report it as entirely absent. Only 8.43% perceive high career progression, while 6% consider it moderate. It is worth highlighting a relatively high share of "N/A" responses (16.87%). The data may indicate that in some cases, the question was not applicable, possibly due to the structure of the organization or workforce composition. The lack of clear career advancement paths could be a challenge in attracting and retaining skilled professionals, potentially leading to higher turnover rates over time.

Approach to addressing underperformance among employees varies	Freq.	Percent	Cum.
N/A	14	16.87	16.87
affiancamento	1	1.20	18.07
cambiare incarichi	4	4.82	22.89
capire difficoltà, motivazione	4	4.82	27.71
capire difficoltà, ri-formazione	10	12.05	39.76
capire difficoltà, ri-formazione, ric..	1	1.20	40.96
capire difficoltà, richiami	1	1.20	42.17
capire difficoltà, ricollocamento	3	3.61	45.78
capire difficoltà, ricollocamento, mo..	2	2.41	48.19
confronto, ri-formazione	1	1.20	49.40
contestazioni disciplinari	1	1.20	50.60
crescita di responsabilità	1	1.20	51.81
interruzione naturale del rapporto	2	2.41	54.22
motivazione	10	12.05	66.27
motivazione e formazione	1	1.20	67.47
motivazione e formazione, cambiare in..	1	1.20	68.67
motivazione, capire difficoltà	5	6.02	74.70
motivazione, confronti anche con prof..	2	2.41	77.11
motivazione, formazione, crescita di ..	1	1.20	78.31
ri-formazione	2	2.41	80.72
ri-formazione, ricollocamento	1	1.20	81.93
richiami	9	10.84	92.77
ricollocamento	1	1.20	93.98
ricollocamento, affiancamento	1	1.20	95.18
si aspetta la fine del contratto	4	4.82	100.00
Total	83	100.00	

The approach to addressing underperformance among employees varies, but most interventions focus on understanding difficulties, motivation, and re-training. 12% of cases involve direct motivation strategies, and an additional 12% focus on re-training and upskilling to improve performance. More structured interventions such as role reassignment (4.8%), reallocation (3.6%), and formal warnings or disciplinary actions (10.8%) are less common. In 4.8% of cases, the organization simply waits for the contract to end, indicating a passive approach. Overall, the strategy leans more toward support and capacity-building rather than punitive actions, though some cases do involve direct corrective measures

like warnings or job changes.

Talent retention	Freq.	Percent	Cum.
N/A	20	24.10	24.10
altre attività, responsabilità	1	1.20	25.30
coinvolgimento	5	6.02	31.33
i contratti sono quelli e valgono per..	1	1.20	32.53
incentivi economici, gratifica del la..	1	1.20	33.73
maggiore coinvolgimento	6	7.23	40.96
maggiore coinvolgimento, formazione s..	2	2.41	43.37
maggiore coinvolgimento, motivazione	1	1.20	44.58
maggiore coinvolgimento, responsabilità	1	1.20	45.78
maggiore coinvolgimento, responsabili..	1	1.20	46.99
maggiore conciliazione con vita privata	1	1.20	48.19
mobilità interna, formazione diversa	1	1.20	49.40
motivazione	8	9.64	59.04
motivazione, capacità di generare inn..	2	2.41	61.45
motivazione, incentivi economici	3	3.61	65.06
nessuna azione	9	10.84	75.90
no ritenzione, anzi aiuto nella ricer..	2	2.41	78.31
no ritenzione, anzi aiuto nella ricer..	1	1.20	79.52
processo di talent con aumento respon..	1	1.20	80.72
responsabilità, adeguamento economico	4	4.82	85.54
responsabilità, opportunità formative	2	2.41	87.95
riconoscimento del valore del loro la..	2	2.41	90.36
rimodulare contratto	3	3.61	93.98
rimodulare contratto (accordi con alt..	1	1.20	95.18
rimodulare contratto (parte economica)	3	3.61	98.80
rimodulare contratto (parte economica..	1	1.20	100.00
Total	83	100.00	

The talent retention strategies within these entities appear diverse, with some organizations actively fostering engagement while others take a more passive approach. Key retention efforts include increased responsibility, involvement, and motivation, mentioned frequently as ways to keep talent engaged. Economic incentives (such as salary adjustments or contract modifications) are occasionally used but are not a widespread practice. Some entities explicitly do not focus on retention, instead helping employees find better opportunities, especially for project-based workers. Training and professional development opportunities are highlighted by some organizations, particularly when tailored to employee requests. Many responses indicate "no action", suggesting that retention is not always a structured priority. Overall, while engagement and motivation efforts are common, financial incentives and structured career paths remain limited, making long-term retention a challenge for many organizations.

2.6. BAC (Unisa): Designing new Entrepreneurship Education through venture Philanthropy Effectiveness Rethinking (DEEPER)

According to the European Economic and Social Committee of the European Union, social impact can be defined as "the social effects and the impact on society resulting from specific activities of a social enterprise" (EESC, 2013). This definition offers two key elements that distinctly characterize the concept. The first lies in the fact that the effects extend to society as a whole, rather than only affecting the direct beneficiaries of the service or activity. The second is identifiable in the fact that these activities are proposed and offered by social enterprises, namely enterprises explicitly driven from their inception by the intention to generate social impact.

According to the definition provided by the GECES Subgroup of the European Commission, social impact can be described as “the reflection of social outcomes, both long-term and short-term, adjusted by taking into account effects achieved by others (alternative attribution), effects that would have occurred anyway (deadweight), and negative consequences (displacement).” From this definition, we can discern an additional characteristic of social impact, namely the importance of considering factors not attributable directly to the program in question when assessing the generated social impact.

Projects under examination often have a wide scope, thus making it essential to acknowledge that the effects produced (both positive and negative) may not be entirely attributable to a specific project (GECES, 2015; Zamagni et al., 2015). Broadening the analytical spectrum even further, some definitions of social impact have attempted to adapt the concept to more specific tools within the social sector.

In the context of social finance—or social impact investments—the changes and effects generated by a social program are also linked to the support provided through the allocation of social investment capital (Zamagni et al., 2015).

A more comprehensive definition is contained in the “Draft Law Delegating Authority to the Government for Reform of the Third Sector, Social Enterprise, and Regulation of Universal Civil Service”, issued by the Italian Government in 2015, which states that: “social impact evaluation refers to the qualitative and quantitative assessment, in the short, medium, and long term, of the effects of activities carried out on the relevant community in relation to the identified objective” (Italian Government, 2016).

The definition provided in the Draft Law highlights three characteristics that anyone involved in social impact evaluation should consider. The first characteristic concerns the necessity for measurement results to be both qualitative and quantitative. Given the nature of the organizations under analysis—that is, social-purpose organizations—the outcomes achieved are not always monetizable or expressible through synthetic numerical indicators, but can often be identified through narratives aimed at explaining not only what was done but also, more importantly, how it was done (Emerson, 2003).

Nonetheless, as these organizations must operate under economic constraints (Matacena, 2017), evaluations should balance economic (numerical) aspects with narrative/descriptive ones. This is even more critical in the field of social impact investments, where analyzing and reporting economic and financial data of investment activities is essential (Hehenberger, 2013).

The second defining factor is that evaluation must also be conducted in the short, medium, and long term, as observable effects require long-term measurement, given that the impact or the change generated by activities of social-purpose organizations often emerges after a sufficient period of time (Zamagni et al., 2015).

Finally, it is crucial to report how the implemented activities were able to bring about change within the reference community, namely the stakeholders who directly or indirectly benefited from the actions undertaken by the social-purpose organization.

The involvement of relevant stakeholders is also fundamental during the ex-ante phase of evaluation, as it allows a better understanding of their needs, clarifies long-term objectives, and helps establish relationships that benefit all actors involved (Maiolini et al., 2013).

The definition provided by the “Draft Law Delegating Authority to the Government for Reform of the Third Sector, Social Enterprise, and Regulation of Universal Civil Service” helps fully understand the characteristics that distinguish social impact and its evaluation. The main features thus include the changes brought about by the activities, the achieved objectives, the generated effects, the appropriate timeframe for evaluation, various internal and external variables that may intervene, and the relevant

stakeholders involved.

2.6.1. The impact that matters: Evaluation and scenarios in the Third Sector

Both nationally and internationally, social impact evaluation is gaining increasing interest within the operational domain of the so-called Third Sector. According to the Social Investment Task Force (2014), impact investing is defined as an investment activity in enterprises, organizations, and funds operating with the goal of generating measurable social impact alongside a financial return.

This activity is characterized by several specific features:

- the investor's intention to generate a social impact;
- the expectation of a financial return motivating the investor;
- flexibility in the expected rate of return, which can be below average market levels or aligned with market returns;
- the diversity of financial instruments and intervention forms used, ranging from debt to pure equity;
- the measurability of impact, which is essential to ensure transparency and accountability.

At the international level, the earliest structured experiences of social impact evaluation date back to 2007, when the Rockefeller Foundation—already a pioneer in the earliest models of venture philanthropy—first coined the term "impact investing."

The Rockefeller Foundation initially contributed to the creation of two sets of indicators specifically designed to measure social impact.

These indicators are GIN, named after the nonprofit organization that created it, the Global Impact Investing Network, and IRIS, developed through an initiative led by GIIN itself.

Subsequently, social impact evaluation methods were used to assess the effectiveness of programs and interventions initiated in developing countries, aiming to identify the changes these programs could generate in contexts requiring significant social change.

Consequently, these experimental applications led to the creation of the Evidence-Based Policy movement. This movement has its foundations in evidence-based medicine, which involves conducting clinical studies through experimental methods to demonstrate the efficacy of pharmaceutical treatments (Bonaga, 2017; Zambelli, Minto & Pascale, 2023).

In 2011, the European Commission launched the Social Business Initiative to enhance visibility for Third Sector organizations.

In 2012, the European Commission established the GECES subgroup specifically dedicated to impact measurement, with the objective of providing guidance and recommendations on impact evaluation.

The same subgroup subsequently produced the 2014 report titled "Proposed Approaches to Social Impact Measurement," aiming to guide organizations through the measurement process.

Also in 2012, the G7 Task Force Movement was created under the leadership of then-UK Prime Minister David Cameron, tasked with defining guidelines for social impact investments (GECES, 2015).

Social Impact Bonds, also known as Pay for Success Bonds, are among the instruments designed for social impact investments, serving as financial tools to attract private funding for public sector initiatives. Remuneration for invested capital through these instruments is linked to the achievement of a specific social outcome.

In a correctly structured Social Impact Bond model, achieving the predetermined social outcome results in cost savings for the public administration, thereby generating a surplus that can be used to remunerate

investors (Zambelli, Minto & Pascale, 2023).

The distinguishing features of Social Impact Bonds include:

- the capacity to draw from a broad pool of investment capital to support often-underfunded social programs;
- a focus on prevention-based programs that address the root causes of social issues;
- direct fundraising for the most effective programs, introducing market discipline through investors who support initiatives more likely to yield positive results;
- guidance in designing collaborative projects involving various stakeholders—from governments and for-profit organizations to nonprofit entities and philanthropic communities.

Investors choosing to participate in these programs are primarily driven by a desire to create positive social impact and, secondly, by the potential to achieve financial returns on their investment.

In the context of Social Impact Bonds, social impact evaluation aims to measure the actual social impacts generated for the stakeholders involved.

Moreover, through such evaluations, it becomes possible to investigate the associated public expenditure savings for the public administration, which serves as a frequently utilized benchmark for verifying the achievement of social impacts in public-interest programs.

Following these developments, social impact evaluation gained additional importance due to the international financial crisis and the consequent increased desire among funders and investors to allocate limited resources toward projects that demonstrate tangible, verifiable impacts (GECES, 2015).

Furthermore, the European Economic and Social Committee (EESC) of the European Union highlighted the critical importance of defining methods to measure the social and economic benefits generated by European social enterprises, thereby better supporting their evaluation within the framework of European funds and programs dedicated to social entrepreneurship (EESC, 2013).

Within this context, social impact evaluation has assumed an increasingly significant role as a necessary tool to provide evidence—both quantitative and qualitative—of the impacts and changes generated.

Through this evaluation tool, in its various forms, it is possible to report achievements in both social and economic/financial domains (Zambelli, Minto & Pascale, 2023).

In Italy, the topics of impact investing and social impact evaluation have seen significant developments: the former through the establishment of the "Social Impact Agenda per l'Italia," and the latter through academic interest and research by several research centers (Aiccon, Tiresia, Socialis).

In the Italian context, the earliest examples of social impact evaluation can be traced back to assessments conducted on the work performed by Type B social cooperatives.

Social cooperatives, according to the definition provided by Law 381/1991, "aim to pursue the general interest of the community in terms of promoting human advancement and social integration of citizens," and specifically, Type B cooperatives operate across diverse sectors and aim to facilitate the employment integration of disadvantaged individuals.

Key examples include the study evaluating the impact generated by a sample of Type B social cooperatives conducted by Centro Studi Socialis, and the Social Impact Report of the social cooperative For.B, curated by Aiccon Research Centre.

From an institutional standpoint, a significant impetus for the spread of social impact evaluation was provided by the Italian government through Legislative Decree No. 106/2016 ("Delegation to the Government for the reform of the Third Sector, social enterprises, and universal civil service regulation"), which specifies in Article 7, paragraph 3:

"The Ministry of Labour and Social Policies, after consulting the body referred to in Article 5,

paragraph 1, letter g), shall develop guidelines for social reporting and social impact evaluation systems for activities carried out by Third Sector entities, also in compliance with Article 4, paragraph 1, letter o)."

The legislative recognition provided by Legislative Decree No. 106/2016 is fundamental for developing shared methodologies that can guide relevant entities in implementing effective instruments for social impact evaluation.

Furthermore, Article 7, paragraph 3 of Legislative Decree No. 106/2016 specifies that "social impact evaluation refers to the qualitative and quantitative assessment, over the short, medium, and long term, of the effects of activities carried out on the relevant community with respect to the identified objective."

The theme of social impact evaluation was later reiterated in the implementing legislation of the Delegation Law, specifically Legislative Decree No. 117/2017—also known as the "Third Sector Code."

Following the provisions set forth in Legislative Decree No. 106/2016, the Third Sector Code "foresees the adoption, via decree, of guidelines concerning social reporting and social impact evaluation for activities carried out by Third Sector entities," and "mandates that Third Sector entities with revenues/income/proceeds exceeding one million euros must submit their social reports to the National Single Registry of the Third Sector and publish them on their websites, taking into account the nature of their activities and organizational size, also for purposes of evaluating the social impact of their operations."

The Decree issued by the Ministry of Labour and Social Policies on July 23, 2019, provided the "Guidelines for implementing social impact evaluation systems for activities carried out by Third Sector entities," defined as "an experimental evaluation tool designed to generate a conceptual process that is simultaneously measurable over the medium and long term" (Ministry of Labour and Social Policies, 2019).

These guidelines result from the work conducted by the "Social Impact Evaluation Roundtable," chaired by Professor Zamagni, who specified that "the shared intent of the working group was to make social entities protagonists in creating the metrics for measuring their efficiency."

The Roundtable aimed "to introduce an obligation for measurement exclusively for those organizations participating in national and international public calls for funding, which frequently already face requests for social impact evaluations. Until now, funding bodies—public or private—could impose their own metrics for evaluating social impact."

Moreover, according to the new Guidelines, the choice of metrics will now rest with the Third Sector entity itself, thereby protecting organizations previously burdened with applying diverse indicators and consequently required to adjust repeatedly to different measurement models.

2.7. BAC (Uniroma1): Digitalisation, finance and firms' market power: database and framework analysis (DIFIMP)

The concentration of market power is a major issue in economics, at least since Schumpeter. With the growing size and complexity of firms, market success has become increasingly related to seizing large market shares eventually dominating entire product segments. Textbook explanations point to the upfront of fixed costs and, thus, barriers to entry shielding incumbents for the threat of (potential) new entrants. Innovation, of course, is another major driver of concentration: as Schumpeter repeatedly stressed, the key motivation behind innovation efforts is the ability to accumulate monopoly profits for as long as possible. In this context, as digital technologies come about, it became clear that virtually no sector, firm or production process could be seriously represented assuming decreasing returns to scale. On the contrary, growth and competition are more and more related to the ability to exploit increasing

returns, a typical characteristic of productive and innovation processes (like the digital ones) based, at least partly, on immaterial assets. As a result, witnessing market concentration on medium- and, even more so, high-tech industries become the rule rather than the exception.

Recent advancements in digital technologies, including the advent of platforms and AI, has even reinforced the link between innovation and market power. Network effects, lock-in dynamics and winner-take-all (or most) mechanisms allowed global incumbents such as Amazon or Google to become larger, in terms of market value, than economies such as Germany or Japan (Coveri et al., 2024). Not only trillions of consumers are increasingly dependents on the services provided by such digital oligopolists. Their pivotal role as intermediaries in the digital market give them the opportunity to extract huge rents throughout sectors without being in any way directly involved in it. An exemplary case is that of Amazon, extracting an enormous amount of rents from the most disparate companies which rely on its digital marketplace to sell their goods (Calvo et al., 2024).

The empirical attempts to document and explain the growing concentration of market power has also flourished. McMahon et al. (2021) asked whether digital technologies tend to strengthen the position of incumbents and, more broadly, that of large firms, allowing them to consolidate their market power. The main hypothesis is that digital technologies (and intangible assets more generally) may benefit large firms as the former are typically characterized by large fixed costs, but low marginal costs, making them highly scalable. Moreover, large firms are more likely to be abundant in key complementary assets, including human capital and other intangible assets. According to their analysis, based on a firm-level database (Orbis BvD) ranging between 2001 and 2014, large firms have, on average, higher mark-ups. And this is particularly true in 'digital intensive' industries, confirming the positive association between digitalization and market concentration. Similar arguments have been put forth by De Ridder (2024). This author shows that the rise of intangible inputs (e.g., software) tend to reduce marginal costs while raising fixed costs. As a result, intangible asset-intensive companies tend to enjoy competitive advantages, in turn deterring other firms from entering. Such hypotheses are validated though and empirical analysis based on French and US micro-level data.

Overall, digitalization has an ambivalent nature. On the one hand, it may represent an innovation opportunity for start-ups and newcomers, given the relative 'lightness' of such technologies which, in some cases (e.g., software), rely on immaterial inputs and small physical investments to be developed. As a result, the diffusion of digital technologies may go hand in hand with an increase in market competition. On the other, it may be a driver of strong and persistent market concentration. This latter case is to a significant extent related to the advent of the 'platform business model' (Parker and Van Alstyne, 2005). By controlling key digital infrastructures, large digital platforms (e.g., Amazon, Alphabet, Meta) may benefit from increasing returns to scale and network effects. Within their ecosystems, consumers, suppliers and, often, governments tend to be locked-in, as platform services are essential for a growing range of functions and alternatives tend to be scarce. Moreover, thanks to the cumulative and tacit nature of digital knowledge, large platforms benefit from a substantial 'first-mover advantage', which makes their market position hard to challenge. When it comes to generative AI technologies, the last frontier of the ICT technological paradigm, Korinek and Vipra (2025) show that the market structure for developing and deploying AI models exhibits a strong tendency toward concentration. Again, the explanation points to the presence of relevant economies of scale and scope. As the authors underline, the growing costs of pretraining (the activities carried out to 'train' the algorithms underlying AI technologies), coupled with bottlenecks in critical inputs like data and talent, are continually raising the stakes for new entrants.

In what follows, we provide a brief review of the literature analysing the relationship between digitalization and market power.

2.7.1. Digitalization and market-power

Given their strong grip on the large majority of markets, digital platforms have attracted a growing attention, both theoretically and empirically. A number of authors have investigated the roots of their

power, identifying several drivers (for a review, see Coveri et al., 2022). Digital platforms, particularly transaction platforms like Amazon, Airbnb, eBay, and Uber, operate in what Rochet and Tirole (2003, 2006) refer to as two-sided (or even multi-sided) markets. These are markets involving two groups of agents, where the benefit to one group of joining the platform is influenced by the size of the other group also joining (Evans, 2003; Parker and Van Alstyne, 2005; Armstrong, 2006; Evans and Schmalensee, 2008). Such markets typically lead to (i) both direct and indirect network effects, (ii) economies of scale driven by their cost structure and data-centric business models, and (iii) increased product differentiation due to the large volume of data platforms collect. As a result, network externalities and a cost structure with high fixed costs but minimal marginal costs (which causes average costs to fall significantly as size grows) allow platforms to outcompete new entrants and solidify their market dominance (Varian et al., 2004). Moreover, these network effects contribute to the strong lock-in that occurs with customers and third parties who rely on platforms (Parker et al., 2016). While network effects existed before the rise of online platforms, today they are amplified by the business model of modern digital platforms, whose growth depends on capturing, storing, and processing data from millions of users through advanced algorithms (Evans and Gawer, 2016).

In this context, platforms' increasing dominance is largely driven by their expanding control over the flow of information within society (Kenney and Zysman, 2016, 2020). As Rahman and Thelen (2019, p. 178) state, platforms gain unprecedented power “through their ability to extract and harness immense amounts of data in ways that allow them to function as key intermediaries and market creators, achieving a level of market dominance comparable to the monopolies of the 19th and 20th centuries.” In essence, by owning and controlling data, platforms set the terms for interactions between workers and employers, buyers and sellers, clients and contractors, creators and viewers, and advertisers and consumers. As Zuboff (2019) famously put it, the growth of platforms over time represents a continuous advancement and refinement of the “technology of surveillance.”

Recently, Coveri et al. (2022) have provided a theoretical framework, combining different streams of political economy literature, to illustrate the set of intertwined channels explaining the power of digital platforms. First, growth and diversification (Kenney et al., 2021). Digital platforms expand their reach by dominating key sectors and services—such as logistics, online advertising, and cloud services—that are essential for the production, distribution, and sale of various goods. By offering competitive pricing to enter high-value product segments, these platforms increase their market presence and extract more value, both from markets and third parties (for example, Amazon's increasing share of sellers' revenues). Second, investment in R&D and technology (Zuboff, 2019; Rikap and Lundvall, 2020). By making significant investments in critical technologies like Big Data, Cloud Computing, AI, and Machine Learning, which are vital for controlling information and its physical infrastructure, digital platforms create dependence and draw users, consumers, and third parties into their strategies (such as users trading privacy for access to social networks, consumers facing high switching costs, and third parties reliant on platforms for advertising or sales). Third, labour fragmentation and surveillance (Alimahomed-Wilson and Reese, 2020). Contrary to the belief that digital platforms mainly employ a small group of highly skilled and well-paid workers who are free to be creative (Vallas and Schor, 2020), platform operations rely on fragmented labour, extensive surveillance, and the exploitation of a large, dispersed workforce (Bogliacino et al., 2019; Tubaro et al., 2020). These platforms are supported by millions of workers worldwide, often subject to heavy workloads and intense control over their performance, such as through online training, AI algorithms, content moderation, and workers like Amazon Mechanical Turkers (De Stefano and Aloisi, 2019), or those working in logistics facilities. Consequently, much of the platform's strategic investments are directed at maintaining tight control over these workers (Delfanti, 2021). Fourth, the role of governments and 'retaliatory power' (Ietto-Gillies, 2002, 2019). Due to their scale, control of crucial assets like personal data, and strong customer loyalty, platforms can resist regulatory challenges and hostile institutions (e.g., regulations aimed at restricting data appropriation, raising taxes, limiting their scope of operations, or protecting platform-dependent workers). To counter such opposition, platforms wield retaliatory power that surpasses that of previous multinational corporations (Rahman and Thelen, 2019).

- *Digitalization and market power: firm-level evidence*

In what follows, we briefly review the contributions that, relying on industry and firm-level data, have analyzed the impact of digitalization on market power. A rather comprehensive study is the one by Calligaris et al. (2018). In this work, the authors explore the evolution of firm mark-ups across 26 countries for the period 2001-14. As a main explanatory factor, they focus on the digital intensity of industries. The key findings can be summarized as follows: i) mark-ups tend to increase, on average, all over the considered period and across countries; ii) such growth seems to be driven by firms at the top of the mark-up distribution, while the bottom half of the distribution exhibits a flat trend over time; (iii) mark-ups tend to be higher in digital-intensive sectors than in less-digitally intensive sectors; (iv) mark-up differentials between digitally-intensive and less-digitally-intensive sectors have increased significantly over time.

Focusing on similar research questions, Bessen (2020) tests whether and to what extent proprietary information technology systems (IT) increase industry concentration and margins by raising the productivity of top firms relative to others. Relying on an instrumental variable approach, he shows that IT system use is strongly associated with the level and growth of industry concentration and firm operating margins. Size matters, too. In fact, these authors document that IT system use is associated with relatively larger establishment size and labour productivity for the top four firms in each industry. Bessen (2020)'s results are in line with the evidence provided by Bajgar et al. (2025). They document a growing concentration across the majority of countries and sectors over the period 2002 to 2014. Carrying out both industry- and firm-level analysis, these authors report that key drivers of concentration are intangibles assets, particularly innovation, R&D and patents. These elements are considered crucial to enable large firms to scale up and increase their market shares. Remarkably enough, the positive relationship between intangibles and market concentration appears to be stronger in more internationalized and digital-intensive industries. Focusing on Germany, Weche and Wagner (2021) compare firm-specific markups and industry concentration as market power indicators reflecting a market structure and a performance perspective, respectively. Their results do not suggest an overall average increase in market power in German manufacturing but increasing markups and an increasing concentration in many industries. Concerning digitalization, these authors find no clear evidence that digital transformation and market power go hand in hand.

- *Measuring digitalization by relying on occupational data: a review*

As digitalization is strongly linked to the accumulation of knowledge and intangible assets, a large number of indicators used to measure the digital intensity of economies, industries and firms is based on occupational and skill-related information. In what follows, we provide an assessment of some of the relevant indicators used in the literature to measure digitalization building on this type of information. In this way, we establish a link between the literature on digitalization and concentration in industries; and the contributions focusing on similar dynamics at the labour market level.

Measuring the use of digital skills in the workplace is challenging due to the complex nature of these skills. While some aspects can be quantified through education levels, qualifications, or work experience, skills are influenced by individual and organization-specific learning processes.

Moreover, variations at the country, industry, and firm levels can greatly impact the development and application of skills, including digital ones. For example, the same digital technology may be used differently across organizations or tasks, resulting in distinct learning-by-doing processes and varying skill sets. Therefore, the nature and economic significance of digital skills can differ significantly across countries, industries, companies, and individuals.

Additionally, there is a lack of reliable and detailed data that can capture this complexity and variability.

As a result, there are gaps in the empirical evidence on digital skills, with many critical questions still unresolved. Two main limitations stand out: First, digital skills are often measured using proxies that fail to capture their full complexity. For instance, basic skills for using simple digital devices are often

lumped together with more advanced skills like those required for designing or developing new digital technologies. This generalization can overlook important variations in digital performance. Second, there is limited data on the supply, demand, and structural factors influencing the spread of digital skills at regional levels, and an insufficient understanding of the factors that drive convergence or divergence across regions. At the same time, new indicators of digital skills are emerging, presenting challenges in comparing and reconciling findings from different research approaches.

This paper focuses on comparing indicators of occupational digital intensity, one of the most widely used tools for mapping the intensity, distribution, and diffusion of digital skills. Even within this area, several different indicators have been developed by various researchers, potentially leading to inconsistent evidence. The paper examines three major indicators used to measure the digital intensity of work across the EU: the Digital Intensity Index (DII), the Digital Competency Index (DCI), and the Digital Skills Index (DSI). This review looks at their data sources, methodological approaches, geographical and time coverage, strengths, and limitations. It lays the groundwork for a descriptive analysis in the following section, which provides an updated mapping of digital skills in Europe.

These indicators operate at the occupational level and identify digital skill requirements from a broad set of skills listed in an occupational skill dictionary. Specifically, they rely on the European Skills, Competences, Qualifications and Occupations (ESCO) dictionary, which maps skill requirements by occupation with harmonized definitions across EU Member States. They measure digital intensity by occupational groups, based on the International Standard Classification of Occupations (ISCO), consistently applied across EU Member States. These indicators are applicable in all EU countries, and when combined with datasets like the EU Labour Force Survey (EU-LFS), they can provide broader statistics on the digital intensity of work at the country or population group level.

The DII calculates the proportion of digital skills among all the skills required for a particular occupation. For each ISCO 3-digit occupational group, it computes the share of digital work-related skills. Digital skills are identified using the DigComp framework, which is mapped onto the ESCO dictionary. The DII values are then aggregated to the ISCO 3-digit level using weighted averages based on EU-LFS data. A broad definition of digital skills is used, including all skills from the DigComp framework and those related to working with computers.

The DCI measures the ratio of digital skills in an occupation compared to the overall share of digital skills across all occupations. A value above 1 indicates that the occupation requires more digital skills relative to others. The DCI proxies the relative “digital specialization” of each occupation. Digital skills are identified through a combination of selecting skill groups containing terms like ‘computer,’ ‘ICT,’ or ‘digital,’ and conducting text analysis to capture additional digital skills. DCI values are calculated at the ISCO 5-digit level and then aggregated to the 3-digit level.

The DSI measures digital skill intensity in occupations, with separate values for different levels of digital complexity: total, practitioners, users, and developers. Digital skills are identified using textual analysis of ESCO occupational descriptors, and a set of 75 keywords are used to define digital skills. The DSI categorizes skills based on the expertise level required: user-level skills, practitioner-level skills, and developer-level skills. DSI values are calculated at the ISCO 4-digit level and aggregated to the 3-digit level.

Together, these indicators provide a detailed picture of the digital intensity of various occupations, offering a more precise measure than other proxies for digital skills. By using the ESCO dictionary, they take into account the specific knowledge, abilities, and tasks within occupations, allowing for accurate identification of digital skills and their importance within narrower occupational groups. This goes beyond traditional proxies like worker-reported use of digital devices, which often provide broader and potentially biased measurements of digital skill intensity. When combined with other EU datasets, these indicators offer a comprehensive overview of digitalization across EU Member States, regions, and different population groups, and can track changes over time.

However, all three indicators focus on occupation-level data, which limits their ability to capture information at the individual, firm, or sectoral level. For example, while these indicators measure the digital intensity of a given occupation, they do not account for variations in digital skills among

individuals within that occupation. Additionally, these indicators, based on occupational descriptions, may not reflect the actual use or frequency of digital skills in the workplace. This highlights the need for further analysis or the integration of occupation-based measures with data from other sources to avoid partial or biased representations of digital skills. Moreover, some sources, such as the ESCO dictionary and the DigComp framework, require continuous updates due to the rapid pace of digital technological change, which could risk their becoming outdated.

Lastly, the differences in the design of these three indicators raise concerns about the comparability of their results. They vary in how digital skills are identified, how values are aggregated across occupations, and how they account for different levels of skill complexity. These variations may result in different outcomes for digital skill intensity and diffusion, highlighting the sensitivity of digital skill measurements to methodological choices.

2.7.2. Digitalization, financial conditions and performance

In today's rapidly evolving digital economy, understanding the interplay between a firm's financial health and its capacity for digital innovation is crucial. Digital transformation has emerged as a key driver of competitiveness, enabling companies to optimize operations and develop new business models. However, the adoption and successful integration of advanced digital technologies require substantial financial investments, both in terms of initial outlays and ongoing expenditures. Moreover, as digital innovations often lead to improved operational efficiencies and cost reductions, they can also reinforce a firm's financial position. This dual relationship suggests a reinforcing cycle where robust financial conditions not only facilitate digital transformation but also reap rewards through enhanced financial performance.

A large body of theoretical literature has provided insights into the relationship between financial conditions and investment in technological advancements. Early works in the field, such as Stiglitz and Weiss (1981) and Myers and Majluf (1984), demonstrated that informational asymmetries in financial markets lead to discrepancies between the cost of acquiring new debt and the opportunity cost of using internal financing, such as cash flow or retained earnings. These external and internal financial resources are crucial for firms seeking to invest in projects involving significant uncertainty or long-term payoffs – traits often associated with digital transformations. Investments in innovations might be more sensitive to financial constraints than other investments because of the challenges associated with appraising the quality and potential risks of intangible assets. Moreover, even where firms are able to communicate the value and risks of their projects to external financiers, strategic considerations may lead companies to withhold information to prevent leakage to competitors (Himmelberg and Petersen, 1994).

Empirical research has consistently underscored the critical role of both high-quality financial information and access to credit in facilitating investments in innovation. A robust credit relationship can help mitigate information asymmetries between firms and financial institutions, thereby reducing the risks associated with new investments and enabling firms to secure the external financing needed to adopt innovative technologies. Herrera and Minetti (2007) empirically investigated the concept of “informed finance” by examining Italian manufacturing firms. Their study revealed that the duration of credit relationships, that is a proxy for a bank's informational advantage, has a significant and positive impact on innovation. Similarly, Mancusi and Vezzulli (2014) provide compelling evidence on the importance of external financing in overcoming capital constraints that can hinder innovation. Their empirical analysis shows that firms, particularly small and medium-sized enterprises, benefit substantially from improved access to credit, which allows them to manage the high fixed costs and uncertainties inherent in innovation initiatives. Brancati (2015) further explores the impact of financial frictions on firm innovativeness and demonstrates that financial constraints represent a severe obstacle to innovation, with small and micro-sized firms being particularly vulnerable. The results show that SMEs not only have a lower probability of innovation and a higher likelihood of encountering financial constraints, but their innovative propensity is also more sensitive to their financial conditions.

Together, these empirical studies highlight how enhanced financial information and improved access

to credit serve as pivotal enablers for investment in innovation, ultimately driving the digital transformation necessary to maintain a competitive advantage in today's dynamic market.

Digital innovation and firms' financial performance

The adoption of digital technologies has been found to significantly impact financial outcomes by enhancing operation efficiency, reducing costs, and ultimately strengthening competitive positioning. Empirical studies have provided robust evidence that investments in digital capabilities yield substantial benefits that translate into improved financial performance. Brynjolfsson and Hitt (1996) provided early, influential evidence on the productivity benefits of IT investments. Their research demonstrated that increased spending on digital technologies is closely linked to substantial improvements in labour productivity and overall operational efficiency. Firms that allocate more resources to IT typically achieve higher output per worker, indicating that digital investments effectively boost productivity. Bharadwaj et al. (1999) were among the pioneers in linking IT investments to firm financial performance. Their research demonstrated that enhancing IT capabilities can streamline internal processes, reduce overhead costs, and improve overall operational efficiency, which collectively contribute to a stronger financial bottom line. More recently, Benmelech and Zator (2022) have highlighted a reinforcing cycle between digital innovation and financial performance. Their study indicates that the efficiency gains and enhanced market reputation derived from digital initiatives create a virtuous cycle: improved financial performance enables further investments in digital technologies, which then drive additional performance improvements. This dynamic feedback loop not only consolidates a firm's competitive advantage but also ensures sustained growth in an increasingly digital economy.

Overall, these findings underscore the critical role of digital technologies in driving both operational and financial improvements. By enhancing productivity, streamlining processes, and fostering a reinforcing cycle of innovation, digital adoption provides firms with the tools to boost their financial performance and secure a competitive edge in the evolving digital landscape.

2.8. BAC (UniSalento): Understanding Digital Technology Integration in Labour, Education and Firms (DIGITAL-LEAF)

The BAC-Digital-LEAF research initiative examines the multifaceted implications of digital transformation on labor markets, territorial development, and public administration systems. This report navigates the complex interplay between technological disruption and socioeconomic structures, offering evidence-based insights to guide policy interventions in an increasingly digitalized landscape. The analysis investigate how artificial intelligence is fundamentally restructuring labor markets through task-specific transformations rather than wholesale occupational displacement. Modern AI systems demonstrate variable impacts within occupational categories, with particular capabilities in data analysis, risk assessment, and text generation, while tasks requiring interpersonal interaction or complex judgment remain predominantly human domains. The proposed AI Coverage Index (AICI) provides a novel quantitative framework that measures both the technical feasibility of automating specific tasks and the real-world adoption rates of AI solutions across different sectors. This nuanced approach captures the dual nature of AI as both a displacement mechanism for routine tasks and a productivity multiplier for creative and analytical functions.

The examination of territorial divides and production chains reveals significant heterogeneity in how regions adapt to technological change through educational and industrial partnerships. The ITS Academy case study demonstrates both successes and persistent challenges in aligning vocational training systems with evolving labor market requirements. Quantitative analyses of curricula, qualifications, and industry surveys highlight substantial skill mismatches between educational offerings and employer needs, particularly regarding hybrid technical-managerial competencies increasingly valued in digitalized workplaces. The research identifies several determinants of successful educational-industrial partnerships, including institutional communication channels, collaborative curriculum development processes, and shared research initiatives. Regional disparities become evident when comparing manufacturing and technology sectors, which benefit from established production chains and clear skill

demand signals, against service sectors characterized by more fragmented employer landscapes and rapidly evolving skill requirements. These findings underscore the importance of data-driven approaches to educational planning and the need for flexible institutional responses to technological change.

The governance dimension of digital transformation emerges prominently in the analysis of public procurement practices within voluntary amalgamated municipalities. Though less extensively documented in the available excerpts, this section examines how administrative consolidation affects procurement efficiency, transparency, and quality outcomes. The research suggests that municipal amalgamation creates opportunities for economies of scale in procurement processes while simultaneously introducing coordination challenges across previously independent administrative units. The quality assessment framework developed in this study offers municipal leaders practical tools for evaluating procurement outcomes in merged jurisdictions, with particular attention to transparency mechanisms, competitive bidding processes, and equitable resource distribution. These governance considerations complement the labor market and educational analyses by highlighting the institutional adaptations necessary to maximize the benefits of digital transformation while mitigating associated risks.

Collectively, this research advances our understanding of how digital technologies reshape economic and administrative systems across multiple scales, from individual tasks to regional ecosystems. The findings suggest that effective policy responses must simultaneously address skill development needs, territorial collaboration mechanisms, and governance reforms to ensure that digital transformation contributes to inclusive and sustainable development. By integrating these perspectives, policymakers can develop comprehensive strategies that leverage technological innovation while protecting vulnerable workers and communities during periods of rapid transition. Future research directions include longitudinal studies of AI adoption patterns, comparative analyses of regional adaptation strategies, and detailed investigations of governance innovations in digitally transformed public administration systems.

2.8.1. The Effect of Artificial Intelligence on the Labour Market

Artificial intelligence (AI) has rapidly become a transformational technology that influences labor markets in multiple ways. Early studies primarily concentrated on macro-level outcomes, such as changes in employment or wage distributions (Acemoglu and Restrepo 2020; Autor et al. 2003). However, more recent research underscores the need to focus on the granular effects of AI on specific tasks rather than broad occupational categories (Autor 2015; Acemoglu and Restrepo 2018). By adopting a task-based approach, researchers can more accurately discern how AI displaces—or complements—human workers in discrete functions. This shift in analytical perspective is central for understanding the nuanced impacts of automation technologies and AI on labor market dynamics.

Early investigations into technological change typically framed analysis around occupations. Such studies highlighted the displacement or augmentation of entire job categories, drawing attention to phenomena such as routine-biased technological change, wherein machines more readily automate routine cognitive and manual tasks (Autor, Levy, and Murnane 2003). Although this occupation-level framing led to significant insights—such as documenting wage polarization and shifts in job composition—it has limitations when applied to AI. Many occupations contain diverse tasks, some of which are amenable to AI-driven automation while others are not (Autor 2013; Autor 2015).

A task-based framework offers deeper insights into AI's economic implications because AI systems are often designed to automate or augment narrow functions, such as writing computer code, analyzing large sets of unstructured data, or translating text (Brynjolfsson et al. 2018). By capturing the actual activities performed within occupations, scholars can more precisely determine which subsets of tasks (e.g., pattern recognition or language modeling) are likely to experience displacement and which ones might be complementary (Acemoglu and Autor 2011; Acemoglu and Restrepo 2019). This has important implications: while certain tasks vanish from an occupation's portfolio, others can expand or newly emerge, altering skill requirements in ways that a solely job-level study might overlook (Deming and Noray 2020).

A burgeoning literature has examined AI's potential to automate an array of tasks historically performed by human workers. Studies modeling the “exposure” of occupations to AI often rely on detailed occupational characteristics (e.g., Felten, Raj, and Seamans 2019; Webb 2019). These exercises reveal that AI adoption is no longer confined to technology sectors. Instead, it has diffused across fields such as finance, education, media, and manufacturing, where AI can handle tasks such as data analytics, risk assessment, text generation, or pattern recognition (Eloundou et al. 2023).

Simultaneously, controlled productivity studies indicate that AI can augment human capabilities. For instance, software developers often rely on AI-based tools to write or debug code, while writers use large language models to draft and refine text (Cui et al. 2024; Peng et al. 2023; Noy and Zhang 2023). This co-evolution of displacement and augmentation poses challenges for policy makers, as it may create new task compositions within existing occupations while phasing out select human functions (Acemoglu and Restrepo 2020).

Although occupation-level outcomes such as net employment changes or wage distributions remain vital, they do not capture the heterogeneous effects observed at a task level. For instance, short-term negative consequences for certain workers are often accompanied by new high-demand tasks or emerging occupations. These shifts happen in tandem with changes in skill requirements, reflecting how AI technology can complement, rather than substitute, some human abilities (Brynjolfsson et al. 2023; Dell'Acqua et al. 2023).

Below is a sketch for constructing a *task-based AI Coverage Index (AICI)*, intended to measure how extensively AI overlaps with (and potentially displaces) the tasks performed in each occupation and sector. The ultimate goal is to estimate the share of tasks—and hence the share of total work—that are “at risk” of AI-driven automation or significant transformation in each occupation. This type of index draws on the task-based approach described in the literature and can be refined as new data become available.

Conceptual Underpinnings

Focus on Tasks: AI typically does not automate entire occupations outright; instead, it automates or augments specific tasks. Hence, an index built around tasks—rather than entire job titles—provides a more accurate reflection of which aspects of work are susceptible to AI substitution.

Coverage vs. Depth

- *Coverage* captures the fraction of tasks in an occupation that AI can perform (or is actually performing) in place of humans.
- *Depth* indicates how intensively AI is used for those tasks—i.e., whether AI usage fully replaces human activity (automation) or merely supports it (augmentation).

Dynamic Outlook

AI capabilities evolve quickly, and usage may change over time as organizations adopt new techniques. An ideal index will be updated periodically to track shifting technology frontiers and actual adoption patterns.

Data Requirements

1. Task Inventories
 - Obtain the set of tasks for each occupation from a standardized source, similar to the O*NET Database or a similar labor-market taxonomy.
 - Each occupation typically has 20–30 discrete tasks describing work activities.
2. AI Feasibility Scores
 - *Technical feasibility approach:* Use existing measures (e.g., Felten, Raj, and Seamans 2019; Webb 2019) or surveys of experts to rate whether a given task can be automated by current AI.

- *Observed usage approach*: Examine real-world data indicating whether tasks are already being performed by AI (e.g., conversation logs from an AI platform, job postings requiring AI skills, or references to AI usage in tasks).
- 3. Occupation-Level Employment Weights
 - To assess economic impact, it can be helpful to weight tasks by the fraction of workers performing them, average hours spent, or the importance of each task in that occupation.
- 4. (Optional) Additional Indications of AI Impact
 - “Automation vs. Augmentation” signals (e.g., text analytics on user-model interactions).
 - Firm-level data on R&D or AI investments to refine sector- or firm-specific usage estimates.

Below is a two-step tentative approach—first measuring the fraction of *feasible* tasks, then weighting by an *adoption intensity* factor to reflect how prevalent AI usage is for each of those tasks.

Step A: Identify Feasible AI Tasks

1. Task Compatibility Score (TCS)

For each task t , define a *Task Compatibility Score* based on AI capabilities. One could adopt or combine:

- Expert/Model Rating: A rating of how much current AI technology can handle a task, on a 0–1 scale (where 0 = minimal automation feasible, 1 = fully automatable).
- Machine-Readability: If the task requires mostly predictable, data-driven pattern recognition or large language model reasoning, the TCS could be higher.

2. Task Weight (TW)

Measure each task’s relative importance in the occupation. For instance:

- $TW_{o,t}$ = fraction of time the typical worker in occupation o spends on task t .

3. Potential AI Coverage

Compute an occupation-level measure by summing across tasks:

$$PotentialAI_o = \sum_{t=1}^T (TCS_t \times TW_{o,t}),$$

where T is the set of tasks relevant to occupation o . This yields a fraction between 0 and 1 indicating the share of that occupation’s tasks that could be performed by AI if fully adopted.

Step B: Weight by Observed AI Adoption

Even if a task is “feasible” to automate, it may not be automated in practice. Hence, we multiply the *Potential AI Coverage* by the *Adoption Intensity*.

1. Adoption Intensity (AIAdopt)

- If using *real-world usage data* (e.g., from user-AI interactions or specialized surveys), define AIAdopt for each task based on how often AI is used in real workplaces. For example, measure how many times a specific task (e.g., “drafting legal text”) appears in anonymized AI interactions relative to total tasks in that occupation.
- If using *job posting data*, measure the share of postings that mention AI usage or AI skills for that specific task. Alternatively, measure the fraction of employers adopting AI solutions for tasks in an occupation or sector.

2. Realized AI Coverage (RAIC)

- Combine feasibility with actual usage:

$$RAIC_o = \sum_{t=1}^T (TCS_t \times AIAdopt_{o,t} \times TW_{o,t}).$$

This formula produces a weighted sum of tasks feasible for AI (TCS) and in practice performed by AI ($AIAdopt$), normalized by the task's importance in the occupation. $RAIC$ is effectively the proportion of tasks (within an occupation) that are both feasible and actually automated, capturing “coverage” in real-time adoption.

Displacement-Risk Extension

Building on the *Realized AI Coverage (RAIC)*, we can define a *Displacement Risk Index (DRI)* that emphasizes how likely human workers are to be replaced or see their tasks heavily altered:

1. AI-Complete vs. AI-Augmented

From conversation data or other usage indicators, classify tasks as either “AI-complete” (machine largely replaces a person) vs. “augmented.” Multiply the portion of tasks that are “AI-complete” by a factor >1 , maybe derived from the sample, to reflect higher displacement risk.

- For example, if usage logs show that 80% of the time a coding task is solved purely by an AI system with minimal iteration, that suggests higher displacement risk.

2. Automation vs. Complement

Let α_t be the fraction of times task t is performed via *automation*, while $1 - \alpha_t$ is via *augmentation*. Then:

$$DRI_o = \sum_{t=1}^T (\alpha_t \times AIAdopt_{o,t} \times TCS_t \times TW_{o,t}).$$

This quantity focuses specifically on the portion of tasks likely to be *fully automated*, ignoring tasks that remain partially done by humans. Occupations with a high DRI are those with many tasks that are fully covered by AI in practice.

Sector-Level Aggregation

To extend from occupations to entire sectors (e.g., manufacturing, finance), aggregate the individual occupation indices weighted by that occupation's employment share within the sector. Let $\omega_{o,s}$ denote the share of occupation o in sector s . A sector-level coverage index for sector s can be computed as:

$$AICI_s = \sum_{o=1}^{O_s} \omega_{o,s} \times RAIC_o$$

where O_s is the set of occupations in sector s . This sector-level index indicates how extensively AI might replace tasks across the workforce in that sector.

Practical Considerations and Implementation Notes

- **Periodicity**

The underlying TCS (feasibility) may be relatively stable in the short term, but $AIAdopt_{o,t}$ will likely change rapidly as new AI applications enter the market. Updating the index annually or quarterly is advisable.

- **Data Availability**

- *TCS from Expert or Model Judgments*: e.g., Felten et al. (2019), Webb (2019), or bespoke task-level surveys.

- *Adoption Data from Observed Usage*: e.g., Clio-based usage logs (Handa et al. 2024), AI skill demands in job postings, or direct firm surveys on AI usage.
- *Importance Weights (TW)*: e.g., O*NET's ratings of task frequency or time spent per task, or a specialized occupation-task matrix from labor statistics.
- **Calibration**
 - Weights like α_t for automation vs. augmentation can be inferred from analyzing user logs of human-AI interactions, measuring how frequently tasks appear to be fully automated.
 - Potential synergy or complementarity with other technologies (robotics, traditional software) may also factor into measuring net displacement.
- **Interpreting the Index**

A high coverage index does not necessarily mean immediate job losses; it indicates tasks that are more susceptible to AI-driven displacement. In practice, partial augmentation might dominate, mitigating short-run negative effects.

Illustrative Example

As a simplified illustration:

1. Suppose Occupation A has four main tasks:
 - Task 1: Data entry (TCS=0.85; half the time it's fully automated, so $AI_{Adopt}=0.5$).
 - Task 2: Writing short product summaries (TCS=0.6; $AI_{Adopt}=0.4$).
 - Task 3: Face-to-face client advising (TCS=0.1; $AI_{Adopt}=0.1$).
 - Task 4: Team management (TCS=0.05; $AI_{Adopt}=0.05$).
2. Suppose each task is 25% of the occupation's total time ($TW=0.25$ each).
3. Then $RAIC_A = 0.85 \times 0.5 \times 0.25 + 0.6 \times 0.4 \times 0.25 + 0.1 \times 0.1 \times 0.25 + 0.05 \times 0.05 \times 0.25 \approx 0.11$. So roughly 11% of Occupation A's tasks (weighted by time) appear fully covered by AI in practice.
4. If the fraction α for tasks 1 and 2 is 0.7 for automation (meaning 70% of the time it's performed with minimal human involvement), the DRI might be slightly lower or higher, depending on definitions. The main difference is that the index focuses on tasks that are predominantly automated rather than augmented.

Remarks

A carefully constructed *AI Coverage Index* captures which tasks (and thus which occupations) might face the highest displacement risk due to AI. By focusing on tasks, the index reveals how AI's expanding capabilities translate into actual labor market pressures. Moreover, the index can guide policymakers and training institutions on prioritizing retraining or skill development in tasks less vulnerable to AI automation, and on encouraging complementary skills for tasks that are partially augmented by AI systems.

Ultimately, such an index underscores the idea that automation in the era of AI is not uniform across occupations but rather plays out at the granular task level—and tracking that level of detail is key to understanding and proactively managing its impact on the workforce.

The growing influence of AI on labor markets calls for analytical frameworks that center on tasks rather than solely relying on occupational aggregations. By examining the discrete functions at risk of displacement or suitable for augmentation, scholars can more comprehensively identify patterns of technological change and workforce adaptation (Acemoglu and Restrepo 2019). Studies such as Handa et al. (2024) demonstrate the value of analyzing large-scale usage data: their findings indicate that although AI usage is prevalent for software development and creative writing, it is also broadening to other occupations, signaling dynamic, uneven diffusion across the economy. Moreover, their approach of distinguishing automation from augmentation suggests AI's impact extends beyond simple job replacement to reshaping work processes through iterative human-model collaborations (Peng et al.

2023; Noy and Zhang 2023).

As AI capabilities continue to improve, future research will benefit from more refined measurements of task-specific applications and real-world productivity outcomes—ideally integrated with complementary data on workforce retraining, firm-level adoption strategies, and policy interventions. Embracing such a task-based viewpoint remains critical for understanding how AI transforms labor demand, redefines skill requirements, and reshapes the structure of modern work.

2.9. BAC (Unicatt-Unisa): Education for Neet (ED4NEET)

Entrepreneurship is a well-known driver of productivity, job creation, innovation, and social and economic development (Shane and Venkataraman, 2000; Audretsch, 2012).

In recent decades, the importance of entrepreneurship in the Italian economy has been emphasized not only as a catalyst for economic growth but also as a critical response to persistent youth unemployment. Initially valued primarily for its contribution to a country's economic growth, entrepreneurship is now also recognized for its potential to address social and environmental issues.

In the last decade, the concept of sustainable entrepreneurship has gained increasing interest, reflecting a paradigm shift in entrepreneurial education from traditional perspectives toward the inclusion of sustainability (Amatucci et al., 2013).

Despite this, Italy continues to face slow entrepreneurship growth, particularly evident in youth employment rates. Developing an entrepreneurial culture among young Italians is crucial to addressing these economic and social challenges (ISTAT, 2023; Eurostat, 2023). But what does it mean to possess an entrepreneurial attitude? Entrepreneurial attitude refers to the extent to which an individual has a positive or negative capability to become an entrepreneur (Karali, 2013). Entrepreneurial education in Italian universities has emerged as a key strategy to enhance entrepreneurial intentions among students. However, the outcomes of these initiatives can vary significantly depending on educational environments and the surrounding entrepreneurial ecosystem.

A proper understanding of entrepreneurship is essential for implementing and developing effective strategies to motivate and inspire students. Indeed, international experience suggests that specific entrepreneurial training can significantly increase students' propensity to undertake entrepreneurial initiatives (Laukkanen, 2000; Alvarez et al., 2006; Taatila and Down, 2012).

In Italy, national policies and local initiatives aim to integrate entrepreneurial education more systematically into university curricula, bridging the gap between formal education and the rapidly evolving job market (MIUR, 2022). This approach seeks not only to stimulate innovation and the creation of new enterprises but also to equip students with the skills and confidence necessary to tackle future economic challenges.

This research aims to deeply explore the factors influencing the entrepreneurial intentions of youth, with a particular focus on the perception of the entrepreneurial environment and the effectiveness of entrepreneurial education in the Italian context. The goal is to provide a more comprehensive understanding of how entrepreneurial education can be optimized to stimulate youth entrepreneurship and address the country's economic challenges.

2.9.1. Objectives of the Systematic Literature Review and Research Questions

Entrepreneurial education plays a crucial role in promoting entrepreneurship among young people, providing them with the necessary tools to transform innovative ideas into entrepreneurial realities.

Examining how entrepreneurial education can stimulate youth entrepreneurship means analyzing the competencies, knowledge, and attitudes that training programs can impart to young individuals, preparing them to face the challenges of the market and seize available opportunities on the job market. However, specific entrepreneurial orientation for youth requires a thorough analysis of the methods and strategies that can be adopted to develop an entrepreneurial mindset, capable of incentivizing risk-taking attitudes and the pursuit of innovative solutions.

Innovation is a central element for the success of entrepreneurial initiatives, especially in a dynamic context like the current one. Assessing how innovation can be integrated into the youth's entrepreneurial initiatives necessitates considering how new ideas and emerging technologies can be applied to create value and differentiate market offerings. To this end, it is essential to identify the key factors that promote entrepreneurship in general, with a particular focus on youth.

Finally, identifying the potential drivers that universities, institutions, and businesses should enhance to align educational offerings with the needs of the contemporary job market is fundamental.

The figure 22 below summarizes the specific objectives of the SLR conducted.

Figure 22: Main Topics and Objectives of the SLR

Topics and Dimensions of Analysis	Objectives
Entrepreneurial education	Examine how entrepreneurial education can promote entrepreneurship among youth.
Entrepreneurial orientation	Analyze specific entrepreneurial orientation for youth.
Innovation	Evaluate how innovation can be integrated into the entrepreneurial initiatives of young people.
Key factors promoting entrepreneurship	Identify key factors that promote entrepreneurship in general, with a specific focus on youth.
Drivers	Determine potential drivers that universities, institutions, and businesses should enhance to align educational offerings with the needs of the contemporary job market.

This Systematic Literature Review aims to examine various aspects of youth entrepreneurship, with a particular focus on entrepreneurial education, youth orientation, and the integration of innovation. To effectively address the research objectives, three research questions have been formulated to guide the analysis and synthesis of existing evidence.

To pursue the first research objective, the work focuses on a deep understanding of the dimensions of youth entrepreneurial orientation and intention. It aims to identify and analyze the personal and environmental factors that influence these dimensions, study their interaction, and provide practical recommendations to promote a more vibrant entrepreneurship among youth. Therefore, the first research question is as follows:

RQ1: What are the main dimensions of youth entrepreneurial orientation?

The youth segment represents a vulnerable group that needs specific interventions to be reintegrated into the socio-economic fabric. Entrepreneurial orientation can offer these young people a path to economic autonomy and personal development. The second research question focuses on this objective:

RQ2: What is the influence of entrepreneurial education programs on young people's skills?

This question explores the difficulties and potentials young people face in entrepreneurship, seeking to identify effective educational strategies to support them. Innovation is essential to meet contemporary global challenges and to ensure a prosperous and sustainable future. Universities, institutions and businesses must therefore enhance resources and skills to align entrepreneurial education with labor market needs. The third research question stems from this objective:

RQ3: What drivers promote innovation and entrepreneurship among young people?

This question investigates the drivers that can be enhanced to promote innovation and entrepreneurship. This research aims to in order to address the main objectives of the review in a systematic and detailed manner, providing a comprehensive overview of key strategies and drivers that promote entrepreneurship, with a special focus on youth and innovation.

2.9.2. Methodology

Systematic Literature Review (SLR) emerges as an ideal technique to conduct critical reviews and identify key trends and focuses that can contribute to a deeper conceptualization of a topic, while outlining research directions for future studies in different fields (Massaro et al., 2016). SLR allows the introduction of reliable results through qualitative coding and interpretation processes, fostering a clearer and more articulate conceptual definition of the phenomena under investigation, and providing the possibility of redefining and transforming existing conceptualizations to propose new ones (Secundo et al., 2020).

Over time, SLR methodology has been applied in various interdisciplinary fields such as accounting (Guthrie and Parker, 2011), human capital (Guthrie and Murthy, 2009; Guthrie et al., 2012), intellectual capital (Dumay, 2014), and knowledge management (Manhart and Thalmann, 2015; Massaro et al., 2015). This versatility of SLR lies in its ability to deeply explore little-studied or fragmented topics, allowing it to identify the various semantic dimensions that define a given paradigm and to shed critical light on the impacts these phenomena may have on other related aspects, such as innovation, social change, and economic implications.

In the context of a topic such as youth entrepreneurship, which still remains largely underexplored and fragmented, SLR is particularly well suited to investigate the key factors that promote entrepreneurship among young people. Although youth entrepreneurship is recognized as a crucial issue from both social and economic perspectives, its treatment in academic research is still insufficient.

In an era of rapid socio-economic change, rising youth unemployment and labor market transformation, a greater understanding of the factors influencing entrepreneurial intentions and skills among young people becomes urgent in order to promote a sustainable and innovative entrepreneurial culture (Pittaway and Cope, 2007).

Through SLR, it is possible to offer a deeper understanding of variables that have not previously been comprehensively analyzed and to more clearly identify the contextual, educational, and personal factors that influence youth entrepreneurship. In particular, SLR allows for the exploration of how entrepreneurial education programs affect young people's intentions and skills, as well as their attitudes toward business start-ups and innovation. In addition, several studies have highlighted the importance of equipping young people with the technical and managerial skills needed to navigate an increasingly dynamic and complex labor market (Del Río et al., 2016; Alakaleek, 2019).

The ability to develop practical technical skills through access to technological resources and equipment, along with management training through hands-on approaches such as simulations and mentoring, is critical to the success of start-ups and the creation of new entrepreneurial ventures (Abdullah et al., 2018; Tindiwensi et al., 2020).

Therefore, SLR represents a methodology that not only provides a comprehensive synthesis of the existing literature but also allows new research avenues to be proposed that address the identified gaps. Through the application of SLR in the context of youth entrepreneurship, this research aims to shed light on the importance of entrepreneurial education and identify economic, social, and political conditions that can support young entrepreneurs globally. In this way, SLR can contribute not only to greater theoretical understanding, but also to the formulation of more targeted and effective public policies and educational interventions (Yemini and Haddad, 2010; Xavier et al., 2013).

In the first phase of research, the focus was on identifying the keywords that could produce the most results relevant to the research conducted.

This Systematic Literature Review (SLR) intends to focus on three main areas: entrepreneurial education, youth entrepreneurial orientation with a focus on NEETs, and sustainable innovation. The research objectives and topics of major interest concern youth entrepreneurship in all its dimensions.

The reasons for selecting the keywords are explained below:

1. *Youth Entrepreneurship.*

The main objective of SLR is to explore entrepreneurship among youth by understanding the key factors that promote it and the challenges it poses. Using “Youth Entrepreneurship” as a keyword focuses research on the target group of young entrepreneurs, allowing for the collection of specific studies and data related to this population. In addition, this keyword allows alignment with the research objectives by exploring youth entrepreneurship in its entirety, identifying the specific characteristics, drivers and barriers for young entrepreneurs.

2. *Education*

Entrepreneurial education is a crucial element in promoting entrepreneurship among young people. The keyword “Education” helps identify studies that analyze how education can influence entrepreneurial intentions and develop necessary skills. This keyword supports the goal of examining the impact of educational programs on youth entrepreneurship, allowing different educational methodologies and approaches to be evaluated.

3. *Orientation*

Entrepreneurial orientation is critical to understanding the specific needs and challenges of youth in the entrepreneurial environment. The keyword “Orientation” enables the collection of studies dealing with how to orient young people, towards entrepreneurial paths. This keyword helps answer the research question related to challenges and opportunities, identifying best practices and strategies.

4. *Innovation*

Innovation is a central theme for contemporary entrepreneurship. The keyword “Innovation” allows one to find studies that explore how innovation can be integrated into youth entrepreneurial initiatives. This keyword is directly related to the goal of assessing how innovation can be fostered among young entrepreneurs by identifying the resources and skills needed.

The keywords “Youth Entrepreneurship,” “Education,” “Orientation,” and “Innovation” were selected to reflect the specific objectives of the research and to comprehensively cover the main thematic areas of SLR. The careful selection of these keywords enables the collection of relevant studies, ensuring that the review can explore youth entrepreneurship, orientation, and innovation in depth.

This study aims to provide an in-depth analysis and conceptualization of the topic of youth entrepreneurship. To achieve this goal, a systematic literature review was conducted using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, introduced by Moher et al. (2009).

The literature on youth entrepreneurship was collected from academic journals, ensuring the inclusion of high-quality studies.

In the context of this study on youth entrepreneurship, the application of the PRISMA method ensured a rigorous and transparent review of the literature. The decision to use PRISMA was motivated by the need to provide an accurate and comprehensive synthesis of the available evidence, minimizing the risk of bias and ensuring that conclusions are based on a sound empirical foundation.

The adoption of the PRISMA protocol facilitated a systematic understanding of the dimensions of youth entrepreneurial orientation and intention, enabling the identification and analysis of key factors influencing these dimensions and providing practical recommendations to promote more vibrant entrepreneurship among youth.

In summary, the PRISMA method was an essential tool for ensuring the quality and credibility of the systematic review conducted, providing a solid basis for the in-depth analysis and understanding of the phenomenon of youth entrepreneurship.

To develop the research design for the SLR, the methodologies proposed by Webster and Watson (2002), Guthrie and Murthy (2009), Dumay (2014), and Massaro et al. (2016) were combined to design

a research protocol based on several steps described in the following sections.

The study implemented a methodological approach divided into three phases, following the PRISMA methodology, and starting from the planning phase, which is fundamental to establish the basis of the systematic review.

Step 1: Planning

Defining Research Objectives

The research objectives were formulated to answer the main research questions, namely:

- Identify key factors that promote youth entrepreneurship in general, with specific application to the NEET group.
- Identify potential strategic drivers (such as orientations, resources and skills) that universities, institutions and businesses need to improve in order to align educational provision for NEETs with current labor market needs, such as soft skills and digital skills.
-

Selection of Key Words

Keywords were selected to comprehensively cover the topics of interest. The initial keywords selected are: “Youth entrepreneurship”; “Education”; “Orientation”; “Innovation”.

These keywords were used to create the initial search criteria.

Definition of Inclusion and Exclusion Criteria

For the selection of sources in the present research, specific inclusion and exclusion criteria were established in order to ensure the relevance and quality of the information collected.

Specifically, all studies published in peer-reviewed academic journals were included in the review, thus ensuring the reliability and scientific validity of the research considered. In addition, the research looked exclusively at studies dealing with youth entrepreneurship, with a focus on those examining entrepreneurial education, entrepreneurial orientation, and innovation. These topics were considered crucial to understanding how the younger generation can be supported in developing entrepreneurial skills.

All articles that were not peer-reviewed were excluded from the review, to avoid the inclusion of research that was not scientifically validated. Studies that were not available in full text were also excluded to ensure a thorough and detailed analysis of each source. In addition, studies that did not focus specifically on youth entrepreneurship or entrepreneurship education were omitted because they did not meet the research objectives. Finally, articles that did not meet the established research objectives were excluded to ensure that source selection was closely aligned with the purpose of the study. Figure 23 presents a summary of the selection criteria adopted.

Figure 23: The criteria for skimming the results

Inclusion criteria	Exclusion criteria
Studies published in peer-reviewed academic journals	Non-peer-reviewed articles.
Studies dealing with youth entrepreneurship.	Studies not available in full text.
Studies that examine entrepreneurial education, entrepreneurial orientation and innovation.	Studies that do not focus on youth entrepreneurship or entrepreneurial education.
	Articles not responsive to research objectives.

Selection of Data Sources

The literature search was conducted using three main scientific databases:

- Emerald,
- Web of Science (WoS)
- Scopus

These databases were chosen for their broad coverage and quality of indexed publications.

Implementation of the Search

The search was conducted between the months of June and September 2024, using the selected keyword combination. The search string used was:

“Youth entrepreneurship” AND “Education” AND “Orientation” AND “Innovation.”

This combination identified studies covering key aspects of youth entrepreneurship, with a particular focus on education, entrepreneurial orientation and intention, and innovation.

The planning phase established a clear and detailed methodological framework, ensuring that the systematic literature review is conducted in a rigorous and transparent manner. This approach ensures that all steps are documented and reproducible, providing a solid foundation for subsequent analysis.

Step 2: Conduct of the review phase

In the second phase, called the review phase, articles identified during the planning and initial literature collection phase were further analyzed and skimmed through a filtering process. This step is crucial to ensure that only those studies most relevant and pertinent to the objectives of the research being conducted are included in the systematic review.

Initial Screening

The initial search was conducted using the selected keywords (“Youth entrepreneurship,” “Education,” “Orientation,” “Innovation”) in the three main databases: Emerald, Web of Science (WoS), and Scopus.

This phase produced a considerable number of preliminary results: the initial search retrieved 500 articles from Emerald, 38 from WoS, and 48 from Scopus.

The results obtained from the various databases were compared to identify and remove any duplicates. This process reduced the total number of articles to about 520 unique studies.

Application of Inclusion and Exclusion Criteria

Each title and abstract of the remaining articles were screened to determine their relevance to the research objectives. Articles that did not directly address youth entrepreneurship, entrepreneurial education, NEET orientation, or sustainable innovation were excluded. This step reduced the number of relevant articles to about 300.

Filters by Publication Type: A filter was applied to include only academic journal articles, excluding other types of publications such as book chapters, conferences, and technical reports. This ensured the inclusion of studies that passed a rigorous peer review process.

During the analysis of the results, the need for further skimming on the Emerald database emerged due to the large amount of articles retrieved.

The titles of the 500 articles initially identified in the Emerald database were further examined. At this stage, a preliminary reading of the titles was performed to determine their consistency with the research objectives. Articles whose titles were not consistent with the research objectives were eliminated. This preliminary skimming reduced the number of Emerald articles to 93. For the remaining 93 articles, a detailed evaluation of titles, abstracts, and keywords was conducted. This analysis aimed to determine relevance to the research themes and goals established.

Only those articles that had a clear relevance to the theme of youth entrepreneurship, with a focus on

NEETs, and that included aspects of education, guidance, and sustainable innovation were retained. This process reduced the number of relevant articles in the Emerald database to 39, 24 from WoS, and 20 from Scopus.

Comprehensive Review of Texts

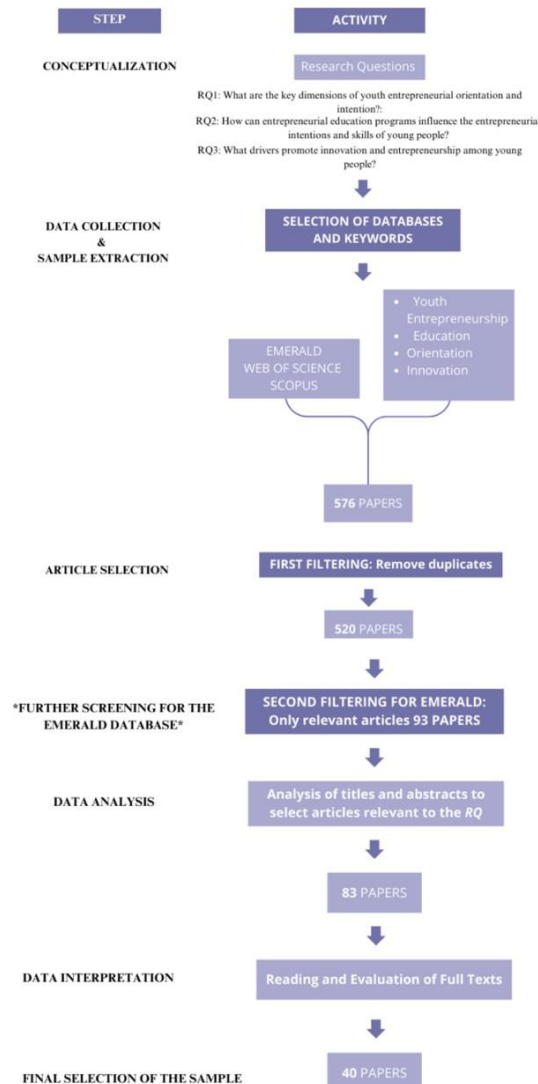
The full texts of articles that passed the screening stage were read and evaluated in detail. This process included a critical analysis of the relevance of the studies to the research questions. For each included article, key data were extracted regarding: methodology, population studied, main findings, and implications for research on youth entrepreneurship and NEETs.

Only those articles that met the criteria and provided significant evidence relevant to the research questions were included in the final review. This resulted in a final selection of 40 articles: 25 articles from Emerald, 6 from WoS, and 9 from Scopus.

Step 3: Reporting

In the third and final phase, called the reporting phase, the 40 selected articles were subjected to an in-depth analysis to synthesize and report the findings. This stage is essential for drawing meaningful and informed conclusions that contribute to the overall understanding of the topic of youth entrepreneurship, with a focus on youth and innovation. Figure 24 describes the main steps followed for data collection and analysis.

Figure 24: The main steps of SLR's research design.



2.9.3. Sample analysis

From the analysis of the target sample, it was possible to conceptualize the theme of entrepreneurship, with particular reference to youth.

• **RQ1: The dimensions of youth entrepreneurship**

Universities and organizations around the world offer courses on entrepreneurship to influence and improve entrepreneurial intentions and skills among students, which would ultimately increase the likelihood that they would become future entrepreneurs (Laukkanen, 2000).

However, not all students tend to have the same aspirations to become entrepreneurs, and their entrepreneurial desires and entrepreneurial orientations (EO) differ. Some groups tend to be naturally more entrepreneurship-oriented, while others do not. Therefore, several studies have attempted to investigate globally the dimensions of youth entrepreneurship and entrepreneurial intentions of students and youth.

Analysis of the sample of articles included in the paper revealed several relevant dimensions of youth entrepreneurship that are worth analyzing in order to gain a comprehensive and detailed view of the topic.

Youth entrepreneurship, as highlighted earlier, is a crucial resource for addressing global socio-

economic challenges by providing opportunities for self-employment and job creation for young people. In the context of developing nations such as India, where the youth unemployment rate is significantly high, entrepreneurship emerges as a vital alternative to stimulate employment and economic growth (Shiri, 2017).

Understanding the dynamics that drive entrepreneurial intention among youth is therefore crucial to developing effective strategies that support this rapidly changing demographic.

According to the Theory of Planned Behavior (Ajzen, 1991), entrepreneurial intention is influenced by key variables of personal skills, contextual elements, and exposure to entrepreneurship.

Personal competencies, such as positive attitudes toward entrepreneurship, subjective norms, and perceived behavioral control, play a key role in the formation of entrepreneurial intentions (Ajzen, 1991; Hui-Chen et al., 2014; Galvao et al., 2018).

Contextual elements, including government policies, political environment, and economic conditions, also significantly influence young people's entrepreneurial decisions (Stephen et al., 2009; Morris and Lewis, 1995; Lerner, 2000; Fini et al., 2009).

In addition, exposure to entrepreneurship, through entrepreneurial education, experience in entrepreneurial families, and entrepreneurial role models, helps shape entrepreneurial intentions among youth (Ayuni, 2018; Ferreira et al., 2018; Iwu et al., 2019; Jena, 2020; Nowiński et al., 2019).

Among the studies analyzed, the dimensions of youth entrepreneurship can be identified through several key aspects that influence entrepreneurial intentions among youth. These dimensions include personal skills, contextual elements, and exposure to entrepreneurship.

- *Entrepreneurial Intentions*

According to Ajzen's (1991) Theory of Planned Behavior (TPB), the following key variables significantly influence entrepreneurial intention:

1. Positive Attitude toward Entrepreneurship:

A favorable attitude toward entrepreneurship results in a greater desire to start a business (Ajzen, 1991; Anjum et al., 2018). Several studies have confirmed that students with a positive attitude are more likely to develop entrepreneurial intentions (Fini et al., 2009; Leffel, 2008; Lüthje and Franke, 2002).

2. Subjective Norms:

Subjective norms, that is, perceptions of social influences such as the expectations of family and friends, play a significant role in the formation of entrepreneurial intentions (Hagger et al., 2007; Krueger and Carsrud, 1993). Social pressure and perceived support can positively influence young people's decision to engage in entrepreneurial activity.

3. Perceived Behavioral Control (PBC):

Confidence in one's ability to start and run a business is a significant predictor of entrepreneurial intentions (Ajzen, 2002; Armitage and Conner, 2001). PBC is often the factor with the highest path coefficient in SEM analyses, indicating its predominant importance (Joshi et al., 2020; Solesvik et al., 2012).

- *Contextual Elements*

Contextual elements include environmental conditions that influence business activity. These elements include:

1. Government Policies:

Government regulations and support are crucial in fostering entrepreneurial intentions (Stephen et al., 2009; Morris and Lewis, 1995; Lerner, 2000). Favorable policies can facilitate access to resources and infrastructure needed to start new businesses.

2. Political Environment:

A stable and favorable political environment supports the development of entrepreneurial ventures (Opusunju et al., 2018). Political stability and the absence of conflict are essential to create a secure environment for entrepreneurial investment.

3. Economic Conditions:

Regional economic conditions influence the availability of financial resources and the overall climate for entrepreneurship. During periods of economic hardship, access to capital can be limited, hindering the start-up of new businesses (Bruck et al., 2016).

- *Exposure to Entrepreneurship*

Exposure to entrepreneurship encompasses various factors that shape entrepreneurial intentions among young people:

1. Entrepreneurship Education:

Entrepreneurship-specific educational programs can develop students' entrepreneurial skills and intentions (Ayuni, 2018; Ferreira et al., 2018). Entrepreneurship education has emerged as a significant factor in the development of entrepreneurial intentions, helping to shape entrepreneurial skills among students (Iwu et al., 2019; Jena, 2020).

2. Family Experiences:

Previous exposure to family businesses may increase young people's propensity toward entrepreneurship (Krueger and Carsrud, 1993; Karimi et al., 2013). Individuals who come from entrepreneurial families tend to prefer self-employment over wage jobs (Matthews and Moser, 1996).

3. Role Models:

The influence of successful entrepreneurs can inspire and motivate young people to pursue entrepreneurship (Packham et al., 2010). The presence of entrepreneurial role models can provide concrete examples of success, making entrepreneurship a more tangible and achievable career choice.

Analysis of the dimensions of youth entrepreneurial orientation and intention reveals that personal skills, contextual elements, and exposure to entrepreneurship play critical roles in the formation of entrepreneurial intentions. This multidimensional approach integrates various aspects of youth entrepreneurial behavior into a unified framework, providing a sound basis for developing policies and strategies to support and promote youth entrepreneurship. The importance of these dimensions is underscored by their ability to significantly influence young people's decisions to pursue entrepreneurship, contributing to economic growth and reduced youth unemployment in developing contexts.

This integrated model offers relevant theoretical and practical implications. From a theoretical perspective, it combines the relationships between variables found in the literature into a comprehensive framework that takes into account the internal and external factors responsible for the development of entrepreneurial intention among youth (Gulzar et al., 2023).

From a practical perspective, it can guide policymakers and institutions in developing policies that promote entrepreneurship, taking into account the importance of personal skills, contextual elements, and exposure to entrepreneurship.

• ***RQ2: The Influence of Entrepreneurial Education Programs on Youth Entrepreneurial Intentions and Skills***

The debate on the conceptualization of competencies in general and entrepreneurial competencies in particular is still ongoing and, so far, scholars have perceived them differently.

To begin with, Lyons et al. (2020) present competencies as skills that underlie the decision-making processes and behaviors of entrepreneurs. Fischer and Bidell (2005, p. 5) defined skill as “the ability to act in an organized way in a specific context.” While Lichtenstein and Lyons (2010, p. 34) considered skill as “the ability to perform a particular action or task on a consistent basis, at a high level of performance, without a great deal of conscious thought or attention, to achieve a desired outcome,” Lyons et al. (2020) suggest that skill can be developed by individuals through learning, observing and practicing. Regarding entrepreneurial skill, Kumar and Velusamy (2017) defined it as competence in performing a task that is improved through training and practice.

Lyons et al. (2020) add that entrepreneurial skills imply the skills required for young people to be

entrepreneurs and start sustainable business start-ups. This is in line with Pyysiainen et al. (2006), who saw them as the activities or practical knowledge required to successfully create and maintain an enterprise.

Entrepreneurial skills are influenced by various factors, including personal and social skills. Abdullah et al. (2018) suggest that managerial and entrepreneurial resilience, as well as strategic skills, are crucial for business success. Calderon et al. (2017) and Pato and Teixeira (2019) further document networking, public relations, goal setting, marketing and communication as vital skills for starting and managing businesses. Chatterjee and Das (2016) emphasize the importance of leadership, human relations, and technical and innate aptitude. Other scholars, such as Cooney (2012) and Sendawula et al. (2018), identify technical, interpersonal, entrepreneurial, managerial, and personal maturity skills as critical in the entrepreneurial journey of young people. This study focuses on these areas to identify the most important skills for starting a sustainable business.

Engagement with existing literature presents several entrepreneurial skills that entrepreneurs or emerging youth acquire by participating in training interventions.

For example, Dana (1987) presents practice, context, and intuition as vital skills that entrepreneurs acquire to build other skills relevant to successful small business operation. Specifically, practical skills include listening, public speaking, obtaining feedback, reporting, meeting management, conflict management, and conducting performance appraisals. These skills can enable nascent entrepreneurs to manage their future business ventures with ease and achieve greater success. Regarding context skills, Dana (1987) indicated that they are behavioral in nature and involve the ability of entrepreneurs to engage and motivate themselves to develop control mechanisms to initiate changes that are crucial in running an entrepreneurial business. While insight skills, on the other hand, largely enable young people to work in teams and engage with other players in the entrepreneurial ecosystem such as fellow entrepreneurs and governmental and nongovernmental institutions that provide support mechanisms to unlock the creativity and innovative potential of the nascent entrepreneur to create entrepreneurial start-ups.

Furthermore, Abdullah et al. (2018) suggest that managerial and entrepreneurial resilience and strategic skills are crucial for successful business operations. Calderon et al. (2017) and Pato and Teixeira (2019) further document networking, public relations, goal setting, marketing, and communication as vital skills acquired and used by entrepreneurs to start and manage their businesses. Chatterjee and Das (2016) argue that leadership, human relations, technical and innate aptitude are equally important skills in promoting business success. Other scholars such as Cooney (2012), Sendawula et al. (2018) present technical, interpersonal, entrepreneurial, management, and personal maturity skills as other entrepreneurial skills that are vital in the entrepreneurial journey of young people. In this study, we focus on technical, managerial, personal maturity, and entrepreneurial skills in order to determine which of these are most important in promoting entrepreneurship.

Entrepreneurial skills involve the ability to identify economic opportunities and exploit them effectively (Cooney, 2012). These skills revolve around creativity, invention, innovation, risk-taking, and the ability to analyze successful business role models and identify opportunities for starting a successful business (Ladzani and Van Vuuren, 2002). Technical skills, on the other hand, refer to those skills needed to produce products and services (Ladzani and Van Vuuren, 2002). These skills enable entrepreneurs to use the appropriate equipment, tools and techniques needed to facilitate the effective and efficient flow of businesses and their success (Chatterjee and Das, 2016).

Managerial skills include skills that are crucial in the day-to-day management, operation, and administration of the firm (Zaidi et al., 2023; Abdullah et al., 2018; Cooney, 2012). Examples of managerial skills include effective communication, goal setting, decision making, interpersonal relations, accounting and finance, marketing, as well as launching and managing growth for companies (Balraj and Velmurugan, 2017).

Adejimola (2008) argues that it is important for start-ups to build a healthy relationship with different actors in the entrepreneurial ecosystem, customers, suppliers, lenders, and government ministries, departments, and agencies (MDAs) that support entrepreneurial activities in the country. Regarding

personal maturity skills, they include emotional skills, creativity, awareness and responsibility, risk-taking, persistence, and innate qualities (Balraj and Velmurugan, 2017). Studies on entrepreneurial skills indicate that skills such as financial management, leadership, planning and project management, problem solving, delegation, and time management help young people engage in and manage complex entrepreneurial situations arising from starting and venturing a business (Kumar and Velusamy, 2017). In addition, Orobia et al. (2020) argue that entrepreneurial skills are critical for youth because they increase their chances of productivity and competitiveness locally and internationally.

In contrast, Chatterjee and Das (2016) revealed that technical skills were found to be insignificant for business success. This is likely due to the fact that the state of Jharkhand, where the study was conducted, was in the early stages of development, implying that it had inefficient technical resources. As indicated earlier, entrepreneurship and management scholars have paid less attention to the contribution of entrepreneurial skills in promoting business start-ups.

In order to offer a complete picture of the skills explored among scholars, it is worth mentioning a study of youth micro-entrepreneurs in Accra, Ghana, which is credited with exploring the role of entrepreneurial resourcefulness, highlighting that it is manifested through personal skills and social resources (Blackburn et al., 2013; Chen and Volpe, 2002). It has been found that skills related to personal resourcefulness, such as discipline and understanding of numbers, are essential for entrepreneurial success, while innovation is less developed among young entrepreneurs, due to financial constraints and poor focus on education (Legodi and Kanjere, 2015; Hyder and Lussier, 2016). Gender differences in entrepreneurial skills, such as higher empathy among women and higher math skills among men, reflect variations in human capital that influence entrepreneurship (Özkan and Lajunen, 2005; Venkataraman, 1997).

It is clear from the literature review conducted that the entrepreneurial skills landscape continues to evolve, reflecting the increasing complexity and dynamism of the global business environment. The variety of skills, from technical to personal, from networking to resilience, underscores how crucial it is for emerging entrepreneurs, and young entrepreneurs in particular, to possess a diverse set of skills to thrive in challenging entrepreneurial environments.

While some skills, such as financial management and leadership, prove critical to startup success, others, such as creativity and innovation, provide the added value needed to stand out in the marketplace and meet challenges in innovative ways. Personal maturity skills, such as persistence and responsibility, not only enhance the ability to deal with inevitable obstacles, but also contribute to building innovative, sustainable and responsible entrepreneurship.

In an ever-changing global environment, it is clear that entrepreneurial success depends not only on the ability to acquire and apply technical skills, but also on the ability to adapt, to continuously learn, and to capitalize on emerging opportunities. Cultural and gender differences, as well as limited resources, influence the skills landscape and require customized and inclusive approaches to foster a balanced and prosperous entrepreneurial ecosystem.

Therefore, entrepreneurial education and skills development should be seen as a dynamic and integrated process, capable of responding to the changing challenges of the marketplace and valuing the diversity of individual experiences and resources. Only through continuous training and an awareness of their own strengths and weaknesses can young people hope to build enterprises that are not only sustainable but also innovative and resilient, ready to leave a lasting impact in the business world and society at large.

- *The Influence of Entrepreneurial Education Programs on Youth Skills*

Entrepreneurial education programs have a profound and multifunctional impact on the entrepreneurial intentions and skills of young people, contributing to the creation of a sustainable and innovative entrepreneurial culture. These programs provide a theoretical framework of entrepreneurial dynamics while also fostering practical and motivational experiences that shape the aspirations and skills of the recipients of such programs.

A consensus view emerges among scholars in the field that entrepreneurship education helps foster

entrepreneurial attitudes in young people (Gorman et al., 1997; Pittaway and Cope, 2007). The literature on entrepreneurship education talks about promoting entrepreneurial attitudes and required skills among students (Henry et al., 2005; Co and Mitchell, 2006; Bechard and Toulouse, 1998; Kirby, 2004).

According to Jones and Iredale (2010), the main goal of entrepreneurship education is to start an enterprise by launching a new business, managing it over time and leading to self-employment.

The entrepreneurial talent and knowledge quotient of young people will play a central role in the future, going on to shape the future of most young people entering the world of work (Lichtenstein and Lyons, 2001).

In this context, it is up to universities and educational organizations to equip students with the entrepreneurial skills and abilities needed in their formative years (Del Río et al., 2016). For this reason, it is good to consider the influence that entrepreneurial education programs have on an individual's professional development today, in terms of skills and intentions.

There is certainly a belief among scholars that there is substantial ineffectiveness in the entrepreneurship education offered by higher education institutions, thus retarding the growth of first-generation entrepreneurs (Alakaleek, 2019). Certainly, such beliefs spread in the literature show practical relevance if we go to observe the general employment and entrepreneurial situation of youth and NEETs, in our country but also in other countries.

In light of the above, the research direction of this paper aims to explore precisely the influence that entrepreneurial education programs have on the lives and skills of young people. With this in mind, there is a need to increase the effectiveness of such courses, and the synthesis of education with training would build the necessary entrepreneurial competence and eliminate emotional and social inhibitions (Xavier et al., 2013).

Haynie and Shepherd (2009) state that the educational system must now be a step ahead to help students identify business prospects and offer them a wide range of opportunities.

Entrepreneurship represents in effect a discipline; in fact, it has been taught as a subject for more than six decades. Entrepreneurship education is a major field of study today, shaping itself as a key pillar of several university programs (Fayolle, 2016a; Frese and Gielnik, 2014; Neck and Corbett, 2018; Salomon, 2007).

Research in this field focuses primarily on understanding what entrepreneurship education can offer in terms of skills and how such courses can influence business creation and lead to new ventures, contributing to a better future for young people and their own personal fulfillment (Bischoff et al., 2020; Neck and Green, 2011).

In this context, two main skills emerge as crucial: managerial skills and technical skills. Several studies have analyzed how these skills are developed and the factors that facilitate their acquisition.

- *Managerial Skills*

Managerial skills are critical to the success and sustainability of new business ventures. These skills include the ability to plan strategically, make informed decisions, and manage resources efficiently. Entrepreneurial education often includes specific modules devoted to these aspects, which help students develop a thorough understanding of day-to-day business operations, personnel management, and long-term planning.

Enabling factors for managerial skills:

1. *Practical training and simulations*

The inclusion of business simulations and case studies in educational programs provides students with hands-on learning opportunities that are essential for understanding the challenges and dynamics of business management. Abdullah et al. (2018) have shown that the hands-on approach in management training not only improves management skills, but also increases the likelihood of successful start-ups. This type of training allows students to apply theories and strategies in simulated scenarios, making learning more concrete and applicable.

2. *Mentoring and coaching*

Mentoring by experienced entrepreneurs is another crucial factor in developing management skills.

Tindiwensi et al. (2020) point out that mentoring provides personalized support and practical guidance that helps students deal with the complexities of business management. Interactions with mentors offer students not only strategic advice, but also access to professional networks and resources that can accelerate their entrepreneurial development.

- *Technical Skills*

Technical skills cover the knowledge and practical skills needed to develop and manage products, services, and technologies. These skills are critical to technological advancement and innovation, and are often emphasized in entrepreneurial education programs through courses on design, research and development, and use of emerging technologies.

Factors that enable technical skills:

1. *Access to resources and equipment*

Programs that provide access to laboratories, software, and technological tools enable students to acquire practical technical skills. The availability of material resources is critical for applying theoretical knowledge and developing practical skills. Almahry et al. (2018) highlight how access to these resources allows students to experiment and refine their technical skills, thus facilitating innovation and the creation of working prototypes.

2. *Project-based learning*

Project-based learning, which involves creating and developing prototypes or solving real problems, is essential to consolidating technical skills. Chatterjee and Das (2016) show that this approach allows students to directly apply their knowledge in practical contexts, improving their ability to deal with real-world challenges and contributing to the success of new entrepreneurial projects.

- *Impact of Entrepreneurial Education Programs*

In recent years, higher education institutions (HEIs) globally have shown a growing interest in integrating entrepreneurship into their educational programs. This trend can be attributed to the growing awareness of the crucial importance of entrepreneurial skills, which are considered crucial for future graduates and young people entering the workforce (Melnikova et al., 2017).

As pointed out by Melnikova et al. (2017), these skills are essential for meeting the challenges of an ever-changing world, especially for the younger generation, which must be able to successfully navigate such a dynamic environment.

Awareness of the importance of these skills also stems from the fact that contemporary universities are no longer limited to their traditional role as educational institutions, but are configured as “important engines of technological development and economic growth” (Yemini and Haddad, 2010, p. 1220).

Entrepreneurial education programs play a crucial role in influencing young people's entrepreneurial intentions by providing them with a solid foundation of both technical and managerial skills. Such programs not only facilitate the start-up and management of new businesses, but also help build the confidence and motivation needed to overcome entrepreneurial challenges. In addition, the acquisition of practical skills and the opportunity to apply them in real-world settings reduce barriers to entry into the world of entrepreneurship, increasing the likelihood of successful start-ups.

A significant study conducted in Oman concretely demonstrated the positive impact of an entrepreneurship program on a group of students (Naqvi et al., 2022).

The quantitative-qualitative exploratory study sought to investigate the effectiveness of the Entrepreneurship and New Enterprise Creation (ENVC) course in providing students with a solid understanding of entrepreneurial content, developing practical skills, and stimulating an entrepreneurial mindset. Through a student survey, focus groups, and interviews with faculty, data were collected to understand how the course influenced students' perceptions and their preparedness to undertake entrepreneurial ventures.

The results showed a general appreciation by students for the course, which was considered informative and interesting, with particular emphasis on the development of theoretical and practical skills. Students recognized that the course provided a solid foundation of entrepreneurial knowledge.

The following is a summary of the main findings in order to have a practical example of the influence of entrepreneurial education programs on young people's entrepreneurial intentions and skills.

1. **Content knowledge:** Students reported a good understanding of entrepreneurial theories and concepts. The course was effective in providing them with a solid theoretical foundation and preparing them to identify and cultivate entrepreneurial opportunities.
2. **Development of practical skills:** The course played a key role in developing key skills for starting a new business. Students recognized that they developed entrepreneurial skills such as creativity, critical thinking, innovation and research, thanks in part to practical assignments and simulations.
3. **Entrepreneurial mindset:** The course stimulated an entrepreneurial mindset among students, encouraging greater openness to risk-taking and resourcefulness. Some students expressed a desire to start their own businesses after graduation, citing ENVC as a source of inspiration.
4. **Experiences and Interaction with Local Entrepreneurs:** Students appreciated the opportunity to study the experiences of entrepreneurs in the local context and to engage with the surrounding community. This approach provided them with concrete role models and strengthened their interest in entrepreneurship.
5. **Suggestions for Improvement:** Students provided useful feedback on how to enhance the course, including a request for greater focus on risk management and financial planning, as well as the proposal for residential entrepreneurship programs within the college to gain more direct practical experience.

Entrepreneurship education remains a crucial tool for preparing young people to contribute to economic development. However, to improve the effectiveness of the course, further actions are needed to personalize the educational approach, integrate risk management, and provide more structured practical experiences. The future of entrepreneurship education in the study context will depend on the ability to enhance teachers' skills and create a more supportive environment for innovation and experimentation.

This example highlights how entrepreneurship education programs can significantly transform both the intentions and skills of young entrepreneurs by offering a combination of practical training, mentoring, and access to technological resources. Such programs do not merely convey entrepreneurial theories but also contribute to building a stronger and more innovative entrepreneurial culture, capable of supporting the success of future generations of entrepreneurs.

- ***RQ3: Drivers Promoting Innovation and Entrepreneurship Among Young People***

The development of entrepreneurship follows a non-linear path, influenced by multiple factors, including cognition, as highlighted by Linton and Klinton (2019). This process involves the individual's ability to turn ideas into reality, requiring creativity, innovation, risk-taking, and careful planning. Entrepreneurship education needs a more focused approach on activities oriented toward innovation and research, emphasizing the responsibility of higher education institutions to provide targeted technical training in entrepreneurship.

Several studies have found that students' perceptions of entrepreneurship are closely related to their views on innovation. Entrepreneurial education introduces students to the startup context, addressing process building, operational management, financial management, as well as aspects related to business survival and renewal. Each of these elements presents specific challenges that can be overcome through the application of creativity and innovation, traits that this training aims to fully develop in students.

Youth innovation and entrepreneurship play a crucial role in addressing contemporary global challenges and promoting sustainable economic development.

In this context, the present research aims to analyze the main strategic drivers that stimulate innovation and entrepreneurship among young people, with particular attention to the resources, skills, and infrastructures necessary to support these processes. The investigation also seeks to understand how

these factors can be optimized to facilitate a deeper integration of innovation within youth entrepreneurial initiatives, thereby fostering a dynamic and resilient entrepreneurial ecosystem.

The study focuses on identifying best practices for enhancing innovative capacities, in order to provide a solid foundation for the development of educational and industrial policies aimed at strengthening the contribution of young entrepreneurs to the global economy.

- Drivers of Innovation

1. Innovation Capability

Innovation capability is crucial for entrepreneurial success and for identifying new market opportunities. In particular, it has been shown that the ability to innovate—encompassing both the generation of new ideas and the implementation of innovative solutions—is essential for stimulating entrepreneurial orientation (Lee et al., 2019).

Research has identified a positive relationship between innovation capability and entrepreneurial orientation among South Korean firms, highlighting the importance of fostering an innovative mindset to enhance business performance.

Innovation capability manifests not only through the creation of new products or services but also through the ability to improve existing processes to meet market needs (Mol & Birkinshaw, 2009). For young entrepreneurs, it is vital to invest in research and development (R&D) and to promote a culture of continuous learning to optimize innovation capabilities (Camisón & Villar-López, 2014).

2. Competitiveness

Competitiveness is a fundamental driver for innovation and entrepreneurship. According to Lee et al. (2019), competitiveness directly influences entrepreneurial orientation, which in turn contributes to business performance.

Research indicates that companies with a high level of competitiveness tend to exhibit greater entrepreneurial activity, positively impacting their performance. As businesses strive to differentiate themselves in an increasingly globalized market, promoting a culture of innovation and responsiveness becomes imperative.

This approach not only enhances their ability to capitalize on emerging opportunities but also contributes to the overall economic resilience of the country (Khyareh & Rostami, 2018).

3. Entrepreneurial Education

Entrepreneurial education is crucial for equipping young people with the necessary skills to successfully start and manage businesses. Although Lee et al. (2019) indicate that entrepreneurial education does not have a direct impact on entrepreneurial orientation as a moderator, it remains essential for developing entrepreneurial skills. Targeted educational programs can help cultivate essential abilities such as creative thinking, problem-solving, and risk management (Schmitz et al., 2017).

Entrepreneurial education courses should include modules on innovation, business planning, and marketing strategies, and provide practical opportunities like internships and mentoring to better prepare young people for entrepreneurial challenges (Fatoki, 2014).

4. Infrastructure and Institutional Support

Adequate infrastructure and institutional support are fundamental elements for promoting innovation and entrepreneurship, especially among young people. Incubators, accelerators, and co-working spaces offer vital resources, such as workspace and access to professional networks, which facilitate the transformation of entrepreneurial ideas into concrete realities. These structures provide a collaborative environment and opportunities for mentoring and training, essential for developing entrepreneurial skills.

Moreover, institutional support, in the form of favorable policies, tax incentives, and funding programs, can create a more conducive environment for the emergence of new entrepreneurial

initiatives. Policies such as research grants and tax breaks for start-ups are tools that can significantly facilitate the launch of new businesses and stimulate economic growth (Lee et al., 2019). These interventions are particularly relevant in a context like South Korea, where graduate unemployment has reached concerning levels, highlighting the urgent need for initiatives that encourage young people to pursue entrepreneurial paths.

The South Korean government has focused its efforts on promoting entrepreneurial start-ups, seeking to harness the potential of the educated workforce to stimulate economic activity and address unemployment (Lee et al., 2019). It is imperative that public policies aim to develop not only innovation capability and competitiveness but also to improve the quality of entrepreneurial education. This implies an alignment between theoretical and practical training, ensuring that young entrepreneurs acquire the skills necessary to tackle market challenges.

Governance of innovation and promotion of start-ups are globally recognized priorities. In the Italian context as well, there is a need to leverage the potential of the educated workforce to stimulate economic activity and address unemployment. A favorable socio-economic environment, supported by adequate infrastructure and strategic government policies, is crucial for fostering innovation and entrepreneurship among young people. Only through an integrated approach will it be possible to bridge the gap between education and the market, promoting a vibrant and sustainable entrepreneurial ecosystem.

In light of the findings from the conducted research, entrepreneurial education plays a crucial role in developing innovative capacities among young people, preparing new generations to effectively respond to the challenges of the global market. Through a targeted educational approach, students acquire not only theoretical knowledge but also the practical skills necessary to navigate the dynamics of an ever-evolving entrepreneurial environment.

In this context, various types of innovation emerge, fueled by entrepreneurial education, including product, process, marketing, social, and sustainable innovations. These categories of innovation not only meet consumer needs but also promote a culture of creativity and continuous improvement. Entrepreneurial education, through practical and experiential methodologies, encourages young people to explore these different forms of innovation, fostering their application in real-world contexts.

- Types of Innovation

1. Product Innovation

Product innovation refers to the creation of new products or significant improvements to existing ones. This type of innovation is essential for meeting consumer needs and differentiating from competitors. Well-trained young entrepreneurs are more likely to develop innovative products, gaining significant competitive advantages and accessing new market segments. Entrepreneurial education provides the necessary skills for young people to identify innovation opportunities, stimulating creativity and critical analysis.

In particular, entrepreneurial education promotes not only the generation of ideas but also the acquisition of practical tools for assessing the commercial viability of those ideas. According to Schmitz et al. (2017), teaching methodologies such as Design Thinking and rapid prototyping encourages students to experiment, fail, and retry, contributing to a continuous cycle of innovation. Product innovations may include new features, design improvements, or the adoption of new technologies. For example, the integration of digital technologies, such as artificial intelligence or the Internet of Things, can lead to products that are not only more efficient but also more personalized, tailored to meet specific consumer needs. This approach enables young entrepreneurs to respond swiftly and effectively to evolving market dynamics, which is crucial in an increasingly competitive economic environment (Camisón & Villar-López, 2014). Additionally, entrepreneurial education fosters interdisciplinary collaboration, allowing young people to work with experts across various fields, from design to technology and marketing. This synergy is vital for product innovation, as it combines diverse skills and perspectives, facilitating the creation of more comprehensive and innovative solutions (Wei et al., 2019).

2. Process Innovation

Process innovations involve improvements in production methods or services. This type of innovation not only contributes to greater operational efficiency, cost reduction, and quality enhancement but is also essential for ensuring the long-term sustainability of businesses.

Targeted entrepreneurial education plays a crucial role in this context, equipping young entrepreneurs with the skills and knowledge necessary to strategically analyze and redesign existing processes. Through practical and theoretical training, students can learn methodologies like Lean Management and Six Sigma, which help identify waste and improve quality. These approaches encourage a mindset oriented toward continuous optimization, fundamental in a competitive and rapidly changing market. Furthermore, the ability to adopt advanced technologies, such as automation and digitalization, has become essential for remaining relevant.

However, entrepreneurial education should not overlook the principles of Industry 5.0, or the Fifth Industrial Revolution, which today requires companies to implement new production systems that consider the well-being of the planet and place human capabilities at the center. It is also important for young entrepreneurs to develop an innovative mindset that drives them to explore new solutions and not fear failure.

Training should also include change management, as the introduction of new technologies and processes requires adequate preparation of staff and effective communication to ensure a smooth transition. Young entrepreneurs must be trained not only in process optimization techniques but also in leadership and people management to facilitate the adoption of innovations within their organizations. For example, adopting advanced technologies such as automation or digitalizing processes can significantly improve business operations (Camisón & Villar-López, 2014).

3. Marketing Innovation

Marketing innovation, defined as the adoption of new strategies and techniques to promote and sell products or services, is crucial in today's landscape characterized by rapid changes and digitalization. Entrepreneurial education plays a fundamental role in preparing young entrepreneurs to tackle these challenges, providing the necessary skills to implement effective and innovative marketing strategies.

In a digital era, marketing strategies must constantly evolve to respond to new technologies and market trends. Entrepreneurial education is key in this process, training young people on the fundamentals of marketing and encouraging them to explore the innovative use of digital channels. The skills acquired in educational settings enhance their ability to use social platforms and digital marketing tools to improve brand visibility and engage with consumers.

According to Edigbonya (2013), integrating advertising campaigns on social media is essential for reaching specific targets, a competence that can be developed through practical educational programs. Personalizing the customer experience is another area where entrepreneurial education can make a difference. Through targeted educational programs, young people learn to use analytics to better understand consumer preferences and create tailored offerings. This approach not only increases customer satisfaction but also contributes to greater loyalty, which is essential in a competitive market (Lemon and Verhoef, 2016).

Courses in digital marketing and data analysis can equip young entrepreneurs with the skills needed to leverage these opportunities. Furthermore, entrepreneurial education emphasizes the importance of creating valuable content, promoting inbound marketing as an effective strategy to attract and engage customers. Students can learn how to produce relevant and useful content, thereby strengthening their ability to build long-term relationships with consumers (Pulizzi, 2012). This approach not only develops their marketing skills but also promotes a value-oriented and innovative mindset.

In particular, educational frontiers such as gamification, along with other practices, fall under the category of game-based methodologies; the aim is to make learning fun and engaging in a no blame no shame context, where students can experience and analyze the dynamics of complex decision-making processes, such as entrepreneurial choices, with zero risk (Breuer et al., 2019). Teaching gamification techniques allows students to understand how to transform interactions with consumers into engaging

experiences, encouraging active participation and creating a stronger bond between brands and consumers (Deterding et al., 2011).

Finally, training on big data and data analysis is crucial for young entrepreneurs. Through entrepreneurial education, students can learn how to use advanced analytical tools to gain insights into market trends and consumer behavior, enabling informed and timely decisions (Chaffey, 2015). This competency is essential for optimizing advertising campaigns and improving return on investment.

It is evident that entrepreneurial education prepares young people to tackle the challenges of modern marketing by stimulating an innovative approach that integrates emerging technologies and effective marketing practices. This synergy between marketing innovation and entrepreneurial training is essential for the success of new entrepreneurial initiatives in a competitive and dynamic context.

4. Organizational Innovation

Organizational innovation refers to significant changes in the structure and internal processes of companies, including new business models, restructuring aimed at improving efficiency, and the creation of corporate cultures that promote creativity. The introduction of flexible work models and agile organizational structures is crucial for enhancing companies' ability to adapt quickly to market changes and new opportunities (Turulja & Bajgoric, 2019).

In this context, entrepreneurial education plays a crucial role in preparing young people to manage and implement such organizational innovations. Through specific courses and training programs, students can learn the necessary dynamics to create collaborative and inclusive work environments that stimulate creativity and innovation.

Moreover, entrepreneurial education conveys the importance of integrating technology into organizational structures. With the advent of digital tools and collaborative platforms, young entrepreneurs can implement systems that facilitate communication and information sharing within the company. This not only improves operational efficiency but also helps to build a more cohesive and innovation-oriented corporate culture (Kirkpatrick, 2018).

Training programs can thus incorporate modules on how to build and manage diverse teams, preparing students to create corporate cultures that value differences and stimulate collective creativity. Finally, entrepreneurial education should include a strong component of data analysis and performance measurement. The ability to analyze organizational metrics and assess the effectiveness of implemented innovations is essential for ensuring continuous improvement. Students can learn to use analytical tools to monitor performance and make strategic adjustments in real time, thus contributing to sustainable and long-term organizational innovation.

5. Sustainable and Social Innovation

Social and sustainable innovation represent two interconnected and fundamental dimensions in the context of youth entrepreneurship, as they focus on developing solutions to address social and environmental challenges. Start-ups led by young entrepreneurs are particularly inclined to pursue goals that generate a positive impact on the community and the environment. Social innovation initiatives may include projects aimed at promoting environmental sustainability and social inclusion (Fatoki, 2014), while sustainable innovation seeks to combine economic needs with ecological and social ones, aiming to create long-term value and minimize environmental impact. In this area, the definition of sustainable entrepreneurship includes fundamental aspects that do not limit themselves to rigid management systems but rather focus on personal initiative and the capabilities of the entrepreneurial team to achieve significant societal changes through environmental or social innovations (Wagner and Schaltegger, 2010, p. 434). This approach allows young entrepreneurs to develop green technologies and circular business models, thereby responding to the growing demand for sustainable solutions from both consumers and businesses, and offering significant competitive advantages (Fatoki, 2014).

However, young people's commitment to sustainable business operations is influenced by various motivational drivers. A study by Gupta and Matharu (2022) identified eleven enabling factors for sustainable innovation among young entrepreneurs, including: education on sustainable

entrepreneurship, self-transcending values, sustainability orientation, family exposure, social norms, resilience, self-efficacy, perceived feasibility, perceived desirability, support from financial and academic institutions, and government legislation. These drivers highlight the importance of a supportive ecosystem capable of promoting sustainable entrepreneurship.

The promising potential of such factors is underscored by the study by Vuorio et al. (2018), which demonstrates how a sustainable entrepreneurial framework can encourage young people to become responsible entrepreneurs. The research findings confirm that entrepreneurial education, particularly that focused on sustainability, acts as a powerful enabling factor for sustainable business initiatives. This aligns with the broader goal of creating a safe operational area for humanity, promoting inclusive progress and significantly contributing to the achievement of sustainable development goals (Gupta and Matharu, 2022).

In summary, the interconnection between social and sustainable innovation offers young entrepreneurs an important opportunity to create not only economic but also social and environmental value. Appropriate training and support can facilitate their path toward implementing entrepreneurial practices that address the needs of society and the planet, thereby contributing to building a fairer and more sustainable future.

The drivers of innovation and entrepreneurship among youth include the capacity to innovate, competitiveness, entrepreneurial education, and institutional support. Each of these factors plays a crucial role in influencing entrepreneurial orientation.

Moreover, the various types of innovation, including product, process, marketing, social, and sustainable innovation, provide opportunities to respond to the market's and society's growing awareness. Empirical and theoretical evidence, such as that provided by Lee et al. (2019), offers a solid foundation for understanding how these drivers interact and influence youth entrepreneurship.

To effectively promote innovation and entrepreneurship, it is necessary to create an ecosystem that fosters creativity, experimentation, and sustainable growth, requiring a concerted effort from educators, institutions, and policymakers to provide the resources and skills needed to transform innovative ideas into successful entrepreneurial orientations.

2.9.4. Summary of results

- ***RQ1: The dimensions of youth entrepreneurship***

The theme of youth entrepreneurship emerges as crucial for addressing global socio-economic challenges, especially in contexts with high youth unemployment rates such as developing nations. The study presented thus far has examined the main dimensions influencing entrepreneurial intentions among young people, focusing on three fundamental aspects (described in Table 6): personal skills, contextual elements, and exposure to entrepreneurship. Through a critical synthesis of existing literature, it has been possible to identify the key factors contributing to the development of new generations of entrepreneurs, with significant theoretical and practical implications (Figure 25).

- **Entrepreneurial Intentions**

The first group of factors examined concerns personal skills, which include attitudes, subjective norms, and perceived behavioral control (PBC), as explained by the Theory of Planned Behavior (Ajzen, 1991). These elements are fundamental in determining the propensity of young people to engage in entrepreneurial activities. A positive attitude towards entrepreneurship, supported by a favorable social environment (subjective norms), and a strong confidence in one's abilities (PBC), emerge as strong predictors of entrepreneurial intentions. Research confirms that students with an optimistic view of the entrepreneurial path and good social support tend to develop more entrepreneurial ambitions compared to those who do not possess these characteristics.

- **Contextual Elements: Political and Socioeconomic Environment**

Contextual elements represent the second axis of analysis and include external factors that directly influence youth entrepreneurship. Supportive government policies, a stable political environment, and

favorable economic conditions have been highlighted as critical factors for the success of youth entrepreneurship. Countries with unstable political and economic infrastructures see a reduced opportunity for young people to start and grow their businesses. Conversely, a stable context that provides incentives, access to capital, and reduced bureaucratic barriers promotes the birth and growth of new entrepreneurial initiatives. In this context, it is clear that political decisions and macroeconomic conditions can facilitate or hinder entrepreneurial development.

- **Exposure to Entrepreneurship: Education, Experience, and Role Models**

Another relevant aspect concerns exposure to entrepreneurship, which includes specific entrepreneurial education, family experience, and the influence of entrepreneurial role models. Entrepreneurial education emerges as a key element in equipping young people with the necessary skills to identify market opportunities and develop their entrepreneurial ideas. Furthermore, experiences in families with a strong entrepreneurial tradition seem to significantly increase young people's intention to start a business, confirming the weight of personal and familial experiences in developing entrepreneurial orientation. Role models also provide tangible examples of success that can inspire and motivate young people to pursue similar paths.

Figure 25: Key Factors of Youth Entrepreneurial Orientation

1. Entrepreneurial intentions	2. Contextual elements	3. Entrepreneurship exposure
Positive Attitude A favorable attitude toward entrepreneurship increases the propensity to become entrepreneurs (Ajzen, 1991. Fini et al., 2009).	Government Policies Government policies, regulations, and support are crucial for facilitating access to resources and infrastructure (Stephen et al., 2009).	Entrepreneurship Education Specific educational programs develop entrepreneurial skills and positively influence intentions (Ayuni, 2018).
Subjective Norms Social influences, such as support from family and friends, play a significant role in motivating young people to engage in entrepreneurial activities (Hagger et al., 2007).	Political Environment A stable political context promotes entrepreneurial initiatives, which is essential for investments (Opusunju et al., 2018).	Family Experiences Exposure to entrepreneurial families increases the propensity for entrepreneurship (Krueger & Carsrud, 1993).
Perceived Behavioral Control Confidence in one's entrepreneurial abilities is a key predictor of intentions (Ajzen, 2002; Joshi et al., 2020).	Economic Conditions Regional economic variables influence the availability of financial resources, which are essential for starting new businesses (Bruck et al., 2016).	Role Models The influence of successful entrepreneurs can inspire young people to pursue entrepreneurial paths (Packham et al., 2010).

- **RQ2: The Influence of Entrepreneurial Education Programs on Youth Entrepreneurial Intentions and Skills**

The debate on entrepreneurial skills demonstrates that they are heterogeneous and multifactorial, encompassing technical, managerial, interpersonal, and personal maturity skills. Studies highlight that leadership, networking, financial management, and managerial resilience are essential for ensuring the success of a new venture. However, while some technical skills seem less relevant in developing entrepreneurial contexts, others, such as innovation and creativity, are crucial for competitiveness and sustainability.

Entrepreneurial skills enable young people to manage complex situations and entrepreneurial challenges, helping them create resilient and innovative businesses. In particular, personal maturity,

characterized by persistence, responsibility, and risk-taking ability, plays a crucial role in enabling youth to navigate the complex world of entrepreneurship. Concurrently, managerial skills, such as decision-making, strategic planning, and resource management, are equally critical for the long-term success of enterprises.

This research, in a second phase, has explored in-depth the influence of entrepreneurial education programs on the entrepreneurial intentions and skills of youth, highlighting the crucial role these programs play in developing the abilities necessary to start and manage new initiatives. From the literature and articles analyzed, it clearly emerges that entrepreneurial education programs have a significant and multifaceted impact on entrepreneurial intentions and skills among young people, providing a solid theoretical and practical foundation for developing a sustainable entrepreneurial culture.

Studies demonstrate that these programs promote entrepreneurial attitudes and skills, contributing to developing the capacity of young people to start and manage businesses in the long term (Gorman et al., 1997; Pittaway and Cope, 2007).

Managerial skills have emerged as one of the main areas impacted by entrepreneurial education programs. Through practical training, business simulations, and mentoring from experienced entrepreneurs, students acquire strategic planning and resource management skills, essential for the success and sustainability of new ventures (Abdullah et al., 2018; Tindiwensi et al., 2020). These programs enhance their ability to make informed decisions and tackle entrepreneurial challenges strategically.

Technical skills, crucial for the development and implementation of innovative solutions, are another key element supported by entrepreneurial education programs. Access to resources such as technology labs and advanced tools allows students to apply theoretical knowledge in real contexts, improving their ability to develop innovative products and services (Almahry et al., 2018). Moreover, project-based learning provides students with practical opportunities to tackle concrete problems, enhancing their preparation for market entry (Chatterjee and Das, 2016).

Entrepreneurial education fosters an entrepreneurial mindset among youth, encouraging proactive attitudes and openness to risk-taking (Haynie and Shepherd, 2009). Entrepreneurial talent, combined with strong technical and managerial training, prepares young people to successfully navigate today's work environment, contributing to their personal fulfillment and the creation of new ventures (Lichtenstein and Lyons, 2001). However, the literature suggests that, despite progress, there is room for improvement in strengthening the effectiveness of programs offered by higher education institutions (Alakaleek, 2019).

While existing programs provide solid foundations for entrepreneurial development, some critiques regarding their overall effectiveness have emerged. In particular, there is a need to enhance the integration of risk management and financial planning in entrepreneurial curricula, as well as expand more direct practical experiences, such as entrepreneurial residency programs in colleges (Naqvi et al., 2022).

Research suggests that the effectiveness of such programs could be further improved through greater customization of the training content and the inclusion of more in-depth practical experiences (Xavier et al., 2013; Bischoff et al., 2020). Increased investment in the quality and structure of entrepreneurial training courses could contribute to building a generation of more prepared and innovative entrepreneurs.

• ***RQ3: Drivers Promoting Innovation and Entrepreneurship Among Young People***

The development of youth entrepreneurship is determined by various factors, including education, infrastructure, and innovation. Entrepreneurial education, in particular, plays a central role in preparing new generations by providing the necessary skills to face the challenges of a dynamic economic environment. Additionally, an adequate supportive ecosystem can enhance young people's ability to transform innovative ideas into successful entrepreneurial initiatives (Figure 26).

The different types of innovation promoted by entrepreneurial education are:

1. Product Innovation

Product innovation involves the creation or improvement of existing goods or services. Young entrepreneurs, trained to identify innovative opportunities, are better equipped to develop products that meet market needs. The integration of advanced technologies, such as AI or the Internet of Things, represents a significant area of potential for young entrepreneurs (Camisón & Villar-López, 2014).

2. Process Innovation

This form of innovation aims to improve production methods or business processes. Targeted entrepreneurial education can provide students with tools such as Lean Management and Six Sigma, which foster a corporate culture oriented toward efficiency and sustainability (Camisón & Villar-López, 2014). Moreover, Industry 5.0, which centers on humans and the environment, is transforming process management in a more sustainable way.

3. Marketing Innovation

Marketing innovation involves the adoption of new techniques to promote products or services, particularly in the digital context. Young entrepreneurs can leverage social media platforms and analytical data to enhance consumer engagement and personalize the customer experience. Digital marketing and data analysis courses can train youth in the best practices of modern marketing (Lemon & Verhoef, 2016).

4. Organizational Innovation

Organizational innovation involves improving the corporate structure and internal processes, including the introduction of flexible work models. Young people must be trained to build inclusive teams and implement collaborative technologies, thereby improving efficiency and fostering a corporate culture oriented toward innovation (Kirkpatrick, 2018).

5. Sustainable and Social Innovation

Finally, social and sustainable innovation focuses on solutions that address social and environmental challenges. Young entrepreneurs are often motivated to pursue sustainable initiatives that can combine economic success with a positive impact on society. This innovation is driven by factors such as education in sustainable entrepreneurship and values oriented toward social responsibility (Fatoki, 2014).

Figure 26: Innovation drivers

<i>Innovation Capability</i>	The ability to innovate is crucial for young entrepreneurs. It involves generating new ideas and implementing them to meet market needs. Research (Lee et al., 2019) shows a strong correlation between innovative capacity and business performance. For young people, investing in R&D and fostering a continuous learning environment stimulates this capacity, strengthening long-term competitiveness (Camisón & Villar-López, 2014).
<i>Competitiveness</i>	Competitiveness is a key factor driving companies to innovate and improve. More competitive firms tend to be more innovative, seeking to differentiate themselves in a globalized market (Khayareh & Rostami, 2018). In this context, innovation becomes essential for maintaining and enhancing competitive advantage.
<i>Entrepreneurial Education</i>	Entrepreneurial education lays the foundation for startup success by providing crucial skills such as risk management and critical thinking. Although education does not have a direct impact on entrepreneurial orientation as a moderator (Lee et al., 2019), it plays a fundamental role in developing entrepreneurial abilities like creativity and problem-solving (Schmitz et al., 2017). An educational approach that integrates theory and practice, including internships and mentoring, is essential for addressing market challenges.
<i>Infrastructure and Institutional Support</i>	Adequate infrastructures, such as incubators and accelerators, provide a conducive environment for the development of new businesses. Institutional support through tax incentives and favorable policies is crucial for facilitating innovation and supporting startups, especially in countries with high youth unemployment rates (Lee et al., 2019). In Italy, targeted policies can also help bridge the gap between education and the market, stimulating a sustainable entrepreneurial ecosystem.

2.10. BAC (Univr): Entrepreneurial education for (re)skilling Neet people and creating new ventures (ENTREDU4NEET)

Considering the analysis field of ENTREDU4NEET project, the main research areas interested in studying the NEET topic are the six following:

1. social sciences
2. education
3. psychiatry
4. occupational and environmental public health
5. sociology
6. economics

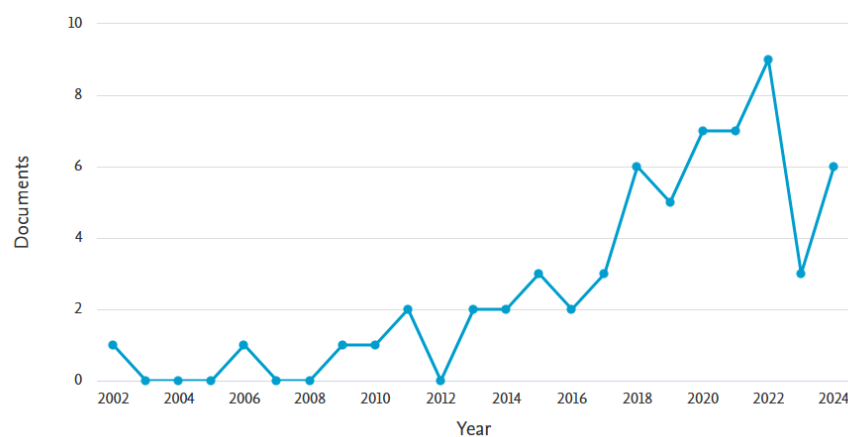
Studies focused on entrepreneurship are very scarce. The main studies that emerged from the systematic literature review conducted during the first phase of the project are the five following:

- Choudhry, M.T., & Pastore, F. (2023). Determinants of school-to-work transition: global outlook. *International Journal of Manpower*, 44(6), 989-999.
- Korotaj, T., Chen, J. M., & Kurnoga, N. (2024). School-to-Work Transition in the Youth Labor Market in Central and Eastern Europe: A Cluster Analysis Approach. *Business Systems Research, International Journal of the Society for Advancing Innovation and Research in Economy*, 15(2), 100-139.

- Levels, M., Brzinsky-Fay, C., Holmes, C., Jongbloed, J., & Taki, H. (2022). Not in employment, education, or training around the world. The Dynamics of Marginalized Youth: Not in Education, Employment, or Training Around the World, Abingdon: Routledge, 1-24.
- Ripamonti, E., & Barberis, S. (2021). The association of economic and cultural capital with the NEET rate: differential geographical and temporal patterns. Journal for Labour Market Research, 55(1), 1-17.
- Zhartay, Z., Khussainova, Z., & Yessengeldin, B. (2020). Development of the youth entrepreneurship: example of Kazakhstan. Entrepreneurship and Sustainability Issues, 8(1), 1190-1208.

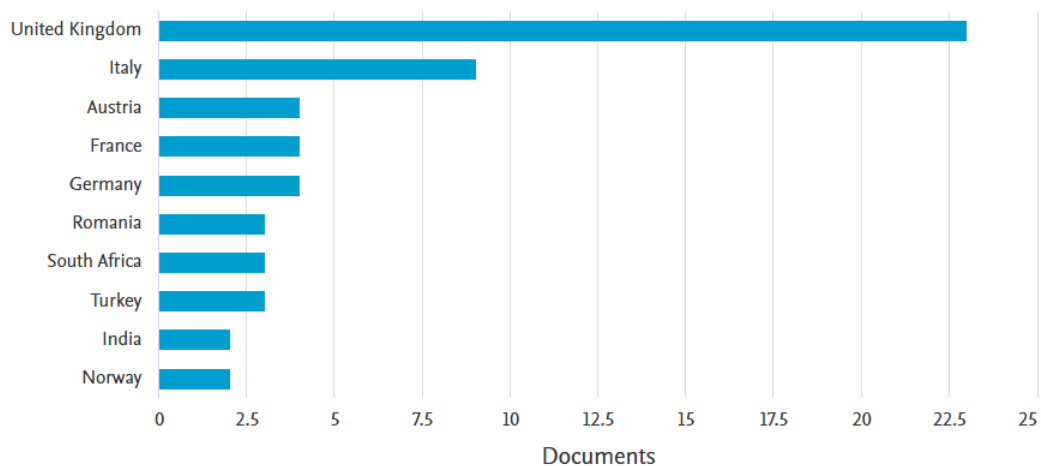
The first studies on the NEET topic appeared in 2002, and from 2016 onwards, they became more frequent, as the following Figure 27-28 shows.

Figure 27: Documents by year



Italy is among the first countries interested in studying and examining the NEET people topic.

Figure 28: Documents by country or territory



Regarding the first objective of this project, i.e. the identification of best or good practices at national and international levels on entrepreneurial education to (re)qualify NEETs and create new ventures, the systematic literature review did not lead to interesting practices to examine.

Some studies propose examples of entrepreneurship, but they are not focused on entrepreneurial education. These examples could serve as a promising focus for the next step of practical analysis.

Regarding the second objective of this project, i.e. the identification of relevant variables on the characteristics of NEETs, the systematic literature review revealed the possibility of classifying the variables examined in past studies into the five following dimensional categories:

1. Individual and family variables (demographic and socioeconomic aspects)
 - Age
 - Gender
 - Family status (stable partner at a young age, presence of children, housing situation)
 - Social background (parents' education level and employment status, migratory background)
2. Socio-psychological Variables
 - Motivation and confidence in the future
 - Social distress conditions (risk of social exclusion, health issues, isolation)
 - Access to support services
3. Labor Market-Related Variables
 - Youth unemployment rate
 - Inactivity rate
 - Duration of unemployment
 - Type of previous contract
4. Education-Related Variables
 - Low education level
 - Early school dropout
 - Participation in training programs
5. Contextual/Territorial Variables
 - Geographical distribution (urban/rural areas, regions, countries)
 - Local economic opportunities

From the analysis of education-related variables, it emerged that in Italy approximately 70% of young people who leave school early are women, while around 30% are men. Investing in education becomes crucial not only to reduce dropout rates but also to mitigate the risk of young people falling into the NEET. Entrepreneurial education emerges as one of the factors contributing to reducing the percentage of NEETs, given that it enhances young people's knowledge and skills. Therefore, this project focused on the topic of entrepreneurial education and school dropout to reduce the NEET people's emergence.

To date, scholars have largely focused on the critical role of the educational system's organizational structure and on the importance of implementing innovative educational strategies in addressing and limiting school dropout rates. Studies mainly focused on higher education, specifically on students' intention to start a business during or after secondary school or after graduation.

Building on these premises, a significant research gap emerges concerning the limited focus on the lower cycle of studies. While much attention has been given to higher education and upper secondary schooling, there remains a lack of in-depth investigation into the early stages of education, where foundational learning experiences take place. Indeed, understanding the dynamics, challenges, and factors influencing student retention at this level is crucial, as early educational experiences often shape long-term personal and professional trajectories.

In this regard, multiple studies highlighted the following advantages of promoting entrepreneurial education from primary school:

- to develop transversal skills from an early age (21st-century skills: critical thinking, creativity, innovation, initiative, cooperation, teamwork, and problem-solving),
- to foster an entrepreneurial mindset,
- to reduce the fear of failure,
- to prepare students for the challenges of the future labor market,
- to contribute to achieving sustainable development goals,
- to promote both individual success and socioeconomic progress,
- to create entrepreneurs and shape responsible citizens capable of positively contributing to society.

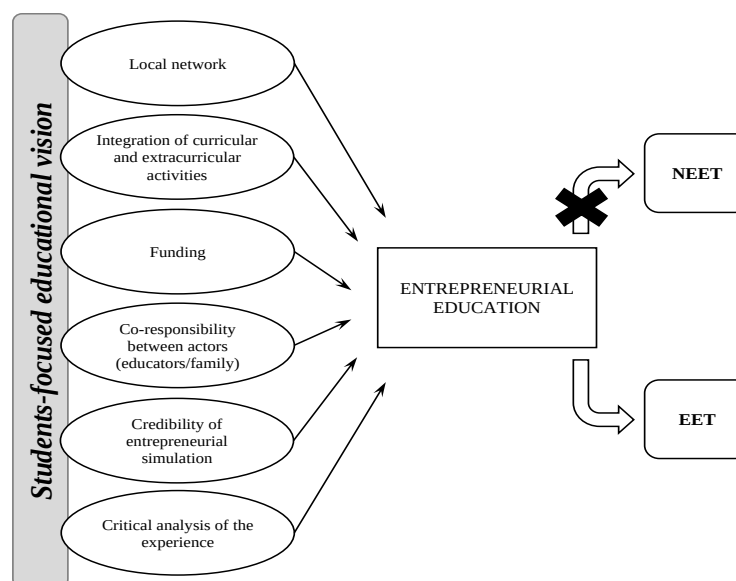
This project, therefore, aims to address this gap that could provide valuable insights into preventing

school dropout from its earliest stages, ultimately contributing to more effective and targeted interventions. Especially, this study investigates how entrepreneurial education prevents early school dropouts and the development of NEETs, conducting an exploratory study on Italian school cooperatives. At this moment, the results of this research are submitted to the 22nd Academy of Innovation, Entrepreneurship, and Knowledge Conference (ACIEK), which will take place in Spain on June 18-20, 2025.

In methodological terms, this study applied a qualitative method based on grounded theory. An interpretive approach was adopted. A purposive sampling approach was employed, based on social cooperatives of the education industry. They were contacted via email, informed of the aim of the research, and asked to participate in the study. The interview protocol was developed based on the literature analysis to address the core topic of this study. The interviewees' responses were coded in first-order concepts, then summarized in second-order themes, and finally in aggregate dimensions, as recommended by Gioia methodology (Gioia et al., 2013). An iterative process was followed by constantly switching between the data and existing theory to determine whether new concepts have been discovered.

The following Figure 29 shows the main results emerging from the analysis hitherto conducted. It highlights fundamentally the factors that create entrepreneurial education to reduce the NEET people's emergence. With reference to the first factor identified, the research team is analyzing the structure and dynamics of local networks to determine their optimal composition and the relationships that should be established among different actors within the territory. In addition, specific attention is also given to funding.

Figure 29: Key Factors Enabling Entrepreneurial Education to Prevent NEET Conditions



Parallely, further analysis focused on contextual/territorial variables with a focus on Naples City. Although Naples is one of the most beautiful Italian cities, some city neighborhoods are still today characterized by socio-economic challenges, such as urban exclusion, unemployment, poverty, lack of services, lack of public amenities (libraries, public gyms, green areas, and meeting spaces), social inequality e widespread crime.

Motivated by the belief that entrepreneurial education fosters local economic growth opportunities, the research team is analyzing a case study focused on preserving and promoting the neighborhoods' artistic and cultural heritage while organizing guided tours at restored sites led by NEET individuals, who have been converted to EET.

From a methodological perspective, this research relies on the single case study method, as this

approach allows for an in-depth examination of unique business experiences while capturing the perspectives of individuals directly involved. This method facilitates a comprehensive understanding of respondents' experiences that would otherwise be difficult to achieve. In addition, it enables a detailed investigation that not only provides valuable insights but also serves as a source of inspiration for new ideas and potential future research directions.

As one of the interviewees said:

"I love my neighborhood... I was born here and don't want to leave to look for a job. No one can force me to leave because of the local crime... I want to stay here to show others the real beauty of this place. Everyone in the cooperative agrees with me. Thanks to..., we have the chance to change things and make the district a better place to live and work... We can do it..."

The following figure 30 proposes some data on social cooperative growth, which is educating the NEET people to requalify them and create new ventures.

Figure 30: Growth Indicators of a Social Cooperative Supporting NEET Requalification and Venture Creation

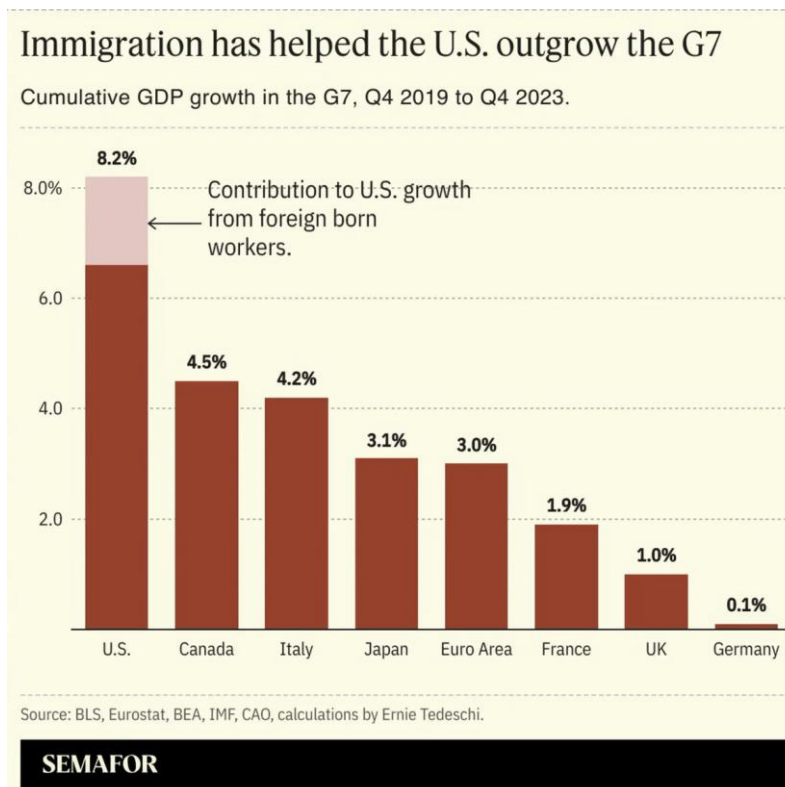
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Recovered heritage (m²)	7.350	8.182	8.582	9.332	9.832	10.132	10.432	10.522	11.050	11.770	12.100	13.000	13.000	13.500	13.500
People employed	7	8	9	10	12	14	18	20	21	23	34	38	38	40	56
Entrances	8.125	12.000	16.660	19.950	28.147	36.373	56.156	68.860	80.150	103.870	129.830	159.000	45.507	86.828	200.700

2.11. BAC (Unicatt): Human Mobility and migration as a resource for organizationS-Entrepreneurial Training (HUMUS)

Immigration plays a pivotal role in shaping the global socioeconomic landscape, enhancing economic diversity and resilience while addressing critical demographic challenges. Currently, the international migrant population has reached 281 million, constituting approximately 3.6% of the world's total population (International Organization for Migration, 2024). While some migrants drive innovation in emerging sectors, a significant number choose to establish businesses in traditional industries, such as hospitality, local retail, and personal services. These small and medium-sized enterprises not only enrich the economic fabric but also stimulate local employment and economic vitality, as highlighted by Agarwal, Ganco, and Raffiee (2022).

Economists think that as immigration adds to the labor supply in the US, job growth can remain strong without overheating the US economy. In an analysis published in April 2024, Tedeschi (2024) found that the post-pandemic pickup in immigration accounted for at least one-fifth of the increase in U.S. gross domestic product since the end of 2019. Though it wasn't the only factor, the boost from migrants helped explain why the American economy has bounced back much more strongly than those of other developed countries (Figure 31).

Figure 31: Cumulative real GDP growth in the G7, Q4-2019 / Q4-2023.



In the context of Italy—a country grappling with significant demographic challenges—immigration has proven essential in mitigating population decline. Persistently low fertility rates have led Italy into what is termed a “demographic trap”, characterized by a diminishing population of women of childbearing age and a corresponding decline in birth rates (ISTAT, 2024). As a result, immigration is crucial not only for sustaining the workforce but also for invigorating entrepreneurial activities, with migrant-owned businesses contributing significantly to local economies and neighborhood revitalization.

However, despite their valuable contributions, migrant entrepreneurs frequently encounter systemic barriers that impede their access to equal opportunities. Prevailing migration policies and societal frameworks often treat them as “aliens”, limiting their full participation in the economic landscape (Kothari, Elo, & Wiese, 2022).

In this context, supporting migrant entrepreneurship becomes paramount. Migrants bring diverse perspectives and skill sets that can enhance social integration and cross-cultural understanding. Nonetheless, the pathways to entrepreneurship for these individuals often necessitate tailored education and training, which some perceive as a “push” towards acquiring skills that may not always align with their aspirations or backgrounds. It is essential to recognize that not all migrants are inherently drawn to entrepreneurial pursuits, nor do they universally possess advanced competencies at the outset. This push towards skill development highlights the urgent need to bridge the gap between available opportunities and the broader aspirations of both the host country and migrant populations (Kothari et al., 2022).

This research aims to investigate the educational landscape for migrant entrepreneurship, focusing specifically on the hospitality and catering sectors. It will examine the available education and training programs and explore how these can be tailored to better assist migrants in establishing and expanding their businesses. By identifying the educational needs and barriers encountered by migrant entrepreneurs, the study will offer insights into how targeted educational initiatives can enhance their entrepreneurial aspirations and contribute to the broader economic and social fabric.

2.11.1. Methodology

The purpose of this research is to investigate the current educational landscape for migrant entrepreneurship, addressing the following key research questions (RQ):

- RQ1: What are the main educational programs offered internationally on migrant entrepreneurship, in terms of geographic distribution, training formats, and education levels?
- RQ2: What are the training strategies (guidance, educational content, and transferred skills) utilized in the most prominent international programs on migrant entrepreneurship?
- RQ3: What is the impact of entrepreneurial education on migrant entrepreneurs, and what are the key skills and content required, particularly in the hospitality and catering services sectors? (see par. 4.6.7)

To explore these questions, we conducted a systematic review of the relevant literature. It is evident that, within the literature review, research questions are typically not directly addressed in the manner that they would be in the results or discussion sections. Rather, the literature review serves to establish a robust theoretical framework and to contextualize the research inquiries.

Indeed, regarding Research Questions 1 and 2, these will be further explored in Work Package 2, specifically focusing on Online Desk Research and Analysis. Furthermore, Research Question 3, which investigates the impact of entrepreneurial education on migrant entrepreneurs and the key skills and content required, particularly in the hospitality and catering services sectors, necessitates a Quali-Quantitative Empirical Investigation to effectively assess these aspects.

Our sample was established through searches in the Web of Science and Scopus databases, both of which are widely recognized as comprehensive sources for peer-reviewed research published in reputable journals (Moed, 2005; Harzing, 2016). The Web of Science offers strong citation tracking and analytical tools, facilitating a thorough evaluation of research outputs (Garfield, 2006). Similarly, Scopus provides robust citation analysis capabilities that contribute to the assessment of scholarly work (Harzing, 2016). These databases together enhance our understanding of the existing literature and its contributions to the field.

The selected articles were analyzed through co-citation analysis, utilizing VOSviewer 1.6.20 (Crupi et al., 2021; Farrukh et al., 2021), a widely used method in the literature to assess relationships between past scientific publications (Miau and Yang, 2018; Yoon et al., 2019).

These articles were then subjected to a qualitative analysis to provide deeper insights into their findings and implications for the research questions.

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework was applied to guide the selection and review process for identifying publications on immigrant entrepreneurship, focusing on keywords such as education and training.

1. Identification:

- Initially, 1,340 records were identified in Web of Science and 1,274 in Scopus, yielding a total of 2,614 documents.
- The review focused on the theme of “immigrant entrepreneurship”, with keywords such as “education” and “training”. Research areas included business economics, sociology, and social sciences indexed from 1994 to 2024.

2. Screening:

- Duplicates between Web of Science and Scopus were removed.
- Articles irrelevant to the fields of business, management, economics, and sociology
- were excluded to ensure alignment with the study’s focus.

3. Eligibility:

- A more detailed review led to a reduced pool of 160 relevant publications after applying inclusion criteria, eliminating studies lacking relevance to the research objectives.

4. Final Inclusion:

- To complement academic publications, 7 additional authoritative sources from OECD, Eurostat, and IOM were included, providing crucial data on migration, skills development, and economic

contributions of migrants.

- A total of 23 sources will be included for the paragraph on the Fundamental Theories of Migrant Entrepreneurship: Conditions and Implications for Educational Programs.
- This resulted in a total of 190 articles for the final analysis.

Figure 32 shows the steps of the applied selection and review process.

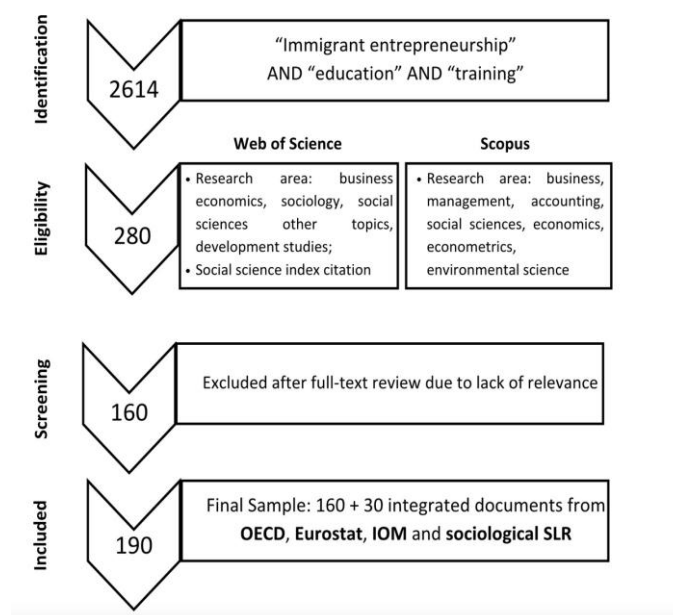
The inclusion of reports from OECD, Eurostat, and IOM played a pivotal role in expanding the review's scope. These organizations offer significant insights into the skills development, socioeconomic integration, and entrepreneurial activities of migrants:

- OECD provides critical data on labor market integration and entrepreneurial innovation.
- Eurostat offers extensive migration statistics and their economic impact within Europe.
- IOM contributes global perspectives on migration and the role of entrepreneurship in migrant integration.

By integrating both academic sources and institutional reports, the methodology ensured a comprehensive and nuanced understanding of the subject. The PRISMA model, coupled with the expertise from OECD, Eurostat, and IOM, allowed for a rigorous analysis of migrant entrepreneurship in various sectors, including hospitality and catering.

This structured approach ensured a robust exploration of the research questions and minimized potential biases, following best practices from Kitchenham (2015) and Page et al. (2021).

Figure 32: Article search and identification process



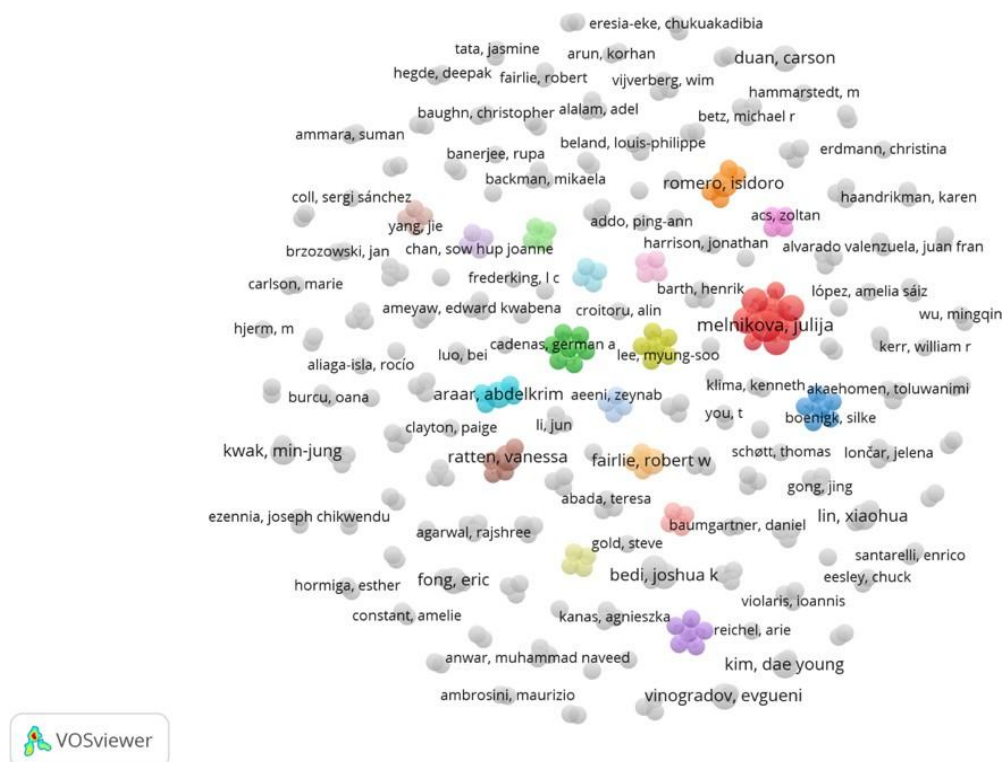
2.11.2. The co-citation analysis

The study of migrant entrepreneurship is increasingly relevant in today's globalized economy, both due to the significant flows of migrants worldwide and because migrant entrepreneurs contribute to economic diversity. Utilizing VOSviewer 1.6.20 to analyze the existing literature reveals important insights into the field. Although the analysis identified only a limited number of clusters and links among 160 sources, this phenomenon should not be seen as a limitation, but rather as an indication of specialization and potential growth in a sector that is still developing. The presence of few links may also reflect the geographical diversity of the sources. Different regions may have unique challenges and opportunities for migrant entrepreneurs, leading to specialized research that does not frequently overlap with studies from other areas. This geographical variation suggests that while the research community is still forming, it is beginning to structure itself around distinct regional niches, each deserving of more detailed attention.

The co-citation analysis (Figure 33) highlights influential sources, revealing the interconnectedness of research themes and suggesting collaboration opportunities among scholars. Furthermore, the findings can inform policymakers and practitioners about the specific needs and challenges faced by migrant entrepreneurs, ultimately leading to the development of more effective support systems and policies.

By employing advanced methodologies, this research contributes to filling existing gaps in the literature and encourages further academic inquiry into migrant entrepreneurship. Overall, the study underscores the critical role of migrant entrepreneurs and the necessity for ongoing exploration and support in this vital area of economic growth. The presence of few but significant interconnections not only highlight the importance of the themes addressed but also provides a foundation for building a stronger and more collaborative research network in the future, particularly as researchers seek to bridge geographical divides.

Figure 33: The co-citation analysis (VOSviewer 1.6.20)



2.11.3. Thematic Overview of Migrant Entrepreneurship Research

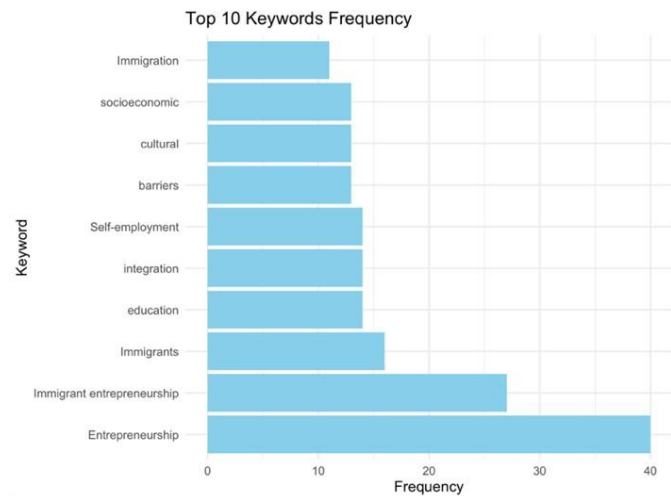
This qualitative literature review on migrant entrepreneurship seeks to identify the core skills essential for migrant entrepreneurs, providing a foundation for the development of targeted educational programs. By analyzing the existing research landscape, we emphasize key geographical, thematic, and sociocultural factors that shape migrant entrepreneurial experiences. This review synthesizes multiple theoretical frameworks and empirical findings to underscore the importance of understanding both regional contexts and broader structural challenges in migrant entrepreneurship. Highlighting gaps in current research, particularly in emerging areas such as gender dynamics, generational transitions, and the impact of technology, is critical for creating effective educational programs. Ultimately, this review aims to inform the design of training programs that empower migrant entrepreneurs with the skills necessary for success.

Figure 34: Frequency of keywords (R bibliometrix analysis)

```
> print(head(keywords_df, 10))
```

```
# A tibble: 10 × 2
```

	Keyword	Frequency
	<fct>	<int>
1	Entrepreneurship	40
2	Immigrant entrepreneurship	27
3	Immigrants	16
4	education	14
5	integration	14
6	Self-employment	14
7	barriers	13
8	cultural	13
9	socioeconomic	13
10	Immigration	11



The analysis draws on 190 sources, utilizing R bibliometrix to examine keywords (Figure 34) and read relevant papers. This approach facilitated the identification of various thematic clusters that reflect the complexity of migrant entrepreneurship. These clusters encompass a range of factors, including the role of education, access to resources, and the impact of social networks. By examining how these different themes interact, the review provides a nuanced understanding of the multifaceted nature of migrant entrepreneurial activities.

Migrant entrepreneurship has emerged as a significant area of study, effectively bridging the fields of sociology and economics to create a holistic perspective on how migrants navigate entrepreneurial challenges. This research highlights the dual focus on economic opportunities and sociocultural barriers, revealing the interplay between human capital, social networks, and institutional structures. Specifically, this review investigates the influence of education, particularly entrepreneurial education, on the trajectories of migrant entrepreneurs, shaping their capacity for innovation, adaptation, and success in diverse business environments.

Through the integration of cross-border research spanning both geographical and disciplinary boundaries, this literature review identifies key factors that shape migrant entrepreneurial activities. These factors encompass gender, generational differences, and the increasingly vital role of technology in business practices. By focusing on education, the review provides a critical lens to assess how migrants leverage both formal and informal learning experiences to overcome structural obstacles, develop entrepreneurial skills, and sustain their ventures in competitive markets.

By synthesizing these varied elements, the review aims to illuminate gaps in the literature related to the availability and effectiveness of educational programs designed to support migrant entrepreneurship. Through a comprehensive analysis of theoretical perspectives and empirical case studies, this work establishes a foundation for future research to explore the pivotal role of education in enhancing entrepreneurial success among migrant populations globally.

2.11.4. Fundamental Theories of Migrant Entrepreneurship: Conditions and Implications for Educational Programs

Understanding migrant entrepreneurship is a complex and multifaceted phenomenon that can be examined through various theoretical frameworks, each offering unique insights into the experiences of migrant business owners. The study of this field requires an exploration of how migrants navigate the challenges posed by their dual identities as both entrepreneurs and members of immigrant communities. Various theories highlight key aspects such as adaptability, resourcefulness, and the intricate interplay between social and economic capital. This adaptability becomes particularly crucial for migrant entrepreneurs, who often encounter structural barriers, including discrimination and limited access to

essential resources that can hinder their business ventures (Bedi, Jia, & Williamson, 2023).

In Italy, perhaps even more so than in other countries, immigrants' employability is largely attributed to their (hyper)adaptability, which leads to a concentration in the lower levels of the professional hierarchy (Zanfrini, 2022). This creates a form of ethnicization within employment relationships, forming one aspect of the broader process of labor market segmentation and polarization typical of post-industrial economies. However, it is also within this context that new opportunities emerge for the competitive valorization of immigrants and their specific skills and characters (Zanfrini, 2015). These opportunities arise through the recognition of both the diversity linked to ethnic-cultural origin and that shaped by migrants' backgrounds and dual affiliation. Additionally, the post-industrial economy serves as the crucible for immigrants to launch numerous self-employment and entrepreneurial ventures. According to some scholars (Peraldi, 2002), the status of entrepreneur may even represent the new model of reference, replacing the traditional image of the immigrant worker typical of the Fordist era, guiding migration projects and catalyzing the aspirations of prospective migrants. This explains why the phenomenon of immigrant entrepreneurship has garnered the attention of social researchers, particularly economic sociologists, establishing itself, in Mertonian terms, as a "strategic research site": In the context of renewed interest in the role of sociology in explaining economic behavior, that characterizes the closing decades of the twentieth century, immigration represents an area where processes of broader significance emerge with unprecedented clarity; entrepreneurial creation processes, in turn, serve as an emblematic case of the embeddedness of the economy within society.

As early as the beginnings of sociology, the intriguing figure of the entrepreneurial foreigner captivated the interest of the founding fathers of the discipline, featuring in explanations of the origins of capitalism and modern Western society. In W. Sombart's memorable pages (1916), the characteristic traits of the capitalist entrepreneur—those that determine success in business—are all embodied in the figure of the foreigner: marginalized from public life, thus more focused on economic goals; free from tradition and consequently particularly open to innovation; driven by a taste for risk and international connections; inclined to save and delay gratification. On one hand, there is the static world of tradition, which binds its members to conformity and cultural homogeneity; on the other, there is the foreigner who, precisely because they do not belong to this world and are kept at a distance, becomes the primary agent of economic transformation towards a capitalist and bourgeois model.

Contemporary sociology tends to reverse this approach: although rooted in diverse theoretical perspectives, interpretations of entrepreneurial phenomena all recognize in the ethnic community a distinct mode of migrants' economic incorporation (Schmitter Heisler 2000). The extensive series of studies devoted to entrepreneurship arises from an empirical observation: the prevalence of self-employment among immigrants and their descendants. Interpretations initially draw on the theory of blocked mobility: it is the precarious employment conditions of immigrants and the discrimination they encounter in dependent work that push them to seek alternative strategies to achieve their social mobility goals.

Light's model (1972), further developed in subsequent studies, also highlights the specific nature of ethnic enterprises, proposing that it is the experience of immigration itself that fosters a sort of reactive solidarity, which becomes a resource for group members. From this point onward, the idea solidifies that the establishment of entrepreneurial initiatives is largely due to the ability to mobilize "ethnic resources" in response to discrimination faced. A notable example is the rotating credit mechanism typical of certain immigrant communities, which, through internal trust and normative expectations, enables them to overcome one of the major barriers faced by aspiring entrepreneurs: the access to capital.

The concept of blocked mobility explains the paradox whereby entrepreneurial development has often emerged precisely during economic downturns, when immigrants' job security is under threat. This is exactly what happened in several European countries, parallel to the beginning of industrial restructuring in the 1970s (Boissevain, 1981): the growth of self-employed workers within the workforce is a broader phenomenon, but within this trend, immigrants have certainly played a significant role. Many of them, previously employed in mass production industries, found new career paths by launching small entrepreneurial ventures, often in the very sectors in which they had worked as laborers. The explosive

growth of ethnic entrepreneurship in so-called “mature” sectors (as well as in retail) has contributed to the survival of industries and productions that seemed destined to be entirely outsourced to low-wage countries, and more generally, to the survival and spread of small businesses whose imminent demise had been predicted by many just a few years earlier.

As we entered the new millennium, businesses managed by immigrants had already gained an undeniable economic importance. They not only contributed economically but also characterized entire neighborhoods through the reuse of old buildings, the appearance of signs in immigrants’ native languages, and the reorganization of spaces in line with the cultural traditions of their groups. This has even changed the look of certain large cities that now have ethnic enclaves, such as the Cuban community in Miami, the well-known Chinatowns in San Francisco and New York, and Koreatown in Los Angeles, among others. In S. Sassen’s renowned interpretation (1991), ethnic entrepreneurship is seen as one of the hallmarks of “new metropolitan economies”, in which the restructuring of industrial frameworks focused on large corporations and the expansion of the service sector created favorable conditions for the spread of micro-entrepreneurship, where immigrants—primarily concentrated in labor-intensive activities—are among the main players.

Given the significant growth of entrepreneurship, the blocked mobility hypothesis, though convincing in some respects, has started to appear insufficient. In particular, it fails to explain the varying propensity for entrepreneurship observed across different contexts and national groups, and, above all, does not account for why the most vulnerable groups in the labor market, who are recurrently targets of discrimination, are often also underrepresented in the entrepreneurial landscape. In an attempt to resolve this paradox, researchers have drawn extensively on historical analysis to highlight how various groups faced different sets of constraints and opportunities. From the mid-1980s onward, one of the most influential models has been that of the ethnic enclave, developed by A. Portes and his collaborators based on extensive research on the Cuban community in Miami. This interpretation explicitly references the theory of the dual labor market, noting how the enclave economy provides certain groups with an alternative to a fate of segregation in the secondary labor market, offering greater opportunities for economic advancement. Essentially, a third segment exists—the enclave itself—which represents a unique model of economic incorporation shaped by the characteristics of the ethnic community, grounded in the preservation of cultural specificity and a distinct group identity from the majority.

More in detail, the ethnic enclave is a spatial grouping of businesses owned by members belonging to the same ethnic minority and located near the residential areas of the ethnic group. For an enclave to form, an initial flow of immigrant elites possessing financial, human, social, and cultural capital must concentrate in a specific urban area. After establishing entrepreneurial initiatives, they then offer employment to other immigrants from the same country, often with a lower socio-cultural status. Compared to other businesses, those located within an enclave enjoy several competitive advantages: a consumer base of fellow nationals seeking ethnic products and specific services, the ability to gather capital to finance their activities, and the opportunity to utilize the low-paid labor of co-nationals. Additionally, they benefit from relationships with clients and suppliers and from internal trust, which greatly reduces transaction costs. The increase in the number of businesses, the gradual diversification of activities, and the expansion beyond the ethnic community consolidate the enclave to the point of making it “institutionally complete”—meaning it can provide its members and newly arrived compatriots with opportunities unavailable in the external labor market, including the chance to follow an “apprenticeship” path to self-employment. In an institutionally complete enclave, a migrant may even conduct their entire life within the ethnic community, and in principle, learning the host society’s language and behavioral norms is no longer necessary. Ethnic enclaves are not a universal model but rather specific to certain migrant groups. Furthermore, as a form of capital accumulation based on social capital embedded in ethnic networks, it is not without its costs and ambivalences, often relegating these businesses to the lowest segment of the entrepreneurial landscape.

Despite its popularity, the enclave model has faced criticism for emphasizing ethnic resources and the specific characteristics of immigrant-born enterprises while underestimating the role of structural embeddedness and analogies with the broader entrepreneurial phenomenon. Efforts to address these

limitations have not been lacking; among the first and most notable is the interactive model proposed by R. Waldinger, H. Aldrich, and R. Ward (1990), built around two dimensions: the ethno-cultural characteristics of different groups (defined as agency) and the political-economic opportunities and constraints (structure). While this model certainly helped counterbalance the excessive emphasis on ethnic resources found in various culturalist interpretations, it too has faced critical evaluations.

Perhaps the most authoritative proposal is that of J. Rath (2002), who suggested adopting the concept of mixed embeddedness, which integrates a variety of factors operating at different levels. Among these are market conditions (such as consumer behaviors, the number of competitors, etc.) and regulation (including national and international laws, as well as other instruments regulating economic behaviors—both dissuasive and incentivizing—and importantly, the practical implementation of these laws). These aspects, together with ethnic characteristics, contribute to explaining the emergence and success of businesses. For instance, in Italy, until the late 1980s, immigration regulations did not even recognize the status of self-employed immigrants, forcing aspiring entrepreneurs to use Italian “stand-ins”. Later—until 1998—the reciprocity clause continued to inhibit entrepreneurial development. Only after its removal could entrepreneurship among immigrants grow, though it often concentrated in labor-intensive, low-profitability sectors, or even became a form of nominally independent work. In those countries where specific licenses or qualifications are required for self-employment, low-skilled immigrants may encounter insurmountable barriers, concentrating instead in sectors where regulations are less strict.

Additionally, the role of social capital, as articulated by Santarelli (2013), is significant in understanding migrant entrepreneurship. Social networks not only provide access to critical resources and information but also facilitate the integration of migrant entrepreneurs into the local economy. Research emphasizes how social and cultural capital within immigrant communities can significantly influence entrepreneurial behaviors and outcomes. This highlights the importance of leveraging cultural identity and community connections, which are essential tools for migrants to navigate regulatory challenges and resource limitations in their host countries. However, migrant women and those from marginalized backgrounds may face additional barriers, such as gender discrimination and cultural expectations, complicating their entrepreneurial journeys (Cho et al., 2019).

Moreover, the propensity to become an entrepreneur can vary significantly depending on whether individuals are compelled to flee their home country or migrate voluntarily. Those who are forced to leave, such as refugees or asylum seekers, often do so in response to immediate threats, such as violence, persecution, or economic collapse. This situation can create a sense of urgency and survival, influencing their entrepreneurial intentions and strategies. For instance, forced migrants may prioritize short-term, survival-oriented businesses over long-term planning and innovation as they navigate precarious legal and economic conditions (Agarwal et al., 2022).

In contrast, individuals who migrate voluntarily, often in search of better opportunities or quality of life, tend to have different motivations. They may be more willing to take risks and invest in entrepreneurial ventures that align with their skills and aspirations, benefiting from networks and resources available in their new environment (Valenzuela and Solano, 2022). This distinction underscores the complexity of migrant entrepreneurship, as the context of migration can profoundly influence business approaches and outcomes.

Furthermore, generational differences can significantly affect entrepreneurial aspirations and practices. The children of migrants often have access to different resources, educational opportunities, and social networks compared to their parents. This can lead to divergent entrepreneurial trajectories; for instance, while first-generation migrant entrepreneurs may focus on establishing businesses to support their families and communities, their children may seek to innovate and expand into new markets, reflecting evolving socio-economic contexts and opportunities (Lee and Eesley, 2018).

Finally, the phenomenon of immigrant entrepreneurship has also been associated with the scenario of transnationalism: the emerging entrepreneur is someone who navigates “between multiple worlds” in a space that is essentially “extraterritorial”, leveraging networks that connect regions of origin and destination with the multitude of places where their business partners are located (Peraldi, 2002).

Entrepreneurial initiatives promoted by transmigrants or returning migrants are, moreover, one of the fundamental ways through which they can potentially become agents of development for their country of origin.

However, a central question remains: does the transition to self-employment constitute an effective strategy of social mobility for immigrants? While there are indeed examples of highly successful businesses, some even becoming multinational, immigrant-founded businesses are often marginal, reflecting the limited resources initially available. Given their low level of qualifications and scarce financial resources, immigrants tend to focus their entrepreneurial efforts in sectors with fewer barriers to entry, which, as such, are also the most exposed to competition. These businesses are often labor-intensive and rely on low labor costs made possible by “exploiting” family members and fellow countrymen employed within them. Many ethnic businesses take advantage of the leniency toward the informal economy and the illegal employment of immigrants, blending into the folds of metropolitan economies. While frequently celebrated uncritically, many entrepreneurial initiatives start out marginal and remain so, constituting merely a sideways shift from Lumpenproletariat to Lumpenbourgeois (Aldrich et al., 1984).

The fact remains, particularly in Italy, statistics continue to record an increase, both in absolute numbers and as a percentage of the total, in self-employed foreign workers. Undoubtedly, there are factors that have fueled the proliferation of immigrant-driven initiatives: in a country where the share of self-employed workers is traditionally high, the most enterprising foreigners may have found fertile ground for launching their initiatives, aiding generational turnover in certain sectors (as is visibly the case in street markets, where spaces left by retiring vendors are promptly replaced by immigrant stalls, which are now noticeably numerous in nearly all local markets). Nor should we overlook the growth of potential consumers within immigrant communities themselves (prompting the opening of halal butcher shops and other grocery stores and businesses, aided by license liberalization) and the broader immigration population (evidenced by the rise of service-oriented businesses, including those that assist in organizing the migration of relatives and friends). Additionally, the general increase in outsourcing practices has opened up new spaces for operators willing to drastically reduce delivery times and labor costs.

Whether a business takes the form of “heteronomous” work rather than strictly autonomous work—such as when the formation of a company conceals a total dependency on a certain client who does not wish to bear the costs of regular employment—or reflects a desire for greater autonomy and profit margins (as seen in the transport sector with the rise of foreign-owned small trucking companies), these are trends that warrant monitoring.

At the same time, it is worth noting that immigrants, and immigrant entrepreneurs in particular, represent a kind of archetype of an increasingly pluralistic society. They are natural candidates for launching economic initiatives based on the value of diversity and cosmopolitan identities. Studies conducted in various countries reveal that immigrant-driven initiatives can impact the competitive profile of cities themselves, creating a sort of “ethnic advantage” or “diversity dividend”, pioneering a business line that is today cultivated by major companies too (as evidenced by marketing strategies that explicitly highlight the value of diversity).

Moreover, it has long been known that ethnically defined areas—such as the famous Little Italy in New York or the charming Mouraria neighborhood in Lisbon, a traditional crossroads of cultures now home to numerous shops and workshops run by new immigrants—can become attractive areas for various types of city users, as stressed by urban sociologists and geographers. They often serve as special attractions for international travelers eager to explore “the world in one city” (Collins and Castello, 1998), frequently promoted in travel guides. Indeed, it is this cosmopolitan atmosphere that largely underpins the international appeal of cities like London (Clark, 2015).

Thanks to a precious study involving several countries, J. Rath (2007) documented the emergence of a commodification process around displays of ethnic and cultural diversity. This trend is becoming an increasingly significant part of urban economies, where immigrants—both as entrepreneurs and as employees—play an essential role. The process typically begins with immigrants or ethnic minorities

initiating enterprises, but it can be encouraged by local authorities, external investors, or even immigrant operators from different cultural backgrounds (a notable example is the “Italian” restaurant industry worldwide, increasingly run by individuals from different backgrounds who recognize the profitable appeal of the Italian brand; see, e.g., Storti, 2007; Gusso, 2010). Through this process, cultural expressions are transformed into tools for socio-economic development, benefiting both immigrants and the urban economy, which, in turn, establishes a unique image comprised of intangible resources: symbols, signs, promises of a distinct “experience”, and urban myths emphasizing tolerance, cosmopolitanism, and harmonious coexistence. This perspective recasts visible minority presence—often viewed as a potential source of ethnic tension—as an asset for a city’s competitive profile and its ability to attract emerging consumer patterns, which increasingly express identity and values and define relational spaces. As noted in R. Florida’s influential interpretation (2002), subsequently echoed in various studies, a city’s “diversity” enhances its creative capital and attracts knowledge workers, becoming celebrated through public events that draw thousands of visitors. This realization is maturing, highlighting how migrants and diaspora communities can strategically strengthen a city’s standing in the global economic and political hierarchy, where openness to ethnic and cultural diversity has become an indicator of a city’s international profile and sustainable development prospects (IOM 2015). Alongside this growing awareness, initiatives aimed at transforming diversity into economic and social advantages have also increased: from business incubators to multilingual services (Kerr et al., 2014).

Finally, it’s worth noting that involvement in transnational networks and practices positions immigrants as strategic actors not only in the internationalization of the economies of host countries but also in the development of their home communities. Although this is not a new topic—having been rhetorically emphasized in the repatriation support programs launched by several European countries in the 1970s—the new scenario outlined by transnationalism suggests that migrants’ potential can be realized independently of any eventual return. The previously mentioned IOM report (2015) documents how migrants can support growth in their countries of origin through initiatives like city twinning programs and diaspora mobilization. Numerous projects in recent years have leveraged transnational ties to promote development and well-being in both origin and destination communities, involving immigrant communities in Italy as well (one of the first examples is an international project Mapid, that included Italy, Spain, and the Philippines: see Baggio, 2010).

In recent years, as reviewed in several works quoted in this paper, the study of entrepreneurship has advanced further, particularly by exploring the specificities of different ethnic groups and the role of support policies and initiatives, often focusing on specific social groups (e.g., immigrant women or those with international protection status, see, e.g., the NES project¹). Many of these works, developed in the fields of economic sociology, urban geography, and anthropology, once again emphasize the specific features of immigrant businesses, often focusing on so-called “ethnic resources”, as well as on the specific barriers and discrimination faced by immigrant entrepreneurs.

Migrant entrepreneurship is a global phenomenon that varies considerably across different geographical and cultural contexts. These global case studies demonstrate the importance of context-specific research in understanding migrant entrepreneurship. Local social and economic conditions heavily influence entrepreneurial outcomes, underscoring the need for a comparative approach to studying migrant entrepreneurship across different cultural and regulatory environments.

Collectively, these foundational theories and concepts underscore the complexity of migrant entrepreneurship and illuminate the myriad factors that influence the entrepreneurial experiences of migrants. Understanding these dynamics is crucial for informing the development of policies aimed at supporting migrant entrepreneurs in diverse economic landscapes, as it provides a framework for addressing the unique challenges they face while maximizing their contributions to local economies.

This research takes a different and in many ways complementary approach, examining economic or business-related variables that can explain the success or failure of immigrant-founded businesses, as with any other business. Its contribution should therefore be understood as complementary to that of more strictly sociological studies, in line with the objectives of a project aimed at identifying useful indications for the design of training initiatives aimed at strengthening the managerial and strategic skills

of migrant entrepreneurs.

2.11.5. What are the main educational programs offered internationally on migrant entrepreneurship, in terms of geographic distribution, training formats, and education levels?

Educational programs for migrant entrepreneurs are unevenly distributed globally, with a significant concentration in North America, Europe, and Australia. According to the International Organization for Migration (IOM) (2022), these programs tend to emerge in countries with high migration flows and well-developed integration policies, such as the United States, Germany, the United Kingdom, and the Netherlands. Data from the OECD (2022) indicates that access to training programs for migrants correlates with supportive integration policies, with fewer initiatives observed in developing countries. Notable exceptions, however, arise in countries like Turkey, South Africa, and Mexico, where entrepreneurship is often regarded as a crucial pathway for economic inclusion.

The educational formats for migrant entrepreneurs vary from intensive short courses to more structured academic programs. Many international programs offer online courses to ensure flexibility for participants, while others emphasize hands-on learning through workshops and business incubators. As reported by Eurostat (2021), several European countries adopt hybrid approaches that combine classroom learning with individual coaching and mentoring. Examples include:

- **Blended Learning Formats:** Many programs provide a combination of online sessions and in-person workshops.
- **Acceleration Programs:** Numerous acceleration programs have been established to support startups led by migrants, particularly in major cities such as Berlin and London.

Educational programs also vary based on the required education levels or target audiences. Some programs are designed to provide basic skills for those without prior training, while others cater to more advanced entrepreneurs or migrants with previous professional experience. Generally, these programs can be categorized into three main types:

- **Basic Programs:** Targeted at migrants without entrepreneurial experience or with limited skills.
- **Advanced Programs:** Designed for migrants with previous experience in specific sectors or those who have already established businesses.
- **Academic Programs:** Offered by universities or higher education institutions, which include more theoretical courses on entrepreneurship (Eurostat, 2021).

The upcoming sections will focus on analyzing educational interventions designed to promote migrant entrepreneurship. These interventions can be framed in response to three macro categories that reflect the diverse factors shaping and characterizing migrant entrepreneurs: sociocultural factors, resource accessibility, and external factors.

1. **Sociocultural Factors:** These elements play a crucial role in shaping the entrepreneurial experiences of migrants. Aspects such as cultural identity, community norms, and social networks can both facilitate and hinder access to entrepreneurial opportunities, influencing the business strategies adopted by migrants (Aliaga-Isla, 2014; Fairlie & Woodruff, 2010). Understanding these dynamics is vital for developing targeted educational programs that empower migrant entrepreneurs.
2. **Resource Accessibility:** Another fundamental aspect concerns access to essential resources such as financial capital, training, and adequate infrastructure. Educational policies should aim to remove barriers to these resources, especially in contexts where migrants may face discrimination or legal limitations (Agarwal et al., 2022). Programs that focus on practical skills development can enhance migrants' ability to establish and manage their businesses effectively.
3. **External Factors:** It is also essential to consider external factors, such as government policies and local economic conditions, which can significantly impact entrepreneurial opportunities.

Events like the COVID-19 pandemic have highlighted the need for resilience and adaptability among migrant entrepreneurs. Educational programs that incorporate an understanding of these external factors can equip migrants with the necessary tools to navigate the entrepreneurial landscape successfully (Lee & Eesley, 2018).

Ultimately, the objective of this analysis is to identify which elements of educational programs are closely correlated with positive entrepreneurial outcomes for migrants. For instance, while language courses are important, they may not be directly linked to entrepreneurial success if they are used for purposes other than fostering entrepreneurship. By isolating these key components, it will be possible to enhance the effectiveness of educational interventions and promote sustainable migrant entrepreneurship.

2.11.5.1. Sociocultural Factors Shaping Migrant Entrepreneurship

The entrepreneurial activities of migrants are deeply influenced by their sociocultural contexts, which shape both opportunities and obstacles. Research consistently shows that migrants face specific challenges related to their immigrant status, including limited access to formal support systems, discrimination, and unfamiliarity with the host country's legal and business environment (Agarwal et al., 2022). Moreover, the country of origin plays a crucial role in shaping the experiences of migrants; individuals from diverse backgrounds may encounter varying degrees of linguistic, religious, and cultural challenges, which can affect their integration into the host society. For instance, migrants from regions characterized by significant cultural differences may face heightened barriers that impede their entrepreneurial efforts.

Furthermore, education and skills, collectively referred to as human capital, play a decisive role in an entrepreneur's ability to identify opportunities. Migrants with higher levels of human capital are more likely to recognize and seize entrepreneurial opportunities, as seen in studies examining the entrepreneurial trajectories of highly educated Moroccan migrants (Aliaga-Isla, 2014; Alvarado Valenzuela & Solano, 2022). Conversely, those with lower educational attainment or limited language proficiency may struggle to navigate the complexities of the market effectively.

These findings suggest that migrant entrepreneurship is not only about resourcefulness but also about leveraging existing cultural and human capital to navigate complex social and economic landscapes. Moreover, the migration process itself often imposes psychological and emotional tolls on entrepreneurs, affecting their ability to engage with the market on an equal footing with native-born entrepreneurs.

Entrepreneurial Identity and Ethnic Dynamics

The intersection of entrepreneurial identity and ethnicity represents a critical area of inquiry within the field of migrant entrepreneurship research. Entrepreneurial identity is often shaped by migrants' ethnic backgrounds, profoundly influencing their business practices, strategic choices, and resilience in the face of challenges. For instance, Carpenter and Loveridge (2018) demonstrate that Latino-owned enterprises operate under distinct market dynamics compared to those owned by other racial groups, leading to divergent entrepreneurial behaviors that are contextually dependent.

A salient illustration of this phenomenon can be observed in ethnic enclaves, such as those found in various urban settings where immigrant communities establish businesses that reflect their cultural heritage. Research indicates that entrepreneurs within these enclaves often possess a competitive advantage in niche markets due to their cultural and culinary expertise. For example, Turkish entrepreneurs in the kebab industry have leveraged their traditional culinary knowledge to dominate this market segment, thereby cultivating strong brand recognition and consumer loyalty (Baycan-Levent & Kundak, 2009). This unique positioning allows them to differentiate their offerings from those of non-ethnic competitors, thereby enhancing their overall business viability.

Moreover, ethnic identity serves as a vital source of resilience, facilitating access to community support during periods of adversity (Lee & Eesley, 2018). The literature underscores that entrepreneurial identity is not a static construct; rather, it is dynamic and evolves in response to various internal and

external factors. The ability of migrant entrepreneurs to navigate these complexities often hinges on their capacity to integrate aspects of their ethnic identity into their business practices, effectively transforming potential obstacles into opportunities for differentiation and growth.

The Role of Networks in Migrant Entrepreneurship

Social and transnational networks play a crucial role in the success of migrant entrepreneurs. The concept of mixed embeddedness (De Queiroz Falcão, Brzozowski, & Cucculelli, 2021) captures the dynamic interplay between social ties and economic relationships at both local and global levels, enabling entrepreneurs to leverage resources and opportunities across diverse contexts.

However, language barriers can pose a significant challenge, as they may hinder communication with suppliers, partners, and potential customers, making it difficult to build entrepreneurial networks. Despite these challenges, some entrepreneurs find ways to overcome them. For instance, Brazilian entrepreneurs in Toronto rely on both their ethnic connections, which provide specific support and resources, and local relationships that facilitate integration into the Canadian market. This highlights the importance of various forms of capital—social, cultural, and economic—in enhancing business performance (De Queiroz Falcao et al., 2021). Similarly, Brzozowski and Cucculelli (2020) found that in Central Italy, transnational ties—connections that extend beyond national borders—contribute positively to business outcomes, providing access to markets, information, and resources that might otherwise be inaccessible.

These findings underscore the dual role of social capital in providing access to both resources and markets, making it an invaluable asset for migrant entrepreneurs. Additionally, Daniel et al. (2019) demonstrates how social networks facilitate access to resources for ethnic minority entrepreneurs in the UK, further emphasizing the importance of community support in fostering business growth.

Social Entrepreneurship and Community Impact

Social entrepreneurship within migrant communities plays a critical role in driving economic development and fostering social integration. These enterprises address economic needs while also tackling social challenges, thus enhancing community resilience. By establishing businesses that respond to local demands, migrant entrepreneurs create value that transcends profit-making.

Immigrant-run businesses have demonstrated their capacity to promote social cohesion and inclusion. In Sweden, for instance, these businesses provide essential services to marginalized groups, facilitating integration and strengthening social networks within diverse communities (Hjerm, 2004). This dynamic is echoed in the UK, where social enterprises are increasingly prioritizing social missions that combat unemployment and fill service gaps for vulnerable populations, thereby engaging communities in meaningful ways (Daniel, Henley, & Anwar, 2019).

Furthermore, the role of supportive networks among migrant entrepreneurs cannot be overstated. These networks are crucial for resource sharing and information exchange, which significantly contribute to the success of social initiatives (Martin-Montaner et al., 2018). Such collaborative efforts underscore the multifaceted nature of social entrepreneurship, revealing its potential to build social capital, reinforce cultural identity, and promote cohesion within migrant populations.

In summary, social entrepreneurship among migrants serves as an essential mechanism for addressing both economic and social challenges. By creating positive societal impacts and fostering inclusivity, these initiatives pave the way for cultural exchange and integration, enriching both the entrepreneurial landscape and the wider community.

2.11.6. What are the training strategies (guidance, educational content, and transferred skills) utilized in the most prominent international programs on migrant entrepreneurship?

Knowledge-Based Services

These services aim to equip migrant entrepreneurs with the essential skills and knowledge needed to navigate the host country's business landscape effectively. This includes:

- *Language Courses:* Providing language training tailored to business contexts helps migrants communicate effectively with customers, suppliers, and regulatory authorities, thereby enhancing their ability to operate successfully.
- *Financial Literacy and Entrepreneurship Training:* Multilingual training modules can address gaps in financial knowledge and entrepreneurial skills, enabling migrants to manage their businesses more effectively and make informed financial decisions.
- *Understanding Local Business Culture:* An introduction to the host country's business culture, practices, and norms helps migrants adapt to the local environment, promoting smoother interactions with customers and stakeholders.
- *Information on Regulations and Support Services:* Access to information about local business regulations, stakeholder contacts, and available support services empowers migrant entrepreneurs to comply with legal requirements and leverage resources that can aid their business growth. (OECD, 2022).

Mentoring and Network-Building Initiatives

These initiatives focus on creating opportunities for migrants to connect with established members of the business community, which is vital for building social capital and enhancing their entrepreneurial capabilities. This includes:

- *Mentorship Programs:* Pairing migrant entrepreneurs with experienced local business mentors can provide invaluable insights into the nuances of the local market, help navigate challenges, and offer guidance on best practices.
- *Networking Opportunities:* Organizing events and initiatives that facilitate interactions between migrant entrepreneurs and the broader business community encourages relationship-building, collaboration, and knowledge sharing. This exposure to local networks can lead to new partnerships and business opportunities.
- *Business-to-Business Training:* Providing training that emphasizes collaborative strategies and knowledge sharing among businesses can strengthen ties between migrant and local entrepreneurs, fostering a sense of community and mutual support. (Eurostat, 2021).

2.11.6.1. Resource Access and Sustainability

Access to both financial and non-financial resources is a significant determinant of the sustainability of migrant businesses. Bates et al. (2018) highlight that minority entrepreneurs in the U.S. face considerable challenges in accessing capital, a situation that is exacerbated by systemic barriers such as discrimination and lack of institutional support. Local organizational sponsorship, as shown by Clayton (2024), can play a significant role in overcoming these barriers, providing crucial financial support and business mentorship.

The sustainability of migrant businesses also depends on their ability to utilize resources effectively. For example, Romanian entrepreneurs in Spain perceive numerous obstacles in their entrepreneurial initiatives; the most significant are related to scarce financial conditions, bureaucracy, and legal constraints derived from their immigrant status (Dinu et al., 2015). These findings highlight the need for tailored support systems that address the specific challenges migrant entrepreneurs face in accessing and managing resources.

Financial Resource Access

Access to financial resources is a critical factor in the sustainability of migrant businesses. Many migrant entrepreneurs face challenges in securing traditional funding due to barriers such as limited credit history, discrimination, and a lack of institutional support (Bates et al., 2018). To address these issues, alternative financing mechanisms like microfinance and community-based credit programs offer valuable avenues for migrants to acquire capital. Local organizational sponsorships also play a vital role,

providing not only financial support but also mentorship, which aids in navigating regulatory complexities and overcoming institutional challenges (Clayton, 2024). Tailored support structures are essential, particularly for migrants who encounter obstacles related to legal constraints, bureaucracy, and financial instability, as shown by Romanian entrepreneurs in Spain (Dinu et al., 2015).

Innovation and Technology in Migrant Entrepreneurship

Innovation, particularly in the realm of technology, is a critical driver of growth for migrant entrepreneurs. Access to digital tools and technological resources allows migrant businesses to enhance their competitiveness and reach new markets (López, 2021). Lee and Eesley (2018) note that immigrant entrepreneurs often contribute to technological advancements, playing a key role in fostering innovation within the broader economy.

Foreign-born workers often exhibit a notable propensity for entrepreneurship, heavily influenced by their access to technological resources and opportunities. Those equipped with advanced technological skills are more likely to pursue innovative business ventures, which enhances their sustainability. The relationship between technology transfer and migrant entrepreneurship indicates that access to cutting-edge technologies is vital for fostering innovation, particularly in high-tech sectors. Establishing pathways for migrant entrepreneurs to access these resources effectively is essential for ensuring their long-term viability and competitiveness in the market (Blume-Kohout, 2016).

Financial Support and Access

- **Microfinance and Credit Programs:** Establishing microfinance institutions and community-based credit programs can help provide accessible funding options for migrant entrepreneurs who may struggle to secure traditional bank loans due to lack of credit history or collateral. These programs should be designed to consider the unique challenges faced by migrants, including language barriers and limited financial literacy.
- **Financial Literacy Training:** Providing training sessions focused on financial management, budgeting, and investment can empower migrant entrepreneurs to make informed financial decisions and improve their ability to manage resources effectively.
- **Local Organizational Sponsorship:** Encouraging partnerships between local organizations and migrant entrepreneurs can facilitate access to resources and mentorship. Sponsorship programs can provide not only financial support but also guidance on navigating local business environments and regulations (IOM, 2022).

Technological Resources and Innovation

- **Access to Technology and Digital Tools:** Initiatives aimed at providing migrant entrepreneurs with access to digital tools, software, and training can enhance their competitiveness in the market. Programs that focus on e-commerce, digital marketing, and online business operations can help migrants reach broader markets.
- **Innovation Hubs and Incubators and Partnership with companies:** Establishing innovation hubs and business incubators specifically for migrant entrepreneurs can provide them with the resources, mentorship, and support needed to develop and launch innovative business ideas. These spaces can facilitate collaboration and idea exchange among diverse entrepreneurs. (OECD, 2021).

2.11.6.2. External Factors

The global COVID-19 pandemic has disproportionately impacted migrant entrepreneurs, exacerbating vulnerabilities that predated the crisis. This event serves as a generic example of the challenges that migrant entrepreneurs may face in times of crisis. Research shows that racial and ethnic minorities, particularly those involved in small-scale entrepreneurship, faced unique challenges during

the pandemic, including higher rates of business closures and reduced access to government relief (Beland et al., 2020). The situation was particularly acute in Brazil, where racial minorities experienced heightened economic pressures, illustrating the broader issue of inequality in access to entrepreneurial resources (Pereira & Patel, 2022).

For many migrant entrepreneurs, the pandemic was not just a health crisis but a multifaceted economic upheaval, stripping away essential resources and support systems that are already fragile. This scenario serves as an intuitive reminder of the broader systemic barriers that these entrepreneurs often encounter, such as limited financial resources, inadequate access to networks, and a lack of familiarity with local market dynamics. For instance, while native-born entrepreneurs might leverage established relationships with suppliers or lenders, migrant entrepreneurs often lack these connections, making it difficult to adapt during challenging times.

This evidence highlights the structural barriers that migrant entrepreneurs face during times of crisis. The pandemic served to deepen these inequalities, demonstrating the importance of targeted policy interventions to support migrant entrepreneurs. Governments need to develop more inclusive support mechanisms that address the specific needs of marginalized entrepreneurial groups, especially during economic downturns. Ultimately, addressing these vulnerabilities is crucial not only for the well-being of migrant entrepreneurs but also for the resilience of local economies as a whole.

The COVID-19 pandemic has underscored the vulnerabilities of migrant entrepreneurs, highlighting the need for targeted interventions that address not only immediate crises but also systemic challenges. Here are key intervention strategies:

- **Emergency Support Mechanisms:** Governments should establish tailored emergency funds and grants for migrant entrepreneurs to help them navigate economic downturns, ensuring a streamlined application process that is accessible.
- **Access to Information:** Improving access to multilingual resources about available support programs and business regulations is crucial. Creating comprehensive online platforms can help ensure that vital information reaches migrant communities effectively.
- **Strengthening Community Networks:** Enhancing local business associations and immigrant organizations can provide vital peer mentorship and resources. These networks facilitate collaboration and support among migrant entrepreneurs.
- **Inclusive Policy Development:** Policymakers should actively involve migrant communities in the development of support programs to ensure their needs are met, leading to more effective business support services.
- **Education and Training:** Offering education focused on crisis management, financial literacy, and digital skills can help migrant entrepreneurs adapt to changing external conditions and enhance their resilience.
- **Addressing Systemic Inequities:** Long-term efforts should focus on combating discrimination in financial services and ensuring equitable access to credit for immigrant businesses, including diversity training for financial institutions (OECD, 2021).

2.11.7. Policy Implications for Education Supporting Migrant Entrepreneurship

The relationship between government policy and migrant entrepreneurship is vital in shaping entrepreneurial ecosystems worldwide. Policies that prioritize multiculturalism and inclusion enhance the success of migrant entrepreneurs, fostering environments where diverse business ventures can thrive. For instance, Brzozowski and Cucculelli (2020) emphasize the importance of supportive public policies in driving economic growth through entrepreneurship, particularly in Central Italy, where immigrant entrepreneurship plays a crucial role in local economic development.

Countries have implemented specific policies to strengthen migrant entrepreneurship. In Canada, initiatives like the Start-up Visa Program provide pathways for skilled migrants to integrate into the local economy through financial support and mentorship (Citizenship and Immigration Canada, 2018).

Similarly, Australia's Business Innovation and Investment Program facilitates the entry of migrants with proven business acumen, thereby contributing to the country's economic dynamism (Department of Home Affairs, 2023). However, significant gaps remain within these frameworks, with many migrant entrepreneurs encountering barriers such as limited access to financing and tailored resources. While some countries offer support programs, these often fail to reach the most vulnerable groups, including undocumented migrants or those from lower socio-economic backgrounds who may lack the necessary documentation or networks to access available resources.

Inclusive policies are essential for integrating ethnic minorities into the entrepreneurial landscape, promoting social cohesion and economic prosperity (Collins, 2003; Acs et al., 2016). Initiatives that provide access to microfinance, training programs, and tailored resources are critical in this context. The European Union has also launched programs to support migrant entrepreneurship by providing access to funds and resources designed to lower entry barriers (European Commission, 2021). However, the impact of these initiatives can be inconsistent, often lacking the necessary outreach to ensure that marginalized groups are adequately supported.

These insights underscore the necessity of engaging policymakers in crafting supportive frameworks that promote the success of migrant entrepreneurs. By addressing existing gaps, governments can stimulate economic growth while fostering social inclusion and cultural diversity. Strengthening partnerships with community organizations and ensuring that policies adapt to the evolving needs of migrant populations will enhance the effectiveness of these initiatives.

Furthermore, the significance of entrepreneurship education is widely acknowledged. From local government initiatives to global frameworks like the United Nations' 2030 Agenda for Sustainable Development, there is an urgent need to develop citizens' entrepreneurial abilities. Adequate entrepreneurial skills not only benefit individuals but also contribute to economic growth and cultural diversity within host communities (United Nations, 2015). For migrants, fostering an entrepreneurial culture can yield multiplier effects, positively impacting both migrants and the economies in which they operate (Aliaga-Isla, 2014).

Additionally, policies aimed at promoting social cohesion through entrepreneurship are gaining traction. Support networks and collaborative platforms can help migrants establish relationships of trust and solidarity, facilitating social integration and reducing exclusion (Martin-Montaner et al., 2018). This communal aspect of entrepreneurship is vital for aiding individual business growth and strengthening the social fabric of urban communities.

The effectiveness of these programs depends on several factors, including the quality of entrepreneurial education, support provided during and after programs, and the economic opportunities within the surrounding environment. Efforts for social inclusion and sustainable development through entrepreneurial education require collaboration among various stakeholders, including educational institutions, local authorities, non-governmental organizations, and the private sector. A holistic approach and synergistic cooperation are essential for achieving significant results in implementing these programs (Bates et al., 2018).

The literature reveals gaps in policy effectiveness, particularly regarding the unique challenges faced by diverse migrant groups. While many policies aim to support entrepreneurship education, they often lack tailored resources for specific populations, such as women, refugees, and those from marginalized communities (Zalkat et al., 2024; Daniel et al., 2019). Addressing these gaps is crucial for maximizing the potential of migrant entrepreneurship as a driver of economic growth and social inclusion.

2.12. BAC (Univaq): The Socialization of Young Unemployed Women into Sustainable Entrepreneurship (INTERGEN)

2.12.1. Theoretical and contextual framework

Women in Italy, as is well known, enter the world of work later than in other European and world systems and their presence in this sphere - and on the public scene in general - is undoubtedly one of the

aspects to be evaluated for the functioning of the entire social system (Bianco, 2002). In Italy, the gap between male and female employment rates is 18 per cent. According to ISTAT data for the year 2022, 69.2% of men aged between 15 and 64 and 51.1% of women in the same age group were employed. This scenario, however, presents different declinations in the territory, as revealed by the data processed by the Leone Moressa Foundation for 2022: the gap is lower than average in the regions of Central and Northern Italy, while it exceeds 20% in Molise, Abruzzo, Calabria, Sicily, Campania, Basilicata and Apulia (in the latter three regions the difference is over 25%).

In fact, the Covid-19 pandemic has led to a strong worsening of gender inequalities in terms of women's access, permanence and career progression in the labour market and in Italy the phenomenon is even more critical due to previous gender gaps (INAPP, 2021). The negative impact of the pandemic on women's employment can be traced back to a complex of factors, first and foremost to the sectoral composition of employment, which sees women employed in health-risk jobs or in sectors constrained by social distancing. According to the 5th Unioncamere Report on female entrepreneurship presented in July 2022, there are 1,342,000 female enterprises in Italy, representing 22% of a total of 6 million active enterprises in the country. The average age of female entrepreneurs in Italy is about 45 years and young female entrepreneurs under 35 years account for about 11% of female enterprises. Again according to Unioncamere, with regard to geographical location, 63.2% of women's enterprises are located in the Centre-North and 36.8% in the South. The situation is also substantially critical for the younger generations: in fact, Italy is one of the EU countries with the highest youth unemployment rate, which stands at 18% between the ages of 15 and 29, compared to the European average of 11.3%. Concerning youth entrepreneurship (i.e. companies with a majority of owners or partners under 35), about 174,000 youth enterprises have disappeared in just over 10 years (-25.1%). The regions with the largest declines between 2019 and 2022 are Molise, Marche, Sicily, Calabria and Abruzzo.

The younger generations therefore feel less inclined to become entrepreneurs. According to the survey conducted by the Chamber of Commerce of Umbria based on Infocamere-Unioncamere data, with respect to all Italian regions, the number of youth enterprises detected is 522,000 as of 31 December 2022, with significant reductions compared to previous years: -15,829 compared to 2021 (-3.4%) and as many as -38,793 compared to 2019 (-9.9%).

Against this backdrop, the overall objective of the project will be to carry out a socio-economic study on sustainable entrepreneurial socialisation of actors disadvantaged due to generational and gender issues.

The target category of the survey will therefore be young women (18-34 years) from an intersectional perspective.

Achieving the project's overall objective could produce impacts on several interrelated levels. On a socio-economic level, actions on entrepreneurship education may counter inequalities for the inclusion of women and the younger generation. On a scientific level, the proposed trans-disciplinary study will implement the theoretical-conceptual framework while, as far as project outputs are concerned, they will be produced:

- a dataset of relevant variables on the topic under study;
- a mapping of best practices to facilitate entrepreneurship education and support the social inclusion of young women from a social equity perspective;
- guidelines to promote the valorisation of socio-economic diversity.

The centrality of the intersectional approach applied to the identification of the reference category of the research is suggested by the same approach of the National Recovery and Resilience Plan (Italian acronym PNRR), which reads its three main priorities of gender equality, youth empowerment and overcoming territorial gaps through this interpretative key, making it also a strategic key for the operational part of the investment plan. Similarly, in this project, the age and gender categories represented in the sample will be read not only as co-present in the identification of the research subjects, but also in the processes in which they intersect with each other and with other personal characteristics/identities: this shows the ways in which these intersections contribute to determining specific experiences of discrimination. Among these categories that contribute to the specificity of the

analytical study of gender and age there is, precisely, the territorial one because, as the data illustrated so far by the European and national reports show, being women and young people represents a personal and social condition that generally affects the socialisation to sustainable entrepreneurship as disadvantaged subjects, but it does so to a different degree depending on whether the condition is experienced in the geographical areas of the north, centre or south, but also - and to be considered in an integrated way - in urban or inland areas.

As mentioned, the project program is based on the realisation of a socio-economic study on the sustainable entrepreneurial socialisation of disadvantaged actors due to generational and gender factors: therefore, the target group of the study will be unemployed young women (18-34 years) from an intersectional perspective.

The achievement of this objective could produce significant impacts especially from a socio-economic point of view: in fact, initiatives aimed at promoting education for sustainable entrepreneurship can contribute to combating inequalities, fostering the inclusion of women and the younger generation.

This project proposal is relevant to the objectives and activities of GRINS, as will be discussed in more detail, with a specific thematic focus on educating young women in sustainable entrepreneurship. A fundamental element of GRINS is the issue of social sustainability, the primary objective of which is the achievement of conditions of dignity for the life of every individual, with initiatives aimed at affirming the rights of economic, social, political, cultural, gender and ethnic equity established in the general principles of international human rights treaties. In fact, the concept of social sustainability implies the right to live in a context where people can fully express their potential, by giving impetus to useful actions to maintain their traditions and the rights of local communities with respect to their territory. According to the definition proposed in the 'Our Common Future' report, sustainable development is development that ensures that the needs of the present generation are met without compromising the ability of future generations to meet their own needs. Moreover, we know that our country is known worldwide for its rich forms of high-quality craftsmanship between innovation and tradition. The number of craft enterprises is declining, the entrepreneurial class is ageing and has less confidence in the future. But craftsmen 4.0 are more optimistic. Despite the fact that the craft sector accounts for 9.5 per cent of GDP and 21.2 per cent of enterprises, the craft profession is in danger of attracting fewer and fewer generations. Many professions may end up being forgotten as few are willing to invest a lot of time in learning these skills. For this reason, the accurate socio-economic analysis of the phenomenon and the mapping and analysis of best practices in this field could allow the identification of successful measures, analysing them and disseminating their distinctive features for the construction of measures to support the learning process of sustainable entrepreneurship. Inclusive policies, whose ambition is to achieve social cohesion, are based on the attainment of conditions of dignity for each individual: thus, factors such as a decent level of education, employment, participation in political life, recognition of cultural diversity but also the possibility of access to socialisation pathways to sustainable entrepreneurship become quite significant.

In line with Spoke 8, dedicated to data collection and analysis as well as to the identification of best practices, aimed at promoting the reduction of territorial inequalities, the social and cultural participation of the population and the inclusion of the disadvantaged through retraining and entrepreneurship education activities, the INTERGEN project promotes social sustainability, innovation and social inclusion from a sustainable development perspective. A society that offers equal opportunities for social mobility and reduces marginalisation creates the conditions for better institutions, trust and social capital that, in turn, foster economic growth.

Entrepreneurship fosters social cohesion and sustainability in connection with women's empowerment. Women pay the highest price within unequal gender relations and policies and this realisation requires a transformation of these relations through intervention strategies for different contexts and opportunities. Based on this assumption, empowerment is defined as a progressive and multidimensional process in which women, or a group of women (individual and collective level, as a unit of analysis) acquire power and become capable of making meaningful choices for themselves and

others in the personal, social, political and economic spheres (ActionAid, 2020).

Another fundamental element is the territorial divide: as we know, a significant component of the Italian territory is characterised by significant and persistent gaps. The Italian Mezzogiorno is the largest underdeveloped territory in the euro area, which suffered most severely from the great crisis of 2008 and, more recently, the impact of the pandemic. However, it is also a context with great potential and internal differentiation, inhabited by over twenty million inhabitants (about one third of the Italian population), with a productive context that - although weak and incomplete - could generate positive effects for the country. For over a century, the backwardness of southern Italy has been a national priority and a privileged area of attention in the debate and in policies for development and social cohesion. It is no coincidence that the urgency of the 'southern question' is a qualifying point of the PNRR, to which - as has been said - a transversal priority is assigned in order to finance reforms and interventions, sometimes exclusively destined for the 8 southern regions. Within this context of such broad and ambitious policies, the INTERGEN project will be able to help exploit the available information potential to support decision-making and evaluation processes in the future. This will be possible through the mapping and analysis of best practices, the survey that will be conducted and the Delphi with experts for the construction of policy-making scenarios for cohesion and social inclusion strategies.

2.12.2. Intersectionality and transdisciplinarity: dilemmas and perspectives of an integrated analysis approach for the INTERGEN Project

Only in recent years has the Italian scientific community dedicated itself to the knowledge of intersectionality, sometimes taking it on as a theoretical approach, sometimes as a methodological apparatus particularly devoted to being applied to investigate growing social complexity. This scholarly interest has been doubly innovative: first, it has led our country's research to equip itself with an epistemological tool whose applications overseas have already been fueling critical theories of society for some decades. Equally innovative, however, are the theoretical and methodological aspects that come from our research experience in a context by temporal and cultural characteristics decidedly different from those of its origins. If even the systematic reading of the intersectional studies that have followed from the first by Kimberlé Crenshaw (1989) to the present day cannot but offer interpretations conditioned by the tradition of social studies familiar to us, even more so does the assumption of an intersectional perspective to read contemporary Italian society exert an interpretative influence: the cultural "specific weight" of the categories read in their intersections (Davis, 2018) may not be the same as the gender, race, and class identifiers of the female workers fired by General Motors and unsuccessful plaintiffs in the Supreme Court, whose case highlighted the need for an intersectional approach to analysis.

The literature on intersectionality highlights how the specificity of its Italian application is not limited to cultural determinants. Also, perhaps above all, the processes of knowledge production today triggered by objects of analysis such as those of this Project require different paradigms: the intersectional gaze meets and integrates with the transdisciplinary gaze according to dynamics that will be specially constructed through the theoretical foundations of intersectionality and transdisciplinarity.

2.12.2.1. Why intersectionality: Theoretical-methodological premises

In order to address the general objective of the INTERGEN Project, i.e. a socio-economic analysis of the socialisation to sustainable entrepreneurship of subjects disadvantaged by generational and gender issues, intersectionality is proposed as one of the most relevant epistemological and methodological approaches (Corbisiero, Nocenzi, 2023).

Certainly, this is in line with the strategies made explicit in the same priorities of the PNRR, the Project's funding source: to achieve the ecological and digital transition by recovering the delays that have historically penalised our country, relating to youth, gender equality and the territorial divide. These are three factors whose cultural relevance in our society, if possible, is strengthened not only thanks to

their transversality within the various social spheres, but precisely because of the diverse range of profiles that emerge thanks to their intertwining. An intervention programme on the causes of national social crises, therefore, must necessarily take them into account, going beyond the generic classification of subjects by their prevailing factor of identification, from which inevitably summary interpretations and subsequent treatments derive.

The contribution that can come, then, from a scientific study makes the path of analysis that can be made of it rigorous, but, due to the experts' previous rare familiarity with intersectionality, it also makes it a twofold challenge: on the one hand for the disciplines that measure themselves against an innovative theoretical-methodological framework, and on the other hand for intersectionality itself applied in a cultural context and disciplinary tradition different from the one that has accompanied it since its first applications in North American society five decades ago.

These pages are intended to explore these two aspects in greater depth in order to illustrate the intersectional theoretical framework chosen to implement the Project and, therefore, to describe the approach with which it is intended to be applied, specifically the transdisciplinary one.

We will come to the latter after embarking on a path of conceptual definition to begin with which, at this preliminary stage, it is necessary to emphasise how the adoption of an intersectional approach in social research on Italian society calls into question both the cognitive categories used by the national scientific community up to that point, and some of the foundations with which the black feminist tradition itself has defined intersectionality.

Italian research, in fact, distractedly welcomed the first intersectional studies that arrived in the initial decade of the 2000s because they were few in number (Corradi, 2003; Perilli, 2009) and because they were not understood for the actual innovative value they could bring: not so much an integrated study of the factors that in a double-entry table could recognise conditions of vulnerability, if not discrimination, for female workers or immigrants who were the subject of those studies. Intersectionality called for an identification of the lines of resistance of the groups that hold power on the basis of social constructions that recognised in certain categories those excluded from access to resources (Butler, 1990, de Lauretiis, 1999). Its scope, therefore, was, if possible, more revolutionary than that which a few years earlier had fuelled, among others, Pierre Bourdieu (1998) with his studies on the capacity of social agents in a dominant position, especially men, to impose their cultural and symbolic 'productions' by playing a decisive role in social relations of domination.

What Bourdieu calls symbolic violence, thus defining the capacity to conceal the arbitrariness of these symbolic productions and, therefore, to have them admitted as legitimate by the dominated social actors to all others, resembles the critical theory of society proposed by intersectionality (Corbisiero, Nocenzi, 2022). This, however, brings elements that prove congenial to this Project. In particular, as will be discussed in more detail, it deconstructs the cultural process that determines marginalised social positions by also looking at it from within those conditions. In them, it is possible to define how certain categories intersect in the light of their social recognition - whether individual or institutionalised - but it also initiates an epistemological path that leads, albeit unintentionally, to the delineation of a new paradigm of reference (Cho, Crenshaw, McCall, 2013). A sort of *pars costruens* of the critical theory that is what is required as a scientific basis for defining social intervention policies in favour of women's empowerment and sustainable entrepreneurship in the specifics of the Project and more generally in the PNRR.

If in this way the scientific assumption is reunited with the purpose of political action, at the basis of research projects such as ours, we must not, however, overlook, as we anticipated, the challenges for those who do research in INTERGEN and for intersectionality itself: its use in a *destruens* investigation of the intersections between gender and age factors in a given territorial context, different from that in which intersectionality began.

For those who are familiar with intersectionality from having encountered it in the venues of North American movements and colleges where, as early as the late 1960s, so-called black feminism claimed its own dimension with respect to the feminism of white women and the protests of black men, the arrival in European contexts, first, and then in Italian contexts, may have even denatured it. There are too many

cultural differences between European societies and that of the United States - think of the coexistence of several races, the link with the land of origin, the consolidated and deep social inequalities, not only of an economic nature - exacerbated by the rapid social change of recent decades and not always neutralised by globalisation. Today, intersectionality is measured against contexts in which profound and rapid transitions are taking place, shaped by several decades of practice in a predominantly North American society and by (generally female) 'militant' scholars whose scholarly project has often coincided with their life project.

2.12.2.2. What intersectionality?

The intersectional study of INTERGEN, therefore, comes at a time when intersectionality is ripe for institutionalisation by the scientific community, which by its very nature presupposes the assumption of an epistemological revolution (first challenge) and the need for its definition (Hill Collins, 2015): is it a theory, an approach or, rather, a methodology or a hybrid of all these possible definitions (second challenge)? In the latter case, the first challenge, the epistemological one, would even favour the assumption of intersectionality as a paradigm or, on the contrary, the demolition of the very idea of the need for a reference model for the production of knowledge in the gaze of society, in the name of the rejection of the traditional mechanisms of simplifying bad and human-centred classification, deconstructed precisely thanks to intersectionality (Anthias, 2021).

The Project will tend to use the research lens to bring the intersectional framework to its most up-to-date level of adaptation. Proposing an alternative vision to the already revolutionary vision of feminism and the Afro-American people's rights movement, in fact, in its early moves had an innovative scope that went far beyond the proposition of a further identity profile, social position or point of view in the society of the second half of the last century. Certainly, the mature age of modernity revealed the composite social stratification that had formed as a result of the processes of industrialisation, urbanisation and technological innovation. The interconnectedness of these conditions accelerated the sharing by an increasing number of subjects of the same space and time, the diversification of their social and work roles, at the same time as a growing awareness of this social composition thanks to increasingly individualised, accessible and connected media (Weber, 2001).

Applying this model of knowledge today in the economically depressed areas of our country means taking part in an inveterate debate to excavate from the outside and from the inside the theoretical framework of modernity and, with it, the mechanisms for maintaining privileged positions and those specularly disadvantaged, to orient ourselves towards models of development alternative to the traditional and, last but not least, to renew the toolbox of scientific research. This is something more than a revolution and this now makes it clear why we speak of 'challenges': in fact, connected to it are the risks of institutionalisation, understood as emptying it of its transformative charge, and of its 'academisation' in the sense of 'domestication of subversive knowledge', which the Italian reality may also foreshadow (Bello et al., 2022). It will be appreciated in the following paragraphs how the encounter with a transdisciplinary dynamic completes and enhances the innovativeness of the theoretical-methodological choice.

2.12.2.3. What contribution from the Italian context?

The greatest closeness between social research work in Italy and intersectionality has been constituted, as already mentioned, by scholars whose research has been centralised on the condition of women in the long path of claiming their rights, a path that is still ongoing. There are many elements in common between this scholarly orientation and that which in the United States between the 1970s and 1980s projected feminism to assume a self-reflexive attitude open to intersections with other exclusionary categories. There was, therefore, a temporal gap between the two cultures that was partially filled in Italy when the echo of North American, then international, studies spread to the more 'sensitive' offshoots of the scientific community and the world of associations, providing new perspectives for the

analysis of a changing reality in Italy as well (Perilli, Ellena, 2012; Marchetti, 2013).

Some phenomena have been more decisive than others in stimulating a production of knowledge that is no longer mono-categorical and in suggesting a rethinking of social structures and institutions through an intersectional approach. In particular, the arrival of migrant women and queer identity models flanked female 'other' gender identities, for which factors such as ethnicity and sexual orientation pluralised the category par excellence. It was a process that started from below, from social facts, from their affirmation and constituting themselves as objects of research for the scientific community, which conducted studies on the identity representations that were gradually asserting themselves, such as those of migrant women, with their empowerment poised between the permanence of traditional customs and the opportunities offered by the country of destination (Battistoni, Oursana, 2012). While the results of these studies have rarely been translated into ad hoc regulatory measures, they have now consolidated reference models in the study of these phenomena, in which it is no longer possible to disregard the plurality of identity profiles involved (Ambrosini, 2020).

The last decade has certainly been the most significant in fostering the introduction of intersectionality not only in the scientific debate, but also in the dimension of political and social practices which, in a reciprocal process of construction, have encountered an unexpected cultural openness. Yes, because the degree of maturation - public recognition and institutionalisation - of intersectionality in Italy has followed a different process from that overseas, although from the latter it has received stimuli and models that it has grafted onto a context almost entirely lacking in useful experiences. Those of migrant women and the first queer identities were followed by the issues brought to public attention by the specific discrimination against transsexual subjects, and then by global feminist movements such as #MeToo (2017) and Ni una menos (2015), one of which started in the United States, the other in Argentina in more or less the same years, and which were able to transcend national borders with social justice objectives and planetary, indeed intersectional, languages. Connected to the demands of these movements are those of the environment and sustainable development, even more recent, which have enjoyed the awareness of the former by bringing a platform of objectives for society whose figure is the intersection between categories, the interdependence between living systems, the elimination of intersectional inequalities (Caterina La barbera et al., 2022). Other, more local projects such as the Green Deal or the Gender Equality Index in Europe and, as anticipated, the PNRR in Italy have been inspired by these programmatic plans and have quickly imposed on research protocols the adoption of intersectionality as an approach, perspective, concept, method and much more.

Scientific socialisation with intersectionality has been accelerated in recent years and has reached a degree of maturity that seems more advanced than in North America in terms of institutionalisation and also in terms of defining what it means in theoretical construction and research. In some case studies it is referred to as a cognitive approach, in others as a methodological substratum, it is certainly the research objectives and cognitive questions that guide its definition. In the INTERGEN Project, the constant reference to the literature of its origins leads one to consider the dilemmas of the maturation of the original project, but also the challenges, already referred to, connected to its application in a cultural context different in conformation and time. Their presentation will be associated with the research pathway (first objective) and the proposal for the definition of a specific conceptual and methodological reference that themes such as those of the INTERGEN Project require - intersectional and transdisciplinary - that does not invoke the need for an actual paradigm (Hancock, 2007).

2.12.2.4. The first challenge of intersectionality: how to know and why?

A glance at the literature on intersectionality from its origins to the present day reveals a progressive extension of black feminist analysis (Carastathis, 2014) to a critique of modernity, the complexity of which it reflects and represents (McCall, 2005), that connected to structure and social position to those connected to the relations established between individuals and groups (Weber, 2001). In fact, rather than a sequence of recent decades, it is a primal derivation that intersectional analysis attests to from the strand of critical studies of modernity. Concepts such as class, class, power, social division of labour,

state and rights constitute a basic dictionary common to that used by classical social science theories and to that referable to intersectionality (Yuval-Davis, 2006; Davis, 2018). They are so much so that an object of study such as Max Weber's identified in the area of overlap between the spheres of economics, politics and state order does not seem so different from that positioned at the intersection of the concepts of class, race and gender by black scholars analysing the condition of women workers in North American companies (Crenshaw, 1989).

The original contribution of intersectionality, however, is evident in several elements. The first relates to the 'scope' of intersectional critique. Certainly authors such as Marx and Weber and, later, conflict theorists proposed revolutionary thinking with an impact on the social processes they studied. The same is evident for the black feminists who inaugurated a view of society from a point of view 'missed' even by those who were careful to emphasise inequalities. The significance of the unprecedented intersectional analysis, however, lies in its approach, which moves, more or less intentionally, in a direction that does not include that of the 'fathers of sociology'. It is to these that we owe the merit of having outlined a theoretical and methodological framework of reference for the newly-born sociology, entirely new with respect to the previous one, rational and no longer metaphysical (Weber, 1920-21), and subsequently questioned, at most updated to the evidence of the limits of the project of modernity, but never repudiated in its function as a shared paradigm within the scientific community.

By introducing a feminine view, but also from non-Western backgrounds and from social positions hitherto unauthorised to express themselves on the dominant model of knowledge, black intersectional scholars neutralised all existing foundations within the scientific community except that of rigour in the study of society (Hill Collins, Bilge, 2016).

A second innovative element of intersectionality is added to that of the knowledge-maker and relates to the way of proceeding in the analysis of one's object of study: no longer applying an experimental method of isolating the object from its context, but enhancing all its complexity, without giving in to the need for simplifying classifications in order to remain within the linearity of rational scientific rigour. Deconstructing the Western hierarchy of identifying factors of (s)objects opened up an exponential number of others that were equally valid scientifically and as many that could be prefigured by abandoning human centrality.

Decolonialism and the ecological sciences are no strangers to the epistemological proposal of intersectionality, and in a socio-cultural context such as the North American one, other 'encounters' have also initiated a process of questioning inveterate paradigms and the search for an alternative. For example, the transformation of the industrial economy from the Fordist model to that of automation, but also the scientific and technological revolutions that have favoured the production of knowledge even outside of laboratories and academies, constitute contextual elements within which the condition of a radical transformation of knowledge has matured, amplified to an unavoidably global level (Spivak, 1989).

If one wants to add a specificity to the innovative scope of intersectionality, it lies in the intrinsic integration of the subject and the object of knowledge it proposes. A feminine vision could never have been affirmed without it being decidedly 'non-Western', hence of African origin, 'critical' because subordinate insofar as female and enslaved, 'excluded' from the processes of knowledge and social participation because not recognised to do so. These elements are all intertwined with each other and consolidated in this unprecedented set-up by many decades of refinement (hooks, 1981) if we think of the first Women's Conventions dating back to the mid-19th century and manifestos such as the well-known speech *Ain't I a woman?* presented on one of these occasions by the former slave Sojourner Truth: a claim for female and racial equality interconnected, bringing them to a level of epistemological dignity, even before the juridical one. The form taken by a similar manifesto more than a hundred years later, formally recognised as such, the Combahee River Collective Statement, this time by black activists with a lesbian sexual orientation, demonstrates the validity of an alternative vision in which all those categories - and their respective interconnections - that had themselves undergone a process of exclusion from the distribution of 'power' and conditioning within a dominant social structure can be recognised (Combahee River Collective, 1982)

If one thinks of the translation of this vision into norms and policies of social intervention, the revolutionary scope with respect to power relations and access to resources in the racialised and class-hierarchical North American society, but also in non-Western cultures that had undergone with colonisation first and globalisation later the imposition of a social model and, with it, also of knowledge, becomes evident.

This last point deserves special attention with respect to the general objectives of the INTERGEN Project. Although in a different socio-cultural context, intersectionality modifies the perspective of observation and interpretation of the object of the research by welcoming that of the subjects analysed themselves. We will elaborate on how this is made possible by a transdisciplinary approach in the final part of this discussion, but here it is already crucial to emphasise that the intersectional vision leads to a re-signification of the categories it uses. The properties that each identity category presents, starting with that of gender, when analysed in their intersection with the others, propose different declinations that cannot be the result of a laboratory calculation, but the result of contextualised and rigorously studied experiences. Something Weber had deeply reflected on when he spoke of methodological individualism, but in a sense that could not 'encompass' all non-binary representations, the formulation of cultural constructs of gender (Rubin, 1975), feminist relativisations (Butler, 1990, hooks, 2000). The acquisitions of feminist studies and intersectional interpretations, therefore, have not only led to the definition of the feminine as opposed to the masculine, but to open binary oppositional schemas to the most varied combinations to the point of rejecting classifications and even definitions - think of queer studies (Gibson, 2013; Mayo, Blackburn, 2020).

That of the re-signification of concepts is a path analogous to that which will occur in the final stage in the approach chosen for the INTERGEN Project with respect to the meaning and function of paradigm: if based on concepts deconstructed and re-signified by the intersectional view, its knowledge-producing function must be reconsidered. If the previous paradigm turned out to be no longer effective, would the establishment of an adequate theoretical and methodological framework deliver an alternative paradigm or mark the end of the use of reference models?

In his iconic explanation of what he intended to do with intersectionality, Crenshaw effectively defines it as a social investigation of a process of discrimination comparable to an accident, the reconstruction of which 'is not always easy: sometimes the signs of braking and the injuries simply indicate that these two events occurred simultaneously; saying little about which driver caused the damage' (Crenshaw, 1989, 151). It is not possible to refer to cognitive paradigms that are certain because they are shared by the scientific community, since these are based on predetermined concepts and methods that do not take into account the contingency of the fact, therefore, all those elements that social transformations and reflexivity of knowledge bring to the surface.

In recent decades, this process has led to a debate on the re-signification of concepts and methods (Gallino, 2016) imposed by the increasing protean nature of the object of study with which the scientific community is measured, but without a clear result because the 'new paradigm', like the previous ones, would only be such if it were shared by the entire scientific community. Something as utopian as ever for science as it is today dominated by uncertainty and specialisation, as the recent experience of the pandemic has shown, but also Helma Lutz (2014) in the accomplished intersection with a few fundamental concepts obtaining potentially infinite intersections of the dimensions that contribute to discrimination: geographical, demographic, global, translocal, transnational, post-colonial, anti-capitalist, etc. Science has thus been found in the past to have identified only portions of reality, those that emerged from the study of individual disciplines, while the potential of intersecting categories and the convergence of methods could lead to results that are undoubtedly closer to the real representation of the object of study.

The approach adopted in the PNRR, for example, favours this view of Italian society, having inherited the similar orientation taken by the decision-makers of the United Nations and the European Union on equality policies and funding. As the EU strategy for gender equality 2020-2025 shows, this is a principle to be adopted that requires both an overall (horizontal) and in-depth (vertical) view of society for its implementation, without sacrificing complexity in favour of a few prevailing elements - as a traditional

paradigm would have suggested. In addition, the analytical vision to be adopted must be able to indicate in which times, places and situations intersections occur and which intersections lend themselves most to policy attention and development. It is, therefore, an approach that has always been required of decision making because it is based on social analysis, but has only in recent years become 'institutionalised' (e.g.. applied to seemingly unrelated equality issues such as the transport system or sustainable development policies).

The INTERGEN Project; therefore, takes up this first epistemological challenge to which the adoption of intersectionality leads it in two ways. Firstly by choosing not to adopt traditional reference models of economic growth, which are no longer sustainable according to the European strategies of the Next Generation EU and the NRRP. The young women (s)object of study, in consideration of the context of reference and their own background, will be set on a sustainable entrepreneurial training path for design, organisation and production, such as to enhance their respective specificities and their determination from the intersection of their own cognitive categories.

Identifying and working with these numerous elements and observing them in their determination requires the contribution of various disciplines (sociology, economics, law, political science, history, ecology, engineering, etc.) for conceptual definition and empirical investigation through shared methodological tools such as those determined in the qualitative ones and specifically in the Delphi Method. The confrontation between different disciplinary experts and also with bearers of non-academic forms of knowledge will be perfectly integrated in this technique, being able to highlight all the possible interrelated impacts of the Project: the economic ones, for instance, are individual for the young women, but also collective affecting their community. Here, relational factors intersect with age and gender factors, opening up a wide range of conditions that the collection of good practices will attempt to capture by analogy and not simplification through a reference model. Only a trans-disciplinary vision can make it possible to grasp this diversified articulation of experiences, in terms of disciplinary specificity, but also in terms of the form of non-scientific knowledge that practices will be able to place alongside the results of established studies.

2.12.2.5. The second challenge: what is intersectionality?

The processes of acquiring knowledge through intersectionality are, therefore, decidedly alternative to the traditional ones and by those who use the latter rather questionable because the re-signification of concepts and the sharing of methods are something how much but impracticable without a paradigm of reference.

In addition to its deconstructive charge, what makes intersectionality unworkable in the wider scientific community is its very classification into a precise definition. The determination of identifying categories and the dynamics with which they interact define others, moreover redefining previous ones, brings intersectionality closer to a critical theoretical framework (Corbisiero, Nocenzi, 2022), but also to a more practical methodological approach (Steinbugler et al, 2006) or, on the other hand, to a more generic analytical strategy that provides new insights into social phenomena (Andersen, Hill Collins, 2018), if not to a real field of study aimed at bringing to light the power relations that are determined in social interactions? (Hill Collins, 2015). The question is, in fact, ill-posed and is based on the application of the paradigm understood in the traditional sense: in the absence of a predetermined definition, the process of recognition is reversed and the answer to the question of what intersectionality is is provided by interpretations, methods, practices, and political applications - for example the European ones already mentioned or with the NRRP - in which intersectionality appears 'what it is' without an interpretative framework.

From this set of practices manifested in more than four decades of scientific observation through an intersectionality-sensitive perspective, a first element of theoretical consensus can be said to have matured: factors such as gender, class, race, age, ability and others cannot continue to be conceived as unitary and predetermined. On the contrary, they are mutually constructed, thus giving shape to plural forms of social inequality. These are precisely the ones that are at work in practice in politics, for

families, in social welfare programmes, in recovery communities, in hospital facilities, in legal defence, in the world of associations and, last but not least, also in the centres of knowledge production, academic and otherwise, that operate in those fields (Hill Collins, Chepp, 2013). In short, the last few decades have not passed in vain to work in an increasingly relevant and rigorous manner on social asymmetries, to produce knowledge to support policies and interventions against inequalities and, therefore, to move from visible manifestations to a sharing of objectives and methods.

At this stage of maturation of the process of defining intersectionality, there are at least three elements that can justify the scientific community's 'wavering' and three results that could be arrived at in the search for a defining framework taking into account the current production of knowledge.

In order, what prevents the definition of intersectionality can be explained as follows, although not in order:

- the empirical understanding of intersectionality between specific categories, case by case identified, is so prevalent that it does not favour a clear inductive process towards an abstract definitional framework. Starting from one or more cases of intersectional oppression in order to determine a useful reference model for understanding all discriminating dynamics would not meet the definition of the traditionally understood paradigm, but neither is intersectionality itself required: it is, therefore, difficult to represent within a circumscribed construct shared by the scientific community (Collins, 2019).
- attention to power relations and social inequalities is the focus of intersectional knowledge: it 'participates in the very power relations it examines and, consequently, must pay particular attention to the conditions that make its knowledge claims comprehensible' (Hill Collins, 2015, 8). All these elements lead one to think that more correctly, intersectionality is an interrelated set of knowledge production projects that change with the transformations experienced by the very communities within which these projects are launched and within which the conditions for a defining consensus are established. One can therefore understand how knowledge production is plural, because it is determined by specific social contexts and actions, within which relationships of over- and under-ordination operate. Knowledge is also not freely produced, but within social relations regulated by the distribution of power in terms of availability of economic, intellectual, participatory resources; of social position and function; of prevalence of one cultural system over others. The explanation for the lack of a generalised consensus begins to become apparent (Hancock, 2016; Hearn, Louvrier, 2016).
- for the production of knowledge so far, it has been considered indispensable to use a theoretical perspective shared by the scientific community on the basis of the previous acquisitions of science because it defines the relevance of the object of research and determines the processes of formulating hypotheses, choosing methods and techniques of analysis, interpreting and presenting results (Kuhn, 1970). This knowledge is evidently constructed, transmitted and reproduced in the social contexts from which it is elaborated and in which there is a mutual influence with the power structures, as understood in the previous point (Mannheim, 1953; Foucault, 1980).

It is an influence that can lead to the exclusion of contributions to knowledge that come from those subjects and groups that do not access its production process even when their discriminated condition is recognised and scientifically studied. One can understand how the entry of interpretative communities 'other' than those entrusted by society with the production of knowledge - and not only as the object of scientific research - entails a radical transformation of the way knowledge is made. How is it possible to obtain the sharing of the scientific community if knowledge is also 'produced' by subjects traditionally not recognised in this function? The previous two points have confirmed the importance for the intersectionality of the plurality of contributions to knowledge, which to be recognised would call into question the very meaning of the paradigm (Nocenzi, 2023). Is it therefore worth forcing intersectionality into a paradigm or solving it by making it a paradigm itself?

The answer to this question already prefigures the impossibility of defining intersectionality in a unitary manner in order to accommodate a less 'paradigmatic' plural framing in the three following,

mutually influenced and not excluding (Collins, 2019), drawn from the current development of reflection on the perspectives and dilemmas of the original intersectional formula:

- *Intersectionality as a vision of society*

which is the best-known meaning with which it has been recognised, defined and practised especially within the academic scholarly community since the first US experiences a few decades ago. Assuming a perspective of the study of society through the categories of class, race and gender, their intersection draws dynamics of construction and exercise of power on the basis of which the production of knowledge also becomes a political project for the transformation of society itself and the academy according to objectives of social justice and equity. The intersectional vision has had a revolutionary impact of significant magnitude, as already anticipated, because, by affirming an alternative model of knowledge production, it has changed the disciplines in themselves and in their interaction: the cross-cutting themes that intersectionality has dealt with have founded real new fields of study in which disciplines have gathered, compared, combined to the point of even creating a common language (Cho et al., 2013; Andersen, Collins 2018). The example provided by the project for the sustainable development of society, which also in the INTERGEN Project proves to be the foundation for the empowerment of young women, sees the various disciplines converge in an essentially integrated, indeed transdisciplinary, process of research and knowledge, on which the consensus of the scientific community is now consolidating. It would be difficult, in fact, to envisage a radical transition by sectorialising the specialised contribution of the disciplines. In the Project, these come together in the qualitative survey with the technique of the Delphi Method, but also with the preparation of a model for the identification, analysis and interpretation of good practices, the impacts of which can be read thanks to a shared theoretical and empirical framework, as in the case of the indicators. The intersectional vision appears to be the most natural one to assume for a PNRR project, but also the most challenging because to declare itself as such it should maintain its critical and transformative value of social structures. An objective that is theoretically intrinsic to the PNRR and, therefore, to the Project, but difficult to achieve if the expected transformations are to challenge the very institutions that preside over the processes studied. The entrepreneurial empowerment of young women passes through a transition to the sustainability of companies in all their components and organisational processes. These processes are long and empirically not depictable except through first evidence in good practices due to their continuous transformation.

- *Intersectionality as an analytical strategy*

that makes use of identification categories and their interaction to prepare the tools useful for an inside view of processes and phenomena. From research on social identities (Yuval-Davis, 2006) to those on violence and, more generally, deviance (Lombardo, Rolandsen Agustín, 2016) to those on the labour market (Hearn, Louvrier, 2016) that evoke the object of investigation of INTERGEN, in the intersectional literature there are frequent studies dedicated to the description of how the interaction between categories generates forms of social inequalities: this is the case of processes by addition, articulation and co-formation (Corbisiero, Nocenzi, 2022) that explain how certain categories interact making intelligible dynamics on which it is easier to intervene with anti-discriminatory purposes. In the INTERGEN Project it will be important to identify, through the evidence in the literature and much more in the first-hand surveys, which mechanisms preside over defining the specific profiles of the subjects excluded from the labour market: it is different to think that a young person (category: age) undergoes exclusion processes only if she is a woman (category: gender by addition) from being excluded from the labour market if she is young and a woman from the articulation of these two categories in specific contexts. The intersectional analytical strategy will make it possible to observe the dynamics underlying the marginalisation of the subjects studied with specific attention to the incidence exerted by the identifying categories (Dill, Zambrana, 2009).

- *Intersectionality as a critical practice*

traditionally linked with social justice objectives. These are achievable with policies and interventions supported by theoretical and empirical knowledge, which, in fact, can be guided and nurtured by intersectional practices. The latter support intervention practice with the research of oppressive conditions and with the definition of equity and inclusion objectives (Davis, 2011) by practitioners and social workers, families, teachers, volunteers, but also decision-makers, jurists, as well as those who study and research, thus, those who produce knowledge and those who use it to operate in society. These are, therefore, complex processes due to the different contributions of knowledge made, but also due to the different levels at which action for social justice is articulated - from the analysis of the case and the research field to the collection and selection of theoretical and methodological tools, up to the operations of protection, contrast, reduction, deviant prevention. For INTERGEN inclusion and equity are assumed as core values whose application is essential to achieve the expected results. If for the production of knowledge, the complexity can be represented by the achievement of an effective transdisciplinarity, the critical practice lies in the identification, selection and interpretation of good practices in order to draw up guidelines for the valorisation of socio-economic differences in the context of investigation. Being practices, the processes are built up progressively and from the comparison of cases, as well as from the different forms of knowledge that contribute to it, because the goal of social justice can only be said to be achieved with the mutual recognition of identities, instances and social positions.

2.12.2.6. Some concluding lines on intersectionality and transdisciplinarity

In the light of the composite path that intersectionality has taken from its affirmation to its current institutionalisation in the now global scientific community, it is possible to foresee its epistemological and methodological effectiveness in its application to the INTERGEN Project.

This, however, with the awareness of:

- the differences from the original experiences;
- the added value it can bring as a vision, strategy or critical practice in the study and as a proposal of intervention on the social problem that INTERGEN intends to deal with;
- the specificity of the cases and contexts of the Project.

It is precisely this latter aspect that represents one of the issues currently most debated by the international scientific community, both in terms of the difficulty of not being able to refer to abstract models and the specificity of the communities observed: as "dynamic political constructs" (Hill Collins, 2019) these present transformations that are often pursued, sometimes anticipated by individual and collective actions - think of those put in place in the face of the environmental crisis or pandemic - and intersectionality can be a useful analytical tool if it leads to building communities that are participatory and also democratic. For Hill Collins, community is a powerful concept because it harnesses the power of emotions for political action, which is more necessary than ever in today's local and global scenarios dominated by sectarianism and exclusion. A connotation, therefore, more pertinent than ever for the contexts analysed by INTERGEN where global and local causes and effects are intertwined in determining asymmetries with respect to labour market insertion and relative social position. In communities assumed as dynamic political constructs, needs, expectations and demands are confronted, which intersectionality makes its own as the object of knowledge production that is in some way political, because it is based on a world characterised by social inequality.

In this sense, the transdisciplinary approach chosen to integrate intersectionality into INTERGEN can bring the necessary tools to conduct the research. The issues it deals with are inveterate, but also specific and need to be dealt with in what Klein (2017) has termed hybrid fields, referring to applied sustainability science, for which the need to harness and integrate the knowledge of non-academic stakeholders for 'mutual learning processes between science and society, (...) embodying a mission of science with society rather than for society' (Seidl et al., 2013) is well established. The goal is to achieve not so much 'reliable knowledge' but 'socially robust knowledge' in which stakeholder involvement is crucial to address problems, because we cannot understand or solve societal challenges without their knowledge and action.

Therefore, experts must now extend their knowledge, not simply as an extension of what they know in their specialist field, but through linkages and integrations of what they know with what others want, or should, know and do. This is the epistemological and methodological goal that through intersectionality and transdisciplinarity is pursued by INTERGEN: "co-production" of knowledge (Van der Hel, 2016) through "iterative and collaborative processes involving different types of skills, knowledge and actors to produce context-specific knowledge and pathways" (Norström et al. 2020) in which identities are similarly constructed through co-formation as well as addition and articulation.

This is an emerging context-based, pluralistic, goal-oriented and interactive research approach in which intersectionality and transdisciplinary research meet, making INTERGEN a new experimental field of non-paradigmatic research pathways.

2.12.3. Intergen's values: social justice

The Intergen project, which is part of the National Recovery and Resilience Plan, stems from the desire to contribute to levelling out the social inequalities that affect Italian society as a whole and in particular, a considerable number of young women. Tracing the genesis and defining the dimensions and characteristics of the inequalities affecting contemporary society can be useful in defining the lines of action to be implemented to overcome them. To understand the extent and peculiarities of the phenomenon, it is useful to analyse the major changes that have taken place at the systemic level. The transition from the Fordist industrial economic paradigm to the post-Fordist, or Toyotist, model has triggered a series of upheavals that have contributed to reshaping the labour market, and thus the lives and well-being of its citizens. It was around the 1980s that considerable changes took place and triggered trends that are now globally consolidated. Among the most striking, there has been the progressive concentration of wealth in the hands of an ever decreasing percentage of individuals and, at the same time, the almost total disappearance of the middle and working classes, a dynamic that has ended up reshaping the composition of our societies (Sassen, S., 2018). This specific dynamic has been so impactful that it is possible to consider the macroscopic inequalities of wealth as a distinctive trait of our age. In Italy, similarly to the global trend, as reported by the recent Oxfam report, at the end of 2022, the richest 1% possessed assets as much as 84 times higher than those owned by the poorest 20% of the population (Oxfam, 2024, p. 2). The succession of different economic-financial crises, up to the most recent pandemic crisis, has ended up exacerbating social inequalities in our country, making the need to bring the fight for social justice back to the centre of public and political debate. Social justice can be seen as a founding and indispensable principle for peaceful and prosperous coexistence between countries and between individuals. It is based on the real condition of individuals, on the freedoms that people actually enjoy, on the will to eliminate obstacles - structural and cultural - that limit individual well-being. It is clear that this principle concerns the very wellbeing and reproduction of society as a whole, and as such, we are all called upon to defend it. As Francesca Colella emphasises, echoing the warning of the United Nations: "the pursuit of social justice is at the heart of the global mission to promote development and human dignity: it is a fundamental principle not only for prosperity but also for peaceful coexistence within and between countries" (Colella, F., and Grassi, V., 2020, p. 25). In order to deepen this theme that concerns society in its entirety, it is essential to analyse "not only the relationship between the distribution of power and social inequality, but also to delve into those processes that pertain to the social construction of differences, their management, the transformation of differences into inequalities, the institutionalisation and contrast of inequalities, stratification and social mobility" (ibid., p. 24). For the United Nations, achieving social justice for all is central to the global mission for development and human dignity. In this sense, it is necessary to introduce correctives in order to redress disadvantages that may originate from class, gender, possible migratory background, and so on. It is well known, in fact, that social inequalities resulting from precise political choices do not affect everyone and everyone equally. The data analysed in the previous section show how the world of work is particularly inhospitable to women, young people and foreigners: they are the ones who are hired the most with precarious and atypical contractual forms (ISTAT, 2024, p. 72), who earn the lowest wages

(ibid., p. 72) and who suffer the most from long periods of unemployment (idem, p. 85). All these factors, now structural in the Italian context, prevent a considerable segment of the population from fully enjoying fundamental rights, limiting their participation in social life. Failure to act would not only leave Article 3 of the Constitution unimplemented:

"All citizens have equal social dignity and are equal before the law, without distinction of sex, race, language, religion, political opinion, personal and social conditions.

It is the task of the Republic to remove those obstacles of an economic and social nature, which, by effectively limiting the freedom and equality of citizens, prevent the full development of the human person and the effective participation of all workers in the political, economic and social organisation of the country."

But it would also encourage the exacerbation of social inequalities, creating an increasingly fertile ground for the proliferation of discontent and potentially explosive situations that would undermine the democratic resilience of our society. Tackling the inequities of a system that allows, if not encourages, this kind of social injustice is a precise moral duty that can only be pursued by returning to placing the welfare of the entire population at the centre of a country's strategic objectives.

2.12.4. Youth and female entrepreneurship

The topic of youth entrepreneurship recalls on the one hand a performative discourse on entrepreneurship as a positive value (Essers et al., 2017) that strongly alludes to young people contributing more and more to entrepreneurial dynamism. On the other hand, young people play a particularly weak role in the labour market, with higher levels of unemployment and exposure to precariousness (De Luigi and Rizza, 2011). These phenomena entail a more intense experience of individualisation processes, which are configured as sources of opportunities for self-expression and self-realisation, as much as of constraints and new inequalities (Walther, 2005; Dodaro, 2020).

Within this framework, the driving factors and motivations behind entrepreneurial action become increasingly complex. However, an essentially dual interpretative scheme has been consolidated among scholars from different disciplines, which identifies the recognition of an opportunity as the main drive for "genuine" entrepreneurship (opportunity-based entrepreneurship), as opposed to necessity-based entrepreneurship, i.e. entrepreneurship determined by the absence of alternatives in the labour market (Reynolds et al., 2005; Sheehan and Namara, 2015).

With a specific focus on women's entrepreneurship, these discourses are closely linked to women's employment and empowerment and the search for fairness, equality, freedom and emancipation.

Furthermore, women's entrepreneurship needs to be studied separately for two main reasons:

- «a market failure discriminating against women's possibility to become entrepreneurs and their possibility to become successful entrepreneurs»;
- «the specific needs of women entrepreneurs and would-be women entrepreneurs» (Delman and Holmquist, 2004: 9).

From this perspective, female entrepreneurship is a corollary of feminism and the gender emancipation movement. In this sense, women's entrepreneurship is a powerful response process to end the 'internalised subordination' of women (Malhotra et al., 2002: 1), as it tends to extend to all social, economic and political spheres of life.

Indeed, there are several factors that hinder equality-oriented outcomes, e.g. patriarchy and masculinity generate gender discrimination and injustice, thus inhibiting the development of women's capacities and empowerment, including entrepreneurship. Thus, gender inequality remains a major constraint on economic growth and development and keeps women powerless and backward. From this perspective, careful policy choices that foster women's empowerment and entrepreneurship could make a major contribution to gender equality (Khan, 2015).

Gender development is an important component of human development as a product of economic development and growth. In the absence of gender equality, the desires for equity and social and economic justice remain unfulfilled. The goal of gender equality, in turn, depends on the empowerment

of women, expressed primarily through the trinity of education, employment and entrepreneurship. These limitations, historically faced by women, have resulted in perpetual powerlessness - social, political and economic - constituting a vicious cycle of discrimination, marginalisation, ghettoisation and deprivation of fundamental rights (Khan, 2015).

Women's empowerment has a key role in achieving gender equality. Gender equality is addressed as the absence of disparities between individuals based on gender in terms of opportunities, resources, services, benefits, decision-making power, and influence. The concept of gender equality goes beyond economic empowerment and encompasses political, social, and cultural dimensions. It is also linked to self-reported well-being and happiness worldwide. Women's empowerment involves their sense of self-worth and social identity, the ability to question their subordinate status, exercise control over their lives, renegotiate relationships, and participate on equal terms with men to reshape societies for a more just and democratic distribution of power and opportunity (cf. OECD, 2011 and Kabeer, 2012 in Kahn, 2015).

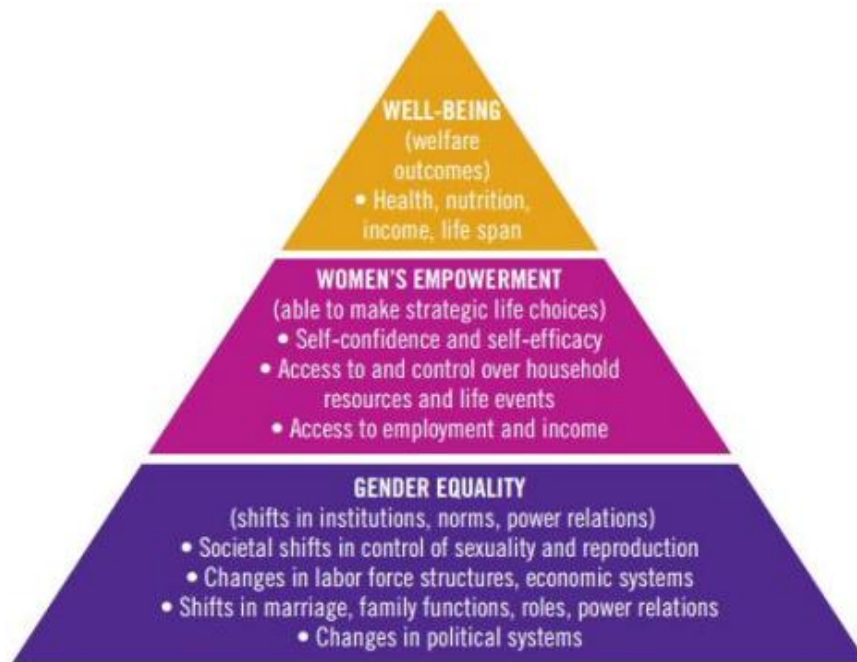
In terms of redistributive justice, empowerment is a long-term process of giving power to those who have historically been deprived of it. It is a shift in favour of those who exercised little control over their own lives and resources, such as financial, physical and human (Sen, 1998).

2.12.5. Female entrepreneurship, women's empowerment and social innovation

For this purpose, women's empowerment acts as a catalyst for social innovation processes, as it promotes social change and transformation.

With a specific consideration of economic empowerment, this can be interpreted as the ability of women to participate in, contribute to and benefit from the mechanisms of growth in a way that identifies the value of their contributions, respects their dignity and emphasises the equitable distribution of the benefits gained through growth (Eyben et al., 2008). Kabeer (1999) defines women's empowerment as the ability of women to make strategic life choices where this ability has previously been denied them (Darzi et al., 2016). At a basic level, this plays an important role in improving well-being in terms of health, nutrition, income, life expectancy, etc. Above these basic needs, innovation can lead to female empowerment, where women accumulate skills and resources to make decisions and gain confidence. More profound innovations can lead to transformative changes in social norms, attitudes and institutional practices. In addition, gender equality in social, political, entrepreneurial and family systems provides ongoing support for women's well-being and empowerment. This has given rise to women's entrepreneurship, defined as women or groups of women starting, organising and running a business enterprise. In the current economic scenario, women play a substantial role in the development of entrepreneurship (Darzi et al., 2016 – see Figure 35).

Figure 35: Well-being to empowerment to gender equality (Malhotra et al., 2009)



2.12.6. External constraints to female entrepreneurship: cultural, social and family factors and financial and labour discrimination

If a society does not appreciate or respect women's entrepreneurial activity and restricts their choices or the actions they can take, women will be discouraged from starting a business and will be limited in their opportunities for growth and success. Reflection on social norms and constraints imposed on women is essential to understand how and why women and men perform differently in self-employment (Carranza et al., 2018).

At the root of labour market discrimination between men and women, different societal expectations of the two genders are one of the main reasons. For example, social norms may dictate career choices which are considered more appropriate for women, which can lead to gender-segregated labour markets. It is also interesting to notice how unfavourable segregation in the labour market also leads to similar segregation in their self-employment choices: the sectors traditionally chosen by women for self-employment tend to reflect women's segregation in the labour market, where they are overly concentrated in lower quality and lower paid sectors (Halford and Leonard, 2006; Bowden and Mummery, 2009).

Gender inequality in the labour market can have two opposite effects on women's participation in entrepreneurship. On the one hand, greater inequality can lead to lower labour market participation of women as wage-earners, which makes them lack the confidence, skills and experience needed to start their own business. Thus, greater inequality may lead to lower labour market participation and entrepreneurship (Carranza et al., 2018).

On the other hand, greater inequality and discrimination may drive some women to entrepreneurship as a coping mechanism (Carter and Marlow, 2003). Frustration and discontent arising from wage discrimination, unequal treatment and lack of opportunities for advancement in the organisational sphere lead many women to see entrepreneurship as a solution to the problem (Heilman and Chen, 2003; Weiler and Bernasek, 2001).

It is precisely at this point that socialisation processes to empowerment and entrepreneurship must kick in, in order to prevent certain internal constraints such as: low self-confidence and self-perception, risk aversion tendency, reluctance to seek external finance, fear of failure and lack of confidence in their

entrepreneurial skills (Carranza et al., 2018; McCracken et. al, 2015).

2.12.7. Gender differences in the motivation and reasons for starting a business

A starting point for this discourse, which is useful for understanding the difference in male and female entrepreneurial outcomes, is to consider the motivations behind the choice to start a business.

There is ample evidence of entrepreneurial characteristics, thus a set of dominant motivations that inspire or compel women to undertake entrepreneurial actions (Ikpe et al., 2011). Many authors have also been interested in the motivations that lead a woman to become an entrepreneur and have investigated any differences in interest compared to men. The main motivations were found in job satisfaction, financial gain, and the desire for independence, without identifying any particular differences with the drives of their male counterparts (Schwartz, 1976).

Abraham Maslow's hierarchy of needs paradigm provides a motivational perspective to answer these questions. Needs, however, can range from simple biological survival needs to those of self-esteem and self-fulfilment. There may be factors such as unemployment, redundancy, recession, financial inadequacy, job dissatisfaction, lack of work-life balance, etc. that give a push towards an entrepreneurial role. On the other hand, the desire to succeed, self-fulfilment, personal development, status and power, etc. function as pull factors (Kuzilwa, 2005).

Scott later identifies in women's entrepreneurial drive the desire to break the 'glass ceiling' and the possibility of greater flexibility in managing responsibilities, consistent with the desire to be able to reconcile work and personal life (Scott, 1986) (Greene et al., 2003). Other studies go into detail by classifying the motivations behind the decision to start a business into 'push' and 'pull' factors. Push factors describe a situation of dissatisfaction with the current condition, such as a job in which there are no growth aspirations or lack of flexibility in a job. Pull factors, on the other hand, consist of taking advantage of an opportunity, such as a business idea. According to these studies, women are motivated more by 'push' factors (Moore and Buttner, 1997). More recent studies, however, show that women can also be driven by 'pull' factors such as the desire for independence or self-fulfilment (Carranza et al., 2018). In short, "pull" factors concern an opportunity to be seized, such as a creative business idea. "Push" factors describe an unsatisfactory situation, such as a lack of job prospects, fulfilment or flexibility in the current job position. In essence, push factors represent economic necessity, the second-best choice when the first choice (such as employment) is not available (idem).

Based on these concepts, it is evident how women's entrepreneurship needs to be carefully studied not only as an important and under-recognized source of economic growth, but more importantly as a source of social transformation and innovation as women entrepreneurs create new jobs for themselves and others, generating forms of individual and collective empowerment. Therefore, investing in women is one of the most effective tools for increasing equity and promoting inclusive and sustainable economic growth (Darzi et al., 2016).

3. The Phygital Hub Concept

3.1. The rise of Phygital Reality: insights from Structural Topic Modelling

A key contribution of the paper “*The Rise of Phygital Reality: Insights from Structural Topic Modeling*”, developed in tandem with the creation of the local phygital center, is the recognition of a significant gap in leveraging phygital technologies to address social inclusion challenges (Virgillito et al., 2024).

While technological innovations promise to transform user experiences, their capacity to foster inclusivity among disadvantaged communities remains insufficiently explored. This gap brings to light several important managerial implications, emphasizing the need for a more in-depth investigation into

how phygital applications can be effectively leveraged to foster inclusivity. Stakeholders and in particular managers, should evaluate their current processes and identify areas where phygital technologies can be effectively integrated to enhance inclusivity. This could include incorporating virtual or augmented reality platforms to facilitate remote participation, or using interactive physical installations to engage diverse groups. The results of this in-depth analysis, presented at SIMA Conference 2024, indicate that leaders can leverage phygital solutions to create more inclusive environments for various segments of society. Stakeholders are urged to adopt inclusive design principles, co-create phygital experiences with target communities, and invest in scalable solutions that bridge access divides.

3.2. Education 4.0: reaching disadvantaged groups orchestrating physical and phygital educational systems

Key technologies enabling the Phygital Hub model include the usage of artificial intelligence (AI), augmented reality (AR), and cloud-based learning platforms. AI's role in personalizing the learning experience is multifaceted, from analyzing user data to providing real-time feedback. It will respond with content according to the progress of the learner, so everyone gets the necessary assistance (Silvia et al. 2023).

Augmented reality technologies strongly contribute to the effectiveness of Phygital Hubs combining digital and physical realities to create enriched experiences (Milgram & Kishino, 1994). It offers interactive storytelling, immersive educational and dynamic real-time experiences, boosting engagement of Phygital Hubs in promoting social inclusion, lifelong learning, and workforce development. Thus, the application of augmented reality within Phygital Hubs can contribute to their educational aspect by providing access for underserved communities to learning materials, skills training, and cultural resources using interactive and context-aware digital environments at scale (Mele & Russo-Spena, 2022). Augmented reality technology is expected to deliver multi-sensory learning, better accessibility, and real-time interaction between users and digital surfaces (Jung et al., 2015). Augmented reality-driven customization can also be beneficial when incorporated with the Phygital Hubs as they can provide enhanced training simulations, personalized learning paths, and interactive engagement with educational content. In addition, the application of augmented reality tends to engender more in-depth resident engagement by providing information in novel ways (i.e. sensory) while further integrating learned theory through new modalities (Andrade & Dias, 2020).

Moreover, augmented reality technologies also promote inclusiveness – meeting the needs of a broad range of learners, providing adaptive digital tools for users with disabilities, and offering real-time language translation and accessibility features (Damala & Stojanovic, 2012).

Augmented reality and virtual reality are also crucial to immersing students into realistic practicing environments for high complexity tasks, where they can hone their techniques safely and in a controlled manner. A prospective professional can first develop expertise in construction techniques or other vocational skills within a virtual training environment before applying them in a practical workshop setting. This structured learning approach enhances both theoretical comprehension and hands-on proficiency, fostering a more effective transition to real-world applications (Mele & Russo-Spena, 2022). The idea of trans-medial learning also has some potential in this regard (Klastrup & Tosca, 2004) which can help cross over to different intergenerational settings. Mansilla et al. (2019) demonstrate how phygital video game design fosters creative thinking, procedural memory, and digital literacy in children and seniors. When applied to Phygital Hubs, disadvantaged learners are exposed to more hands-on, contemporary, and multimodal training methods, which fuse traditional with digital learning paradigms.

In addition, studies on intergenerational digital gaming suggest that it helps facilitate the development of empathy and collaborative problem-solving skills across age demographics (Zhang et al., 2017).

The use of data generated in conjunction with technologies such as AI and augmented reality can further enhance the learner experience and help improve the educational content and delivery methods. By

analyzing user data, the Phygital Hub can adapt its online offerings to meet the demands of learners, creating a dynamic and evolving learning experience.

The Phygital Hub uses Artificial Intelligence (AI) to provide a personalized learning experience. AI algorithms process a massive number of data points (such as user interactions, performance metrics, and demographic data) to formulate personalized learning tracks for each student (Pironti, 2022). This ensures that the Phygital Hub can continuously adapt its educational content according to the evolving needs of its user base.

For instance, AMELIA – the Data Knowledge Platform Ecosystem which support the collection and processing of data for the GRINS Project – leverages AI to enhance accessibility for a diverse user base with varying levels of technical expertise. Its interface facilitates data visualization through interactive charts, maps, and dashboards, ensuring that information is easily interpretable. By generating customized reports and insights tailored to stakeholders such as small and medium-sized enterprises (SMEs), local administrations, and academic researchers, AMELIA facilitates evidence-based decision-making. This functionality is particularly critical in addressing fragmented and inconsistent data sources through advanced geo-referenced analytics, thereby enabling local governments to optimize resource allocation and design targeted interventions to reduce socio-economic disparities. This ongoing customization is particularly useful for disadvantaged learners who may struggle more than others in some areas, but may also accelerate faster than others in other areas. The Phygital Hub, providing a customized learning experience, increases the chances that learners will stay motivated and finish their programs (Silvia et al., 2023).

The application of AI in education is based on the theories of adaptive learning, which posits that educational content should be customized to each individual learner's needs and learning style. Not only does this enhance learner outcomes, it also increases the overall efficiency of the educational system as fewer resources are being wasted (Bini et al., 2023).

Immersive Reality expands the spectrum of fully immersive digital experiences such as Virtual Reality, which simulates a real-world environment, and Mixed Reality (MR), which combines both real-world and digital elements. In immersive reality, the “real world” could be a bit hidden, because of full immersion in a digital environment. In contrast, immersive reality can bring the magic and immersive experience while exploring new landscapes, but phygital experience can bring interaction to interact in real time with the physical world. It is imperative to understand the difference between augmented reality and immersive reality, especially in areas that could benefit from these technologies to enhance learning and connectedness, such as health care, education and community events. As tech continues to develop at a break-neck pace, it becomes critical to understand the difference between augmented reality and immersive reality. These two technological catalysts lay the foundations for a "phygital" experience that blends the digital and physical realms in a fluid, engaging manner. Augmented reality is the superimposition of computer-generated images or information, such as data, onto the physical world. Smartphones or smart glasses, devices that enable the perception of these digital elements, facilitate the deployment of this technology. Augmented reality has been discussed as a technology primarily aimed at enhancing the real world experience through the addition of novel elements or details without compromising on essential authenticity (Kandemir et al. 2024).

This demands for robust technological infrastructure that can derive insights from data to increase the personalization of educational services and the data-dictionary assumes this role. It takes a data-driven approach to analyze data across a spectrum of different sources to provide educators with a holistic view of their learners' progress, needs, and preferences, allowing for ongoing optimization of content and delivery. Such information is especially useful within phygital environments, where in-the-moment content customization is essential to learner success. This level of personalization is particularly beneficial for additionally disadvantaged groups of young people, especially given their low levels of success in formal education systems (Mele et al., 2023).

As the sensitive nature of data gathered from disadvantaged learners, it is very important to maintain security and privacy. It should be aligned with stringent data protection structures, like GDPR, and have high-end security mechanisms preventing data leak, ensuring privacy. This guarantees the platform

is safe and reliable by utilizing encryption technologies, secure data storage solutions, and conducting regular security audits. Besides technical-security protections, the Phygital Hub will need to ensure that learners are fully aware of their data usage and have the right of control over their personal data. Such transparency is crucial to building trust with learners, especially those who come from disadvantaged backgrounds and are thus more susceptible to data exploitation (Silvia et al., 2023).

3.3. Training programs and tools for experts working in entrepreneurial context of incubation for migrants (UNIBO)

Entrepreneurship support organizations (ESOs), such as pre-incubators, incubators and accelerators, provide a structured environment designed to foster the growth and success of new ventures by offering a combination of physical infrastructure, business support services, and networking opportunities (e.g., Bergman & McMullen, 2022; Bruneel et al., 2011; Ratinho et al., 2020). Their primary role is to assist entrepreneurs in acquiring the competencies and resources necessary to develop and sustain their businesses. ESOs offer access to office space, shared administrative resources, and mentorship programs that help startups refine their business models, secure funding, and navigate market entry (Hackett & Dilts, 2004b; Rice, 2002). Additionally, they facilitate connections with external stakeholders, including investors, industry experts, and policymakers, creating opportunities for knowledge exchange and strategic partnerships (Patton et al., 2009). Through tailored counseling, training, and structured monitoring processes, ESOs play a crucial role in reducing entrepreneurial risk and enhancing the long-term viability of new ventures (Warren et al., 2009).

While previous research has largely focused on the outcomes of entrepreneurship support (e.g., business survival rates, revenue generation) and external influences (e.g., policy frameworks, funding availability), limited attention has been given to the specific competencies required for effective entrepreneurship support management (Hackett & Dilts, 2004b; Hannon, 2005). This is an important gap, as the effectiveness of these support programs is significantly influenced by the competencies of support professionals, who act as advisors, network facilitators, and strategic guides for entrepreneurs. In this section, we draw on a review of the available academic and grey literature, in addition to primary data collected from interviews with 10 entrepreneurship support professionals and entrepreneurship policy-makers in Italy, to (1) examine the core competencies necessary for support professionals and (2) provide insights about how these competencies can be developed. The aim is not only to provide academic insights into this topic, but also relevant practice- and policy-oriented indications to design future interventions, such as formal education, practical experience, or targeted training initiatives, to enhance the strategic impact of entrepreneurship support management.

3.3.1. Competencies for entrepreneurship support professionals

Entrepreneurship support organizations require professionals with a combination of technical expertise and interpersonal competencies to provide effective support to entrepreneurs, to effectively enable both a structured business guidance and a relational environment where entrepreneurs can thrive.

First, entrepreneurship support professionals require a strong “technical” foundation in business and entrepreneurship topics and methods to effectively support startups. These competencies include:

1. Business development knowledge: regarding business modelling, market analysis, financial planning, and commercialization strategies (e.g., Patton & Marlow, 2011; Warren et al., 2009).
2. Project and innovation management: methodologies such as lean startup, business canvassing, and agile frameworks like Scrum enables entrepreneurship support organizations to provide structured yet adaptable support (Block et al., 2017).
3. Legal and financial expertise: awareness of corporate structures, financial sustainability, intellectual property rights, and funding mechanisms helps in guiding entrepreneurs through compliance and investment readiness (Patton et al., 2009; Rice, 2002).

4. Sector-specific knowledge: while entrepreneurship support professionals are generally not expected to have deep “vertical” industry-related technical expertise, they must understand key industry trends and technological advancements to facilitate meaningful discussions and networking (Hansen et al., 2000).
5. Monitoring and evaluation: the ability to assess startups' progress through various approaches - reactive and episodic, proactive and episodic, or continual and proactive engagement - ensures targeted and effective support (Rice, 2002; Block et al., 2017).

Second, given the dynamic and uncertain nature of entrepreneurship, support professionals must exhibit strong soft skills to engage effectively with startups. Effective entrepreneurship support is not merely transactional; it thrives on meaningful relationships between professionals and entrepreneurs (Scillitoe & Chakrabarti, 2010). There is evidence that the relational aspects within entrepreneurship support organizations (ESOs) are fundamental to their effectiveness in fostering entrepreneurial success. One of the most critical relationships is between ESO professionals and entrepreneurs, where trust, mentorship, and tailored guidance play a key role (Rice, 2002; Patton et al., 2009). The ability of ESO managers to assess the timing, frequency, and intensity of business support interactions directly impacts the development of new ventures, requiring a balance between proactive engagement and entrepreneur-led requests for assistance (Rice, 2002; Block et al., 2017).

Beyond direct interactions, ESOs facilitate peer-to-peer relationships among entrepreneurs, creating an internal community where shared experiences, challenges, and collaborations enhance learning and business growth (Hansen et al., 2000; Patton et al., 2009). The presence of a well-connected internal network fosters synergies between ventures, enabling knowledge exchange and resource sharing (Block et al., 2017). In addition, ESOs also act as intermediaries with the external networks of investors, industry experts, and policymakers. The ability of ESO professionals to cultivate and maintain these external relationships is essential in providing entrepreneurs with access to funding, technical expertise, and market opportunities (Hackett & Dilts, 2004b; Block et al., 2017). These connections enhance the credibility of emerging businesses and support their integration into larger industry ecosystems.

Finally, in ESOs that work with diverse entrepreneurial groups, including migrant entrepreneurs, relational dynamics take on additional complexity. Supporting migrant entrepreneurs within entrepreneurship support organizations (ESOs) requires a strong emphasis on relational dynamics, including trust-building, cultural intelligence, and inclusive mentorship. Migrant entrepreneurs often face additional barriers such as language differences, limited local networks, and unfamiliarity with business regulations (Bolzani & Scandura, 2023; Ram et al., 2017). ESO professionals must foster trust through personalized guidance, active listening, and long-term commitment while leveraging cultural mediators to bridge communication gaps (Desiderio, 2014). Inclusive mentorship models, which integrate both formal training and informal peer support, help address the diverse challenges migrant entrepreneurs encounter (Sepulveda et al., 2011). Additionally, ESOs play a key role in facilitating access to social capital by connecting migrant entrepreneurs with industry experts, investors, and policymakers, thereby strengthening their market integration and business viability (Kloosterman et al., 1999).

Thus, relational competencies within ESOs extend beyond technical business support, encompassing mentorship, community-building, and external stakeholder engagement, all of which contribute to the success and sustainability of entrepreneurial ventures. The key competencies in this regard include:

1. Empathy and emotional intelligence: the ability to understand entrepreneurs' motivations, struggles, and aspirations fosters trust and engagement (Hannon & Chaplin, 2003).
2. Active listening and communication: professionals should be skilled in facilitating discussions, providing constructive feedback, and translating complex business concepts into actionable advice (Martinelli & Bolzani, 2021).
3. Networking and relationship building: strong connections with external stakeholders, including investors, policymakers, and industry leaders, are essential for offering startups access to funding, expertise, and partnerships (Patton et al., 2009).
4. Flexibility and adaptability: tailoring incubation strategies to fit different entrepreneurial

needs is vital, as overly rigid frameworks can stifle innovation and personalized growth (Block et al., 2017).

5. Cultural intelligence: particularly in incubators working with migrant entrepreneurs, professionals must navigate cultural differences, work with mediators, and ensure inclusive program designs (Martinelli & Bolzani, 2021).

3.3.2. The state of competencies development for entrepreneurship support professionals

Developing the key competencies and mindsets of entrepreneurship support professionals is essential for ensuring effective support interventions. The academic and grey literature on this topic is still underdeveloped, and there is large scope for defining a contribution in this domain of knowledge and practice. Our work has uncovered four approaches that can be used to develop incubation competencies.

First, competences can be developed via formal training. Hannon (2005) identified a range of incubation management learning programme options focusing on different learner types:

1. New incumbents, who are learners new to entrepreneurship support and/or the context within which it operates. They need to understand the processes of entrepreneurship support and its key components and be exposed to good/best practice to gain insights into how support works in practice. This programme is positioned at an introductory level.
2. Incubation practitioners, who are individuals already engaged in entrepreneurship support in some form and across a range of contexts. Their experience levels still vary from individual to individual. The aim of this programme is to develop highly effective entrepreneurship support project managers and/or directors from a best practice perspective. The emphasis is therefore on personal development. This programme could operate at both “intermediate” and “expert” levels.
3. ESO management and leadership, who are the sub-set of the above group responsible for ESO management from a policy perspective at board/director/sponsor/funder levels. This programme is strategic in nature and essentially focuses on the development of an entrepreneurship support “business”. The programme operates at different levels of expertise (e.g. introductory, intermediate, expert).
4. “Technology brokers”/specialist practitioners, who are those individuals engaged in the processes of brokering and/or supporting the transfer of emerging and existing technologies/science/research from application concepts and ideas to viable market deliverables through technology venturing approaches. This role forms part of the function of any of the other three groups listed above but is context-specific and merits particular attention. A programme needs to take a pragmatic approach and aim towards preparation for commercialisation. Individuals are from public or private sector organisations, employed within ESOs or independent operators.

A summary of these training options is provided in Figure 36. Each approach might be delivered differently, depending on the need for and styles of assessment, the personal learning preferences of the individuals, the skills, preferences and resource base of the deliverer, and the organisational/institutional need for the programme of development (Hannon, 2005). Some examples of potential delivery modes are workshops and case-based learning, which emphasize interaction and action learning based on real-world case studies, allowing to analyze incubation challenges and apply problem-solving skills in simulated environments (e.g., Patton et al., 2009); online training on digital platforms, which allow professionals to engage in self-paced learning tailored to their needs (e.g., Ram et al., 2017); collaborative learning exchange, involving best practice sharing and study visits to successful ESOs (e.g., Hackett & Dilts, 2004b), and certification and accreditation programs (e.g., Hannon & Chaplin, 2003).

Figure 36: Four options to develop a training about incubation support management (Hannon, 2005)

	Option 1	Option 2	Option 3	Option 4
Indicative title	Understanding incubation	Effective incubation management and leadership	Effective incubator policy development	Supporting technology venturing
Target learner	New incumbents to the incubation industry	Existing incubation practitioners and providers	Incubator management, leaders and supporters	"Technology brokers" working with technologists, scientists, researchers
Overall purpose	Introductory: to raise awareness and understanding of incubation processes and practices	Personal development: to provide opportunities for enhancing personal capabilities, knowledge and understanding	Business development: to increase the effectiveness and growth of incubators through strategic level policy	Business and management development: to enhance the capabilities, knowledge and understanding of the founding team and to increase the capacity for finding and exploiting viable market-driven opportunities through venturing
Indicative content	The world of incubation – who, where, what, how Understanding the processes of incubation – key components and best practice Embedding incubation projects within the locality Creating an environment for effective incubation Key stages of venture incubation – changing client needs and support Understanding and supporting the venture team Resourcing incubation – finance, people, networks, expertise	The world of incubation management and leadership Managing and leading incubation processes for accelerating new venture creation and growth Profiling the effective incubation manager and leader Learning from best practice Assessing management performance and impact Self-assessment diagnostic tool to identify personal strengths and weaknesses Development of personal action learning plans Management and leadership coaching and mentoring support	The world of incubators and incubation Incubator and incubation process models – best practice Policies and strategies for growing the incubator business Entrepreneurial incubator management and leadership – best practice Understanding the incubator market – segmentation and differentiation Embedding within regional and local infrastructures and policies Creating a successful and sustainable incubator business	The world of business and technology venturing Understanding research and technology supply pipelines, e.g. biotechnology applications From ideas and concepts to market – understanding the processes of product/process commercialisation and technology/knowledge transfer Finding and validating opportunities Testing the science/technology Understanding and accessing the VC market Deal making Building venture team capability and capacity Ownership, protection and compliance Planning and organising for success Preparing for market launch Preparing for technology venture growth

From our review of existing practices to develop entrepreneurship support professionals' competencies, we have found some evidence about formal training initiatives that are provided by different organizations. Incubators network organizations can provide training and certifications to participant professionals and incubators, like in the case of EUBIC – which provides training about creating and operating a business incubation centre, design and deliver startup and scale-up and internationalization services. Supra-national organizations promoting economic development and innovation can also foster ESOs professionals training. For example, the World Bank has developed a "Business Incubation Training Program" through the infoDev program, mainly targeting professionals and incubators in developing countries. This training consists of 12 modules covering business incubation basics (definitions and principles, incubator models and success factors), business incubation operations (planning a business incubator, marketing and stakeholder management, financing, managing, monitoring and evaluating business incubators), and advanced incubation management (implementing mentoring as a service, deals and financing for clients, technology commercialization, virtual services, and agribusiness incubation) . This training was offered in the form of workshops in several countries, for instance by the African Business Incubation Institute or Startup First in Bhutan . Universities have also started to offer specific training to sustain the career of incubation professionals and directors, such as the Incubation Leadership & Entrepreneurship Advancement Program offered by the Gujarati University in India, through its Startup and Entrepreneurship Council , or the Incubation Management Training offered by the Nile University, through its Innovation Entrepreneurship and Competitiveness Center "Nilepreneurs" . Also some networks of universities have started to offer "train the trainers" programs, such as the Community-based Training Program for Incubation Coaches by ENHANCE Alliance . Lastly, some options of training courses, developed by independent consultants or private organizations, are available as MOOCs on platforms like Udemy.

However, despite the benefits of formal training, a recent study on European entrepreneurship support organizations (Martinelli & Bolzani, 2021) indicates that formal training for entrepreneurship support professionals remains limited. Based on survey data from 105 entrepreneurship support organizations, the study found that 19% of these organizations provide no formal training, while 28% engage in

minimal training activities annually (i.e., only 1-20% of staff trained per year). Only one-third of support organizations report a strong commitment to formal training, with more than half of their staff receiving training annually. Additionally, when formal training does occur, it tends to be limited in scope—52% of the respondent organizations provide staff with a maximum of 10 hours of training per year.

Most training initiatives focus on business-specific topics, such as idea development, validation, and lean startup methodologies (60%), economic and financial planning (58%), and pitching and business communication (54%). These sessions are primarily conducted outside the entrepreneurship support organizations (52%), with some of them combining internal and external training (23%). While a significant proportion of incubators entrepreneurship support organizations training on soft skills and entrepreneurial mindsets (57%), areas such as diversity, equity, and inclusion (EDI) (28%) and intercultural competencies (24%) receive considerably less attention. This trend is particularly noteworthy, as survey respondents rated their competencies in technical areas—such as intellectual property rights, legal and administrative regulations—relatively low. In contrast, they considered their soft skills, including communication, critical thinking, teamwork, and intercultural awareness, to be well developed.

Further analysis in this study revealed distinct patterns across different types of entrepreneurship support organizations. Migrant-specific entrepreneurship support organizations are significantly less engaged in training on intellectual property rights (17% vs. 43% in generalist support organizations), business planning (44% vs. 71%), lean startup and idea validation (41% vs. 79%), pitching (39% vs. 69%), and impact investing (21% vs. 45%). Social ESOs also lag in training on intellectual property rights (3% vs. 42% in non-social incubators), legal and bureaucratic issues (19% vs. 41%), lean startup methodologies (44% vs. 67%), and marketing and customer relationships (22% vs. 45%). Additionally, not-for-profit ESOs show less emphasis on training related to impact finance and investment (25% vs. 51% in for-profit ESOs). Contrary to expectations, migrant-specific ESOs do not provide additional training for their staff. In fact, they offer fewer formal training hours compared to generalist ESOs, raising questions about how professionals in these organizations develop the necessary competencies to support migrant entrepreneurs effectively. With the increasing diversity of entrepreneurial ecosystems, cultural intelligence and inclusive mentorship have become essential competencies for incubation professionals (Desiderio, 2014). In this regard, structured training in diversity and inclusion, cultural intelligence, and bias awareness can further enhance professionals' ability to support migrant and minority entrepreneurs (Ram et al., 2017).

The second approach to develop entrepreneurship support professionals' competences is via learning-by-doing and peer learning. Experiential learning is a crucial approach for developing ESOs professionals (Hannon, 2005). Many acquire skills through direct interaction with startups, learning to provide tailored support based on real-world entrepreneurial challenges (Patton & Marlow, 2011). For instance, incubators often recruit professionals who have either launched their own startups or have been professionally immersed in the startup sector (Martinelli & Bolzani, 2021). Additionally, peer learning within ESOs fosters knowledge exchange, enabling professionals to adapt to emerging business trends and startup needs dynamically. In this regard, one of the key assets for ESOs is the diversity of internal staff: the heterogeneous composition of the team in terms of technical competencies, but also demographic and social characteristics and the associated cultures, beliefs, and attitudes, is an added value. The diversity of experience among incubation staff fosters a practical, real-world understanding of the entrepreneurial ecosystem. Given the challenges of finding professionals with the exact blend of business expertise and mentoring skills, many incubators rely on informal training mechanisms such as apprenticeships, peer mentoring, and job shadowing. For example, new staff members are often integrated into incubation activities through structured traineeships, where they learn by observing and engaging with both experienced colleagues and entrepreneurs (Martinelli & Bolzani, 2021).

Third, competences of entrepreneurship support professionals might be complemented with external expertise and external knowledge sourcing. In fact, given the diverse needs of supported businesses and the continuous evolution of the startup ecosystem, entrepreneurship support professionals should remain adaptable, learning not only from structured programs but also from their interactions with the

entrepreneurs they support and from the broader entrepreneurial network. ESOs frequently rely on external experts, consultants, and mentors to supplement internal expertise (Hackett & Dilts, 2004b). In migrant-focused ESOs, professionals emphasize the importance of selecting mentors not only for their technical knowledge but also for their ability to navigate cultural differences and support diverse entrepreneurs (Martinelli & Bolzani, 2021). Some ESOs implement rigorous selection and training processes to ensure that mentors possess both business acumen and the interpersonal skills necessary for effective mentorship.

This continuous, practice-based learning environment drives many ESOs to prioritize informal training activities, learning-by-doing and interaction with the external environment, over formal education programs. Incubation professionals develop their competencies dynamically—absorbing insights from entrepreneurs, fellow staff members, and external ecosystem players—making hands-on experience a fundamental component of their professional growth, and therefore a truly developmental approach to entrepreneurship support professionals should account for changing needs over time.

3.4.LICHENI: Towards a hybrid incubation – from the Mediterranean ecosystem to the metaverse for a new model of business development (UNICA)

The entities currently engaged in business incubation often find themselves having to balance between process standardization and the personalization of the training experience. However, there is a clear need for pathways that can respond to participants' specificities, avoiding rigid and poorly adaptable models. Through a mapping of existing initiatives, we have highlighted different approaches, ranging from impact investing programs to those focused on residential training or one-on-one support. While each model offers distinct advantages, many struggle to integrate a holistic perspective that considers not only business development but also the personal and relational growth of aspiring entrepreneurs.

Our project aims to overcome these limitations by adopting an approach that we could define as "Mediterranean," based on a combination of ethnographic analysis tools, residential collaboration experiences, and training focused on the development of transversal skills. A key aspect of this vision is the introduction of a playful dimension, which helps break down traditional hierarchies and stimulates creativity and cooperation among participants. The goal is to create an inclusive learning environment where dialogue between emerging entrepreneurs, mentors, and facilitators fosters a horizontal exchange of knowledge and skills. Through this process, we seek to redefine the concept of incubation, placing at the center not only the enterprise but also the people who build it and the relationships that determine its success. Another innovative element of the project is the production of a podcast, created in collaboration with Kilowatt, which will document the entire incubation journey. Structured in five episodes, the podcast will explore key themes such as managing uncertainty, the value of collaboration over competition, and the role of accessibility in incubation pathways. Through interviews with experts, academics, and entrepreneurs, the podcast will provide firsthand accounts of the experiences developed within the program.

Our proposal takes shape in the creation of the visual identity for the "Licheni" program, inspired by the biological metaphor of lichens as an example of symbiosis and cooperation. The brand identity has been developed to reflect the values of accessibility, collaboration, and sustainability, ensuring visual continuity with the parent project, GRINS.

The incubation program will be structured in a selection phase, a residential workshop, online training sessions, and personalized mentoring meetings. The program will culminate in a final event where entrepreneurial ideas will be presented, offering participants the opportunity to connect with stakeholders, investors, and potential partners. This activity will then transition into the Metaverse laboratory, where participants will have the chance to further develop and refine their ideas in an immersive digital environment, leveraging advanced virtual collaboration tools and interactive simulations.

3.4.1. Toward Mediterranean Incubation: Inclusion, Impact and Collaboration

3.4.1.1. A prototype of inclusive venture incubation

The outlined pathway aims to explore new forms of business incubation that are genuinely accessible and oriented toward social impact. In this preliminary phase, a mapping of initiatives has been undertaken to identify incubation programs aligned with the core principles of inclusion, impact, and collaboration. The focus has been on programs that promote tangible impact, inclusive training models, and innovative pedagogical approaches. However, initial research indicates that many existing programs rely on standardized tools and methodologies, with sustainability often appearing more as a communication strategy than as a deeply integrated structural consideration.

Some programs, such as RestartApp, emphasize the individual dimension through residential training, though primarily with a professionalization focus. Others, like Get It!, encourage impact investing but may place greater emphasis on competition rather than collaboration. Ecosister has adopted a one-to-one approach, which, while offering personalized support, limits opportunities for peer-to-peer exchange. Additionally, programs such as Start Me Up facilitate access to financial resources and networking opportunities but do not explicitly focus on the individual and relational dimensions of incubation.

Key aspects under consideration include the relationship between pre-incubation and full incubation, as well as the scale of the program, evaluating the feasibility of a national call versus a more localized approach. Communication strategies have also been a central topic, particularly in defining target audiences while avoiding the risk of stigmatization. The role of residential experiences has been assessed both in the selection phase and as an integral part of the training journey.

Regarding training content, the proposed approach begins with a reflection on impact and the vision for change, followed by key topics such as customer segmentation, value proposition, business models, benchmarking, branding, and communication strategies. Particular attention is given to legal structures, governance, and individual sustainability, with a focus on access to credit and the development of a solid organizational foundation.

3.4.1.2. Mediterranean approach to incubation

Our model is inspired by an approach labelled as “Mediterranean,” being capable of integrating multiple dimensions. On one hand, ethnographic analysis tools will be adopted to gain a deeper understanding of the audiences involved; on the other, the residential dimension will be emphasized as a space for collaboration and growth. Training will not be limited to providing technical skills but will also focus on developing transversal competencies and fostering individual potential.

A distinctive element will be the introduction of a playful dimension: using games as a tool to break down hierarchies, promote collaboration, and create a more horizontal learning environment. This approach will also extend to the relationship with mentors, encouraging a less hierarchical and more exchange-based dynamic. Another key figure in the process will be the “courtier,” a facilitator who helps connect the various actors involved, fostering relationships and maintaining an overarching vision of the journey.

3.4.1.3. The podcast as dissemination strategy

To document and disseminate the incubation experience, Kilowatt will produce a podcast consisting of five episodes, each lasting approximately 10-15 minutes. Each episode will explore a key theme of the program, featuring interviews with experts, academics, artists, and individuals directly involved in the incubation experience. The topics covered will range from the ability to envision the future in uncertain contexts to reflections on failure, from accessibility in incubation programs to the dichotomy between competition and collaboration in the business world.

3.4.2. Developing the logotype: “LICHENI”

An image that best represents our vision is that of lichens—symbiotic organisms born from the interaction between fungi and algae. This collaboration, in which each organism provides something essential to the other, is the foundation of their survival even in extreme environments. Lichens offer a powerful metaphor for rethinking the concept of incubation, shifting the focus from the individual to the relationship. Mutualism becomes the guiding principle, in contrast to a Darwinian perspective that prioritizes competition. Just as lichens demonstrate that life is based on cooperation, our approach to incubation seeks to move beyond individualistic models to build more inclusive and collaborative entrepreneurial ecosystems.

Every project has a story to tell, and the story of Licheni begins with a clear idea: accessibility, collaboration, and sustainability. These values—pillars of the initiative—needed a visual form capable of conveying them with immediacy and effectiveness.

The first step was understanding the context in which the brand would be positioned. Licheni is not an isolated entity but an extension of GRINS, its parent project. This meant that its visual identity had to communicate with GRINS, respecting its graphic language and aligning with the official brand book guidelines.

The concept that guided the logo development was that of affiliation. The lichen, an organism that grows and develops on a host surface, became the perfect metaphor to represent Licheni: a project that proliferates, adapts, and integrates within a broader reality—GRINS. Based on this idea, the challenge was to make this connection visible in a natural way. The answer came through a process of graphic synthesis. A direct link between the two logos was created, ensuring perfect visual continuity. The connection between Licheni and GRINS is not just conceptual but also formal. The Licheni logotype incorporates graphic elements from the parent logo, ensuring a harmonious interaction between the two identities.

The choice of the Poppins font, a Google Font already designated as a free font in the GRINS brand book, facilitated this process. In particular, the letter "C" serves as a natural connection point: its curvature radius perfectly overlaps with the affiliative element that characterizes the new logo. The color palette was also derived directly from the GRINS logo, reinforcing the sense of continuity and belonging. However, to maintain a distinct visual identity, a differentiated use of background colors was designed for the primary logo variations.

The logo was subsequently approved by the communication and visual identity consultants of DINAMO.

The entire design process followed a consistent and strategic approach, ensuring that Licheni was not just a name but a living identity, capable of representing its purpose and values. The result is a logo that not only tells the story of the project but becomes an integral part of it, serving as a bridge between its vision and its graphic expression (Figure 37).

This was our challenge: to transform a concept into a visual symbol capable of growing, adapting, and interacting with its context. The Licheni logo is the result of this journey.

Figure 37: The Licheni logotype



3.4.3. LICHENI program – a timeline

The Licheni program has been designed to offer a free and personalized training and support pathway

for individuals interested in starting a business. The primary goal is to provide concrete tools for the development of new enterprises that prioritize people's well-being, the dignity of work, and a positive impact on the socio-economic context.

Licheni is open to anyone willing to take on the challenge, regardless of their personal background or the barriers they have encountered in the past. Supporting new entrepreneurs in testing and validating their business ideas will be at the core of Licheni, creating an accessible learning environment and removing economic and bureaucratic obstacles that often exclude certain groups from traditional incubation programs.

3.4.3.1. Participants selection

The call for applications to participate in the program opened on February 24, 2025, and will close on March 17, 2025, at 9:00 AM. To apply, candidates must complete an online form. Incomplete applications or those submitted after the deadline will not be considered. During this period, the following activities will take place:

- Online Q&A Session (March 12, 2025, 4:30-6:00 PM): An open informational meeting to present the program and answer candidates' questions. The session will include an introduction to the event and the LICHENI project, followed by a presentation of the GRINS project (UniCa) and an overview of the training program. Both Kilowatt and the members of the research team will present the program, and it will be followed by a Q&A session and closing remarks with practical information. A dedicated speaker slot has been scheduled from 4:45 to 5:00 PM, while participation in the remainder of the session is flexible. Additionally, confirmation of participant names has been requested for inclusion in the event description. The session will feature Ronke Oluwadare, psychologist, psychotherapist, trainer, and headhunter.
- Individual Online Interviews (March 17-18, 2025): Selection meetings with candidates to assess their compatibility with the program.
- Announcement of the 8 Selected Projects (March 20, 2025): Communication of the selection results and confirmation of participation in the next phases.

3.4.3.2. Training and Incubation Program (April - July 2025)

Once the participants are selected, the incubation program will take place between April and July 2025, following these phases:

- Residential Training (April 8-10, 2025, at Poggiolo Rifugio Resistente, Bologna)
Participants will take part in an intensive workshop to analyze their business ideas, define their vision, and evaluate their impact. They will have the opportunity to refine their entrepreneurial projects, working on sustainable business models and the social impact of their initiatives. Key topics will include the social and economic value of business, sustainability, and responsible growth.
- Online Training (5 Sessions, April-July 2025):
Session I – April 23 (3:00-6:00 PM)
Session II – May 7 (3:00-6:00 PM)
Session III – May 21 (3:00-6:00 PM)
Session IV – June 11 (3:00-6:00 PM)
Session V – June 25 (3:00-6:00 PM)
These sessions will help consolidate the knowledge gained during the residential workshop, providing practical tools for business development and validation. Training modules will cover business modeling, service design, and market positioning strategies. Participants will apply the tools learned through individual and group exercises.
- Personalized Mentoring (5 One-on-One Sessions, April-July 2025)

- Each participant will be paired with an experienced mentor who will guide them in defining their strategy and refining their business model. Periodic check-ins will be conducted to monitor project progress.
 - Expert Consultation Sessions (2 Online Sessions, June-July 2025): Participants will engage with entrepreneurs, professionals, and industry experts to gain practical insights and validate their ideas.
- Final Event (July 2025)
During the closing event, participants will present their business ideas to a panel of potential stakeholders, investors, and partners. The event will provide an opportunity for networking and sharing the results achieved.

3.4.3.3. Output Production and Follow-up

At the end of the program, participants will receive support in drafting an operational business plan, which can be used to present their entrepreneurial ideas to potential investors and partners. Additionally, a podcast will be produced, featuring participants' testimonials, the challenges they faced, and key moments from the program. The podcast will also include contributions from experts, writers, and academics, offering deeper insights into the themes of incubation and social sustainability.

3.4.4. Towards the Phigital Hub

Besides the ongoing design and implementation of the Licheni program, the team was actively engaged in developing the Phigital Hub by gathering information and strengthening its network of experts. In addition to this document, a detailed report outlining the essential components and related cost structures has been delivered. Furthermore, the results achieved with the first LICHENI training course will serve as the foundation for developing a similar training format within the Metaverse. To support this initiative, a Metaverse laboratory is being conceptualized, where immersive learning experiences will be designed and tested. In this regard, the team, in collaboration with consultants, has identified the fundamental equipment required to create a fully functional virtual learning environment, ensuring an engaging and interactive educational experience.

3.5. Social entrepreneurship to enhance value creation through confiscated mafia goods (UNINA).

The concept of social entrepreneurship is discussed below considering two main aspects: Ethics and AI. Furthermore, this work argues the concept of destructive entrepreneurship in the Mafia context to analyse how social enterprises generate social innovation, exploiting confiscated mafia properties and goods.

3.5.1. Entrepreneurship, Ethics and AIs

The world has changed. The economic arena has shifted from a traditional one to one negotiation to a multiple approach which has consequently transformed the way of selling products, making new innovations and doing business. In this chapter, the way of doing business is the main focus to introduce the evolution and revolution of entrepreneurship.

Looking into the previous literature, it is noticed the evolution of theory and practice in the field of entrepreneurship which was influenced by the period of time. Since the 18th century Cantillon has affirmed that an entrepreneur is “a rational decision maker who assumes the risk and provides management for the firm.” In this period the industry revolution began, and the managerial approach was the key to run such revolution and develop new innovation. Alongside, the entrepreneur makes his decision rationally because it is possible to predict the future and control the effects of actions. Although

in the 19th century, Knight talks about a two-fold function which describes an entrepreneur who has a responsible control and the ability to manage other people and deal with uncertain income. In this period, the competitiveness increased, and markets were more volatile. Nobody was talking about creativity, open mind, being enterprising, innovative, etc. All these characteristics started to be associated with entrepreneurs in 1934, when Schumpeter defines an entrepreneur as a person who “implements change or creative destruction within markets through the carrying out of new combinations”. The emphasis was on the action of an entrepreneur which has the responsibility of getting things done. No simply being an innovator or generating the conditions to exploit opportunities but mostly delivering innovations. In this sense, the meaning of innovations assumes a form of transforming an invention into something that can be sold. This meaning explains the passage from an invention to an innovation which then moves to a product delivery.

Schumpeter also discusses the concept of innovations distinguishing incremental and radical innovations. In a nutshell, an incremental innovation is an improvement of an existing product; otherwise, a radical innovation is a disruptive creation which introduces a completely new product or service. Hence, is AI a radical or an incremental innovation? This is a bid dilemma. Grashof and Kopka (2023) claim that AI drives radical innovations in companies. AI is “a general-purpose technology (GPT) and an invention of a method of inventing (IMI)” (p772) (see also Cockburn et al., 2019). AI combines different pieces of knowledge, improving the research productivity and so new approaches to create innovations. The relevance of creativity refers to Kirzners’ definition of entrepreneur who is considered for his/her creative alertness which relies on the ability to spot new opportunities. Then Drucker states the capability of an entrepreneur to forecast future trends and offer timely responses. In this scenario, Casson knows that an entrepreneur is able to coordinate and manage scarce resources. All these authors highlight the importance of being creative and also the necessity of dealing with the scarcity of resources. Such scarcity of resources calls for an increasing presence of social entrepreneurs who have founded their business on a social mission. In this realm, an entrepreneur is considered a social innovator who has the ability to figure out social problems in order to improve the quality of life, industry efficiency and environmental conditions. The evolution of the term entrepreneurship explains the evolution of business history and adaptation of companies to such changes. In this sense, there is a close relationship and impact on context/environment and innovation/evolution.

The context has its pervasive influence in shaping and reshaping an entrepreneur and then innovations. This calls for the ability of being adaptive and flexible to environmental changes. However, there is also another wave of scholars that consider entrepreneurs who can make economic, social and environmental changes. Siqueira et al. (2023) investigate how entrepreneurs can enhance economic, social and environmental situations by introducing a new venture in the market. They create value not just for themselves and their stakeholder/shareholders but also for the community. In this sense, the social nature of entrepreneurs shapes the social entrepreneur. The social entrepreneur (SE) has the general characteristics of an entrepreneur, but such entrepreneur differs for the business aim which is not simply generating profit but primarily generating money. Lumpkin et al. (2017) find that while SE research implicitly acknowledges community, they rarely explicitly focus on it as a level of analysis. Through analysing a sample of 49 scholarly articles and 54 case studies, the authors show that SE activity is often concentrated at the community level, with geographical communities being the most prevalent focus. However, the authors highlight the importance of recognizing other forms of community, such as communities of interest or solidarity, identity, and intentional communities, as they offer a richer understanding of where SE change happens. By analysing the types of “capital” generated through SE initiatives, it has noticed that SEs produce both pecuniary (financial and physical capital) and non-pecuniary (social and human capital) benefits for communities. Lumpkin and Bacq (2019) expands on this understanding by introducing

the broader concept of Civic Wealth Creation (CWC). It goes beyond the specific field of SE to encompass a wider range of activities aimed at improving communities. The paper proposes a conceptual framework for understanding how CWC occurs through the synergistic interaction of three key stakeholder groups: Community, Regimes of Support, and Enterprise, each driven by distinct logics.

This framework, grounded in stakeholder theory, explains how the joint efforts of these groups, despite their differing motivations and approaches, contribute to the creation of social, economic, and communal wealth, which in turn constitute "civic wealth". The authors further connect the CWC framework back to the concept of capital, drawing parallels between their proposed types of wealth and the four types of capital identified by Parsons. This connection provides a theoretical grounding for CWC and further emphasises the multi-faceted nature of capital in community-level change. Considering the CWC by Lumpkin et al., 2017 and Lumpkin and Bacq (2018), the stakeholder theory is adopted to explain the interaction of three key actors as follows:

1. **Community** which is driven by the logic of association and shared identity.
2. **Regimes of Support** which is lead by the logics of influence and control.
3. **Enterprise** which is leveraged by the concepts of business and entrepreneurship.

These three actors are intertwined by three mechanisms of CWC: engaged participation, collaborative innovation, and resource mobilization which allows to achieve the optimum situation based on social, economic, and communal wealth creation. This also relies on four forms of capital such as social capital, economic capital, cultural capital, and strategic capital (Richardson, 1986). The scope of such companies is to make a positive impact on the community.

However, I believe that social enterprise can assume a role of supporters and/or partners. Dionisio and De Vargas (2022) offers an interesting perspective on analysing corporate social innovations. In this sense, social enterprises could be included in the 'enterprise' area as well' in the regime of support'. Alongside, Geng et al. (2019) affirm, "companies need novel business models to create value. Groups of companies and customers that exploit a particular resource need to be linked. Policies are needed to facilitate markets". Overall, SE influences social change positively. Employing the community level of analysis as essential for understanding the impact of SE activities, as SE projects often originate locally to address specific community needs. In turn, this type of entrepreneurship calls for UNESCO-inspired typology based on Geographical communities; Communities of interest or solidarity; Communities of identity; Intentional communities. Basically, SE's scope is to contribute to wealth creation which include tangible both tangible (e.g., physical and financial capital) and intangible (e.g., human and social capital) outcomes.

3.5.2. Destructive entrepreneurship and Social Enterprises

Champeyrache (2018) examines the concept of 'mafia entrepreneurship' as the Italian Mafia's infiltration of legitimate businesses. This business activity is considered actively destructive, undermining trust, talent, and wealth through artificial scarcity and the exertion of economic power. By Baumol's framework of productive, unproductive, and destructive entrepreneurship, the author describes how the Mafia acts as a manipulator of the market and even acts as a competing sovereign, shaping territorial economy rules. The role of Mafia is primarily destructive rather than creative. The Mafia destroys community's trust. It does not make strong relationships but it tends to generate a sense of dependence on the Mafia's services, guaranteeing protection. The Mafia diminishes talents; it discourages non – mafiosi entrepreneurs to develop their own business. Champeyrache (2018) defines this scenario as sterilisation of entrepreneurial potential, where business owners self-limit their growth or abandon their businesses to avoid mafia attention. It turns, it induces a migration of talents where entrepreneurs move to areas with more effectively enforced property rights (Arlacchi & Ryle, 1986). The Mafia pulls down wealth of non – mafiosi entrepreneurs who spend their money to protect their business (Falcone & Padovani, 1992). Additionally, mafia-owned enterprises engage in rent-seeking activities, particularly in public works, resulting in budget overruns and poor-quality goods (Champeyrache, 2007).

In a nutshell, the Mafia destroys trust, talents and wealth, making a sense of scarcity where mafiosi have access to services and goods whereas other people (including non-mafiosi entrepreneurs) need to be assisted by the Mafia to get such services and goods. The value creation of the Mafia's activities is 0, which results in lower growth rates in mafia-dominated territories. Hence, destructive entrepreneurship

by the mafia is not just about making profit, it is about actively undermining the foundations of a healthy economy by destroying trust, limiting entrepreneurial potential, wasting resources and establishing a system of control through artificial scarcity and violence. It creates a system where the mafia acts as a competing power, undermining the state's authority and hindering economic growth.

In this context, there are some interesting insights stem from social enterprises which are focused to offer new solutions for social needs, building up new social relationships and generating profits out of it. In this specific scenario, new social enterprises are founded to generate value from confiscated

Mafia goods and properties. They provide work inclusion and integration for disadvantaged people who are facing up poverty, marginalization and social distress (Moulaert et al., 2013). For instance, they offer new activities like agriculture, social services, and responsible tourism. These social enterprises move from destructive entrepreneurship to creative and constructive entrepreneurship which scope is to generate a collective value or innovative shared value (Pfitzer et al., 2013). The innovative shared value framework is composed of five features:

1. Including a social mission into an organizational culture. This mission should be the starting point to setting up new social objectives to address ecosystem problems, engaging with employees and stakeholders.
2. Understanding of social conditions of that problems to individuate disadvantaged people; people to be involved, limits and opportunities. In this sense, it is possible to efficiently allocate the right resources in the right place and so implement the right strategy.
3. Evaluating the social impact. It is important to be able to measure the social impact to verify business performance.
4. Investing in a social innovation which induces an entrepreneurial risk. Such risk can be reduced when a company is aware of its social objectives and have competences and skills to solve the problem.
5. Co-creation model which employs the involvement of all stakeholders to generate a new solution.

Overall, the innovative shared value serves the community to offer them a different scenario and a way out from the Mafia context. They promote the values of legality, honesty, and social justice (Picciotto, 2015). When trust, talents and wealth is demolished by the Mafia, these social enterprises seek to bring back such virtuous factors to give the community back self-confidence and hopefulness. Considering the CWC framework (Lumpkin & Bacq, 2019), there is a strong willingness to involve all ecosystem stakeholders such as working members, volunteers, financial partners, and public institutions, in their corporate governance promotes a participatory and democratic approach. The creation of networks and partnerships between public, private and third sector actors for the social reuse of confiscated property weakens the dense network of collusive relationships on which

the mafia has its roots (Cavadi, 2010). Social entrepreneurship on confiscated property, by involving economic, cultural, and social variables, can affect the mechanisms underlying the genesis and the reproduction of the social consensus of the mafia. By taking over property formerly owned by the mafia, these enterprises are taking away resources that the mafia used to generate wealth and status through illegal and destructive means. This is a form of social innovation by providing new goods with strong symbolic value through new processes and inter-organizational relationships. They satisfy the "ethical needs" of legality and social redemption, exploring new sectoral contexts like social agriculture. Social innovation is achieved through the cooperatives' ability to establish agreements and build networks with external stakeholders, creating new dynamics of local development and new ways of production (Picciotti, 2013). Basically, these social innovations do not simply meet social needs more effectively than alternatives and create social relationships or collaborations but they also empower citizens with trust, talents, and wealth.

These social enterprises are a response to diminish the Mafia's activities demonstrating that a different path is possible, one based on legality, social justice, and community development, all whilst challenging the mafia's destructive influence. These social enterprises transform confiscated properties from symbols of mafia power into resources for social good.

4. Business Model of the Phygital Hub

4.1. The assessment of disadvantaged groups needs

Developing effective and inclusive training initiatives for disadvantaged groups requires a deep and multidimensional understanding of their needs. This goes beyond demographic or statistical data and has to include psychosocial, structural, and behavioral elements influencing NEETs, the unemployed, inmates, migrants, young mothers, and individuals with physical, cognitive, or sensory impairments (Scoppetta et al., 2018). Capturing the complexity of these populations and customizing interventions appropriately demands a mixed-method approach—combining qualitative findings with socio-economic indicators—(Green & Taylor, 2018).

Rather than relying on static evaluation models, assessment strategies must remain dynamic and responsive to changing environments, where results emerge through iterative and often unpredictable processes (Coalter & Theeboom, 2022). In this context, modular and flexible learning formats are particularly effective in supporting the reintegration of marginalized individuals.

For re-engaging marginalized people, modular and flexible training forms become vital enablers. Emphasizing organized self-reflection and subjective narrative building, our approach will stress psychological safety, self-efficacy strengthening, and motivational support. Even when out of line with conventional labour expectations, individualized learning routes mixed with group-based and digital modules assist recipients identify fundamental strengths (Xiao et al., 2024). All things considered, our updated "bilan de compétences" approach (Guichard, 2009) will allow every participant to map personal development across several encounters using human-centered coaching and AI-driven digital technologies. Especially for underprivileged populations negotiating systematic obstacles, this improves employability as well as technical and soft skills.

4.2. Design personalized training programs and tools

Traditional learning systems often follow standardized curricula and linear pathways, which tend to overlook the varied cognitive, linguistic, motivational, and socio-economic profiles of learners, particularly in adult and vocational education contexts (Rane et al., 2024; Bühler et al., 2022). The GRINS Phygital Hub offers an alternative model based on adaptive learning pathways, co-designed by the learner and an intelligent system that integrates both personal input and labor market data. This approach relies on artificial intelligence and machine learning to profile learners across multiple dimensions, cognitive, educational, linguistic, and psychosocial, to align their individual characteristics with emerging occupational trends (Prasetya et al., 2025; Tavakoli et al., 2022).

This dual-channel approach guarantees that the training route created for every student is not only pedagogically appropriate but also professionally useful. Unlike traditional assessments, which often produce static or generic classifications, the AI system generates dynamic learner profiles and continuously adjusts training content, pace, and format to match learner needs and evolving market demands (Hassan et al., 2024). Moreover, this system will enable what could be called anticipatory learning design: plans are proactive in building an ideal path that reduces attrition, over qualification, and skills mismatch rather than reactive to student choices or institutional offerings. Every training program will be coded within a European recognition system, modular, stackable, and guarantees both transferability and openness.

The correct profiling of the student is a vital stage at the heart of individualized learning design. Particular attention is given to language skills, motivation, and perceived employability factors often overlooked in formal education but essential for engagement and success (Durnescu et al., 2015). The system supports inclusive learning through accessible content formats, including simplified language, multilingual support, and visual aids, especially for second-language speakers or learners with low literacy. AI-generated analytics track user behavior and performance in real time, allowing the platform

to identify signs of disengagement or overload and respond accordingly. At the same time, human tutors play an essential role through coaching and mentoring, supported by dashboards that translate learner data into actionable insights. The system reacts to recognized signals by changing the learning pace, the content distribution style, or sometimes the pedagogical approach itself shifting, for example, from abstract theory to practical application (Rane et al., 2024).

Importantly, this change is not only automatic. Human-facilitated coaching and mentoring systems complement it. Tutors in hybrid (phygital) sessions can customize their help using a dashboard that combines learner metrics into practical insights. These could be meta-cognitive training courses, gentle skill strengthening, or motivating pushes. While maintaining the scalability of the AI-powered system, this human-in-the-loop strategy will guarantee pedagogical continuity and ethical monitoring.

At the same time, the AI engine regularly re-evaluates the fit between the learner's revised profile and their first suggested occupational path. The persistent mismatch between the skills individuals acquire and those demanded by the labor market is a well-recognized challenge in education. The Phygital Hub model seeks to overcome this gap by fostering a lifelong learning ecosystem that is adaptive, inclusive, and aligned with real-time economic needs. By integrating individual learning trajectories with dynamic labor market intelligence, the approach enables evidence-based adjustments to train plans, ensuring their continued relevance and impact (Prasetya et al., 2025).

4.3. Physical and phygital touch points

The GRINS Phygital Hub combines immersive technologies—Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR)—with adaptive systems to create a dynamic learning environment that enhances skill development. These technologies are designed not merely as content delivery tools but as cognitive amplifiers that engage learners in experiential simulations, professional scenarios, and applied challenges (Rane et al., 2024). For learners with low confidence or motivation, immersive environments offer heightened emotional engagement, which is essential to retention and sustained participation. Neuro-educational studies confirm that a sense of presence in learning experiences supports the transfer of knowledge into real-world application (Bisson et al., 2023).

The Hub's spatial design—comprising hybrid classrooms, maker spaces, and labs—enables smooth transitions between digital and hands-on modalities. Adaptive AI systems continuously adjust instructional parameters such as pace, format, and content based on learner data (Rane et al., 2024). At the core of this system is real-time learner modeling, which captures cognitive load, attention, engagement patterns, and language fluency. This allows the system to tailor instruction by simplifying content, introducing gamified elements, or triggering reflective pauses.

Adaptivity is embedded at three levels: the curricular layer, which dynamically sequences modules; the interface layer, which adjusts visual and linguistic complexity; and the feedback layer, which delivers timely support during key learning moments. Intelligent Tutoring Systems (ITS) simulate personalized instruction by offering scaffolding, analogies, and motivational prompts. These tools, especially when paired with immersive media, improve retention and concept mastery (Rane et al., 2024). Some implementations include conversational AI agents that foster reflection and self-regulation, preparing learners for complex professional environments.

Instructional design within the Hub is grounded in data-informed orchestration, where each resource—whether text, simulation, or task—is activated as a pedagogical response to learner behavior. Training modules are aligned with the European Qualifications Framework (EQF) and the Digital Competence Framework for Citizens (DigComp), ensuring transparent outcomes in terms of knowledge, skills, and autonomy. Assessment is integrated and continuous, using analytics, simulations, and AI-verified logs rather than relying solely on final examinations.

This model is particularly beneficial for non-traditional learners such as NEETs or migrants, who may lack formal credentials but possess valuable experience. Upon completion of a competency unit, the system can propose job opportunities, apprenticeships, or additional training aligned with the learner's profile (Bisson et al., 2023). This supports both career-readiness and evidence-based policy for

regional skills strategies (Carella et al., 2024).

The integration of AI, immersive media, and human facilitation fosters a learning dynamic oriented toward empowerment and identity reconstruction. AI handles real-time feedback and adaptivity, while human tutors emphasize emotional support and social interaction. This is particularly impactful in immersive simulations of real-world settings—such as design studios or logistics hubs—where learners can explore professional identities and regain a sense of agency. For those facing structural exclusion, training becomes not just a means of skill acquisition but also of psychological renewal.

The system also accommodates individual pacing and internal resources. By combining technical adjustments (e.g., reduced cognitive load) with human-led interventions (e.g., coaching, peer mentoring), it ensures that learners feel supported, engaged, and recognized. This blended model promotes sustainable learning pathways and strengthens the continuity between training and employment.

4.4. Value creation KPI: interactions, engagement and advocacy

The Key Performance Indicators (KPIs) presented in this section serve as essential instruments for evaluating both the effectiveness and the broader impact of the Phygital Hub. Far from being static metrics, these indicators are intended to offer ongoing insight into the program's capacity to meet the strategic goals outlined in this deliverable. In practical terms, they enable a systematic assessment of the Hub's ability to engage participants, deliver meaningful educational outcomes, and generate positive social impact among disadvantaged populations.

Each KPI functions not only as a snapshot of progress but also as a guide for improvement, ensuring that the initiative remains responsive to the needs of its users and capable of evolving in step with social, economic, and technological changes. Within the Phygital Hub, these measures help to track how effectively the platform supports learners, especially those from marginalized groups, and whether the training initiatives are truly inclusive and outcome-oriented.

The development of this KPI framework is firmly grounded in the three main priorities established for the present deliverable: personalization of learning pathways, the integration of adaptive assessment systems, and the promotion of inclusive pedagogical approaches. These principles are translated into a coherent set of indicators that allow for meaningful evaluation across several key domains.

One core area of analysis concerns inclusivity and access. Here, the Participation Rate and Completion Rate provide a measure of how successfully the Hub reaches underserved groups, such as NEETs, migrants, former inmates, and individuals with disabilities. These indicators shed light on the real-world reach of the project and its capacity to support participants throughout their learning journey, from initial engagement to course completion.

Another important dimension is the development of individual skills. In this context, the Skills Proficiency Rate captures the extent to which participants acquire competencies that align with current labor market demands. It reflects the Hub's ability to deliver relevant, high-quality training that enhances employability and bridges existing skills gaps. This KPI is particularly important in validating the pedagogical model adopted by the Hub, which emphasizes both human and technological support for individualized learning.

The long-term success of the program is also evaluated through indicators that go beyond the classroom. The Employment Rate Post-Training and the Satisfaction and Engagement Index help measure the sustainability of training outcomes. While the employment indicator offers direct evidence of how well the program prepares participants for meaningful work, the engagement metric captures user satisfaction and the likelihood that participants will recommend the Hub to others. Together, these measures offer insight into how participants experience the training process and whether the program creates a sense of ownership and empowerment.

Using this integrated KPI system, the Phygital Hub not only monitors outcomes but also builds a foundation for evidence-based decision-making. This enables the program team to adjust course content, refine delivery models, and strengthen participant support systems in real time. Importantly, these

metrics serve a dual purpose: they ensure accountability to stakeholders while also functioning as tools for learning and continuous improvement.

The implementation of these indicators reinforces the Phygital Hub's broader mission: to deliver accessible, personalized, and inclusive education to individuals who are too often left behind. By embedding KPIs into daily operations, the Hub maintains a clear focus on equity and social transformation, while also generating the data needed to scale the model and enhance its impact across different contexts and communities.

Participation rate

The Participation Rate measures the percentage of individuals from disadvantaged groups (e.g., NEETs, ex-offenders, migrants, young mothers, and people with disabilities) who enroll in and actively participate in the training programs offered by the Phygital Hub. This indicator is a direct reflection of the effectiveness of outreach strategies and the inclusivity of educational opportunities within the program. It also highlights the accessibility of the Phygital Hub's offerings to those who face significant barriers to education due to socio-economic, cultural, or logistical challenges.

$$\text{Participation Rate} = \frac{\text{Number of disadvantaged participants}}{\text{Total number of individuals contacted or invited}} \times 100$$

The primary goal of this KPI is to assess how effectively the Phygital Hub engages the target groups, ensuring that disadvantaged individuals have access to and are actively participating in educational programs. A high participation rate indicates that the program is successful in reaching marginalized communities and providing them with valuable educational opportunities. This indicator is crucial for assessing how well educational systems or initiatives are reaching marginalized communities, such as those in socio-economic distress or facing systemic exclusion from mainstream educational pathways. This metric draws upon the OECD's and UNESCO's educational inclusivity benchmarks (OECD, 2021; UNESCO Institute for Statistics, 2012), offering a valuable tool to monitor outreach effectiveness and accessibility.

The Participation Rate is a key indicator for evaluating how well the Phygital Hub connects with its intended audiences—particularly individuals from disadvantaged backgrounds. Its primary function is to determine whether the program effectively facilitates access to education for groups that often face systemic barriers, including NEETs, migrants, ex-offenders, and individuals with disabilities. A strong participation rate suggests that the Hub is reaching these communities in a meaningful way and that its educational offerings are not only accessible, but also compelling enough to encourage active engagement. This measure plays a vital role in monitoring the inclusivity of the Phygital Hub and aligns with international benchmarks established by organizations such as the OECD and UNESCO (OECD, 2021; UNESCO Institute for Statistics, 2012). Globally, participation metrics are widely adopted in vocational training, higher education, and lifelong learning programs to assess whether systems are successfully engaging groups traditionally excluded from formal education—especially those experiencing socio-economic disadvantage or cultural marginalization. For the Phygital Hub, tracking this indicator involves several strategies. First, pre-enrollment surveys and interviews will help identify which demographic groups are being reached and whether they reflect the diversity of the target population. Digital registration through a learning management system (LMS) will allow for the accurate collection of participation data across both physical workshops and online modules. The system will also enable real-time monitoring of engagement patterns, making it possible to detect drop-offs or disengagement early on. This data will help reveal the effectiveness of outreach strategies. For instance, if participation falls short of expectations in specific communities, the Hub may reconsider its communication channels or expand collaboration with local organizations. Low participation can also highlight structural barriers such as limited digital access, low literacy, or conflicting family obligations. In such cases, the Hub may respond by refining its approach—enhancing infrastructure, offering support

services, or tailoring learning environments to better suit the needs of these groups.

A participation target of 30% among disadvantaged populations—relative to the total number of individuals reached—has been set for the first two years of implementation. This benchmark will serve as both a performance goal and a diagnostic tool. Through continuous monitoring, the Hub will be able to adjust its strategy to ensure that inclusivity remains not just a principle, but a measurable outcome.

Completion rate

The Completion Rate measures the percentage of participants who successfully complete the training program within a specified timeframe. This KPI is a key indicator of program quality, participant engagement, and the effectiveness of the institutional support provided throughout the course. A high completion rate suggests that the curriculum is well-structured, that learners receive adequate support, and that they are motivated to see the program through to its conclusion.

$$\text{Completion Rate} = \frac{\text{Number of participants who completed the training program}}{\text{Total number of participants who enrolled}} \times 100$$

The Completion Rate is a widely recognized metric used by educational institutions, government agencies, and accreditation bodies to assess the effectiveness of training and academic programs. In both higher education and vocational contexts, this KPI helps determine whether students are not only enrolling but also completing their educational journeys. As noted by the OECD (2021), a consistently high completion rate is often viewed as an indicator of institutional quality and learner support. Within the Phygital Hub, it plays a central role in evaluating the program's ability to retain participants and guide them through their learning pathways successfully.

The goal of this KPI is straightforward: to measure how well the Phygital Hub supports learners from the moment they enroll until the program is completed. A strong completion rate suggests that the educational experience is not only well-designed but also responsive to learners' needs—providing adequate guidance, relevant content, and motivational support throughout the process.

Given the hybrid nature of the Phygital Hub, which blends physical workshops with digital modules, monitoring learner progression requires a nuanced approach. All participants are registered through a centralized Learning Management System (LMS), which tracks their engagement across both digital and in-person components. This system records attendance, activity completion, and assessment submissions. In addition, the program uses periodic feedback surveys to identify potential barriers to completion—whether related to course design, learner support, or external constraints. These insights inform ongoing adjustments to content, scheduling, and support mechanisms.

Completion data sheds light on three critical aspects of the program. First, it reflects participant engagement and retention. If learners are completing the course, it indicates that they find it meaningful and manageable. Second, it serves as a proxy for the quality and structure of the curriculum. A low completion rate may reveal issues in course pacing, content complexity, or delivery methods. Third, it provides evidence on the effectiveness of support systems, such as mentoring, coaching, and peer learning opportunities—especially relevant in a phygital setting where learners may need guidance navigating both environments. To ensure the program maintains high standards, the Phygital Hub has set a target completion rate of at least 80% for enrolled participants during its first two years of implementation. This benchmark will be continuously reviewed and revised based on program performance and participant feedback. The aim is not only to meet internal goals but to align with broader educational standards, ensuring that the Phygital Hub remains a reliable, inclusive, and adaptable learning environment.

Skills Proficiency Rate

The Skills Proficiency Rate measures the percentage of participants who achieve a predefined level of competence in the skills targeted by the training program. This indicator is essential to assess the

effectiveness of the training in equipping individuals with job-relevant competencies and ensuring that the learning outcomes align with market demands. The KPI highlights whether the program successfully enhances the participants' practical and theoretical skills, thereby improving their employability and career readiness.

$$\text{Skills Proficiency Rate} = \frac{\text{Number of participants achieving predefined competency level}}{\text{Total number of participants}} \times 100$$

The Skills Proficiency Rate is a key indicator used to evaluate whether the Phygital Hub is achieving one of its core objectives: delivering high-quality, skills-based training that enables participants to thrive in the labor market. A strong proficiency rate signals that the program is effectively supporting learners in acquiring both technical and soft skills that are relevant to current workforce demands.

This metric is aligned with established benchmarks such as the European Qualifications Framework (EQF) and insights from the OECD's Skills Outlook (OECD, 2013), which emphasize the importance of measurable competencies as a foundation for employment and social inclusion. It is widely used in vocational education and training (VET), adult learning, and higher education to assess how well individuals are being prepared for real-world challenges. Within the Phygital Hub, the Skills Proficiency Rate is particularly relevant for monitoring progress among participants from disadvantaged backgrounds. It helps determine how successfully the training supports the development of digital literacy, sector-specific knowledge, communication, critical thinking, and teamwork—skills that are essential for professional growth and long-term employability. To measure this indicator, the program uses a structured three-phase process. First, participants complete an initial skills assessment, which establishes a baseline using a mix of self-evaluations and formal tests. Throughout the training journey, progress is tracked through ongoing assessments, such as practical assignments, quizzes, and collaborative projects. These are supported by the Learning Management System (LMS), which collects real-time data on individual performance. At the end of the program, a final evaluation determines whether participants have reached the expected proficiency level. This assessment is based on clearly defined competency frameworks, aligned with current labor market standards. Monitoring the Skills Proficiency Rate allows the Phygital Hub to understand whether its training strategies are effective. If results show consistently high scores, it confirms that learners are acquiring the knowledge and capabilities needed to succeed in professional settings. On the other hand, lower proficiency levels can highlight areas where the curriculum needs to be adjusted—either to reinforce certain skills or to provide more targeted support. This indicator also plays a role in keeping the program aligned with labor market needs. By closely tracking how participants perform on key competencies, the Phygital Hub can ensure that training content remains relevant and responsive to industry trends. It also helps identify emerging skill gaps and adjust learning pathways accordingly. For the initial implementation phase, the Phygital Hub has set a target proficiency rate of 85 percent. This means that at least 85 percent of participants should reach the required competency level in both technical and soft skills by the end of the training. This benchmark will be regularly reviewed, drawing on data from participant feedback and instructional evaluations, to ensure it remains realistic and impactful as the program evolves.

Employment rate post-training

The Employment Rate Post-Training measures the percentage of program graduates who secure employment within a specific period after completing the training. This KPI serves as an essential measure of the effectiveness of the training program in preparing individuals for the labor market. A high employment rate indicates that the program is successful in equipping participants with the skills and competencies needed to meet employer demands and improve their economic self-sufficiency.

$$\text{Employment Rate Post-Training} = \frac{\text{Number of program graduates who are employed}}{\text{Total number of graduates}} \times 100$$

The Employment Rate Post-Training is a key indicator used to evaluate how well the Phygital Hub prepares participants to enter the labor market. A strong employment outcome suggests that the training is not only relevant but also effective in enabling individuals—particularly those from disadvantaged backgrounds—to secure stable and meaningful work.

This indicator aligns with international standards for evaluating workforce development programs, including methodologies from the OECD, the International Labour Organization (ILO, 2020), and the World Bank. It is widely recognized in vocational education, higher education, and lifelong learning settings as a benchmark for assessing the real-world impact of training initiatives on employability (OECD, 2013). By measuring the share of graduates who find employment within a defined period, the KPI offers a clear and practical lens through which to assess the program's alignment with labor market needs.

In the context of the Phygital Hub, this KPI will be measured through a combination of follow-up surveys, employer feedback, and digital tracking. Graduates will be contacted at set intervals—typically six and twelve months after completing the program—to gather information about their employment status and career progression. Additionally, the Hub will collaborate with local businesses to obtain qualitative and quantitative feedback on the skills and readiness of its alumni. This information will be supplemented by self-reporting features integrated into the Learning Management System (LMS), where participants can update their employment status and reflect on how their training has supported their transition into work. The data collected through this KPI will serve multiple purposes. First, it will help assess the overall effectiveness of the program in supporting job placement. A high employment rate signals that the curriculum is well-designed, labor-market-aligned, and responsive to employer expectations. If the rate is lower than anticipated, it may prompt the introduction of additional support services such as career counseling, job search assistance, or partnerships for internships and apprenticeships.

Second, this indicator helps track whether the program remains in step with evolving labor market dynamics. If employment outcomes are uneven across different participant groups or sectors, this could reveal underlying barriers—such as skills mismatches, limited local opportunities, or systemic inequalities—that require tailored interventions. For the initial implementation phase, the Phygital Hub has set a target of achieving a 70% employment rate among its graduates within six months of program completion. This benchmark will be monitored closely and adjusted based on real-time feedback, longitudinal data, and ongoing consultation with employers and participants. By anchoring this KPI in both international standards and local realities, the Hub aims to ensure that its impact goes beyond education and translates into tangible, long-term economic opportunities.

Satisfaction and Engagement Index

The Satisfaction and Engagement Index measures the level of overall satisfaction of participants with the training program, alongside their engagement and active involvement in the learning process. It is calculated based on a combination of quantitative ratings (similar to NPS) and qualitative feedback from participants, assessing their perception of the program's relevance, quality, and impact on their personal and professional development.

$$\text{Satisfaction and Engagement Index} = \left(\frac{\text{Sum of satisfaction scores}}{\text{Total number of participants}} \times 100 \right) + \left(\frac{\text{Sum of engagement scores}}{\text{Total number of participants}} \times 100 \right)$$

Where satisfaction score is based on a 1-5 scale (1 = very dissatisfied, 5 = very satisfied) and Engagement score measures the participant's level of active involvement in the course, based on both qualitative and quantitative data.

The Employment Rate Post-Training is a key indicator used to evaluate how well the Phygital Hub prepares participants to enter the labor market. A strong employment outcome suggests that the training

is not only relevant but also effective in enabling individuals—particularly those from disadvantaged backgrounds—to secure stable and meaningful work.

This indicator aligns with international standards for evaluating workforce development programs, including methodologies from the OECD, the International Labour Organization (ILO, 2020), and the World Bank. It is widely recognized in vocational education, higher education, and lifelong learning settings as a benchmark for assessing the real-world impact of training initiatives on employability (OECD, 2013). By measuring the share of graduates who find employment within a defined period, the KPI offers a clear and practical lens through which to assess the program's alignment with labor market needs.

In the context of the Phygital Hub, this KPI will be measured through a combination of follow-up surveys, employer feedback, and digital tracking. Graduates will be contacted at set intervals—typically six and twelve months after completing the program—to gather information about their employment status and career progression. Additionally, the Hub will collaborate with local businesses to obtain qualitative and quantitative feedback on the skills and readiness of its alumni. This information will be supplemented by self-reporting features integrated into the Learning Management System (LMS), where participants can update their employment status and reflect on how their training has supported their transition into work. The data collected through this KPI will serve multiple purposes. First, it will help assess the overall effectiveness of the program in supporting job placement. A high employment rate signals that the curriculum is well-designed, labor-market-aligned, and responsive to employer expectations. If the rate is lower than anticipated, it may prompt the introduction of additional support services such as career counseling, job search assistance, or partnerships for internships and apprenticeships.

Second, this indicator helps track whether the program remains in step with evolving labor market dynamics. If employment outcomes are uneven across different participant groups or sectors, this could reveal underlying barriers—such as skills mismatches, limited local opportunities, or systemic inequalities—that require tailored interventions. For the initial implementation phase, the Phygital Hub has set a target of achieving a 70% employment rate among its graduates within six months of program completion. This benchmark will be monitored closely and adjusted based on real-time feedback, longitudinal data, and ongoing consultation with employers and participants. By anchoring this KPI in both international standards and local realities, the Hub aims to ensure that its impact goes beyond education and translates into tangible, long-term economic opportunities.

Sustainability in Resource Usage Index

The Sustainability in Resource Usage Index measures the extent to which sustainable resources, materials, and technologies are utilized in the operations and educational practices within the Phygital Hub. This includes the adoption of eco-friendly materials, energy-efficient technologies, and sustainable operational practices. The index aims to assess the environmental impact of the program, tracking the use of resources like electricity, water, and physical materials in the learning environment (both digital and physical), ensuring that the Phygital Hub adheres to sustainable development goals (SDGs).

$$\text{Sustainability in Resource Usage Index} = \left(\frac{\text{Sustainable materials used}}{\text{Total materials used}} \right) \times 100 + \left(\frac{\text{Energy-efficient technologies used}}{\text{Total technologies used}} \right) \times 100$$

The Sustainability in Resource Usage Index is designed to measure how effectively the Phygital Hub integrates environmentally responsible practices into its operations. Specifically, this KPI tracks the use of sustainable materials—such as recycled or eco-certified products—and energy-efficient technologies, both within physical learning spaces and in digital infrastructures. It serves as an indicator of how well the program reduces its ecological footprint while promoting awareness of sustainability among participants. A high index score signals that the Hub is successfully embedding sustainable practices into its everyday activities. This includes not only adopting green technologies but also fostering a culture of environmental responsibility among learners and staff. In doing so, the KPI supports the

project's broader commitment to aligning with internationally recognized sustainability standards, such as the ISO 14001 environmental management framework (ISO, 2015) and UNESCO's education objectives for sustainable development (UNESCO, 2017). This type of indicator is increasingly used in both the public and private sectors to evaluate an organization's environmental performance. It is especially relevant in educational settings, where sustainability is both a value to be taught and a practice to be demonstrated. For the Phygital Hub, the Index functions as both an internal accountability tool and an external signal of the project's dedication to responsible consumption, consistent with SDG 12 of the United Nations Sustainable Development Goals. To calculate the index, several data points will be collected and reviewed. First, a detailed inventory will be compiled of all materials and technologies used across the program's physical and digital environments. This will include workshop supplies, classroom infrastructure, hardware, and energy consumption associated with online platforms. Next, the Hub will monitor its electricity and resource usage to determine whether its tools and systems meet current efficiency standards. Procurement practices will also be reviewed to ensure that products and services are sourced from suppliers who follow sustainable production methods. This includes considering product certifications, carbon footprint assessments, and the recyclability of materials. In addition, waste management policies will be evaluated to confirm that the Hub actively recycles and minimizes waste in both physical facilities and digital operations. The insights gained from this KPI are threefold. First, they offer a clear picture of the Hub's environmental impact and highlight areas where operational improvements can reduce energy consumption or material waste.

Second, they ensure the project remains in alignment with sustainability frameworks at both the European and international levels. Third, and perhaps most importantly, the KPI reinforces the Hub's educational mission by modeling responsible behavior and encouraging learners to incorporate sustainability into their own professional and personal practices.

For its first year of implementation, the Phygital Hub has set a target of achieving at least 70% compliance with sustainability criteria. This means that the majority of materials and technologies used should meet recognized standards for environmental performance. This threshold will be revisited annually, allowing the Hub to monitor progress and make targeted improvements over time.

In summary, the use of KPIs within the Phygital Hub is central to its ability to deliver impact, remain accountable, and promote long-term transformation. These indicators not only track performance but also serve as a foundation for continuous improvement, helping the Hub respond to change while staying aligned with its core values. From access and equity to employability and sustainability, each KPI reflects a strategic priority of Deliverable 4 and contributes to a broader vision of inclusive, adaptive, and forward-looking education. As the Hub evolves, these metrics will continue to guide decision-making, sharpen program design, and support meaningful social innovation across communities.

Figure 38: Summary Table of KPIs

KPI	Description	Formula	Target Value
Participation Rate	Measures access and engagement of disadvantaged groups.	$(N_{\text{participants_disadvantaged}} / N_{\text{total_invited}}) \times 100$	$\geq 30\%$
Completion Rate	Proportion of users completing training programmes.	$(N_{\text{completed}} / N_{\text{enrolled}}) \times 100$	$\geq 80\%$
Skills Proficiency Rate	Percentage of users achieving skill benchmarks.	$(N_{\text{achieving_target}} / N_{\text{total_tested}}) \times 100$	$\geq 85\%$
Employment Rate Post-Training	Employment within 6 months post-programme.	$(N_{\text{employed}} / N_{\text{graduates}}) \times 100$	$\geq 70\%$
Satisfaction and Engagement Index	Measures learner satisfaction and activity.	$(\Sigma (\text{Satisfaction} + \text{Engagement scores}) / N_{\text{responses}}) \times 100$	$\geq 80\%$
Sustainability in Resource Usage	Assesses eco-responsible operational practices.	$(N_{\text{sustainable_resources}} / N_{\text{total_resources}}) \times 100$	$\geq 70\%$

4.5. Insights and activities to be adopted on field

4.5.1. BAC (Com. Sant'Egidio): Business Relationships and Immigrant Development Generating Ecosystems Sustainably (BRIDGES)

The goal of the research presented in paragraph 2.4, which will take shape over time, is to analyze foreign entrepreneurship from both an economic and a social perspective, encompassing all the aspects that define it. A key component of the research tools is administering a questionnaire to foreign entrepreneurs in the local area. At this initial phase of the study, quantitative data prove especially useful because they allow for precise measurement and numerical analysis of data on the characteristics of immigrant-run businesses in the cities of Catania and Messina, yielding objective and generalizable results. It is important to note that, at this early stage of the research, the way the questions are formulated is strictly provisional. Based on the outcomes of the first set of questionnaires, both certain questions and their placement may be modified to ensure better clarity and greater alignment with the phenomenon under study.

It is important to note that the research will not rely solely on the questionnaire —or, in other words, a quantitative approach. In a subsequent phase, interviews will be conducted (qualitative approach) using an outline that is not strictly defined in relation to the questionnaire items. Qualitative research is essential for achieving the project's objectives, as it allows for an in-depth understanding of participants' perceptions, motivations, and experiences.

At this stage, the researcher poses broad questions to the interviewees, covering specific and similar topics for all participants. This is intentional; the interview aims to explore how various entities operate in this field, the nature of their interventions, and their views on foreign-owned businesses. The goal and outcome of the qualitative research is to obtain a rich and nuanced perspective on the phenomenon of foreign entrepreneurship. The first two interviews conducted as part of the qualitative investigation were with the Chambers of Commerce in Catania and Messina, respectively.

The questions addressed to the two chambers of commerce share the following objectives:

- Understanding the main services for which foreign-owned businesses turn to the chamber of commerce.
- Identifying how mandatory procedures are managed and performed (electronically, with the help of specialized consultants, or through intermediaries).
- Exploring whether it is possible to adapt all mandatory procedures linguistically in order to facilitate access to information and comprehension for foreign entrepreneurs.
- Understanding perceptions of women's entrepreneurship within foreign-owned businesses.
- Determining whether any training courses or projects specifically dedicated to foreign entrepreneurs have been launched, and what their goals might be.
- Learning about any specific requests or demands foreign entrepreneurs direct to the chambers of commerce.

The services provided by both chambers of commerce apply equally to both foreign and Italian entrepreneurship, with no distinction. However, as emerges from both interviews, growing attention is being paid to foreign entrepreneurs, given their limited language skills and their unfamiliarity with the Italian bureaucratic system, which differs from that in their countries of origin. Services and bureaucratic processes are carried out and managed electronically, requiring at least a basic level of digital competence. This procedure highlights a series of obstacles for foreign entrepreneurs.

One tool introduced by the Catania Chamber of Commerce to address low digital literacy is a dedicated email account for anyone who intends to start or manage a business and is struggling to understand the procedure due to issues related to updates or required forms. This email account enables quick and comprehensive responses. Meanwhile, the Messina Chamber of Commerce offers a digital help desk – “Sportello Nuova Imprenditorialità” — three times a week to assist and support anyone looking to become an entrepreneur, providing all necessary information. This service does not focus solely on calls for funding or financial support; it also provides true tutoring up to the creation of a business plan, starting from the basic idea and leading to the actual development of a business project.

In addition to the SNI help desk, the Messina Chamber of Commerce organizes one-to-one meetings so that foreign entrepreneurs can receive personalized guidance for both bureaucratic procedures and language support. Tutoring for foreign entrepreneurs is comprehensive, covering digital support as well.

As noted earlier, one major obstacle for foreign entrepreneurs is their familiarity with digital tools, which complicates the completion of all legally required procedures, as these are typically conducted online. By administering a questionnaire designed to assess the level of digital maturity, entrepreneurs receive guidance aimed at enhancing their digital competencies. This support is not only personal but also financial.

For example, vouchers (up to € 5,000) are offered for purchasing equipment and training. Regarding digital training, one interviewee stated (in direct quotation) that “it is extremely important because it has now become unavoidable.” In this context, many foreign entrepreneurs consult “intermediaries” such as accountants, tax assistance centers (CAF), and other authorized operators to help navigate organizational requirements—particularly online procedures. One shortcoming, at least in the Catania context, is that trade associations offer less support, in contrast to volunteer organizations, which often accompany foreign entrepreneurs throughout the entire process.

Both chambers of commerce share the goal of achieving, in a short time, a level of interaction that requires neither intermediaries nor complex digital solutions. A recurring challenge, as previously discussed, is the language barrier. According to the Catania Chamber of Commerce, there is no definitive “solution” in this area. The public documentation is governed by ministerial decrees, and translating the texts into the main foreign languages could pose significant risks—one of which is oversimplifying or distorting the information.

On the other hand, any translation endeavor would require substantial legal backing from the ministry or formal agreements with other countries. A possible alternative is to strengthen the language skills of chamber employees, enabling them to provide better assistance to foreign entrepreneurs and streamline the relevant procedures.

As for foreign women’s entrepreneurship, the two chambers offer contrasting insights. At the Catania Chamber of Commerce, there are some “involvement experiences,” though these do not appear to be linked directly to fully developed entrepreneurial endeavors. The [Catania] Chamber of Commerce’s experience is limited to financing social activities that included projects with a significant female presence. By contrast, the [Messina] Chamber of Commerce’s experience with foreign female entrepreneurship is entirely different. It emerges, in fact, that foreign women’s entrepreneurship is growing, especially in the commerce and craft sectors.

In Messina, there is a committee—CIF—that focuses exclusively on women’s businesses, particularly those run by foreign nationals. Regarding women’s entrepreneurship, for two years now, financial education courses have been offered because, as stated in the interview, “knowledge of one’s company accounts, credit instruments, fintech, etc. is a tool of freedom and consolidation for the business.” In addition to these training courses, webinars on financial education are also held. The goal is to help foreign women—especially those who are already entrepreneurs—gain greater awareness of their entrepreneurial capacities and increase their confidence.

Based on what has emerged, both chambers have initiated projects for foreign-owned businesses and will continue to do so in the future. The Chamber of Commerce in Catania, in collaboration with a Salesian inspired association, has made staff available to provide afternoon lessons to a group of young North Africans interested in starting a business. There have been other, less formal experiences as well. On various occasions, the Chamber of Commerce has made its offices available for guided tours to explain the different roles of its officials. It has also contributed (in terms of financial support) to some initiatives led mostly by Catholic associations, including the Sant’Egidio Community.

One of the projects implemented by the Messina Chamber of Commerce is an interpersonal roundtable involving all the CPOs (Equal Opportunity Committees). Participants included the director of the National Social Security Institute (INPS), the director of the Italian Revenue Agency, and representatives from the Employment Center dealing with job opportunities. Together, they established a tangible network between institutions and the business world. Their goal was to plan all activities for

2025 and to reward and recognize all the businesses that transformed their ideas into fully fledged enterprises.

Another project is the launch of a committee for social entrepreneurship, partnering with volunteer organizations that act as intermediaries.

Overall, the analysis highlights how foreign entrepreneurship has become a significant catalyst for socioeconomic growth in Italy, despite the cultural, linguistic, and institutional barriers that migrant entrepreneurs often encounter. Quantitative investigations reveal the extent and characteristics of this phenomenon, while qualitative studies illuminate the specific hurdles entrepreneurs face—ranging from financial inclusion and digital literacy to regulatory complexities and linguistic difficulties.

These findings underscore the importance of targeted policies and collaborative support from local institutions, volunteer organizations, and professional networks.

Moving forward, the next phases of the project will focus on refining the research tools to capture an even more nuanced picture of foreign-owned businesses. By collecting data more extensively, the study aims to deepen our understanding of the challenges and opportunities in migrant entrepreneurship, ultimately informing policies and interventions that promote inclusive and sustainable growth in the regions where these businesses operate.

4.5.2. BAC (Unisi): Confiscated Assets Reuse through Entrepreneurial Startups (CARES)

Inside the project presented in paragraph 2.5, CARES team is developing an experimental design to determine whether the *best practices* identified through interviews are indeed effective and can be scaled up for broader adoption.

Experimental Approach

To conduct this study, we will randomly select a group of social cooperatives managing confiscated assets (*treatment group*) and offer their managers a crash course on best managerial practices. We will evaluate the impact of this course by comparing outcomes with a *control group* of social cooperatives that also manage confiscated assets but will not receive the training.

Course Structure and Content

The crash course combines internationally recognized training programs, such as the ILO's Start and Improve Your Business (SIYB) training (e.g., Davies et al., 2024), with the specific needs of social cooperatives (ETS) managing confiscated assets. These needs emerged from in-depth interviews. The course is divided into four key topics:

1. Planning

- Strategic business planning (short- and long-term goals);
- Operational planning (daily activities and resource allocation);
- Risk assessment (managing financial, legal, and operational risks);
- Performance measurement (establishing key performance indicators).

2. Accounting

- Basic financial accounting (balance sheets, income statements, and cash flow management);
- Budgeting and forecasting (financial projections, resource allocation);
- Cost-benefit analysis (evaluating funding and expenses).

3. Funding Sources

- Overview of funding opportunities (public/private grants, impact investing, crowdfunding);
- Writing successful funding proposals (best practices for compelling applications);

- Revenue diversification (multiple income streams to minimize funding risks);
- Public-private partnerships (collaborating with institutions and corporations).

4. Communication and Collaboration

- Internal communication (leadership strategies, team coordination, conflict resolution);
- Stakeholder engagement (relationship-building with donors, institutions, and communities);
- Social media and digital marketing (increasing visibility and outreach);
- Networking and collaboration (forming strategic partnerships to maximize impact);

Teaching Approach

The teaching methodology is designed to ensure both conceptual understanding and hands-on experience (McKenzie, 2020):

1. Theoretical Foundations

- Introduction to core concepts and frameworks;
- Overview of best practices based on international standards;
- Explanation of real-world applications bridging theory and practice.

2. Practical Implementation Tools

- Hands-on exercises applying key concepts to real-life scenarios;
- Step-by-step guidance on operationalizing best practices;
- Ready-to-use templates and tools.

3. Motivational and Case Study Videos

- Success stories from social cooperatives managing confiscated assets;
- Personal accounts illustrating how best managerial practices enhance outcomes;
- Insights on addressing unique challenges linked to confiscated assets

Course Format

Compatibly with our budget constraints, we are planning to cover each topic in a two-hour session, divided as follows:

- 90 minutes of lecture (core concepts, tools and best practices);
- 30 minutes of exercises (practical application and scenario-based activities).

Participants will receive a financial endowment for attending the sessions and completing exercises, with additional bonuses for correct answers.

Mentorship

Following the course, cooperatives will benefit from one year of mentorship, during which they will receive practical, tailored solutions to emerging managerial challenges (Camuffo et al., 2020). We are currently exploring possibilities to oversee the practical implementation of both the crash course and the mentorship program.

Generalization and Expansion of the Study

To determine if social cooperatives managing confiscated assets face unique constraints compared to other social cooperatives, we plan to replicate the experiment with a group of social cooperatives not managing confiscated assets. These organizations will be chosen via stratified sampling, using the characteristics of those of the cooperatives in the initial study identified through the interviews.

Evaluation Methodology

We will assess the effectiveness of the crash course using two complementary methods:

1. Lab-in-the-Field Experiment

- Both the treatment and control groups will complete a set of structured vignettes to measure the knowledge gained through the crash course.
- Vignette Methodology: Participants respond to realistic, scenario-based challenges informed by interview data (Aguinis and Bradley, 2014).

2. Analysis of Economic and Social Sustainability Data

- We will analyze the financial and social reports of social cooperatives in both the control and treatment groups during the year following the crash course to assess its impact on economic and social sustainability (Campos et al., 2017).

To achieve this, we will use the following metrics:

- Economic Sustainability (derived from economic balance sheets):
 - Gross and net operative income;
 - Debt ratio;
 - Operational costs relative to public funding.
- Social Sustainability (derived from social balance sheets):
 - Community engagement;
 - Partnerships and collaborations;
 - Employee satisfaction and well-being;
 - Social innovation.

4.5.3. BAC (Unisa): Designing new Entrepreneurship Education through venture Philanthropy Effectiveness Rethinking (DEEPER)

4.5.3.1. Measuring Social Impact: From the Value Chain to International Assessment Tools.

According to Zamagni et al. (2015), social impact evaluation is an important instrument that allows understanding whether implemented activities have been capable of generating change, and it can also serve as a useful tool for reporting and organizational purposes.

According to Bonaga (2017), evaluation theory identifies two main objectives for evaluation: accountability and learning. Accountability evaluation aims to verify compliance with agreements, and it is usually used to demonstrate to funders how their allocated resources have been utilized.

In contrast, formative evaluation aims to promote organizational learning regarding implemented interventions, based on their successes and failures.

These two evaluation objectives can be understood on two distinct levels, depending on the objectives set by those requesting the evaluation.

If the goal is to measure the outcomes achieved against the project's original objectives, the evaluation will be accountability-oriented.

On the other hand, if the aim is to examine the causal relationships between actions and outcomes, the evaluation should move towards the formative dimension.

The formative evaluation aims to understand the reasons behind the success or failure of programs, thus focusing on explaining the effects to comprehend precisely what happened, ensuring the process can be replicated in future interventions.

For a proper impact evaluation, it is essential not to stop only at the first level but also to include this second level of analysis (Bonaga, 2017).

According to Bonaga (2017), social impact evaluation can also serve as a valuable tool to enhance internal organizational control, since it communicates to senior management whether ongoing programs

are effective and efficient in terms of both results and costs. This allows the organization to introduce corrective measures, if necessary, steering implemented interventions back toward their intended goals.

For internal control purposes, identifying metrics and tools capable of reporting even in shorter intervals is essential, precisely to achieve desired impacts over the long term (Bonaga, 2017; Hehenberger et al., 2015).

During this phase, it is therefore necessary to select tools that compare intermediate results with the established objectives, both to highlight any anomalies and to monitor ongoing progress (Bonaga, 2017; Hehenberger et al., 2015).

Regarding external communication, Bonaga (2017) argues that social impact evaluation can be viewed as an accountability tool, designed to externally demonstrate the results obtained.

In the logic of social impact evaluation, accountability is especially fundamental for reporting achievements to investors. For investors, in fact, social impact evaluation can help verify if the funds allocated to social-purpose organizations have been used efficiently.

Furthermore, potential future investors can utilize social impact evaluations to observe target companies' behaviors, informing their decisions when selecting investments for their portfolios (Hehenberger et al., 2015; Perrini & Vurro, 2013).

In this evaluation process, stakeholder involvement is crucial due to the inherent objective of accountability (Bonaga, 2017).

Accountability should indeed serve as the guiding principle for evaluations, as it constitutes an indispensable instrument for stakeholder engagement, ensuring information accessibility and usability, and facilitating strategic processes guided by broad stakeholder participation (Bonaga, 2017).

Essentially, an organization striving to generate an impact through its activities must identify a logical framework capable of clearly describing the process leading to the desired change.

This framework can be identified as the social impact value chain.

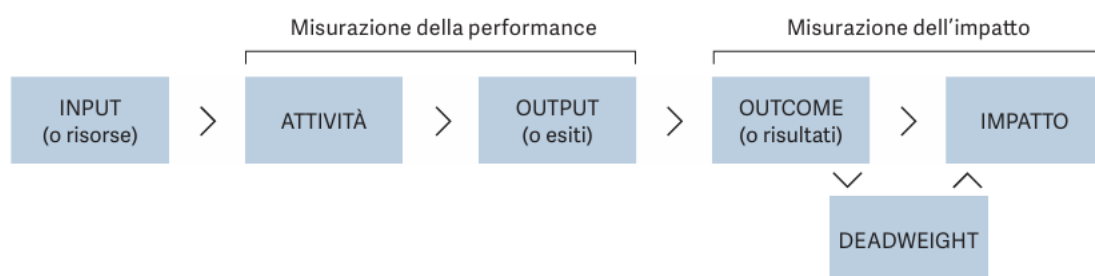
It consists of a graphical representation linking the various conditions necessary to achieve social impact (GECES, 2015; Hehenberger et al., 2015; Impronta Etica, 2016; Social Impact Investment Task Force, 2014; Zamagni et al., 2015).

Through this chain, it is possible to identify the process that leads to the definition and generation of social impacts. It begins by defining inputs, activities, and outputs, eventually reaching outcomes and impacts. Through activities and outputs, performance can be measured, whereas outcomes and impacts enable the measurement of overall impact (Hehenberger et al., 2015; Social Impact Investment Task Force, 2014; Zamagni et al., 2015).

At the European and global levels, numerous methodologies and tools currently exist for measuring outputs, outcomes, and social impact (Figure 39).

To understand the differences and similarities among these diverse methodologies and tools, it is first necessary to clearly define inputs, activities, outputs, outcomes, and impacts, from which various indicator sets can then be derived.

Figure 39: Social Impact Value Chain



More specifically, according to Zamagni et al. (2015) and Zambelli, Minto, and Pascale (2023):

- Inputs consist of all resources used by the organization to implement a program or activity. They

may include financial resources, human resources (both paid staff and volunteers), materials, and equipment required for the development of the program or activity. Inputs represent all costs and investments necessary for the activation of the program. Identifying inputs is crucial to comparing the resources invested against the social outcomes achieved, thus evaluating the program's effectiveness.

- Activities represent all concrete actions and tasks undertaken to achieve the final objective. They illustrate how the organization utilized available resources to implement the program. A clear definition of activities allows for precise attribution of resources to each specific program.
- Outputs represent the immediate results produced by the organization's implemented activities. These may take the form of products, capital goods, or services. Outputs are typically visible in the short term, as they can be verified either concurrently with the program's implementation or immediately after its conclusion. In most cases, these results are numerical and measurable through quantitative indicators assessing the quantity of goods or services produced by the organization or the number of beneficiaries involved. These numeric outcomes can also offer a measure of program efficiency, although, given their early-stage timing, they generally do not reflect the program's overall effectiveness. As an example, outputs in social-purpose programs are commonly represented by the number of individuals participating in a specific project, program, or activity carried out by the organization.
- Outcomes refer to all effects or changes, positive and negative, achieved or anticipated over the long term (approximately 3 to 10 years) as a result of the program's outputs. Outcomes have direct effects on the lives of program beneficiaries and can also have indirect effects, influencing not only the intended recipients but also others in their surroundings (for example, in a rehabilitation program for individuals suffering from severe addictions, indirect effects may be observable among beneficiaries' family members). Thus, outcomes represent the benefits and effects realized through the project's outputs. They may also be unintended, as they were not anticipated during the program's initial planning. Given their observation over a more extended period, outcomes can also be influenced by external factors, and therefore may not always be directly attributable solely to the organization's activities. Consequently, the indicators selected to capture outcomes must take external factors into account and can operate at either the community or organizational/program level. Community-level indicators capture changes in community conditions and overall wellbeing, while organizational/program-level indicators focus on results attributable specifically to the organization's actions.
- Impact is the portion of outcomes entirely attributable to the specific project or program. Impact thus corresponds to the organization's capacity to deliver or generate the specific, desired change defined at the outset of the process. To clearly define impact, it is essential to exclude all effects that would have occurred even without the intervention (known as deadweight), as well as all effects attributable to other concurrent projects. This can be achieved through counterfactual analysis. In order to understand external factors influencing impact, assumptions must be formulated to determine precisely the magnitude of change attributable to the organization's actions. In this case, the chosen indicators are intended to measure the quality and quantity of long-term effects produced by the program or activity, thus describing changes in people's lives and broader community development.

Therefore, the social impact value chain is fundamental for organizations to understand the process leading to the generation of change in the lives of beneficiaries and communities as a whole (Zambelli, Minto & Pascale, 2023).

The logical model underlying the social impact value chain is known as the "Theory of Change," which explains the causal link between activities, results, and impacts.

To ensure the achievement of predetermined social impact objectives, social-purpose organizations should define their social impact value chain and theory of change before identifying the necessary resources and implementing their programs.

These two steps are critical for understanding how to generate impact and subsequently determining the

appropriate ways to measure it (Hehenberger et al., 2015; Impronta Etica, 2016).

The Theory of Change (ToC) (Weiss, 1995) is a process aimed at creating a measurable description of a social-impact project. Through the joint participation of the organization and key stakeholders, impact objectives are defined, along with the methods and conditions necessary for achieving them and consequently generating the desired change.

Such a model enables organizations to answer the question, "How can we understand if our work is truly making a difference?"

The theory of change ideally connects what an initiative produces (its activities) with the reasoning that leads to achieving the objectives (Centro Studi Lang per la Filantropia Strategica, 2017).

When conducted effectively, the theory of change process guides an organization's actions in determining how the necessary activities for achieving impact objectives will be implemented.

It also clarifies activities to participants involved in their execution and key stakeholders. Stakeholder involvement through engagement and co-design helps avoid potential self-referential behavior (Mayne, 2017).

Moreover, the theory of change lays the groundwork for future social impact evaluation. Through defining the ToC, organizations can begin collecting necessary evaluation data from the outset. Knowing ex-ante impact objectives allows organizations to identify and collect all the necessary information, ensuring that impact evaluation is as reliable as possible while also reducing potential ex-post data collection costs.

The approach begins from the last step of the social impact chain—identifying the impact(s) desired—and then works backward to determine the conditions required to achieve these impact objectives (Centro Studi Lang per la Filantropia Strategica, 2017).

By developing a theory of change, organizations begin from the desired change, defining impact objectives, and can subsequently learn how to combine the various conditions and factors required for their achievement. Thus, it is important to understand causal links between activities, results, and impacts in order to evaluate necessary resources and activities for meeting ultimate goals (Centro Studi Lang per la Filantropia Strategica, 2017; Zamagni et al., 2015).

For improved monitoring, multiple intermediate outcomes are defined and classified as early outcomes, intermediate outcomes, and final outcomes based on their progress stage and the timing required for measurement.

Mapping these outcomes creates an "outcome chain," enabling organizations to understand the changes generated throughout the implementation process.

This outcome mapping also provides a theoretical framework useful for assessing whether the project is achieving the expected results or if it needs adjustments or improvements (Perrini & Vurro, 2013; Zamagni et al., 2015).

This mapping further aids in planning and preparing for the final social impact evaluation (Centro Studi Lang per la Filantropia Strategica, 2017).

The theory of change can be highly beneficial for organizations embarking on evaluation, as it allows reformulating their strategy with a precise focus on objectives, identifying causal links and different stakeholder perspectives.

This facilitates a clear understanding of which activities must be implemented to achieve desired impact objectives (Zamagni et al., 2015). Furthermore, it enables organizations to better define future programs, starting directly from the impacts they wish to generate rather than from a pre-established program.

For the theory of change to effectively benefit organizational programs, two additional essential conditions must be considered: assumptions and enablers (Weiss, 1995).

Assumptions represent the conditions necessary for carrying out activities (Weiss, 1995), while enablers are actors who influence the process and should thus be mapped and involved in activities (Centro Studi Lang per la Filantropia Strategica, 2017; Mayne, 2017).

The focus, therefore, should shift towards explaining "how" activities are conducted rather than "what" activities are performed, highlighting the outcomes and changes generated, as the actions of social organizations are meaningful only if they produce genuine change (Zamagni et al., 2015).

To perform a social impact evaluation, it is essential that organizations outline and follow specific phases required to effectively conduct the evaluation. To guide organizations through the process of generating change, guidelines have been developed for following these phases, ensuring objectives are met (GECES, 2015; Hehenberger et al., 2015; Impronta Etica, 2016; Social Impact Investment Task Force, 2014; Zamagni et al., 2015).

For organizations, adhering to these phases is critical, as they precisely define the evaluation process, ensuring efficiency. By following this pathway step-by-step, social-purpose organizations can better understand their actions and recognize the many facets characterizing their operations.

As a learning tool, social impact evaluation enables organizations to understand their activities, thereby allowing successful replication in future projects (Bonaga, 2017; Hehenberger et al., 2015).

The literature offers various proposals regarding phases for social impact evaluation. Despite differences in the number and specifics of the phases, all share common elements essential for an effective evaluation.

Two examples of such shared elements include stakeholder involvement and the importance of communicating results.

According to Hehenberger et al. (2015), the phases for social impact evaluation are:

1. Setting objectives;
2. Stakeholder analysis and mapping;
3. Measuring results;
4. Verifying and evaluating impact;
5. Monitoring and reporting.

In the first phase, organizations must analyze and identify objectives for all parties involved in the evaluation process. Beyond recipients, actors involved in implementing the service—such as staff, volunteers, and management—must be identified, clarifying their roles and responsibilities to define beneficiaries, outcomes, activities, and the theory of change.

The second phase aims to identify stakeholders involved, directly or indirectly, at various levels in the project. Mapping stakeholders clarifies their contributions and importance during evaluation, leveraging their direct feedback quantitatively (through surveys) and qualitatively (through personal narratives).

In the third phase, following goal setting and stakeholder mapping, organizations must measure achieved results to assess what has been produced and generated. Indicators are developed to clearly demonstrate social impact both during implementation and post-project.

The fourth phase involves evaluating whether goals have genuinely produced meaningful results for stakeholders, providing measurable benefits that improve quality of life. This phase must transparently demonstrate results and integrate continuous organizational learning and improvement.

The final phase involves monitoring and reporting. Results should be communicated transparently to both internal and external audiences through clear reports accessible to all, highlighting achieved results and continuously guiding organizational improvement.

These proposed phases exemplify an effective social impact evaluation process, though alternative models, such as those by Impronta Etica with SCS Consulting or the Social Impact Investment Task Force, share core elements: goal-setting, stakeholder mapping, impact measurement, appropriate indicator selection, and transparent reporting.

Ultimately, the organization must select the evaluation approach most suited to its needs, keeping in mind that these common points are crucial for conducting meaningful and effective evaluations.

In addition to this, there are other equally valuable approaches, such as the one proposed by Impronta Etica in collaboration with SCS Consulting (Impronta Etica, 2016), and that of the Social Impact Investment Task Force established within the G8 framework (Social Impact Investment Task Force, 2014).

The approach developed by Impronta Etica together with SCS Consulting outlines six phases, which are nonetheless reminiscent of those proposed by Hehenberger et al. (2015). These phases are:

1. Definition of the scope of analysis;

2. Stakeholder mapping and engagement;
3. Understanding the change process;
4. Measurement and selection of indicators;
5. Impact evaluation: attribution;
6. Communication of results and learning.

The Social Impact Investment Task Force's approach, established within the G8 context, instead outlines four phases, presented in a more general manner than the two previously mentioned models, but still delineating a useful framework for evaluation. These phases are:

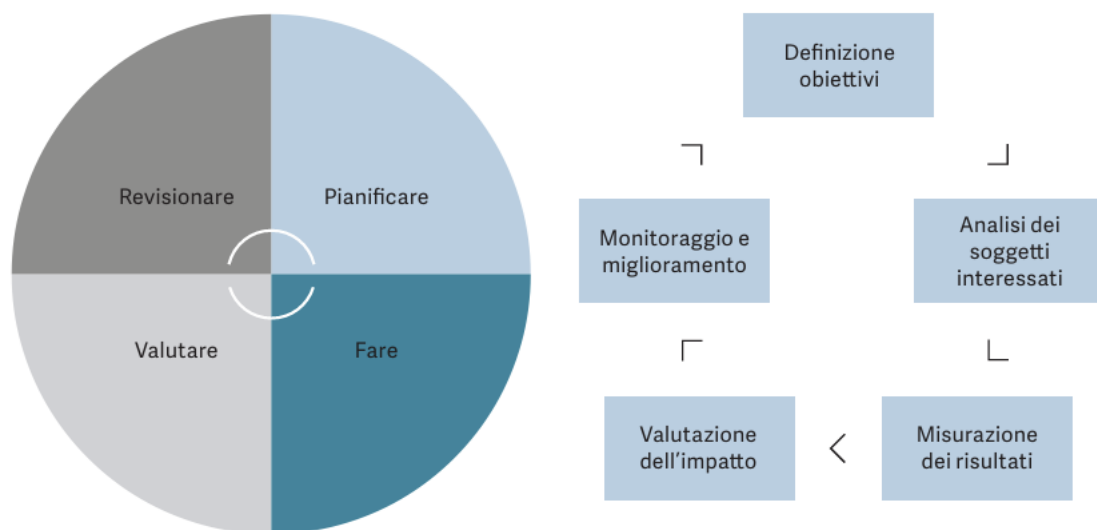
1. Plan the desired impact and determine how to achieve it;
2. Do—that is, implement the impact;
3. Assess the impact achieved;
4. Review the results and identify areas for improvement.

It is therefore up to the organization, or those responsible for conducting the evaluation on its behalf, to identify the process that best fits its needs.

Nevertheless, all three proposals share a number of common elements, which can be identified in: the definition of objectives and scope, stakeholder mapping, impact measurement and the selection of appropriate measurement tools, and finally, communication and reporting.

These elements are thus essential to any social impact evaluation process, ensuring that it proves useful for all parties involved (Figure 40).

Figure 40: Impact measurement process models (Zamagni et al., 2015)



Once the results have been identified, it becomes necessary to collect measurements capable of explaining the outcomes achieved.

The most useful tools for this task are indicators that can synthesize—yet comprehensively express—what has been accomplished in terms of outcomes and impact.

For social-purpose organizations, it is therefore essential to focus on identifying tools and methods that can best support them in demonstrating the social impact they have generated, particularly with a view toward securing dedicated financial capital.

To support social-purpose organizations, it is thus necessary to develop specific financial instruments. Equally essential is the identification of appropriate methods for measuring the impact of social enterprises, to ensure that these instruments are effective and applicable in practice (Bengo et al., 2016; Rawhouser et al., 2017; Social Value, 2012; Zamagni et al., 2015).

For a general overview of the tools and indicators currently available for social impact evaluation,

one can refer to the study by Zamagni et al. (2015), which presents a comprehensive list of such tools, focusing particularly (Figure 41) on:

- The level of measurement: Output (OP), Outcome (OC), Impact (I);
- The type of measurement: Monetary (M), Non-monetary (NM).

Figure 41: Existing international impact measurement tools (Zamagni et al., 2015)

Metodologia / Strumento di misurazione	Livello di misurazione OP = output OC = outcome I = impatto	Misurazione M = monetaria NM = non monetaria	FONTE
BACO ratio (Best Available Charitable Option)	OP + OC + I	M	trasi.foundationcenter.org
CBA (Cost-Benefit Analysis)	OP + OC + I	M	trasi.foundationcenter.org
Comparative Constituency feedback	OP + OC + I	NM	trasi.foundationcenter.org
Compass Index Sustainability assessment	OP + OC + I	M + NM	trasi.foundationcenter.org
CEA (Cost-Effectiveness analysis)	OP + OC	NM	trasi.foundationcenter.org
Expected Return	OP + OC + I	M	trasi.foundationcenter.org
SIRA (Social Investment Risk Assessment)	OP + OC + I	NM	trasi.foundationcenter.org
SROI (Social Return On Investment)	OP + OC	M	trasi.foundationcenter.org
DOTS (Development Outcome Tracking System)	OP + OC	M + NM	trasi.foundationcenter.org
B-impact rating system	OP + OC + I	NM	trasi.foundationcenter.org
Balanced Scorecard	OP + OC + I	NM	svtgroup.net
Dalberg Approach	OP + OC	NM	svtgroup.net
Ecological Footprint	OP + OC + I	NM	trasi.foundationcenter.org
HIP Scorecard & Framework	OP + OC + I	M + NM	svtgroup.net
PPI (Progress Out of Poverty Index)	OP + OC	M + NM	svtgroup.net
PROI (Political Return on Investment)	OP + OC	M + NM	trasi.foundationcenter.org
SIA (Social Impact Assessment)	OP + OC + I	M + NM	svtgroup.net
Base of pyramid impact assessment framework	OP + OC + I	NM	wdi.umich.edu/research/bop/impact-assessment-page

GRI Sustainability Reporting Framework	OP + OC	M	www.globalreporting.org
RCT (Randomized controlled trials)	OC + I	NM	www.sodalitas.it
EVAS (Expanded value added statement)	OP + OC	M	socialeconomyhub.ca/content/social-and-environmental-accounting-expanded-value-added-statement-1
Outcomes star	OC + I	NM	www.outcomesstar.org.uk
Blueprint 1.0	OP + OC	M	trasi.foundationcenter.org
Global Civil society Index	OC + I	M + NM	thirdsectorimpact.eu
LM3 (Local Multiplier 3)	OP + OC	M	www.lm3online.com
Gamma model	OP + OC + I	M	papers.ssrn.com/sol3/papers.cfm?abstract_id=2381129
Ebrahim and Rangan	OP + OC + I	M	www.hbs.edu/faculty/Pages/download.spx?name=CMR5603_07_Ebrahim.pdf
Bagnoli and Megali Model	OP + OC + I	M + NM	nvs.sagepub.com/content/40/1/149.abstract
MIAA (Methodology for Impact Analysis and Assessment)	OP + OC + I	M + NM	www.sibgroup.org.uk/impact/approach/
Public Value Score Card	OP + OC + I	NM	performance.ey.com/wp-content/plugins/download-monitor/download.php?id=728
Performance assessment model for social enterprises	OP + OC + I	NM	article.sciencepublishinggroup.com/pdf/10.11648.j.sjbm.20140201.11.pdf
CARS (CDFI Assessment and Rating System)	OC + I	M + NM	www.missioninvestors.org/news/cdfi-assessment-and-ratings-system-cars-highlighted-american-banker
CIVICUS Civil Society Index (CSI)	OC + I	M + NM	www.civicus.org/csi/
IRIS (Impact Reporting and Investment Standards)	OP + OC	NM	iris.thegiin.org
SRS (Social Reporting Standards)	OP + OC	NM	www.social-reporting-standard.de/en/
SAA (Social Auditing and Audit)	OP + OC	NM	www.socialauditnetwork.org.uk/getting-started/what-is-social-accounting-and-audit/
Logical Framework Approach	OP + OC	NM	www.sswm.info/content/logical-framework-approach
Outcome mapping	OC	NM	www.outcomemapping.ca
SIMPLE (Social impact measurement for local economies)	OC + I	NM	http://1068899683.n263075.test.prositehosting.co.uk/wp-content/uploads/2013/03/SIMPLE-leaflet_Final.pdf

In order to provide a clearer understanding of the various types of methodologies and indicators available, Zambelli et al. (2023), through a detailed analysis, proposed categorizing them into logical groups based on shared characteristics.

To classify the main methodologies and indicators currently available for social impact evaluation, they relied on the categories proposed by Bengo et al. (2016) in their article “Indicators and Metrics for Social Business: A Review of Current Approaches” in which, using the scoping review method, indicators found in the literature are grouped according to common features.

The methodologies and indicators identified are grouped into three main categories, as outlined by Bengo et al. (2016):

- Synthetic measures (or synthetic indicators): This category includes models that lead to the construction of a composite indicator aimed at measuring social value creation.
- Process-based models: This group encompasses models that focus on the "production" process of a social service or product, analyzing the performance of the social enterprise through inputs, outputs, outcomes, and impacts.

- **Dashboards and scorecards:** This category includes models designed to provide an overview of the performance of a social-purpose organization, based on various dimensions that are considered representative of its overall results.

Given the summarizing power of these categories, Zambelli, Minto, and Pascale (2023) decided to adopt them as a classification framework. In addition to the categories already included, they introduced a fourth category derived from Bonaga (2017), namely counterfactual models, and a fifth category that encompasses several models which do not fit neatly into any of the aforementioned categories.

Following their reasoning, the indicators/models used for social impact measurement and evaluation will therefore be divided into the categories presented in the figure 42.

Figure 42: Indicator classifications (Zambelli et al., 2023)

Categories	Indicators
1. Synthetic Indicators	- Social Return On Investment (SROI)
2. Process-based models	- Social Impact Assessment (SIA) - Methodology for Impact Analysis and Assessment (MIIA)
3. Dashboards and scorecards	- Balanced Scorecard
4. Counterfactual models	- Experimental Method
5. Various Indicators	- Iris - GRI Sustainability Reporting Framework

The first group of indicators includes approaches that lead to the creation or calculation of a synthetic indicator or metric aimed at providing a measurement of the overall performance of the social-purpose organization and the social value it creates.

The second group refers to tools that focus on the production process of a social service or product, structuring indicators and metrics around inputs, outputs, outcomes, and impact (Bengo et al., 2016). Originally, these types of tools were used in the public sector to measure the performance of public administrations through the three E's framework—Economy, Efficiency, and Effectiveness—based on the input-output-outcome model.

This model was later adapted and applied to social-purpose organizations by analyzing the process through which an organization's activities lead to outcomes and impacts, and observing how the relationship between activities, outputs, outcomes, and impact unfolds along the social impact value chain (Bengo et al., 2016).

The tools in this category offer guidelines for developing sets of indicators or metrics. Within this category, it is also possible to distinguish between tools focused on identifying performance dimensions and those providing guidelines for selecting or building Key Performance Indicators (KPIs).

In Bengo et al.'s (2016) classification, a distinction is made between tools that include a pre-defined set of indicators and those that do not.

The third category of tools includes dashboards and scorecards. These tools aim to identify sets of metrics and indicators covering various performance dimensions that are considered representative of the social impact achieved by the organization.

Typically, these models align with the organization's objectives and define sets of indicators that cover different performance areas and types. Despite these shared characteristics, the tools in this category vary in several ways (Bengo et al., 2016).

First, they differ based on the criteria used to define performance dimensions and select key performance indicators for each dimension. Some models are built around the social and economic objectives of organizations and articulate performance dimensions accordingly. Others adopt a stakeholder-oriented perspective, organizing performance dimensions based on stakeholder priorities.

Another differentiating factor is the inclusion—or lack—of guidance to support organizations in selecting performance dimensions and KPIs.

Finally, some tools incorporate dashboards linked to a synthetic measure that aggregates social impact into a single value or indicator, while others do not (Bengo et al., 2016).

Counterfactual methods allow us to understand whether a causal relationship exists between the implementation of an intervention and the changes observed among its beneficiaries. They help identify the specific contribution made by the program, net of a wide range of external factors influencing the broader context (Bonaga, 2017).

This differentiation between effects makes it possible to determine how much of the observable results are attributable to the specific program and how much to external influences that would have changed the situation anyway (Bonaga, 2017).

Counterfactual approaches provide evidence regarding the quantification of a program's effects (Bonaga, 2017). For this type of evaluation to be efficient and effective in terms of costs and benefits, certain preconditions must be met—such as a clear distinction between outcome variables and the presence of a well-defined intervention characterized by causal-effect relationships (Bonaga, 2017).

Thus, counterfactual methods can offer empirical evidence that observed changes are directly attributable to the intervention, and they can answer the question of "where and for whom does it work?"—as long as variability exists among beneficiaries and operating contexts (Bonaga, 2017).

Regarding non-classifiable indicators, Zambelli, Minto, and Pascale (2023) included a final category in their analysis to account for tools that cannot be directly assigned to the previous categories, acknowledging that they lack common features with other metrics and do not align with any of the established classifications in the literature.

Social Return on Investment (SROI) is based on the traditional ROI (Return on Investment) tool used in for-profit enterprises. While ROI measures the financial return on investments, SROI, according to Bonaga (2017), Social Value (2012), and Zamagni et al. (2015), is a structured process used to understand, measure, and manage the value of social, economic, and environmental outcomes generated by an activity or organization.

According to Zambelli (2015), this indicator helps determine a project's social and environmental value by attributing a monetary value to the impact created. This is often the most challenging part of the process, as it requires the quantification of elements not originally expressed in monetary terms.

The Social Impact Assessment model proposes measuring an organization's social value through three key indicators, each linked to a priority outcome the organization aims to achieve. The approach is rooted in the Theory of Change and describes how a social enterprise's activities lead to the desired final outcomes and realization of its value chain.

This model includes three steps for assessing social impact:

1. Definition of the organization's social impact value chain, through its Theory of Change;
2. Identification of three measurable indicators associated with social impact, one for each of the three main outcomes, and definition of the methodology for calculating them;
3. Quantification of impact indicators, along with a monitoring and evaluation plan that also considers potential unintended and/or negative consequences of the activity. It results in the quantification of the social value the organization intends to generate over the next ten years, along with the corresponding reporting plan.

To support indicator identification, the model refers to the Impact Reporting and Investment Standards (IRIS) framework, which provides reporting standards for organizations' social and environmental performance. IRIS offers a set of standardized manuals for indicators applicable across different sectors (Bengo et al., 2016; Bonaga, 2017; Zamagni et al., 2015).

The Methodology for Impact Analysis and Assessment (MIAA) focuses specifically on the impact

generated by an organization. MIAA includes two main dimensions of analysis: the first concerns trust, analyzing the organization's financial and operational performance; the second focuses on impact, analyzing the social and environmental benefits produced (Bengo et al., 2016; Hornsy, 2012).

The methodology begins by mapping and classifying the organization's profile according to geographic location, sector, size, and other organizational characteristics. To evaluate social impact, MIAA incorporates the Theory of Change and its associated value chain.

It breaks down activities, maps the inputs used, and analyzes how these activities generate outputs, which in turn produce outcomes. The method also offers guidance on selecting appropriate indicators, including a library of predefined metrics that can be adapted to the specific features of the organization (Bengo et al., 2016; Hornsy, 2012).

MIAA also includes guidelines for impact reporting, outlining how the organization should communicate its results externally (Bengo et al., 2016; Hornsy, 2012).

The original Balanced Scorecard model, developed by Kaplan & Norton (1996), has been adapted by various authors to better suit social-purpose enterprises. These models modify the traditional dimensions of the scorecard to incorporate performance areas more aligned with social organizations (Bengo et al., 2016).

One such adaptation is Niven's (2003) model, which places the organization's mission at the center of the scorecard, recognizing it as the core rationale for its existence (Bengo et al., 2016).

The experimental method involves applying an independent variable X (the intervention) and a dependent variable Y (e.g., the wellbeing of beneficiaries), along with an experimental group—participants who will receive the intervention—and a control group—participants who will not.

The control group is crucial for recreating the counterfactual scenario. The difference between the outcomes of the experimental group and the control group represents the portion of effects directly attributable to the organization's intervention.

The strength of the experimental method lies in its ability to translate impact as the difference between observed and counterfactual results. For this verification to succeed, maintaining the integrity of the experiment is vital, requiring a clear separation between the experimental and control groups (Bonaga, 2017; Zamagni et al., 2015). One application of the experimental method is the Randomized Controlled Trial (RCT). This tool uses random assignment techniques and tight control of group formation to ensure the control group provides the most reliable reconstruction of the counterfactual scenario (Bonaga, 2017; Zamagni et al., 2015).

The Impact Reporting and Investment Standards (IRIS) is a tool developed by the nonprofit GIIN (Global Impact Investing Network), aimed at increasing the accessibility and effectiveness of tools available for impact investing. IRIS consists of a catalogue of indicators used to assess and measure organizations' social, environmental, and economic impact. By offering standardized indicators, IRIS enables comparisons across the performance of different organizations (Bengo et al., 2016; Zamagni et al., 2015). According to IRIS methodology, organizational reporting should follow this structure:

1. Organizational overview;
2. Final product description;
3. Financial performance;
4. Activity impact;
5. Product impact.

This tool is widely used because it is low-cost and user-friendly. Guidelines can be downloaded directly from the GIIN website, making them immediately applicable.

The Global Reporting Initiative (GRI) is an organization committed to promoting social and environmental reporting among social enterprises and sustainability-oriented for-profit companies. GRI's objective is to enhance transparency in information disclosure. To this end, it has developed a set of guidelines containing standards and principles for reporting on social, environmental, and economic performance. The GRI's Sustainability Reporting Framework includes sector-specific guides offering guidance on how to analyze, evaluate, and report across various thematic areas. These areas include education, environmental emissions, biodiversity, anti-corruption, workplace safety, equal

opportunities, and community engagement (Zamagni et al., 2015). While this tool does not provide a full definition of the generated impact, it does allow for the evaluation and reporting of what the organization has achieved socially and environmentally. As we have seen, social impact evaluation involves assessing the social value generated by organizations through their activities. It incorporates both qualitative and quantitative evaluations and can be conducted over short, medium, or long-term periods, depending on the project's stage of development (Bengo et al., 2016; Bonaga, 2017; CESE, 2013; Emerson, 2003; OECD, 2015a; Schorr, 2012; Social Impact Investment Task Force, 2014; Zamagni et al., 2015).

Social impact evaluation emerged alongside early impact investing tools, which, according to early advocates, required methods to assess the social outcomes generated. It is clear that to achieve effective evaluation, organizations must implement a well-structured internal planning process. This includes developing their Theory of Change and constructing a social impact value chain.

These two tools respectively help organizations understand the desired change and identify the resources and activities needed to generate outputs, outcomes, and impact (Hehenberger et al., 2015; Impronta Etica, 2016; OECD, 2015a; Social Impact Investment Task Force, 2014; Zamagni et al., 2015).

Zambelli (2023) notes that, for impact evaluation to be conducted properly, organizations must follow defined phases that ultimately lead to social impact measurement (Hehenberger et al., 2015; Impronta Etica, 2016; Social Impact Investment Task Force, 2014; Zamagni et al., 2015).

There are various methodologies available—this review has briefly summarized the most relevant—to highlight current trends. These include synthetic indicators, process-based models, scorecards and dashboards, and other tools that do not fit traditional categories.

These instruments are essential for guiding organizations in identifying, evaluating, and reporting the social outcomes they achieve. They also serve to demonstrate to external audiences—including stakeholders, funders, and public institutions—the extent and value of the work carried out by the organization (Bengo et al., 2016; Bonaga, 2017; Hehenberger et al., 2015; Hornsy, 2012; Rawhouser et al., 2017; Social Value, 2012; Zamagni et al., 2015).

4.5.3.2. Social Impact in Venture Philanthropy

Thus, Venture Philanthropy (VP) funding is characterized by the shared intent of funders and target enterprises to generate a positive social impact capable of improving the lives of stakeholders and the surrounding community (Hehenberger et al., 2015).

It is evident that, as with social impact itself, the literature does not offer a single, universally accepted definition. Numerous definitions exist—just as many as the methodologies proposed for evaluating it and the contexts in which it is applied.

In the specific context of VP, the concept of social impact takes on a multifaceted nature, with still-blurred contours, and is strongly influenced by the specific goals that the VP operator aims to achieve (Nicholls, 2006, 2008, 2009, 2010).

Clifford et al. (2013) identify four key elements that help define social impact:

1. The value created, which is directly attributable to the social activities undertaken;
2. The value perceived by beneficiaries and all those influenced by the planned social project;
3. The positive and negative effects resulting from the intervention;
4. Counterfactual analysis, which enables comparison between the results achieved through the project and those that would have occurred in its absence.

Such comparison allows for a more accurate measurement of the social impact generated (Hochstädter, 2017; Cordery & Sinclair, 2013).

A well-known survey conducted by the Global Impact Investing Network (GIIN, 2016, p. 33) highlighted the main impact sectors traditionally referenced by venture philanthropy and impact investing practitioners. The primary sectors identified include:

1. Improving access to additional sources of funding (considered by 69% of respondents);
2. Improving employment rates (59%);

3. Improving health and living conditions (52%);
4. Enhancing access to educational opportunities (51%);
5. Improving individuals' economic conditions (51%).

A subsequent survey by GIIN (2020, p. 45) shows that the impact investing sector has since evolved to embrace new objectives, fully aligning with the Sustainable Development Goals (SDGs) established by the United Nations in the 2030 Agenda as a global strategy for a better and more sustainable future.

These findings were largely confirmed by Barber et al. (2021), who analyzed the impact objectives of 159 impact funds and grouped them into the following six macro-categories:

1. Poverty – projects aimed at reducing poverty (cited by 43% of respondents);
2. SME funding – support for small and medium enterprises in developing markets (42%);
3. Regional development – development of underprivileged areas (33%);
4. Environment – including impact on agriculture, water, energy, forests, etc. (28%);
5. Social infrastructure – such as health, education, hospitals, housing, etc. (16%);
6. Minority and Women – support for businesses led by minorities or women (11%).

Hehenberger et al. (2015) emphasize that, in the context of VP, social impact evaluation has a dual function, as it is intended to assess both the impact generated by the financial operator and the impact created by the funded social enterprise.

This dual perspective makes the impact assessment process in VP more complex than what is typically encountered in the broader Third Sector. For the funded target enterprises—social purpose organizations (SPOs)—impact evaluation usually serves two main purposes:

- To report externally on the outcomes generated through their activities;
- To demonstrate to potential future investors their capacity to generate positive social impacts through their operations.

For VP practitioners, the process of analyzing and measuring social impact is even more demanding, as the assessment tools must be capable of precisely quantifying both financial and social performance. Qualitative analysis alone is insufficient.

In summary, social impact is a complex and multidimensional concept, whose meaning varies depending on the objectives pursued, the context of application, and the measurement tools used.

The evolution of definitions over time reflects growing attention toward more rigorous and structured forms of evaluation, which consider both the tangible and intangible effects of social initiatives.

In this context, Venture Philanthropy and Impact Investing emerge as strategic levers for generating positive, measurable change, contributing significantly to the achievement of the Sustainable Development Goals (SDGs).

4.5.4. *BAC (Uniroma1): Digitalisation, finance and firms' market power: database and framework analysis (DIFIMP)*

A key starting point in studying labour market concentration is understanding how it is measured. Scholars have long recognized that just as product markets can become dominated by a small number of large producers, local labour markets can be controlled by a few employers. In such cases, firms may gain wage-setting power over workers.

Researchers have developed a variety of metrics to capture the degree of concentration in these labour markets, with the Herfindahl-Hirschman Index (HHI) being the most widely used. This section reviews the conceptual foundations of these measures, the data requirements for implementing them, and the nuances that arise when applying them to labour markets instead of product markets. The discussion on how labour market concentration is measured and the extent to which it has a relevant effect on labour market outcomes draws inspiration from recent contributions to literature, including works by Azar et al. (2022), Benmelech et al. (2022), Rinz (2022), and Manning (2021).

Measuring concentration in each market generally involves assessing the "size" of each firm and aggregating those sizes into a single index that reflects how unevenly the "share" is distributed among the employer's competitors. These competitors might be the leading manufacturers of goods or retail

distributors in product markets. However, in labour markets, the competitors are simply employers looking to hire or retain workers. The analogy to "market share" in the labour market context is the fraction of workers (or job postings) controlled by each firm in a well-defined local labour market or the fraction of the total hiring done by each employer. Thus, if we denote by s_i the share of employment—relative to a labour market's total workforce—or the share of job postings for firm i , then the HHI is given by:

$$HHI = \sum_i (s_i)^2 \quad (1)$$

where the summation is carried out over all $i = 1, 2, \dots, N$ firms in the local labour market. Typically, s_i is expressed as a fraction between zero and one, so HHI ranges from $1/N$ (if all N firms are of identical size) up to 1 if only a single firm is present. Researchers multiply HHI by 10,000 for easy comparison with the thresholds in U.S. antitrust guidelines. In product markets, the U.S. Department of Justice and the Federal Trade Commission consider an HHI above 2,500 to be "highly concentrated" (U.S. Department of Justice, 2010). While labour market competition may differ from product markets in salient ways, many authors begin their analysis by applying these same thresholds.

The implementation of this approach requires several conceptual and practical steps. First, the definition of a relevant geographic unit must reflect that most individuals do not seek jobs across an entire country but typically look within a more limited commuting distance. To account for this reality, researchers often define local labour markets at the level of commuting zones, counties, or metropolitan statistical areas (Manning & Petrongolo, 2017; Monte et al., 2018). Among these, commuting zones have proven particularly common in academic literature because they are designed to capture the flows of commuters, meaning that individuals typically live and work within the same commuting zone. In Azar et al. (2022), for example, the authors calculate HHI using occupation-by-commuting-zone as the unit of analysis. They simultaneously define a given local labour market by the commuting zone (which captures geography) and a finely detailed occupation category (which captures the type of work performed). For each occupation-by-commuting-zone cell, they compute the share of new job postings (or existing employment) for each employer, then square those shares and sum them to form the HHI.

Second, once the correct geographic scope of the market is pinned down, we must also consider the correct occupational or industrial scope. Workers with specialized skills may only substitute between a narrow set of jobs, meaning that the relevant labour market might be occupation-specific (Yeh et al., 2022). Alternatively, a more generalized occupation might allow an individual to shift between multiple lines of work. Some authors, such as Benmelech et al. (2022), use an industry-based definition of the labour market rather than an occupation-based definition, especially when worker transitions seem concentrated within the same industry. Another strategy is to classify markets by occupation and industry, which can reduce the number of job observations per cell. The trade-off is that extremely narrow market definitions risk being too small to yield reliable measures of concentration, whereas too broad a definition may blur meaningful differences. Some frameworks, including those by Rinz (2022) and Manning (2021), discuss the challenges in deciding on a definition that balances these competing objectives.

Third, data availability is a central constraint in measuring labour market concentration. Some authors rely on employment data from administrative sources, linking each worker's employer identity at a point in time to produce a measure of which firm "controls" each worker in a given local area. Others prefer data on posted vacancies, which can capture the extent to which jobseekers might encounter a concentration of hiring activity among a few firms. For instance, Azar et al. (2022) use proprietary data from a large online job board to measure vacancy-based concentration across thousands of local markets. Each approach has advantages: administrative data offers comprehensiveness (everyone in social security or unemployment insurance data), whereas vacancy data might better capture the actual frontiers of new hiring. When the question pertains more closely to how easy or difficult it is for new labour market entrants or job changers to find alternative employers, vacancy data may be closer to the relevant competition margin.

Despite the attractiveness of HHI as a straightforward index, a few subtleties are worth highlighting.

One issue concerns the typical thresholds used by antitrust authorities, such as 1,500 to 2,500 for "moderate concentration" and above 2,500 for "high concentration." Because labour markets differ from product markets, these thresholds may not perfectly map onto the degree of employer monopsony power. Several authors have pointed out that workers cannot choose labour market "shares" as freely as consumers might choose among competing product brands. In product markets, each consumer can go to a different store; in labour markets, a worker must be hired by an alternative employer to move, so the degree of choice is not wholly symmetrical. For instance, Azar et al. (2022) argue that many of the assumptions behind the standard thresholds for product markets do not necessarily apply to labour markets.

Nevertheless, they adopt these thresholds as valuable guidelines for classifying local labour market concentration. They find, for example, that the average HHI across thousands of local markets was around 3,000, placing it above the conventional "highly concentrated" threshold. Their evidence suggests that many U.S. labour markets—notably smaller commuting zones and specialized occupations—are heavily concentrated.

Another subtlety is that the HHI can vary widely based on how "big" or "small" the local market is. Larger cities tend to have more firms employing any given occupation, which typically yields lower concentration. Smaller rural areas may have fewer available employers, sometimes only one or two large establishments. Consequently, the same broad occupation, say Registered Nurses, might see a low HHI in a large urban hospital market but a high HHI in a more rural region. Studies comparing different sub-samples of labour markets often find that concentration strongly correlates with local population size. Benmelech et al. (2022) note a similar phenomenon in their analysis of local manufacturing concentration in the United States. They show that smaller counties may be prone to extremely high HHI. The essence of the measurement in such contexts involves deciding how many potential employers truly exist within a region's boundary and how meaningful cross-regional commuting or relocation might be.

Once the researcher has chosen a data source and an appropriate geographical and occupational or industrial definition of the labour market, the mechanics of computing the HHI are quite simple. If the researcher decides to use job postings, they might label p_i as the total postings from employer i in that region-occupation cell and let $P = \sum_i p_i$ be total postings across all employers $i = 1, 2, \dots, N$ in that cell. Then the share for employer i is $s_i = p_i / P$. Squaring each share and adding them yields the final HHI:

$$HHI = \sum_i (p_i/P)^2 \quad (2)$$

Suppose the researcher decides to use employed workers instead. In that case, e_i might be the employment in the firm i for a particular occupation or industry in that region, and E is the total employment of that occupation or industry. Once again, HHI is the sum of $(e_i / E)^2$. After computing HHI, some authors multiply it by 10,000 so that a perfectly equal distribution among four firms ($s_i = 0.25$ each) yields $HHI = 2,500$. Whether multiplied by 10,000 or not, the qualitative interpretation is the same. A higher HHI indicates that fewer firms dominate the hiring, while a lower HHI indicates a more competitive labour market.

The research literature has an ongoing debate about whether specific measurement approaches might systematically understate or overstate the degree of concentration. For example, a potential concern arises when firms operate multiple distinct establishments but are classified as one, possibly understating true local concentration and wage-setting power (Bassier et al., 2022; Berger et al., 2022). In local labour markets, distinct establishments belonging to the same parent company may compete for local workers or coordinate hiring policies. Typically, concentration measurement merges them into a single "firm" if they share an ownership structure. Another concern is that standard classification by occupation may miss the possibility that someone in a related occupation is effectively a substitute for a job that might be somewhat flexible in skill requirements. Similar issues arise when the industry measures concentration. If industries are aggregated too coarsely, an employer with a small share in a broad sector might be the dominant employer in the narrower job niche that matters for a particular set of workers.

Therefore, researchers proceed cautiously, sometimes testing alternative definitions or controlling for confounding variables.

A further methodological consideration is whether to measure static "levels" of concentration or to adopt a dynamic perspective. How many employers are present simultaneously, but how often do new firms enter the market, or do existing ones leave? A moderately concentrated market in a single year might offer many opportunities for workers to switch employers if turnover is high. In addition, researchers may want to examine how these concentration measures evolve over time or across business cycles. For instance, Rinz (2022) documents that, in the United States, local labour market concentration fell somewhat between the late 1970s and 2010s, in contrast to the national-level concentration that declined and then partially reversed. Such findings illustrate that measuring labour market concentration requires attention to whether the relevant markets are experiencing significant entry and exit or only a handful of firms remain stable over decades.

Finally, some measures complement HHI. One example is the four-firm or five-firm concentration ratio, which sums up the share of employment or vacancies held by the top four or five firms. Another possibility is the inverse of the number of equally sized competitors, which is also sometimes used. Nevertheless, the HHI remains the measure of choice in most recent research on labour market concentration, partly because of its close links to antitrust practice. HHI offers a single, easily interpretable number that rises with concentration and can be compared across contexts and time.

In summary, measuring labour market concentration begins with selecting an appropriate local labour market definition, typically by occupation or industry combined with an economically relevant geographic area such as a commuting zone or county. The core measure is the Herfindahl-Hirschman Index, which is conceptually straightforward to calculate as the sum of squared employer shares of postings or employment. Data from administrative records or proprietary vacancy postings must be carefully mapped to the chosen labour market definitions. Finally, the researcher must interpret the resulting measure carefully, noting that many assumptions that apply neatly to product markets (such as easy consumer choice among brands) may not apply seamlessly to labour markets (where workers must be actively hired). Despite these complications, the HHI remains a robust and powerful way to capture the central intuition that if a small number of large employers dominate the hiring in a local area, then that labour market is concentrated and potentially subject to monopsony power.

These measurement fundamentals set the stage for subsequent analysis of how labour market concentration affects worker outcomes, including wages, hiring, turnover, and inequality. Both theoretical oligopoly models and empirical findings now suggest that in highly concentrated local markets, the wage-setting employer can offer lower pay while maintaining an adequate workforce precisely because, so few alternative local employers exist. In that sense, measuring labour market concentration is a theoretical exercise and the foundation for understanding how real-world labour market outcomes may differ from the perfect competition ideal. The next step in a broader literature review would be to document the empirical associations and causal estimates linking these concentration measures to worker pay and broader macro-labour phenomena. However, that discussion rests on the approach described here, which shows how to move from raw data to an index representing labour market competition.

By articulating the formula for the HHI and outlining the choices inherent in its application, one gains insight into the complexity of measuring labour market concentration. The growing number of studies using administrative data from multiple countries, proprietary job posting sources, or matched employer-employee data sets is a testament to the centrality of accurate concentration measures for this line of research. Thanks to these efforts, the literature has established that high HHI is by no means rare in many local labour markets, especially in smaller or more specialized regions. That recognition underscores the importance of methodological rigor in capturing the extent of employer market power, a pivotal issue in modern labour economics.

The effects of labour market concentration on labour market outcomes

Labour market concentration has been a focal point of recent economic research, with a growing literature documenting its potential to affect workers' earnings, wages, job security, and broader labour market outcomes. In the standard neoclassical world of perfect competition, employers pay the marginal product of labour so that no individual firm can set wages below productivity. However, recent literature has highlighted deviations from this ideal, indicating substantial monopsony power in many local labour markets (Manning, 2021; Naidu & Posner, 2022; Marinescu et al., 2021).

A typical framework for modelling such wage-setting power is an oligopoly model, in which many firms compete for workers. In a partial-equilibrium setting, one might write the labour supply curve facing firm j as $L_j = f_i(w) = f_i(w; N, \dots)$, where w is the prevailing wage, and N is the number of competing employers. The firm's profit-maximizing condition would relate the marginal cost of labour to its marginal revenue product, but when the firm has some control over the wage, the marginal cost of labour is no longer simply the wage; it also includes the effect of raising wages for all infra-marginal workers, something captured by the inverse elasticity of supply. In the simplest (Cournot) oligopsony model, each firm sets employment E_j subject to a labour supply elasticity ε , so that the equilibrium wage w satisfies:

$$w = \text{MRPL} \times [\varepsilon / (\varepsilon + 1/\theta)] \quad (3)$$

where MRPL is the marginal revenue product of labour, ε is the elasticity of labour supply to the individual employer, and θ is an index of the number of competitors. A typical outcome with fewer competitors (smaller θ) is a lower equilibrium wage. The key intuition is that in the presence of only a handful of employers, each can exert downward pressure on wages without losing too many workers to competitors because the small number of firms in the market also constrains each competitor. This intuition means that more concentrated markets, holding other factors constant, will tend to exhibit lower wage levels.

Empirical work using U.S. data has documented that higher HHI is associated with systematically lower earnings. Studies by Azar et al. (2022) examine online vacancy posting data for over 8,000 geographic-occupational labour markets, finding that going from the 25th percentile to the 75th percentile of concentration is associated with as much as a 17 percent decline in posted wages (in an instrumental variables specification). Other studies, such as that by Rinz (2022), exploit restricted-access administrative data at the U.S. Census Bureau. Rinz defines local markets primarily by four-digit industry-by-commuting-zone interactions, uses total employment to compute the HHI, and finds that, over a long historical period (1976 through 2015), local employer concentration in many places has declined, albeit unevenly, and that these declines appear to be associated with increases in average earnings. Conversely, where local concentration has gone up, wages have tended to stagnate.

Further investigations by Benmelech et al. (2022) focus on the manufacturing sector, combining establishment-level panel data with local competition measures. They exploit variations arising from mergers, showing that wages in those areas tend to decline as local markets become more consolidated. Their estimates imply a statistically and economically significant elasticity of wages concerning labour market concentration. Typically, these estimated elasticities range from around -0.01 to -0.04, meaning wages might decline by a few percentage points if the HHI doubles (a substantial increase in concentration). Even though such elasticities can initially appear small, the magnitude of the HHI changes often found in rural or specialized markets can be large enough to have a material effect on workers' pay.

A related line of work in Europe, exemplified by Bassanini et al. (2024) and Thoreson (2024), also finds that wage declines emerge with more concentrated local employer structures. Thoreson (2024) studies a deregulation event in the Swedish pharmacy market, which used to be state-run and a monopoly employer for pharmacy workers. The reform introduced new private entrants, thus changing local concentration differentially across various Swedish communities. Using a difference-in-differences approach that exploits variation in the number of new pharmacy chains introduced, Thoreson (2024) estimates that a reduced labour market concentration of about 25–30 percent can yield two- five percent wage increases for local pharmacy workers, especially for more experienced workers. This event study

design highlights how sudden changes in the number of employers might affect pay, bolstering the broader argument that more competition in the labour market can lead to higher wages.

Another dimension of labour market outcomes is job security or contract type, and here, the evidence also shows that higher employer concentration can adversely affect workers. Bassanini et al. (2024) present cross-country evidence for six European countries. They find that in addition to exerting downward pressure on wages, labour market concentration can influence the prevalence of temporary or permanent contracts. In more concentrated local labour markets, firms appear more likely to offer lower job security, which may manifest in shorter contracts or more precarious working conditions. That phenomenon partly emerges because workers have fewer outside options and might thus be more willing to accept less favourable conditions.

A more subtle question is whether labour market concentration influences wage inequality across individuals. Rinz (2022) calculates that local concentration reduces mean earnings and often increases earnings dispersion. To illustrate, a theoretical framework could stipulate that the effect of concentration on wages is more substantial for low- or medium-skilled workers than for high-skilled ones or that specific demographic subgroups lacking geographic mobility face especially large wage penalties in highly concentrated areas. Indeed, if the marginal worker who might leave for a better employer is typically high-skilled or more mobile, that group's wages might be less affected than those of a less mobile population. This possibility suggests that rising employer concentration could exacerbate existing wage inequalities, an outcome consistent with the results in Rinz (2022).

A further relevant aspect of this concentration debate is the effect on labour supply elasticities. Manning (2021) offers an extended discussion of monopsony power, including the notion that a labour supply elasticity faced by an individual firm might be pretty low if workers are unwilling or unable to move to alternative employers. If labour markets have become more concentrated, or if some local regions remain dominated by a few large employers, each firm's adequate labour supply elasticity is reduced. An illustrative formula is:

$$\eta = (dL / L) / (dw / w) \quad (4)$$

Where η is the elasticity of labour supply to the firm if an employer can cut wages slightly without losing a substantial fraction of workers, that implies a relatively low elasticity and, thus, a high degree of monopsony power. Hirsch et al. (2022) document that labour supply elasticities for workers are higher in denser metropolitan areas—which typically have lower HHI—consistent with a more competitive environment. By contrast, in sparsely populated areas or smaller labour markets with only a handful of employers, workers may find it more difficult to switch jobs after a wage cut, implying lower elasticity and giving employers greater wage-setting power.

Another variable that labour economists have scrutinized is worker flows or turnover. If labour market concentration is high, it may reduce job-to-job transitions: if only one or two large employers exist within a commuting zone, employees have fewer readily available alternative positions. Over time, this can produce reduced worker bargaining power, longer job spells, and a dampened wage-growth trajectory. In an alternative scenario with lower concentration, we expect workers to have more outside options, leading to higher quitting rates and faster wage growth. Some authors link the slowdown in job-to-job mobility in certain advanced economies over the past few decades to a possible rise in labour market concentration. However, the direction of causality is not always clear. Even if job-to-job mobility has declined for other structural reasons, that lack of mobility could make local labour markets more susceptible to concentration-based monopsony.

Empirical work also suggests that the negative correlation between concentration and wages is often strongest in smaller or more specialized labour markets. In major metropolitan areas, it is rare for a single employer or even a small group of employers to hire most workers in a particular occupation. By contrast, concentration can be extremely high in rural areas or specialized corners of the economy—such as a single factory town, an isolated hospital, or a remote mining operation. Scholars like Azar et al. (2022) document that for many medium-size and smaller commuting zones in the United States, the

average HHI for certain occupations can surpass 3,000, well above the commonly used 2,500 threshold for "high concentration." This suggests that the average national labour market might appear competitive if one looks only at broad national-level figures. However, many local pockets of non-competition can exist beneath that surface. A similar conclusion follows in the manufacturing-based studies by Benmelech et al. (2022), who observe that smaller counties often exhibit significantly more concentrated employer structures, translating into a measurable wage penalty for workers in those counties.

In addition to wages, job security, and inequality, some research also explores whether labour market concentration can alter productivity outcomes or the allocation of workers across firms. Suppose a few dominant local employers constrain wage competition. In that case, talented workers may find fewer incentives to switch to firms that might be a better match, thereby reducing aggregate productivity and lowering overall output. Furthermore, non-wage elements of the employment contract, including working conditions, hours flexibility, or fringe benefits, can be shaped by labour market concentration. Workers with limited bargaining power may also be less able to negotiate on non-wage margins.

Studies such as Hirsch et al. (2022) go so far as to connect higher competition to an "urban wage premium", meaning that bigger cities pay more not only because of agglomeration economies (where productivity is higher) but also because denser areas typically have lower concentration, which pushes firms to raise wages to attract and retain employees. Their empirical analysis of West Germany shows that the density of local labour markets interacts with employer wage-setting power. Workers in more urbanized regions enjoy higher pay from classic urban productivity stories, and employers in those settings have less scope to exploit monopsony. This result underscores that part of the "agglomeration premium" is, in effect, a "competitive labour market premium."

When turning to policy, these findings motivate proposals to reduce labour market concentration or mitigate its effects. Such policies can range from blocking mergers that would raise HHI in particular labour markets (for instance, hospital mergers in rural areas that might reduce competition for nurses) to scrutinizing non-compete agreements that hamper workers' mobility. Research showing adverse wage effects in highly concentrated settings suggests that competition policy applied to labour markets enhances workers' bargaining power and increases wages. While the formal legal frameworks typically stem from product market antitrust concerns, an emerging consensus indicates that the same or similar frameworks can be adapted to labour markets. The scholarly attention on antitrust enforcement in labour markets has significantly increased, in part due to the now well-documented prevalence of no-poaching and non-compete clauses in numerous labour contracts, which restrict labour mobility and can reinforce high concentration. The U.S. Department of Justice has shown an interest in "labour market monopsony," and the Federal Trade Commission has proposed rules banning non-compete clauses. These moves align with the research findings that labour market concentration and reduced labour mobility can hold down wages.

Although the literature is relatively recent and still evolving, the consensus is that labour market concentration can and does have a meaningful impact on earnings, wages, inequality, job security, and other labour market outcomes, especially in smaller localities or more specialized occupations by limiting the range of viable employers, a high HHI effectively grants monopsony power to dominant firms, which is reflected in wage penalties, more precarious contracts, and possible upward pressure on earnings inequality. Conversely, areas that experience entry by new employers or lower barriers to mobility often see rising wages and better conditions for at least some groups of workers.

Nevertheless, the literature also highlights certain complexities. The measured magnitude of wage declines in more concentrated markets is sometimes modest—on the order of 1–3 percent for a one-standard-deviation increase in HHI—although it can be more prominent when using vacancy-based measures or specifically examining smaller localities. Some studies use the instrumental variable strategy of exploiting mergers or national labour demand variation. In contrast, others rely on quasi-experimental events (such as the Swedish pharmacy deregulation in Thoreson, 2024). Despite methodological and data differences, the overall direction of results is consistent across contexts, countries, and data sources. As concentration increases, employers pay lower wages than they otherwise would, and that difference can be sizable for many workers.

Several features shape how labour market concentration impacts earnings, wages, and broader outcomes. The presence of small or rural labour markets, occupational specialization, low worker mobility, and the capacity of employers to coordinate or impose mobility restrictions can exacerbate concentration. Analyses based on the HHI demonstrate that high concentration is not a rarity, especially when one looks beneath national aggregates and into narrower local definitions. The negative relationship between HHI and wages is robust to multiple study designs, from cross-sectional regressions with extensive fixed effects to carefully identified merger-based or policy-based events. These results underscore that contrary to the benchmark competitive model; many workers face a labour market in which a handful of employers collectively determine the wage structure. As a result, the conventional assumption that wages mirror worker productivity may be incomplete: market concentration appears to matter, and it can depress pay, restrict mobility, and shape contract type. Across the literature—spanning the United States and Europe—studies find that these effects can deepen existing inequalities and limit job options for less mobile workers. The policy implications are striking: more vigorous scrutiny of employer consolidation, curbs on anti-competitive practices (for example, wage-fixing or no-poaching agreements), bans or restrictions on non-compete, and other regulatory interventions may help push wages closer to the competitive level, especially for workers who previously faced only a small number of potential employers. Although more research is needed, the growing body of evidence shows that labour market concentration is an important determinant of how wages and other labour conditions are set, illuminating an area that was once overshadowed by the assumption of perfect competition.

Evidence about Italy

Despite the rapidly expanding international literature on labour market concentration, direct evidence of the phenomenon in Italy has been scarce. Over the past decade, researchers in the United States have made substantial inroads into understanding how local labour market concentration affects wages, inequality, and employment conditions (for instance, Azar et al., 2022; Benmelech et al., 2022; Rinz, 2022), and European-wide studies have begun to emerge as well (Bassanini et al., 2024). However, despite its size and economic importance, Italy remained an exception. Until the last few years, the lack of suitable longitudinal data linking workers to employers and the challenges in defining local labour market boundaries in a geographically diverse country stood in the way of developing robust, large-sample empirical analyses.

Historically, Italy's institutional context and heavily regulated labour markets posed unique hurdles for studying employer concentration. First, Italy's nationwide collective bargaining agreements help shape the 'wage floor' for virtually all employees, irrespective of local monopsony power (Garnero et al., 2020; Boeri et al., 2021). As a result, one might have hypothesized that there would be fewer pronounced effects from local labour market concentration because wages for many job categories cannot drop below contract minima. Furthermore, significant differences across regions—particularly between the industrialized North and more rural South—complicate measurement. An occupation in a significant city in the North could be subject to a relatively competitive labour market.

In contrast, the same occupation in a small Southern municipality might face few (or even just one) potential employers. This stark heterogeneity poses both an opportunity and a challenge for empirical research. On the one hand, it could illuminate mechanisms that might not emerge from a more homogeneous environment; conversely, it complicates the construction of national-level measures.

For these reasons and others, scholars interested in labour market concentration in Italy often resorted to partial or indirect evidence (Ciani et al., 2019). For example, a handful of case studies addressed industry-specific or region-specific outcomes but stopped short of systematically measuring nationwide employer concentration or examining its relation to wages. Meanwhile, cross-country analyses (Bassanini et al., 2024) combined data from multiple European countries—including Italy—but typically in a way that limited the discussion of the Italian context to a few broad statistics or a single outcome dimension. In particular, Bassanini et al. (2024) included Italy in their European data set. However, their main findings on wages were drawn from countries like Germany, Denmark, and France, where the data

sources on earnings and local concentration were more comprehensive for that project. Consequently, while the study signaled that Italy likely had nontrivial pockets of high concentration, it did not thoroughly explore how that phenomenon translates into labour market outcomes. As Bassanini et al. (2024) noted, the Italian data available to them at the time made it challenging to analyze wages or earnings in detail, so they investigated job security (the conversion of fixed-term contracts into permanent ones) instead, finding that higher concentration was associated with reduced probabilities of contract conversion. Although that was an important contribution, it did not address how concentration shapes wage levels, wage inequality, or annual earnings.

Besides that single multi-country study, only a few other Italy-specific papers offer insights. One example is Pacelli and Passerini (2024), which addresses hiring subsidies, rent-sharing, and local concentration. Although its scope overlaps with the theme of monopsony, the authors focus on particular policy interventions rather than quantifying baseline employer concentration across the entire labour market. The paper does shed light on how monopsony-like features can condition firms' responses to hiring subsidies. However, its results do not fill the gap of systematically measuring the association between different degrees of concentration and key labour market outcomes across all regions and industries. Another paper examines Italy from a historical angle, focusing on older administrative or survey data but without capturing the evolution of employer concentration in the more recent decade when data quality has improved. Thus, before brand-new work, researchers lacked a cohesive national analysis akin to those prevalent in the United States and certain parts of Western Europe.

This scarcity of comprehensive work on Italy is particularly notable given the well-documented rise in inequality and stagnation of real wages in the country over roughly the last two decades (Depalo & Lattanzio, 2025). While factors like technological change, globalization, and institutional reforms have all been cited as significant contributors, limited research considered whether high (and potentially increasing) local labour market concentration might help explain Italy's weak wage growth and expanding low-wage segment. Many local labour markets in Italy—particularly those in the South or more remote areas—are small in population, meaning only a handful of large employers or even a single dominant firm. By contrast, industrial districts in the North might present a lower concentration profile. Without systematic, large-scale data, scholars had great difficulty testing whether this geographic variation in the number of potential employers translates into wage and employment differences.

Hence, until recently, no study offered a comprehensive, dynamic view of labour market concentration and wages or inequality in Italy. Such a gap is increasingly recognized as problematic because Italy's labour market institutions differ in important ways from the United States, where the bulk of monopsony-related research has occurred. Indeed, pervasive collective contracts and mandatory wage minima could mean that the overall effect of concentration on pay is smaller—or that it shows up through alternative margins such as temporary contracts, working hours, or annual earnings rather than hourly wages. Without direct, Italy-specific empirical evidence, policy discussions regarding antitrust enforcement in labour markets, local competition policies, or efforts to liberalize job mobility were not fully informed by data on the local concentration phenomenon.

4.5.5. *BAC (UniSalento): Understanding Digital Technology Integration in Labour, Education and Firms (DIGITAL-LEAF)*

The empirical analysis of the alignment between the training offer of ITS Academy and the educational needs expressed by the local context relies exclusively on quantitative methods. By collecting and analyzing data on course curricula and the qualifications awarded by ITS institutions, the study examines labor market needs using data derived from business surveys and sectoral reports. The objective is to assess the degree of correspondence between educational supply and labor demand, identifying potential mismatches and proposing adjustments to enhance the effectiveness of training programs in relation to local requirements.

The empirical investigation also extends to evaluating the alignment of ITS Academy programs with local industry needs, particularly through an assessment of the effectiveness of partnerships between ITS

institutions and regional economic actors. By employing quantitative methods and analytical tools, the study gathers data on training programs and awarded qualifications, comparing them with labor market demands and the economic and industrial characteristics of the territory.

Furthermore, the analysis explores the quality of collaborations between ITS Academy institutions and local businesses. Using quantitative data, it assesses the frequency and nature of partnerships, the extent of business involvement in curriculum development, and the participation of enterprises in internship and apprenticeship programs.

The study is based on two datasets, each characterized by distinct structures and statistical units, to which customized econometric models have been applied to achieve the research objectives.

The first dataset comprises 104 Italian Higher Technical Institutes (ITS) and includes a wide range of variables describing various financial, employment, and operational aspects of both ITS institutions and affiliated enterprises. A general overview of the dataset's key characteristics and variables is provided, followed by descriptive insights and multivariate analysis.

The second dataset consists of 17,522 statistical units, representing students enrolled in ITS programs, and includes 26 variables.

4.5.5.1. Territorial Divide, Production Chains and Partnerships: descriptive aspects and related phenomena

The first dataset provides a comprehensive overview of the units of analysis (ITS institutions), offering a wide range of quantitative and qualitative information, including:

- **General Information on ITS Institutions:** This includes variables such as the ITS identifier, total revenue, number of employees, and the count of enterprises affiliated with each ITS.
- **Enterprise Data:** Aggregated and average data on enterprises linked to ITS institutions, including those engaged in research activities.
- **Revenue and Employees:** The dataset includes variables reporting sales revenue, employee counts, and the relative shares of average and total revenue of ITS partner enterprises compared to those of non-partner enterprises in the same province. This comparison helps assess the actual presence of ITS institutions and their ability to engage with the local business ecosystem.
- **Variability and Concentration Indicators:** Variables such as the "Partner Variability Index" and the "Partner Gini Index" provide measures of the distribution and concentration of ITS partners.
- **Funding and Subsidies:** Detailed information on subsidies received by ITS institutions between 2011 and 2023, including scholarships and performance-based financial incentives.
- **Internship Hours and Courses:** Data on the number of internship hours completed by students, the total hours of training programs, the number of courses offered, and the provinces in which these courses are conducted.
- **Employment Indicators:** Variables reporting employment outcomes of students 12 months after course completion, including the number of employed, unemployed, and first-time job seekers, as well as details on employment contracts.
- **Gender Variables:** Gender-specific variables such as the number of female students, the number of women employed 12 months after graduation among those who were unemployed at entry, and additional employment and permanent contract indicators for women.
- **Student Origins and ITS Locations:** Information on students' home provinces and the geographical location of ITS institutions.

The first dataset has proven to be a valuable tool for gaining insights into various aspects of the management and performance of Italian ITS institutions. Specifically, it has been used to assess:

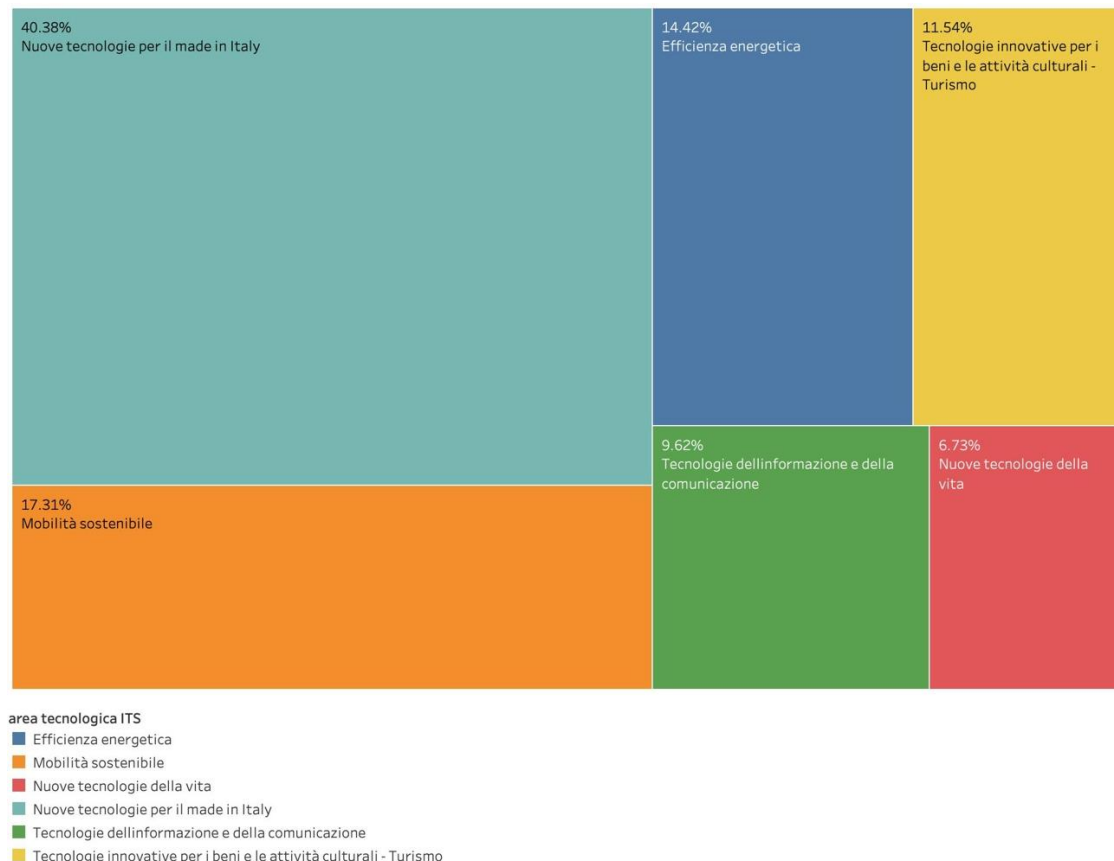
- The effectiveness of ITS institutions in facilitating labor market entry.

- The geographical distribution and variability of ITS partnerships.
- Gender differences in employment rates and working conditions after graduation.

Percentage Distribution of the Different Technological Areas of Higher Technical Institutes (ITS)

Figure 43 presents a treemap visualization depicting the percentage distribution of the various technological areas covered by Higher Technical Institutes (ITS) in Italy.

Figure 43: ITS Database by area



The areas are color-coded and segmented based on their percentage of representation:

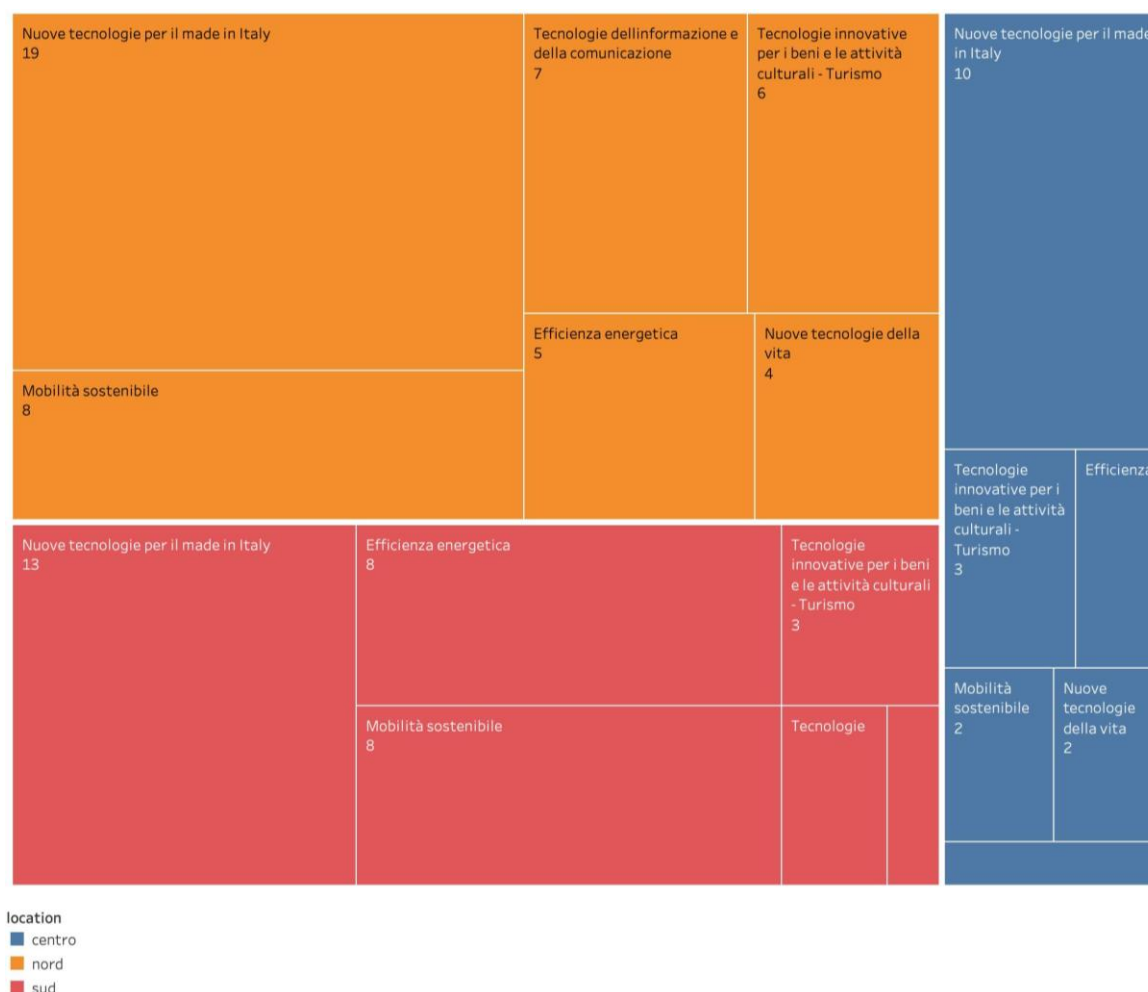
- **"New Technologies for Made in Italy"** emerges as the most prominent area, accounting for **40.38%** of responses.
- **"Sustainable Mobility"** represents **17.31%**.
- **"Energy Efficiency"** accounts for **14.42%**.
- **"Innovative Technologies for Cultural Heritage and Tourism"** covers **11.54%**.
- **"Information and Communication Technologies"** makes up **9.62%**.
- **"New Life Technologies"** is the least represented area, with **6.73%**.

This visual representation highlights the strong emphasis on ITS programs specializing in **"New Technologies for Made in Italy"**, followed by those focused on **"Sustainable Mobility"** and **"Energy Efficiency"**. The graphical depiction allows for an immediate understanding of the relative importance of each technological area.

Distribution of Higher Technical Institutes (ITS) in Italy by Technological Area and Geographical

Location (Central, Northern, Southern Regions)

Figure 44: ITS Database by location and area



The treemap in **Figure 44** illustrates the distribution of Higher Technical Institutes (ITS) in Italy by **technological area** and **geographical location** (Central, Northern, and Southern regions).

In **Northern Italy** (represented in orange), there are:

- **19** institutes specializing in "**New Technologies for Made in Italy**";
- **8** institutes focused on "**Sustainable Mobility**";
- **6** institutes offering programs in "**Innovative Technologies for Cultural Heritage and Tourism**";
- **5** institutes specializing in "**Energy Efficiency**";
- **7** institutes training experts in "**Information and Communication Technologies**";
- **4** institutes dedicated to "**New Life Technologies**".

In **Central Italy** (represented in blue), there are:

- **10** institutes dedicated to "**New Technologies for Made in Italy**";
- **3** institutes specializing in "**Innovative Technologies for Cultural Heritage and Tourism**";
- **2** institutes focusing on "**Sustainable Mobility**";
- **2** institutes training professionals in "**New Life Technologies**".

In **Southern Italy** (represented in red), there are:

- **13** institutes dedicated to "**New Technologies for Made in Italy**";
- **8** institutes specializing in "**Energy Efficiency**";
- **8** institutes focused on "**Sustainable Mobility**";
- **3** institutes offering programs in "**Innovative Technologies for Cultural Heritage and Tourism**".

In Central Italy, the majority of ITS programs are concentrated in "New Technologies for Made in Italy", followed by "Sustainable Mobility" and "Information and Communication Technologies". In Northern Italy, the distribution is more balanced, though "New Technologies for Made in Italy" remains the most prevalent area. In Southern Italy, there is a strong focus on "New Technologies for Made in Italy", along with a significant presence of ITS programs in "Energy Efficiency" and "Sustainable Mobility".

Summary of Employment Indicators

After analyzing students' educational choices, this report shifts its focus to the impact of these choices on the labor market. Given that the primary objective of Higher Technical Institutes (ITS) is to enhance graduates' employability, key **Employment Indicators** have been synthesized to provide an overall picture of average values. The following metrics have been recalculated:

1. **Average Employment Rate (MPO):** This variable represents the **average percentage of individuals who found employment** among those who were unemployed at the time of enrollment in the study program. It measures the program's effectiveness in placing previously unemployed participants into the job market.
2. **Average Employment Rate in Line with the Educational Path (MPO Coherent):** This variable indicates the **average percentage of individuals who found employment in a field consistent with their study program** among those who were unemployed at enrollment. It assesses the extent to which the program succeeds in preparing participants for jobs aligned with the skills they acquired.
3. **Average Female Employment Rate (MPOF):** This metric measures the **average percentage of women who secured employment** among those who were unemployed at the time of enrollment. It highlights the program's effectiveness in integrating unemployed women into the labor market.
4. **Average Female Employment Rate in Line with the Educational Path (MPOF Coherent):** This variable represents the **average percentage of women who found employment in a field consistent with their study program** among those who were unemployed at enrollment. It evaluates the program's effectiveness in securing relevant employment opportunities for female participants.
5. **Average Permanent Employment Rate (MPO-TI):** This indicator captures the **average percentage of individuals who obtained a permanent contract** among those who were unemployed upon entering the program. It reflects the share of participants who managed to secure stable employment.
6. **Average Female Permanent Employment Rate (MPOF-TI):** This metric represents the **average percentage of women who secured permanent employment** among those who were unemployed at enrollment. It specifically measures the program's success in facilitating permanent job contracts for female participants.

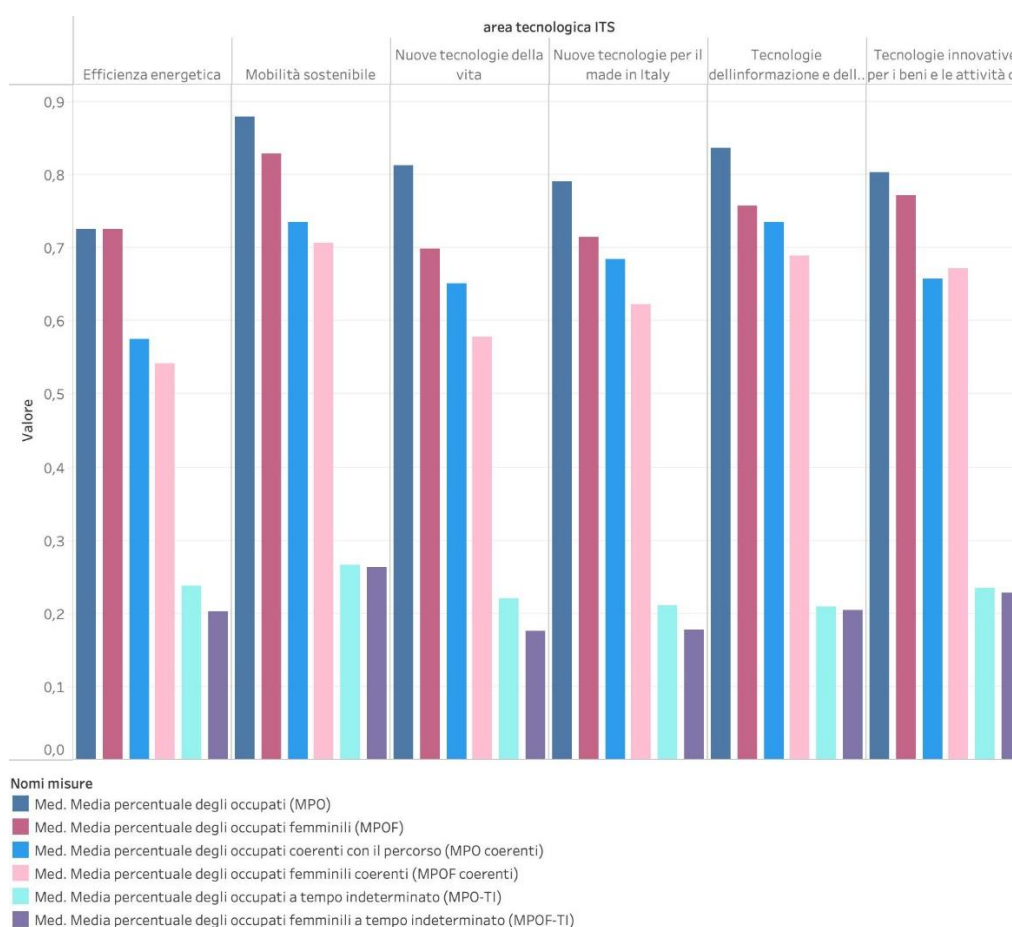
The variables described above are **crucial for evaluating the effectiveness of training programs** in placing participants in the workforce. Each of these indicators provides a different perspective on **post-training employment outcomes**, considering the alignment of jobs with the field of study, gender

disparities, and the nature of employment contracts (fixed-term vs. permanent). These measures offer deeper insights into the **overall effectiveness of ITS programs**, help **identify potential gender disparities**, and support **targeted interventions to improve employment outcomes** for graduates.

Average Employment Percentage by Type and Technological Area in Higher Technical Institutes (ITS)

Figure 45 presents a bar chart illustrating the average employment percentage by type and technological area in Higher Technical Institutes (ITS).

Figure 45: Average % of employed by type and area



The technological areas of ITS are divided into:

1. Energy Efficiency;
2. Sustainable Mobility;
3. New Life Technologies;
4. New Technologies for Made in Italy;
5. Information and Communication Technologies;
6. Innovative Technologies for Cultural Heritage and Activities.

Key observations emerge from the chart in Figure 3 for each ITS specialization:

- **Energy Efficiency:** High employment percentage (around 0.7), with significant female representation.

- **Sustainable Mobility:** High values for both overall and female employment, with permanent contract rates approaching 0.5.
- **New Life Technologies:** Lower employment percentages compared to other areas, with values around 0.5 for general employment and lower for other categories.
- **New Technologies for Made in Italy:** Very high employment rates (over 0.8), with good female representation and significant permanent contract percentages.
- **Information and Communication Technologies:** Employment values similar to those of "New Technologies for Made in Italy," with strong alignment between the field of study and employment.
- **Innovative Technologies for Cultural Heritage and Activities:** Employment and alignment percentages similar to other areas, but with a slight decline in permanent contracts.

Overall, the data on the average employment percentage by type and technological area in Higher Technical Institutes highlight the effectiveness of ITS in preparing students for the job market, demonstrating high employment rates in many technological areas. Female representation is particularly high in some specializations (Sustainable Mobility, Information and Communication Technologies, Innovative Technologies for Cultural Heritage and Activities), indicating a good level of inclusivity. Moreover, the alignment between the field of study and employment suggests that ITS programs are well-tailored to labor market needs.

The next analysis will focus on partner companies. Detailed information has been collected on all businesses that, for each Higher Technical Institute (ITS), have hosted internships or are in some way connected to the ITS as founders or partners. For these companies, a network has been built that includes data on revenues, employees, fixed assets, etc. Subsequently, all businesses located in the province where the ITS is based have been identified, creating a network of companies that, according to the ATECO code, represent the reference supply chain of the ITS. This approach has allowed for the development of an indicator that measures the ITS's capacity to engage local businesses by comparing companies linked to the ITS with those not connected. The aim is to assess the influence and effectiveness of ITS in collaborating with the local business ecosystem and their impact on the training and employment of graduates.

4.5.5.2. The quality of public procurement in voluntary amalgamated municipalities

There is an ongoing debate in the literature regarding the impact of structural reforms in local governments, such as municipal mergers, on the efficient management of local public expenditure. However, the effect of municipal mergers on the performance of merged municipalities in managing public procurement (PP) has been scarcely studied. This article aims to fill this gap.

Existing research on public procurement at the sub-regional, regional, and supranational levels suggests that centralisation reduces unit costs through economies of scale, particularly for standardised goods. Several studies examine the factors influencing public procurement performance. Guccio et al. (2014) found that local governments are less efficient than central governments in managing the execution of public works, often resulting in delays. Chiappinelli (2020) analysed the impact of centralisation on the winning rebate, finding that it could increase by 14% when a municipal tender is managed by a regional authority.

A key aspect of this analysis concerns the transition costs associated with managing public procurement in merged municipalities. These costs are complex and can significantly influence the outcomes of municipal mergers. Mergers often entail high initial costs (Mughan, 2019), including administrative expenses related to office reorganisation and IT system integration. These transition costs can offset the anticipated savings in the short term. Mughan (2019) highlights that newly merged municipalities require several years to adjust, with cost savings typically materialising only after two years. Additionally, staff reorganisation can generate further short-term costs. Transition costs also

include legal and administrative expenses, staff reallocation, and reassignment of responsibilities, which can reduce the expected fiscal benefits in the initial phase of consolidation.

The literature on municipal mergers presents mixed findings regarding expenditure reduction. While mergers are often promoted to achieve economies of scale and eliminate service duplication, empirical evidence does not consistently support this hypothesis. Tavares (2018) notes that mergers often fail to produce significant cost savings beyond administrative expenses and emphasises the lack of robust empirical support for territorial reforms. Similarly, Mughan (2024) questions whether horizontal mergers (between governments of the same level) achieve these objectives. Allers and Geertsema (2016) found that municipal mergers in the Netherlands reduce administrative costs but have no significant effect on overall expenditure or taxation. Although some reductions in administrative expenses (e.g., salaries and office supplies) are observed, these savings are often offset by increases in other spending areas. Studies from Denmark (Blom-Hansen et al., 2016), Australia (Cobban, 2017), and Finland (Moisio & Uusitalo, 2013) similarly find reductions in administrative costs without significant effects on total expenditure. Other studies provide contrasting evidence: Blesse & Baskaran (2016) document lower administrative expenditures following mandatory mergers in Germany, while Ferraresi et al. (2022) observe a reduction in per capita investments following municipal mergers in Greece. In Sweden, Hanes (2015) finds that spending reductions occur only when municipalities exceed a critical size threshold. Conversely, Reingewertz (2012) reports lower per capita expenditure in consolidated Israeli municipalities, although this finding may not be generalisable to larger jurisdictions. Some research indicates that consolidation has no effect on expenditures (Roesel, 2017) or even increases spending (Moisio & Uusitalo, 2013).

Cost reductions following municipal mergers do not occur immediately but require an adjustment period. Mughan (2019) finds that newly merged councils take more than two years to realise cost savings after the merger. Blesse & Baskaran (2013) examine German mergers and note that spending reductions were evident one year after the Brandenburg reform, although the effects of economies of scale may increase over time. Blom-Hansen et al. (2016) report that savings in areas such as road maintenance and administration only emerge after several years. Similarly, Hanes (2015) observes that spending effects in Sweden became evident only after municipalities had adjusted to the reform.

The democratic implications of municipal mergers have also been explored. Bolgherini & Mollisi (2024) examine the role of referenda in merger decisions, finding a negative correlation between referendum turnout rates and subsequent voter turnout in post-merger elections. Specifically, lower referendum participation is associated with higher electoral turnout after the merger. Klausen & Winsvold (2024) highlight various determinants of electoral consensus in mergers, including non-material factors such as "identity resistance". This refers to local opposition to structural reforms perceived as marginalising local actors and undermining local democracy. Citizens may oppose mergers due to concerns about loss of autonomy and the dilution of local preferences. Reingewertz (2012), applying Tiebout's (1957) argument, suggests that municipal mergers weaken the link between residents' preferences and municipal performance by reducing the diversity of local public service provision. Bolgherini & Mollisi (2024) further evaluate dissent/consensus in mergers by analysing post-merger electoral participation. Coviello & Gagliarducci (2017) demonstrate that prolonged political tenure in Italy negatively affects public procurement by fostering collusion, while Broms et al. (2019) find that party dominance in Swedish municipalities leads to less competitive public procurement outcomes.

Description of Data Sources and Methods

The study employs various data sources and analytical methods. Regarding data sources, a dataset of national public procurements provided by the Italian National Anti-Corruption Authority (ANAC) was used, covering a sample of 96,916 public works contracts (PWC) worth over €40,000, published by Italian municipalities between 2010 and 2022. Additional data on contracting authorities and staff qualifications were obtained from the Italian Ministry of Economy and Finance, along with economic and demographic characteristics of municipalities from ISTAT censuses. Other sources include data

from the Italian Ministry of the Interior, official information from www.tuttitalia.it for referendum results, "soccap" data from the Transplant Information System (SIT) of the Italian Ministry of Health, and "trialdur" data from the General Directorate of Statistics and Organisational Analysis of the Italian Ministry of Justice. Finally, municipal unemployment rates (unemployment_rate) were sourced from ISTAT.

A fixed-effects regression model was employed to assess whether public procurements awarded by merged municipalities perform better than those managed by non-merged municipalities. The model includes control variables for contract and contracting authority characteristics, as well as fixed effects at the provincial level, award year, and contract category.

Results

The study finds that municipal mergers in Italy (2010–2022) lead to longer delivery delays and higher execution costs compared to non-merged municipalities. These inefficiencies are particularly pronounced in the initial years following the merger but tend to diminish over time. No significant differences are found in terms of winning rebates.

The analysis of merger seniority reveals that the negative performance of merged municipalities persists only until the eighth year after the merger. After this period, no statistically significant differences are observed between merged and non-merged municipalities in public procurement management.

A comparison with "almost treated" municipalities—those that attempted but failed to merge—shows that performance differences are statistically less pronounced. Additionally, the study finds that higher referendum approval rates are associated with increased delays in procurement management, suggesting that strong public support may paradoxically reduce administrative efficiency.

The study concludes that targeted interventions during the transition phase—such as strengthening administrative structures and promoting centralised procurement agencies—could help mitigate initial inefficiencies and improve long-term management.

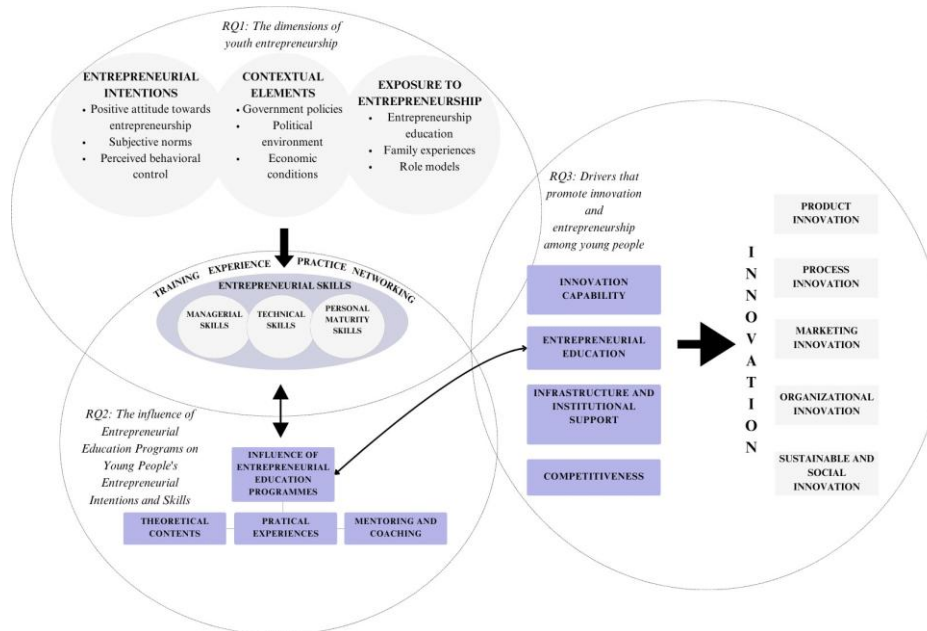
Final Remarks on the Role of Technology

While the study does not directly examine the impact of technology on municipal mergers and procurement performance, technological advancements are likely to play a crucial role in mitigating inefficiencies. IT system integration, centralised digital procurement platforms, data analytics, and digital collaboration tools can streamline administrative processes, reduce costs, and improve coordination among merged municipalities.

4.5.6. BAC (Unicatt-Unisa): Education for Neet (ED4NEET)

Following the study presented in paragraph 2.9, a conceptual framework developed on the results obtained will be presented. This framework (Figure 46) aims to synthesize and interpret the gathered information to provide an integrated and in-depth view of the emerging dynamics, thereby contributing to the academic debate on the subject.

Figure 46: Conceptual Framework



The conceptual framework outlined provides a comprehensive and articulated view of the evidence emerging from research on youth entrepreneurship. This framework is constructed based on the research questions formulated in the preliminary phase, allowing for a coherent and rigorous structuring of the investigation, thereby facilitating a complete understanding of the phenomenon. In particular, the framework is divided into three main conceptual sets corresponding to the three research questions, represented in the graph by circles grouping the main dimensions that emerged for each research direction.

The first set encompasses the essential dimensions of entrepreneurship: entrepreneurial intentions, contextual factors, and exposure to entrepreneurship. Each of these dimensions is further divided into specific sub-dimensions that allow for the exploration of different facets of the phenomenon with a high degree of specificity, while also enhancing the understanding of the overall context. At the top of the graph, entrepreneurial intentions are identified as a central element in the process that leads an individual to develop entrepreneurial skills. Entrepreneurial intentions consist of a positive attitude towards entrepreneurship, subjective norms (i.e., perceptions of social influences), and perceived behavioral control (i.e., confidence in one's ability to start and manage a business).

The second dimension examined in the conceptual framework concerns contextual factors, which represent a set of external influences on the potential entrepreneur. These factors not only affect the opportunities for entrepreneurial success but also play a decisive role in determining how easy or difficult it is for young people to enter the labor market, particularly in the entrepreneurial sector. It is therefore crucial to consider how the external context can facilitate or hinder the realization of entrepreneurial intentions, thus influencing the entire entrepreneurial ecosystem.

Exposure to entrepreneurship, the third dimension that emerged in the first conceptual set of the graph, refers to the direct or indirect experience of young people with the entrepreneurial world. This exposure proves crucial for the maturation of entrepreneurial intentions, as well as for the development of the skills necessary to translate those intentions into reality. Research clearly shows that young people who participate in entrepreneurial educational programs, which combine theory and practice, acquire a greater capacity to successfully start and manage entrepreneurial initiatives.

Continuing the observation of the proposed framework, a direct correlation between entrepreneurial

skills and entrepreneurial education programs emerges clearly. In this context, entrepreneurial training plays a key role in providing young people with the skills necessary to actively engage with the complex contemporary labor market.

Entrepreneurial skills can be divided into three macro-areas: managerial, technical, and personal skills. Managerial and technical skills are crucial for the success of new entrepreneurial initiatives. Managerial skills include the ability to plan strategically, make informed decisions, and manage resources efficiently. These abilities can be developed through practical training, business simulations, and support from experienced mentoring, which provides both operational skills and access to professional networks.

Similarly, technical skills, which relate to technology management and the development of products and services, are refined through access to specialized resources such as laboratories and technological tools. Project-based learning is particularly useful for consolidating these skills, allowing students to apply theoretical knowledge in practical contexts, thereby contributing to innovation and the success of start-ups. Finally, personal skills include leadership, resilience, and the capacity to innovate.

It's important to emphasize that educational programs not only influence the development of skills but must also continuously adapt and transform to meet the dynamic needs of the labor market. Technological innovation, market globalization, and increasing competition necessitate that entrepreneurial education programs are flexible and capable of responding to emerging challenges. The dynamism of the labor market implies that the skills required for entrepreneurial success are in constant evolution, and educational programs must remain aligned with these changes.

Another key point concerns the importance of developing well-structured educational programs that foster a balance between theoretical and practical training. These initiatives enhance entrepreneurial skills by helping young people build essential networks for the future success of their businesses.

In this context, entrepreneurial education emerges as a crucial driver for promoting innovation and strengthening the entrepreneurial ecosystem. The resulting innovation is not limited to the technological sphere but extends to multiple dimensions, including product, process, marketing, and organizational innovation. A particularly relevant aspect is sustainable and social innovation, which represents one of the key elements of the so-called 5.0 revolution.

In this phase of technological and social evolution, a multidimensional entrepreneurial education that responds to the needs of new generations is essential not only for individual success but also for collective progress.

The carefully outlined conceptual framework provides a detailed understanding of the dynamics influencing youth entrepreneurship, further highlighting the importance of effective and flexible entrepreneurial education programs.

If well-designed, such programs can play a decisive role in creating a new generation of entrepreneurs capable of facing the challenges of an increasingly competitive and innovative labor market. Thus, entrepreneurial education represents not only a tool for developing technical and managerial skills but also a catalyst for social change and the building of a sustainable future.

To conclude, the analysis of youth entrepreneurship dimensions highlights how personal skills, contextual factors, and exposure to entrepreneurship are central in forming entrepreneurial intentions. By applying the Theory of Planned Behavior (Ajzen, 1991), it is evident that attitudes toward entrepreneurship, subjective norms, and perceived behavioral control play a crucial role in motivating young people to embark on entrepreneurial paths. Concurrently, external factors such as government policies, the political environment, and economic conditions further influence entrepreneurial decisions, creating a favorable or obstructive ecosystem for youth entrepreneurship.

Moreover, exposure to entrepreneurial experiences, such as education and the presence of role models, significantly guides young individuals toward entrepreneurship, especially in contexts marked by high employment challenges. Integrating these dimensions into a theoretical framework provides a comprehensive view of the dynamics affecting youth entrepreneurship, offering essential insights for understanding entrepreneurial decisions across different socio-economic realities.

Particularly, the importance of personal skills and exposure to entrepreneurship emerges as a key

element in strengthening young people's propensity to undertake independent economic activities, especially in developing countries or areas with high rates of NEET (Not in Education, Employment, or Training), where entrepreneurship is a crucial resource for reducing youth unemployment and fostering economic growth.

Furthermore, the analysis of young people's entrepreneurial skills underscores the importance of a holistic approach to their definition and development. Entrepreneurial skills are not merely technical or managerial abilities; they also encompass personal elements such as resilience and the capacity to handle uncertainty, along with social skills like networking and collaboration within the entrepreneurial ecosystem.

The reviewed literature indicates that entrepreneurial skills are multidimensional and continuously evolving, influenced by individual characteristics and available resources. This suggests that entrepreneurial training should be tailored to specific contexts, and skills should not be viewed as static but must evolve alongside economic and social contexts.

A critical point that emerged is that acquiring entrepreneurial skills occurs through a mix of practical and theoretical experiences. Theory serves as a foundation for understanding entrepreneurial dynamics, while practice—through simulations, mentoring, and projects—solidifies this knowledge. This leads to a deeper awareness of entrepreneurial challenges and the development of effective skills.

Additionally, the study highlighted that innovation and youth entrepreneurship are influenced by various interconnected drivers, including innovation capacity, competitiveness, entrepreneurial education, and institutional support. Among these, the capacity for innovation stands out as crucial for entrepreneurial success, both in creating new products and improving existing processes, confirming that an innovative approach is essential for competitively responding to market dynamics.

Entrepreneurial education has proven to be an essential tool for developing strategic competencies, providing students not only with a solid theoretical foundation but also with practical experiences that enhance their management and innovation capabilities. This aspect is particularly relevant in the realm of product, process, marketing, and organizational innovations, which are pillars for developing resilient, sustainable, and competitive enterprises.

4.5.6.1. Managerial and Theoretical Implications

The theoretical implications of this study primarily lie in the expansion and integration of knowledge regarding youth entrepreneurial intentions through the application of the Theory of Planned Behavior in an entrepreneurial context. The presented model, which combines personal skills, contextual elements, and exposure to entrepreneurship, contributes to a greater understanding of the forces that shape entrepreneurial intention among young people, enriching the academic debate on how these variables interact and influence entrepreneurial orientation. This multidimensional approach supports existing literature and offers a unified framework that can be further developed to study the relevance and application of these factors in different socio-economic contexts, thus contributing to the creation of a more articulated and applicable theoretical corpus.

From a practical perspective, the results provide significant insights for policymakers, educational institutions, and organizations that aim to promote youth entrepreneurship. First and foremost, there is a need to design targeted educational programs that not only develop technical and managerial skills but also strengthen entrepreneurial intentions through exposure to role models and direct experiences with entrepreneurship. Institutions should collaborate with the private and public sectors to create environments that facilitate the startup of new businesses, with a particular focus on improving economic and political conditions that support entrepreneurial development. In doing so, it would be possible to incentivize entrepreneurial initiative as a strategic tool to combat youth unemployment and stimulate economic growth in the most vulnerable contexts.

Managerial implications also concern the need for policies that consider contextual factors, such as improving access to funding and tax incentives, which are essential for supporting youth entrepreneurship. Integrating these variables into the strategic development plans of institutions can

significantly improve the success rate of entrepreneurial initiatives and encourage a new generation of entrepreneurs.

It is essential that educational institutions and training organizations rethink their entrepreneurial education programs, emphasizing innovative training practices. In particular, experiential learning, understood as the integration of practical experiences such as business simulations and projects based on real-world problems, is fundamental for skill development. This approach prepares young entrepreneurs to manage the complexities of the real world and enhances their ability to make informed decisions.

Relevant in this context are also mentoring and networking activities; experienced entrepreneurs should take a more active role as mentors, providing practical advice and access to strategic resources. Mentoring allows for the transmission of tacit skills that are difficult to acquire through academic means alone. Moreover, it is important to remember that, in addition to technical and managerial skills, developing transversal skills such as resilience, the ability to manage uncertainty, and communication skills are key competencies for entrepreneurial success. These aspects must be central in training programs.

Finally, entrepreneurial education programs must be flexible and sensitive to the cultural and socio-economic context. Available resources, gender barriers, and differences in human capital require a personalized approach to maximize the impact of entrepreneurial training. To improve entrepreneurial intentions and skills, a balance between theoretical teachings and practical applications is necessary. This can be achieved through partnerships between universities and companies, allowing students to apply their knowledge in real work environments.

From a managerial perspective, the results highlight the need for business actors and institutions to promote a culture of innovation and continuous experimentation within their organizations. Companies should invest in continuous training programs focused not only on developing technical skills but also on fostering an entrepreneurial mindset oriented towards risk and creativity.

Another crucial element is human resource management, where it is essential to create an environment that supports interdisciplinary collaboration and values differences within teams to promote innovative solutions. Well-trained young entrepreneurs must be prepared to lead processes of organizational change and innovation, incorporating advanced digital technologies to improve efficiency and competitiveness.

Public policies and institutional support play a vital role in creating a favourable context for youth entrepreneurship. Institutions must facilitate access to funding and collaborative spaces such as coworking and accelerators, while simultaneously promoting the development of fiscal and financial policies that encourage the birth of new innovative enterprises. This requires concerted action between the private and public sectors to ensure sustainable and inclusive economic growth. At a theoretical level, the research contributes to the debate on youth entrepreneurship by highlighting the importance of a multidimensional approach to innovation. It demonstrates that entrepreneurship cannot be viewed as a linear process but rather as a complex ecosystem influenced by internal factors (such as skills and resources) and external factors (such as infrastructure and institutional support).

The integration of theory and practice is another crucial point: the results underscore the need for educational models that go beyond theoretical teaching to embrace practical methodologies, such as design thinking and rapid prototyping, which enable students to concretely apply the knowledge acquired. These results confirm the importance of developing interdisciplinary educational approaches that combine technological, managerial, and social skills.

Finally, the research opens new perspectives for exploring how social and sustainable innovations can become a key driver of youth entrepreneurship. This dimension requires further studies, including practical ones, to better understand the factors that motivate young entrepreneurs to pursue sustainable initiatives, promoting a more ethical and responsible business model.

In conclusion, this study provides a solid foundation for further research on youth entrepreneurial innovation, suggesting a holistic approach that integrates education, technology, public policies, and sustainability to stimulate the creation of a dynamic and resilient entrepreneurial ecosystem.

Future research should particularly focus on some underexplored aspects, such as evaluating the long-term impact of entrepreneurial education programs on the careers of young entrepreneurs, assessing not only economic success but also their contribution to society.

Moreover, it would be beneficial to investigate new pedagogical approaches to understand how they can improve the transmission of entrepreneurial skills. It is necessary to delve into the barriers that limit women in entrepreneurship and how training programs can be adapted to reduce such obstacles.

In summary, entrepreneurial education must evolve to respond to global challenges and provide young entrepreneurs with a skill set that not only helps them start successful businesses but also makes them sustainable and innovative.

4.5.7. BAC (Univr): Entrepreneurial education for (re)skilling Neet people and creating new ventures (ENTREDU4NEET)

From the analysis hitherto conducted on education-related variables, the following key insights have emerged. First, teachers and school governance are central actors in fostering entrepreneurial education. Concentrating resources, training, and strategic responsibilities on these key actors can enhance the efficiency of knowledge dissemination and educational impact.

Second, the relationships with local organizations are not sufficiently integrated into the local network, limiting their potential contributions. Strengthening their role in entrepreneurial education can bring valuable real-world insights and resources into schools.

Third, the analysis reveals the need for a collaborative ecosystem that enhances entrepreneurship education initiatives. In this regard, it is desirable for partnerships across more actors, such as local organizations, firms, and funding entities, to create an interdisciplinary and collaborative ecosystem.

As possible recommended activities to implement in the field, this research suggests developing entrepreneurial education programs for teachers, enabling them to effectively integrate business and innovation concepts into the curriculum as well as strengthening local organizations' role, creating partnerships with them to facilitate workshops, case studies, and project-based learning in schools. Furthermore, it could be important to organize entrepreneurship-themed events where students can interact with business leaders, innovators, and policymakers.

From the analysis hitherto conducted on contextual/territorial variables, the following key insights have emerged. First, entrepreneurship education can play a crucial role in fostering local economic growth, equipping young people with the skills to create job opportunities within their own communities.

Second, leveraging the rich artistic and cultural heritage of disadvantaged neighborhoods can serve as a catalyst for sustainable economic development and social inclusion.

As possible recommended activities to implement in the field, this research suggests investing in entrepreneurial training programs by developing training courses in tourism, cultural heritage management, and business skills for local youth, particularly targeting NEET individuals. In addition, this case highlights the opportunity to expand and formalize initiatives that involve locals in leading guided tours at restored cultural sites, thereby creating employment opportunities and promoting tourism.

4.5.8. BAC (Unicatt): Human Mobility and migration as a resource for organizationS- Entrepreneurial Training (HUMUS)

4.5.8.1. What is the impact of entrepreneurial education on migrant entrepreneurs, and what are the key skills required, particularly in the hospitality and catering sectors?

Impact of Entrepreneurial Education on Migrants

International studies indicate that entrepreneurial education significantly influences the success of migrant entrepreneurs, enhancing business sustainability and socio-economic integration. According to

a report by the International Organization for Migration (IOM), migrants participating in entrepreneurial education programs are more likely to establish successful businesses and integrate effectively into their host communities (IOM, 2020).

Specific impacts of such education include:

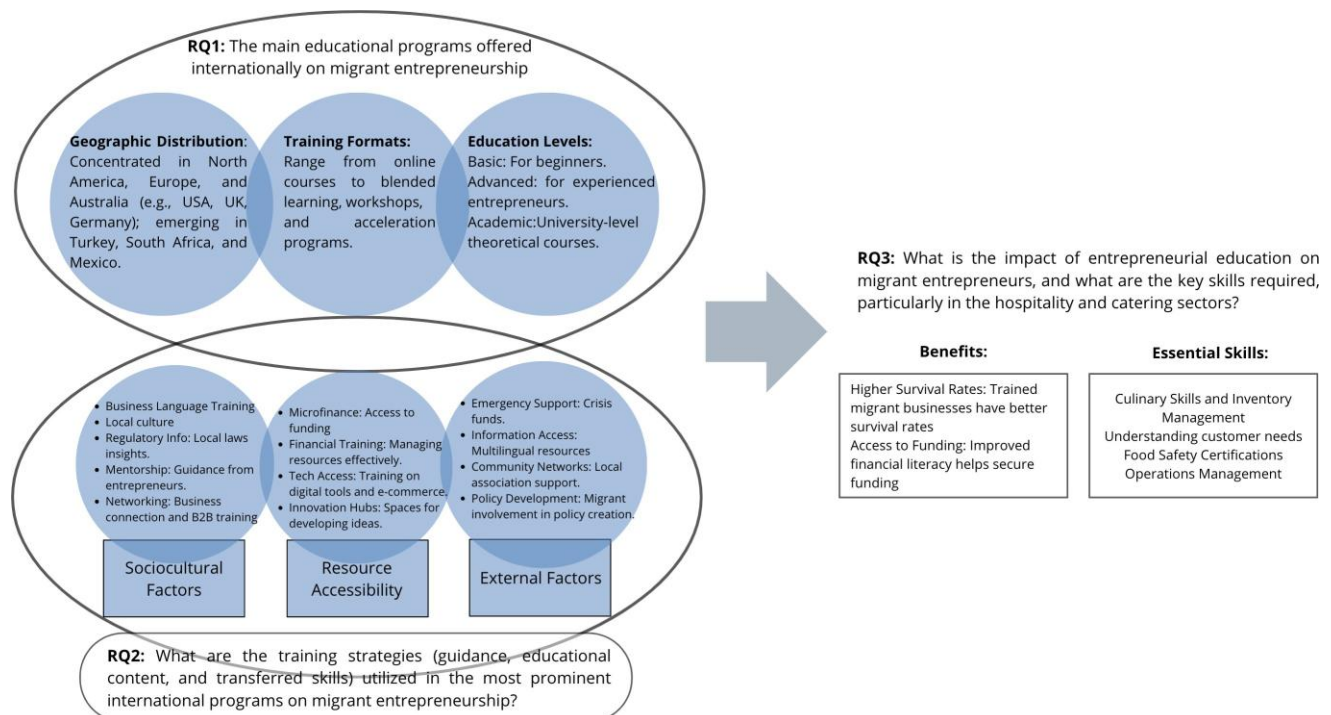
- *Increased Business Survival Rates:* Migrant-led businesses that have undergone entrepreneurial training demonstrate higher survival rates, particularly in the initial three years of operation (OECD, 2021).
- *Improved Access to Funding:* Financial literacy and skills acquired through educational programs empower migrants to access funding from traditional banks and microfinance institutions (OECD, 2021).

Key Skills in the Hospitality and Catering Sector

In the hospitality and catering sectors, practical skills such as inventory management, culinary skills, and customer interaction are crucial. Furthermore, advanced training encompasses:

- *Food Safety Certifications:* These are essential for managing restaurants or food-related businesses, ensuring compliance with health regulations (IOM, 2020).
- *Customer Service Skills:* In the hospitality sector, the ability to understand and respond to customer needs is fundamental to business success (OECD, 2021).
- *Personnel and Operations Management:* The capacity to coordinate teams and manage daily operations is particularly important, given that many migrant businesses employ staff from diverse cultural and contextual backgrounds (IOM, 2020).

Figure 47: Framework (Author's elaboration)



This literature review provides a comprehensive analysis of the diverse factors shaping migrant entrepreneurship. It highlights the critical role of theoretical frameworks, such as social capital and mixed embeddedness, which illustrate how migrants can leverage their existing networks and community ties to establish businesses. Furthermore, it underscores the importance of context-specific factors, including policy support and access to resources, essential for fostering a conducive entrepreneurial environment.

By identifying barriers faced by migrants—such as discrimination and limited access to formal

support systems—this review points to the need for targeted strategies to unlock their entrepreneurial potential. The literature emphasizes that well-designed policies are crucial for addressing the unique challenges faced by migrant entrepreneurs. Key themes—such as the importance of social capital, adaptability, and access to tailored educational programs—highlight the necessity of a supportive policy environment.

It is essential to delineate the distinct approaches to migrant entrepreneurship. On one hand, a proactive approach seeks to attract migrants with specific skills that meet targeted market demands, thereby facilitating the strategic recruitment of qualified talent. This approach not only addresses economic gaps but also enhances the local workforce with expertise that aligns with predefined criteria. On the other hand, a reactive approach—which may be particularly relevant in our analysis of education for entrepreneurship in the hospitality and food service sectors—emphasizes the integration of immigrants through programs aimed at strengthening their entrepreneurial capacities. By providing education, training, and access to essential resources, these programs enable immigrants to establish and sustain businesses, thereby contributing to the local economy.

The next step is to explore educational programs and policies that support migrant entrepreneurship globally, providing insights into how these programs address existing challenges, the types of support offered, and their effectiveness in equipping migrants with the skills they need to succeed. We will formulate recommendations for improving access to resources, fostering supportive policies, and enhancing social networks for migrants. As we advance into the desk research phase, our aim is to build on the findings of the literature review to map the global landscape of educational and policy frameworks, laying the groundwork for actionable strategies in upcoming research phases.

4.5.9. BAC (Univaq): The Socialization of Young Unemployed Women into Sustainable Entrepreneurship (INTERGEN)

4.5.9.1. Education for sustainable entrepreneurship

The INTERGEN project was designed with the specific objective of offering a possible alternative to young women in the 18-34 age group who experience, also due to a geographical disadvantage, long periods of unemployment and poorer conditions in the world of work than their male counterparts. The aim is to identify good practices related to sustainable entrepreneurship education that can be implemented by different policymakers, such as, for example, those responsible for active labour policies and social inclusion, in order to achieve the ultimate goal of providing young women with alternative routes to labour and social exclusion. First of all, it is necessary to specify that, given the challenging objective of the project, it was decided to focus on education for sustainable entrepreneurship in order to make the most of the various potentials that entrepreneurial competence can offer. The focus is not restricted to mere 'doing business', but embraces its broader meaning, which includes a whole range of skills that can be exploited in any working context. Entrepreneurship, in this context, is thus understood as a tool not only for economic development but also, and primarily, for personal development. Understood in this way, entrepreneurship can be seen as a competence that allows the individual to express an original vision of himself and his creativity. The InterGen project espouses the articulated definition of entrepreneurship as stated in the Official Journal of the European Union (2018, p. C 189/11) under No. 7:

"Entrepreneurial competence refers to the ability to act on ideas and opportunities and to transform them into values for others. It is based on creativity, critical thinking and problem-solving, initiative and perseverance, and the ability to work collaboratively to plan and manage projects that have cultural, social or financial value. Entrepreneurial competence requires an awareness that there are different opportunities and contexts in which ideas can be turned into action in personal, social and professional activities, and an understanding of how these opportunities arise. [...] Entrepreneurial skills are based on creativity, which includes imagination, strategic thinking and problem solving, as well as critical and constructive reflection in a context of innovation and evolving creative processes. They include the

ability to work both individually and collaboratively in groups, to mobilise resources (human and material) and to maintain the pace of activity. [...] An entrepreneurial attitude is characterised by initiative and self-awareness, proactivity, foresight, courage and perseverance in achieving goals. It includes the desire to motivate others and the ability to value their ideas, to feel empathy and care for people and the world, and to be able to accept responsibility by applying ethical approaches at all times."

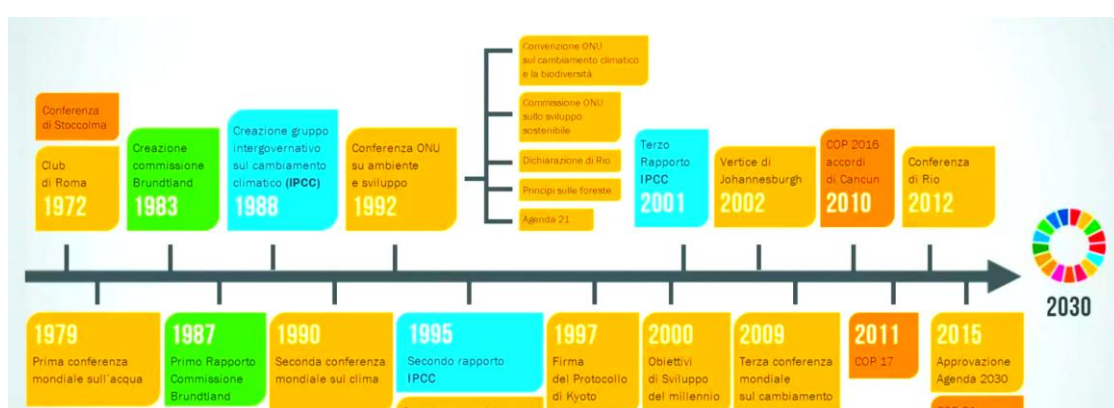
And it is precisely with the awareness that entrepreneurial skills can be decisive not only for those who decide to pursue the profession of entrepreneur, but also to foster professional growth in other professional sectors that the European Commission has long supported and helped to promote the education of these specific skills (*entrepreneurship education*) (Wagner and Sternberg, 2004 in Cubico, S. et Al, 2019). Women's economic emancipation could in fact also be achieved by enhancing their entrepreneurship education as outlined above and triggering a virtuous circle that starts with the improvement of women's employment status and then positively impacts the rest of society. Several empirical studies have in fact shown that in the international scenario, countries that "do not allow women to fully participate in the economy are less competitive internationally" (World Bank Group, 2020, p. 3). With regard to the world of female entrepreneurship specifically, there are still a number of specific problems that affect women-run businesses. Historically, there are several reports and analyses conducted by various International Organisations that have both highlighted the importance of the role played by women in the development of society and the economy and the problems affecting the world of female entrepreneurship (Bertarini, B., 2022, p. 35). Among the most impactful is the long-standing difficulty for women to access credit, which is the main step in starting a self-employed business. Cultural norms also hinder both women's entry and growth in the business world, the expectation of full-time domestic roles, the inequality in the distribution of care work to the disadvantage of women, and the consequent difficulty in balancing work life with private and family life, all combine poorly with women's chances of advancing in the business world, and work more generally (Priya, K. M, et Al., 2024). Addressing this set of issues requires a multi-pronged effort: political, institutional, regulatory, cultural, financial. What is at stake is not only the labour inclusion of women, but the economic growth of our society as a whole.

4.5.9.2. Sustainable entrepreneurship education

- **Sustainability, Sustainable Development and Learning for Sustainability**

Sustainability and sustainable development are often improperly considered the same in conceptual terms. As considered by UNESCO (2022), sustainability is defined as a long-term goal term, e.g. achieving a more sustainable world, while sustainable development refers to the various processes and pathways used to stimulate development, or achieve progress, in sustainable ways. The environmental, social and economic dimensions are the three aspects of sustainability that are necessary and inseparable to accelerate the transition to a more virtuous future. In particular, sustainable development is that which enables the present generation to satisfy its needs without compromising the ability of future generations to satisfy theirs (Brundtland Report, 1987). The path to sustainable development began long before 1987. A representation of some important milestones is shown in Figure 48.

Figure 48: The main steps of the path to sustainable development
(Alleanza Italiana per lo Sviluppo Sostenibile, ASVIS)



With the approval of the Agenda 2030, the perspective according to which sustainability and sustainable development are only synonymous with the environment changes radically. On 25 September 2015, 193 UN member states adopted the 2030 Agenda for Sustainable Development. In force since 2016, the agenda represents the global and universal framework for sustainable development through the following 17 Sustainable Development Goals (SDGs), represented in Figure 49.

Figure 49: The 17 Sustainable Development Goals (SDGs) (Agenda 2030 - United Nations)



The operational definition of sustainability means prioritising the needs of all life forms and the planet so that human activity does not exceed the limits of the planet. Planetary limits give us a measure of how human activities, based on the use of fossil fuels, cause or accelerate harmful changes to the planet. Scientists have identified nine Earth system processes that need to be monitored and not exceeded (e.g. biosphere integrity, land-use change, climate change, freshwater consumption, ocean acidification, biogeochemical fluxes, aerosol air pollution, stratospheric ozone depletion and the release of new chemicals (GreenComp, 2022).

The 17 targets to be achieved by 2030 call upon signatory states to make concrete, systemic commitments to define policies and actions capable of promoting and building a new model of development. These goals are monitored annually by the United Nations in their High-Level Political Forum on Sustainable Development. At the national level, they are monitored in particular by ISTAT and the Italian Alliance for Sustainable Development (ASVIS). Recognition of the interest of future generations is currently also included, following amendments made to some articles, among the fundamental principles of the Constitution. In particular, the current Article 9 states that “the Republic promotes the development of culture and scientific and technical research; protects the landscape and the historical and artistic heritage of the nation; protects the environment, biodiversity and ecosystems, also in the interest of future generations”. State law regulates the ways and forms of animal protection. The current Article 41 of the Constitution states that “Private economic initiative is free; it cannot be carried out in conflict with social utility or in such a way as to damage health, the environment, security,

freedom and human dignity; the law determines the programs and appropriate controls so that public and private economic activity can be directed and coordinated for social and environmental purposes". The expansion of a European sustainability competence framework is also one of the actions defined in the European Green Deal as a catalyst for promoting learning about environmental sustainability in the European Union. To this end, GreenComp identifies a framework of sustainability competences to be included in educational pathways to help develop knowledge, skills and attitudes that promote ways of thinking, planning and acting with responsibility and care for the planet and public health. Specifically, GreenComp defines four interconnected competence areas: 'embodying the values of sustainability', 'embracing complexity in sustainability', 'imagining a sustainable future' and 'acting for sustainability'. Each area comprises three interconnected and equally important competences (GreenComp, 2022). Learning for sustainability as presented in GreenComp should:

- enable people to think holistically and question the worldviews underlying our current economic system;
- encourage action individually and with others to help transform society and shape a sustainable future for all;
- train the systemic thinkers and change agents that are needed to promote a society.

In Figure 50 are the areas and competences on sustainability defined in the European sustainability competence framework (GreenComp, 2022).

Figure 50: Areas and competences on sustainability (GreenComp)

AREA	COMPETENCE	DESCRIPTOR	AREA	COMPETENCE	DESCRIPTOR
1. Embodying sustainability values	1.1 Valuing sustainability	To reflect on personal values; identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.	Envisioning sustainable futures	3.1 Futures literacy	To envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future.
	1.2 Supporting fairness	To support equity and justice for current and future generations and learn from previous generations for sustainability.		3.2 Adaptability	To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.
	1.3 Promoting nature	To acknowledge that humans are part of nature; and to respect the needs and rights of other species and of nature itself in order to restore and regenerate healthy and resilient ecosystems.		3.3 Exploratory thinking	To adopt a relational way of thinking by exploring and linking different disciplines, using creativity and experimentation with novel ideas or methods.
2. Embracing complexity in sustainability	2.1 Systems thinking	To approach a sustainability problem from all sides; to consider time, space and context in order to understand how elements interact within and between systems.	Acting for sustainability	4.1 Political agency	To navigate the political system, identify political responsibility and accountability for unsustainable behaviour, and demand effective policies for sustainability.
	2.2 Critical thinking	To assess information and arguments, identify assumptions, challenge the status quo, and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.		4.2 Collective action	To act for change in collaboration with others.
	2.3 Problem framing	To formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time and geographical scope, in order to identify suitable approaches to anticipating and preventing problems, and to mitigating and adapting to already existing problems.		4.3 Individual initiative	To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet.

Within the Network of Italian Universities for Sustainable Development (RUS), the RUS “education” working group has launched, starting from the 23-24 academic year, a process of experimentation of a Sustainability Literacy teaching (Lesson Zero) in Italian universities.

The aim of this experimentation is to build an educational and training policy shared by Italian universities committed to sustainability, a policy that enables the development of transversal and sustainability skills in students of all study courses at the various levels, consistent with the contents of the 17 Sustainable Development Goals.

- **Entrepreneurship Education**

In the past, entrepreneurship education was mainly understood as awareness-raising, to convey knowledge about entrepreneurship so that people could understand its importance for society and their future. Subsequently, the purpose of entrepreneurship education is seen as an opportunity to make individuals capable of being entrepreneurs, focusing on people's 'enterprising' activities, their preference for entrepreneurial work activities, aware of the degree of uncertainty and risk involved in choosing to start a business. An even more pronounced line is that which considers the ultimate aim of entrepreneurial education to be imparting knowledge and skills to undertake one's own entrepreneurial activity. Entrepreneurial skills are considered to be both cognitive and non-cognitive competences required in the different phases of an entrepreneurial initiative: thinking creatively, drawing up action plans, acquiring financial knowledge, organizing and making the most of resources, managing uncertainty, ambiguity and group dynamics. (Romano, 2023).

The Entrepreneurship Competence Framework of the European Union (EntreComp), defines entrepreneurship as a transversal competence that is based on the creation of cultural, social or economic value applicable to all spheres of life. Specifically, The EntreComp was initiated to define a framework for entrepreneurship as a competence to support citizens to develop their ability to actively participate in society, manage their lives and careers, and initiate value-creating initiatives. In the EntreComp framework, entrepreneurship is understood as a cross-cutting key competence applicable by individuals and groups, including existing organizations, in all spheres of life. It is defined as follows:

Entrepreneurship is when you act on opportunities and ideas and turn them into value for others. The value created can be financial, cultural or social. (Danish Foundation for Entrepreneurship - young enterprise: FFE-YE, 2012).

This definition focuses on value creation regardless of the type of value or context. Value creation refers to every sphere and possible value chain. It covers value creation in the private, public and third sector and in any hybrid combination of the three. Entrepreneurship as a competence applies to all spheres of life.

The EntreComp conceptual model consists of two main dimensions: 3 areas of competence that directly reflect the definition of entrepreneurship as the ability to transform ideas into actions that generate value for someone outside oneself (Figure 51) and 15 competences that together constitute the building blocks of entrepreneurship as a competence for all citizens (Figures 52-54). "Ideas and Opportunities", "Resources", and "In Action" are the 3 areas of the conceptual model and were included to focus on entrepreneurial competence as the ability to transform ideas and opportunities into action by mobilizing resources. The three areas of competence are closely interrelated. Entrepreneurship as a competency ranks above all three. The 15 competencies are also related and interconnected and should be considered as parts of a whole (Bagicalupo et al., 2016).

Figure 51: Areas of competence of entrepreneurship (Entre Comp)



Figure 52: Competences per area: Ideas & Opportunities

Competence	Hint	Description
Spotting opportunities	Use your imagination and abilities to identify opportunities for creating value	- Identify and seize opportunities to create value by exploring the social, cultural and economic landscape - Identify needs and challenges that need to be met - Establish new connections and bring together scattered elements of the landscape to create opportunities to create value
Creativity	Develop creative and purposeful ideas	- Develop several ideas and opportunities to create value including better solutions to existing and new challenges - Explore and experiment with innovative approaches - Combine knowledge and resources to achieve valuable effects
Vision	Work towards your vision of the future	- Imagine the future - Develop a vision to turn ideas into action - Visualise future scenarios to help guide effort and action
Valuing ideas	Make the most of ideas and opportunities	- Judge what value is in social, cultural and economic terms - Recognise the potential an idea has for creating value and identify suitable ways of making the most out of it
Ethical and sustainable thinking	Assess the consequences and impact of ideas, opportunities and actions	- Assess the consequences of ideas that bring value and the effect of entrepreneurial action on the target community, the market, society and the environment - Reflect on how sustainable long-term social, cultural and economic goals are, and the course of action chosen - Act responsibly

Figure 53: Competences per area: Resources

Competence	Hint	Description
Self-awareness & self-efficacy	Believe in yourself and keep developing	- Reflect on your needs, aspirations and wants in the short, medium and long term - Identify and assess your individual and group strengths and weaknesses - Believe in your ability to influence the course of events, despite uncertainty, setbacks and temporary failures
Motivation & perseverance	Stay focused and don't give up	- Be determined to turn ideas into action and satisfy your need to achieve - Be prepared to be patient and keep trying to achieve your long-term individual or group aims - Be resilient under pressure, adversity, and temporary failure
Mobilising resources	Gather and manage the resources you need	- Get and manage the material, non-material and digital resources needed to turn ideas into action - Make the most of limited resources - Get and manage the competences needed at any stage, including technical, legal, tax and digital competences
Financial & economic literacy	Develop financial and economic know-how	- Estimate the cost of turning an idea into a value-creating activity - Plan, put in place and evaluate financial decisions over time - Manage financing to make sure your value-creating activity can last over the long term
Mobilising others	Inspire, enthuse and get others on board	- Inspire and enthuse relevant stakeholders - Get the support needed to achieve valuable outcomes - Demonstrate effective communication, persuasion, negotiation and leadership

Figure 54: Competences per area: Into Action

Competence	Hint	Description
Taking the initiative	Go for it	- Initiate processes that create value - Take up challenges - Act and work independently to achieve goals, stick to intentions and carry out planned tasks
Planning & management	Prioritise, organise and follow up	- Set long-, medium- and short-term goals - Define priorities and action plans - Adapt to unforeseen changes
Coping with uncertainty, ambiguity & risk	Make decisions dealing with uncertainty, ambiguity and risk	- Make decisions when the result of that decision is uncertain, when the information available is partial or ambiguous, or when there is a risk of unintended outcomes - Within the value-creating process, include structured ways of testing ideas and prototypes from the early stages, to reduce risks of failing - Handle fast-moving situations promptly and flexibly
Working with others	Team up, collaborate and network	- Work together and co-operate with others to develop ideas and turn them into action - Network - Solve conflicts and face up to competition positively when necessary
Learning through experience	Learn by doing	- Use any initiative for value creation as a learning opportunity - Learn with others, including peers and mentors - Reflect and learn from both success and failure (your own and other people's)

• Sustainable entrepreneurship

Sustainable entrepreneurship can be seen as a set of activities, where people with an entrepreneurial mindset engage in identifying, evaluating, developing and implementing ideas, projects, innovations etc. that lead to sustainable development.

Within the INTRINSIC (INnovative educaTION foR sustainable eNtrepreneurShIP In Life sCIences) Erasmus + Strategic Partnership Project, a working definition of sustainable entrepreneurship is provided, affirming that sustainable entrepreneurship activities in general can be structured along two levels – a basic one and a strong one (Intrinsic, 2021):

- *In its basic form sustainable entrepreneurship is entrepreneurial activity considering economic, psychological, social, and environmental consequences and by this is not undermining the ecological, social and economic environments in which they operate.*
- *In its more expressed form sustainable entrepreneurship is aiming at solving problems related to sustainability and to create social, environmental and economic sustainability as a strategic objective and purpose by the discovery, creation, and exploitation of entrepreneurial opportunities that contribute to sustainability by generating social (also described by SDGs, like No poverty, Zero hunger, Good health and well-being, Quality education, Gender equality, Reduced inequalities etc.), environmental (e.g. preserve ecosystems, counteract climate change, reduce environmental degradation, improve agricultural practices, and maintain biodiversity captured e.g. by the SDGs Climate action, Life below water, Life on Land, Responsible consumption and production) and economic gains for others in society.*
(www.intrinsic.eu)

The difference between entrepreneurship and sustainable entrepreneurship lays in values and behaviours. As above stated, Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others (e.g. in new products, services, project, etc). The value that is created can be financial, social or cultural. (FFE-YE, 2012; Moberg et al., 2015). Sustainable entrepreneurship balances the triple bottom line, by balancing economic health, social equity and environmental resilience through the entrepreneurial behaviour. Sustainable entrepreneurs must have knowledge of environmental, of economic and of social issues related to sustainability and have a value system to support their actions.

The difference between conventional entrepreneurs and sustainable entrepreneurs is not just about the difference in the nature of the opportunity to be exploited, but also has to do with the value oriented character of the decisions made which entails making the trade-off between economic, social and environmental values without, a priori, choosing one over another – even if this entails tensions and conflicts (Lans and Plum, 2018).

In 1994, the British economist John Elkington, with the 'Triple Bottom Line' (Planet, People, Profit - PPP) conveyed the idea of a sustainable business oriented towards corporate decisions and strategies aimed at achieving environmental, social and economic sustainability, capable of simultaneously enhancing the environment (planet), the social context (people) and the economic and financial aspect (profit). The Planet dimension invites the pursuit of a responsible ecological footprint for environmentally friendly business practices. The People dimension emphasizes the need for a commitment to Corporate Social Responsibility and to the wellbeing of the communities in which companies operate. The Profit dimension is framed in a broader context, in which economic profitability, indispensable to ensure the survival of the company over time, is, however, understood as part of a more comprehensive framework in which the financial and economic success of companies is achieved in harmony with environmental and social objectives.

The criteria currently used to verify and support a company's commitment to sustainability are summarized in the words Environmental, Social, Governance (ESG) according to which, a company is defined as sustainable if, in the pursuit of lasting economic profit, it undertakes actions and policies that respect and protect the environment and social welfare and that more generally are aimed at creating value for all (Elkington, 2018). We are in the presence of a 'new' multidimensional corporate 'finalism' capable of establishing/re-establishing a reconnection of the economy with the environment and society with business models with systemic approaches and solutions to major global challenges that enable development in terms of ecological, social and environmental as well as economic wealth creation.

- **Sustainable Entrepreneurship education: from theory to practice**

A fundamental and distinctive feature of entrepreneurship is the identification and pursuit of business opportunities and the capacity of turning them into ventures. Recent literature puts the attention not on the innate characteristics of a person (the entrepreneur) but on the role of the entrepreneurial

competences, that can be object of an entrepreneurial education, furthermore not as a “heroic individual” but within a system of social interactions (Lans et al., 2014).

In this perspective entrepreneurship education can be defined as the:

Content, methods and activities that support the development of motivation, skill and experience, which make it possible to be entrepreneurial, to manage and participate in value-creating processes. (Moberg et al., 2015, p. 14).

In this way, different aspects need to be considered (Lans and Plum, 2018)

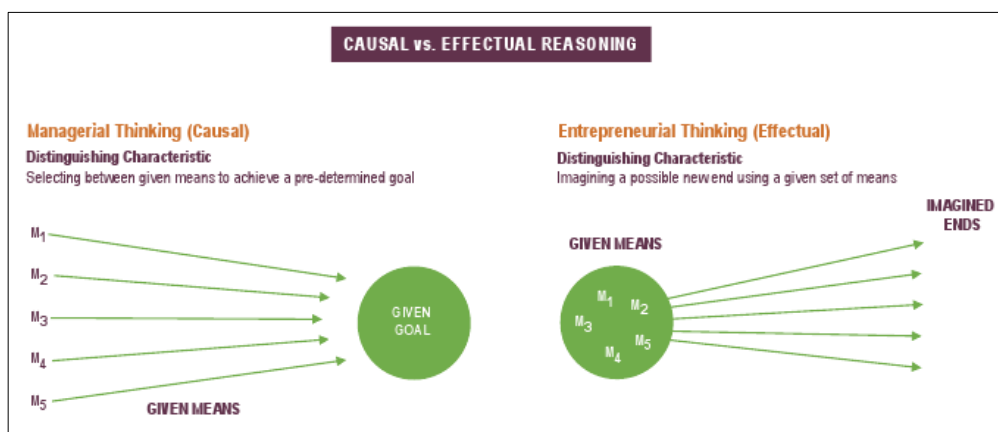
- Entrepreneurial intentions
- Entrepreneurial skills
- Entrepreneurial mind-set
- Entrepreneurial behaviours
- Entrepreneurial performance (e.g. start-up)

Effectuation

The entrepreneurial behaviour embraces effectual reasoning. The effectuation approach emphasizes controlling the future rather than predicting it and is rooted in the realization that human beings cause the future and, therefore, the future can be controlled and/or created through consensual human action (Sarvasvathy, 2009).

Effectuation is a way of thinking and decision-making that is based on the idea that entrepreneurs create their future by taking action and making things happen. It is a way of thinking that is focused on creating opportunities and solving problems by using the resources that are available to you, rather than making predictions and trying to plan for the future. Effectuation is an idea with a sense of purpose – a desire to improve the state of the world and the lives of individuals by enabling the creation of firms, products, markets, services, and ideas. (effectuation.org).

Figure 55: Causal vs. effectual reasoning (effectuation.org)



Effectuation is a way of thinking based on five principles (effectuation.org):

1. **Bird in Hand Principle – Start with your means.** Don't wait for the perfect opportunity. Start taking action, based on what you have readily available: who you are, what you know, and who you know.
2. **Affordable Loss Principle – Set affordable loss.** Evaluate opportunities based on whether the downside is acceptable, rather than on the attractiveness of the predicted upside.
3. **Lemonade Principle – Leverage contingencies.** Embrace surprises that arise from uncertain situations, remaining flexible rather than tethered to existing goals.
4. **Crazy-Quilt Principle – Form partnerships.** Form partnerships with people and organizations

willing to make a real commitment to jointly creating the future—product, firm, market—with you. Don't worry so much about competitive analyses and strategic planning.

5. *Pilot in the Plane Principle - Control the controllable.* The four specific principles above represent different ways entrepreneurs interact with the environment to shape the environment. Of course, not everything can be shaped or controlled, but effectuation encourages you, as the pilot of your venture, to focus on those aspects of the environment which are, at least to a certain degree, within your control.

Figure 56: The effectual cycle

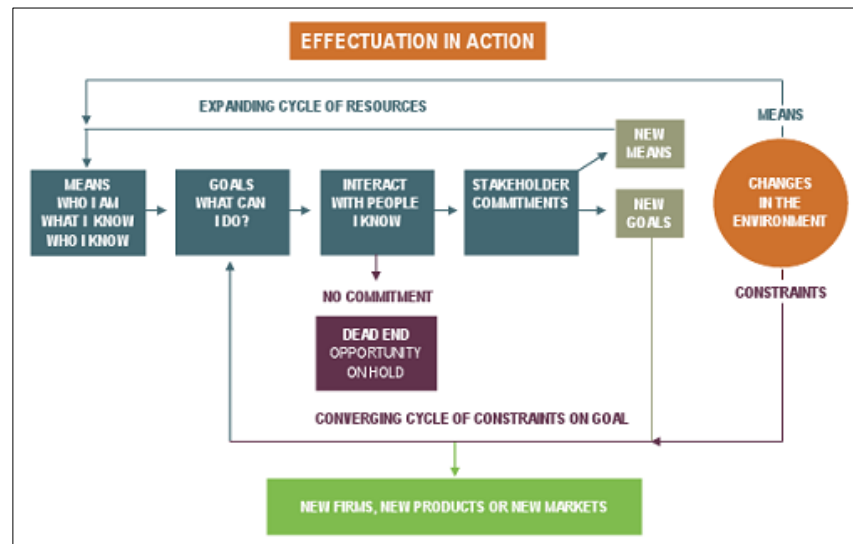


Figure 57: What heuristics do (expert) entrepreneurs use
(Lans and Plum, 2018 - based on Sarasvathy, 2001)

Dimension	Causal	Effectual
View on future?	Predictable	Unknowable
Basis for action?	Given goals	Available means
View on risk?	Expected Return	Affordable loss
View on others?	Competitive	Co-creative
View on unexpected?	Avoid/minimize surprise	Leverage surprise

Sustainable entrepreneurship education: an integrated perspective

Higher (business) education can play an important role in laying the foundation for sustainable entrepreneurs (i.e. those who proactively facilitate latent demands for sustainable development). Traditionally, however, educational scholars focus either on the issue of education for sustainability or on entrepreneurship education. Sustainable entrepreneurship education tries to integrate these perspectives. A competence approach is needed to link the worlds of education for entrepreneurship and for sustainability because both, apparently different, worlds can reinforce each other (Lans et al., 2014).

The INTRINSIC Project Final Report provides a meaningful and literature-based summary of the role and importance of sustainable entrepreneurship education (Intrinsic, 2021):

The concept of sustainable entrepreneurship education focuses on the development of entrepreneurial attitudes and skills as well as personal qualities which are not only focused on the creation of new ventures, but on the development of an entrepreneurial mindset (Fayolle and

Gailly, 2008) that builds upon sustainability as a normative value (Ploum et al., 2019). At the same time this mindset enables students to take initiative and steer ones' own learning, development, and career under the high level of uncertainty and complexity in today's society (Baggen et al., 2021), being therefore of relevance in different other working life contexts later in their careers (Lans et al., 2018). That is why the mindset and the associated skills have been also called (non-cognitive skills) "life skills" (Krueger, 2015). Also the European Union's Entrepreneurship Competence Framework (EntreComp) defines entrepreneurship as a transversal competence that hinges on the creation of cultural, social or economic value applying to all spheres of life (Bacigalupo et al., 2016; EntreComp Europe, 2020).

Educators play a central role in the delivery of these contents and competences, taking the role of a facilitator providing a safe environment allowing to gain significant learning experiences along the development of the entrepreneurial mindset where students can discover their own potential (Mueller, 2011).

Individual competences

A Framework of individual competences for sustainable development on a business environment has been identified based on a systematic review of the literature and validated by Ploum et al. (2018). It can be summarized as follows:

- *Interpersonal competence*: the ability to motivate, enable, and facilitate collaborative and participatory sustainability activities and research;
- *Strategic management competence and action competence*: The ability to collectively design projects, implement interventions, transitions, and strategies for sustainable development practices (*strategic management*) and the ability to actively involve oneself in responsible actions for the improvement of the sustainability of social–ecological systems (*action*);
- *Embracing diversity and interdisciplinary competence*: the ability to structure relationships and recognize the legitimacy of other viewpoints in business decision-making processes;
- *Systems thinking competence*: the ability to identify and analyze all relevant (sub)systems across different domains (people, planet, profit) and disciplines, including their boundaries;
- *Normative competence*: the ability to map, apply, and reconcile sustainability values, principles, and targets with internal and external stakeholders;
- *Foresighted thinking competence*: the ability to collectively analyze, evaluate, and craft “pictures” of the future in which the impact of local and/or short-term decisions on environmental, social, and economic issues is viewed on a global/cosmopolitan scale and in the long term.

Figure 58: The Sustainable Entrepreneurship Competence Pyramid (Lans et al., 2021)



The main difference between the use of the competences for sustainable development or for sustainable entrepreneurship lies in the entrepreneurial intention and mindset when applying them as a sustainable entrepreneur, which has a stronger action component towards innovation and new value creation, that is also reflected in the associated teaching activities focusing on opportunity identification, opportunity evaluation, opportunity exploration (i.e., getting into action) and creation of new value for others (Intrinsic, 2021, citing Baggen et al., 2021). Specific learning goals can be identified for each competence ("At the end of the study program, my students are able to...") (Intrinsic, 2021).

Practical learning

Entrepreneurship education has moved away from traditional approaches such as lectures towards more practical learning emphasizing real-world opportunities and experience as an effective teaching method, with problem-based learning, student business start-ups, live cases, and simulations (Intrinsic, 2021).

Some specific requirements have to be considered for entrepreneurship education (Lans and Plum, 2018):

- Entrepreneurial process – opportunity identification, evaluation and exploration
- New value-creation for others
- Authenticity – relationship with the 'real' world
- Creation of an artefact

The creation of an artefact (a plan, a report, a concept, a prototype, some artwork etc.) is a core element characterizing experiential entrepreneurial education.

Figure 59: Example of a design tool for entrepreneurship education (Lans and Plum, 2018)

Tool: Design principles for entrepreneurship education

Requirements of Entrepreneurship Education

1. Entrepreneurial process: opportunity identification, evaluation and exploration
2. New value creation for others
3. Authenticity – relationship with the *real* world
4. Creation of an artefact

Name of principle	Low	High
Method	Instrumental method 1. Building on entrepreneurship theories and practices 2. Existing assignments with pre-defined framework	Entrepreneurial method approach (effectuation) 1. Starting from person: who am I, who do I know, what can I do 2. Assignment is commissioned and owned by student
Level of autonomy for the value-creation process	Supervised, structured process	Independent decision making, unstructured process
Context/environment	Local/close by	International/system
Complexity of the cases students face	Simple, but authentic case with several solutions	Messy, wicked problems as starting point of the case. Ambiguity in the question and solution of the problem.
Nature of the value-creation process	Single value-creation (e.g., economic)	Multiple value-creation (e.g., economic, social and ecological)
Knowledge creation process	No new knowledge is necessary, creation process is intuitive	Interdisciplinary, co-creation of new knowledge
Impact of the result	Result is for the teacher or peers	Impact for the domain/sector/society
Cooperation	Individual and peer learning	Team-based, interdisciplinary
Role of external stakeholders	Limited amount, low intensity of alignment	Many, co-creation, co-development
Room to manoeuvre	Room to manoeuvre and reflection in a safe environment without time pressure	Short cycles of build-measure-learning, making mistakes and time-pressure are part of the process
Role models	Heroes and role models that inspire students	Local heroes, exposure to peers, mentors and coaches to develop yourself further (i.e., identity development)

Learning about, for and through entrepreneurship

Education *for* entrepreneurship is typically practice-oriented and aims to foster both business-oriented skills and enterprising skills. The focus is thus both on the content and the teaching methods. Education *about* entrepreneurship focuses on transmitting declarative knowledge about what entrepreneurship is and what entrepreneurs do. It is, by far, the most common educational approach. There is, however, a third approach to entrepreneurship education that is relatively different from the other two. Education *through* entrepreneurship is an approach that focuses on using entrepreneurship as a teaching method.

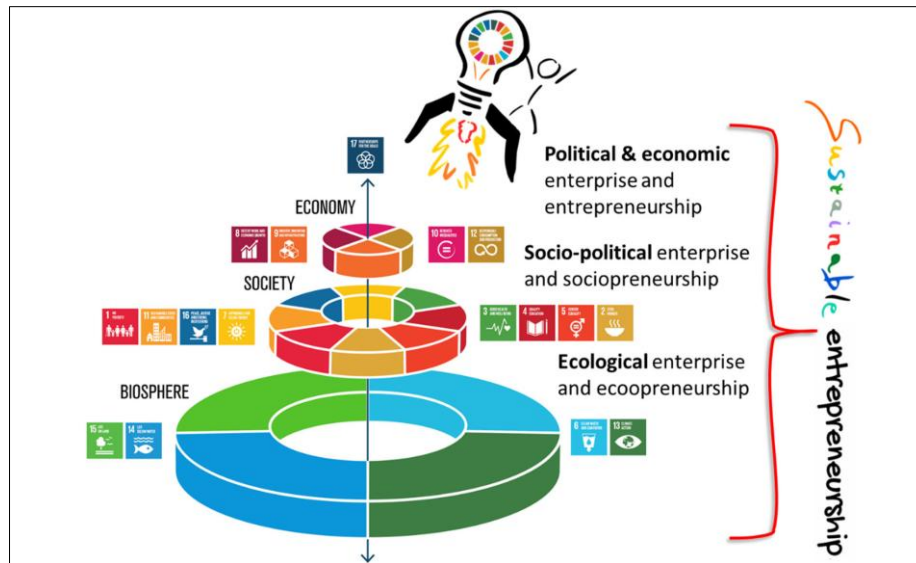
Citing Moberg et al. (2015, p. 23), it is possible to affirm that “whereas education for and about entrepreneurship typically focuses on new venture creation, the focus of education through entrepreneurship is more on fostering innovative, creative and enterprising individuals”. And “it should be emphasised that there is a clear focus on fostering enterprising skills, such as creativity, resource marshalling and ambiguity tolerance, and similar to the other two approaches, it is by studying entrepreneurs, how they learn and act and how entrepreneurial passion and motivation is developed”.

Linking sustainable entrepreneurship education to SDGs

Education is a key instrument for bringing about changes in values and attitudes, skills, behaviours and lifestyles consistent with sustainable development. The conditions for success of this process is not only linked to the capacity of providing students with new knowledge, practical skills and competencies, but above all it is linked to the widespread adoption of new values, attitudes and behaviours aimed at contributing to sustainable development of current and future generations (Chiodo et al., 2013).

Increasingly, the achievement of the sustainable development goals (SDGs) is being related to successfully implemented innovative solutions, created by sustainable entrepreneurs. The SDGs have become an inspiration for many types of entrepreneurship that combine value creation with conservation and social protection. Only recently, the achievement of the SDGs has been directly related to the targeted development of sustainable entrepreneurship competences in students. (Intrinsic, 2021).

Figure 60: The SGDs ordered along a hierarchical environment – society gradient (intrinsic.eu)

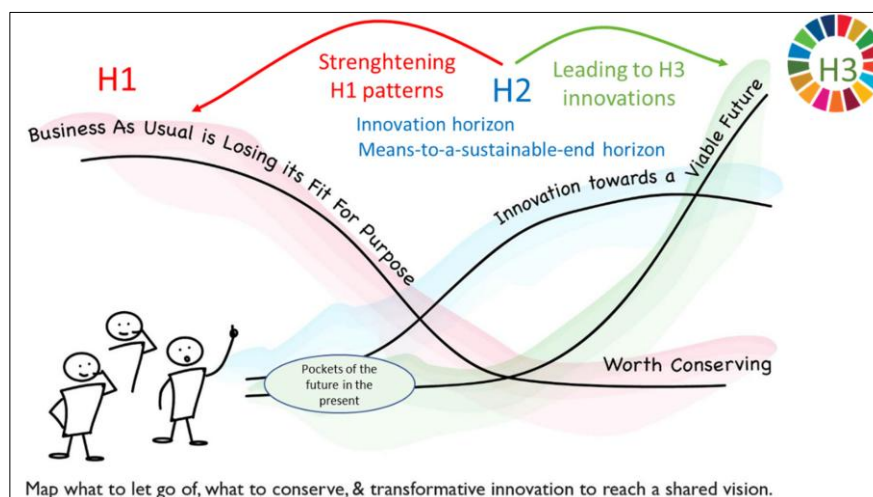


The three horizon-model of Sharpe et al. (2016) links the idea of sustainable entrepreneurship with a clear focus on the sustainable development goals (SDGs). It is a simple and intuitive tool for thinking about the future. It helps to explore systemic patterns which are no longer fit for purpose, but also to analyse how emerging trends can be explored to achieve a viable future. According to the three horizons-model this future can be perceived through three lenses:

- Horizon 1: Continue Business as Usual
- Horizon 3: Vision of a Viable Future
- Horizon 2: Innovation towards the Vision (www.intrinsic.eu)

Current drivers for unsustainable economic behaviours and innovations supporting Horizon 1 need to be addressed and changed via Horizon 2 innovations leading to Horizon 3; innovations that currently seem radical but will be normal in the future at Horizon 3 and only sustainable entrepreneurs can deliver that. Actual educational systems need reformation towards this perspective of a global sustainable change now (Intrinsic, 2021).

Figure 61: The three horizon-model of Sharpe et al. (2016) as model for sustainable entrepreneurship



To educate students towards a sustainable entrepreneurial mindset, which empowers them to contribute to the third horizon, where the SDGs can be situated as a global shared vision of a liveable future, means to equip them with a set of core competences needed.

- **The Sustainable Business Model**

An important tool for defining a sustainable business model is the Flourishing Business Canvas.

The Business Model Canvas was originally developed by Osterwalder and Pigneur and serves to visualize and analyse business models (Osterwalder and Pigneur, 2010). Nowadays, the Canvas model is widely used for start-up management and has become the standard for startup presentations and workshops.

The Flourishing Business Canvas consists of key elements, including the value proposition, customer segments, channels, revenue streams, key activities, resources, partnerships and cost structure. What characterizes the Flourishing Business Canvas is its emphasis on integrating sustainability principles into every aspect of the business model. (Patricia, 2024). The elements that make up the Flourishing Business Canvas, within literacy pathways for sustainable entrepreneurship of young unemployed women go in the direction of aspiring female entrepreneurs who strive to build companies by implementing a triple bottom line, a sustainability framework that measures a company's success in three key areas: profit (a traditional measure of corporate profit), people (a measure of how socially responsible the organization has been in its operations) and planet (a measure of how environmentally responsible the company has been) (Patricia, 2024).

The Sustainable Business Canvas Model (Tiemann and Fichter, 2016) represents a model that - on the basis of the Business Model Canvas - enables sustainability-oriented development of business models. The Sustainable Business Canvas serves as a foundation for the systematic development of sustainability-oriented business models in the context of an interactive workshop.

A business model is an abstract representation of how an organization creates value (What value? For whom?), delivers value (How produced? Which partners?) and captures value (Costs? Revenue streams?). A sustainable business model has a broader perspective than only economic sustainability. 4 principles must be considered: sustainability orientation, extended value creation, systemic thinking, stakeholder integration.

A sustainable business model creates an economic, social and environmental value delivered in a sustainable way and assessed (cost and revenues) on a sustainable point of view (economic but also social and ecological). A holistic, integrated approach to sustainability has to be considered in all the aspects of the business model (Mewes H., FU-BEST Digital Lecture Series).

An integrated approach is requested, in which both classical and sustainability oriented questions concerning the business model are asked in relation to each of its elements: Vision & mission, Value proposition, Customers, Competitors, Relevant stakeholders (= how to create value); Key activities, Key resources, Key partnerships (= how to deliver value); Cost structure and Revenue model (= how to assess value).

- **Towards the Lesson Zero - Sustainable Entrepreneurship Literacy**

The objective of the Lesson Zero is to:

- provide the basis for sustainable entrepreneurship literacy to young women excluded from entrepreneurial contexts, taking an inter-, multi- and trans-disciplinary perspective;
- provide the basis for promoting responsible entrepreneurial behaviour with respect to the environment, people, territory and the future to contribute to the pursuit of the 17 Sustainable Development Goals;
- provide an entrepreneurial mind-set and competences for sustainable entrepreneurship identifying specific learning goals.

Lesson Zero – Moving Young Unemployed Women into Sustainable Entrepreneurship	
Objectives	- Activating Sustainable Entrepreneurship Literacy and Skill Pathways for Young Women Excluded from Entrepreneurial Employment - Fostering a culture of sustainable entrepreneurship also through knowledge of the contents of Agenda 2030 - Providing the basis for understanding the complexity of sustainable entrepreneurship - Promoting responsible behaviour with respect to the environment, people and the territory - Promoting the development of critical and systemic thinking and other transversal skills for sustainable entrepreneurship
Content	Module 1 – What sustainability is? - Meaning, history and ethical foundations of sustainability and sustainable development - The Sustainable Development Goals of the 2030 Agenda - Gender Equality: Goals in European, national and regional strategies - Relevance of sustainability in the everyday context: from needs to satisfaction through the entrepreneurial activity Module 2 – Sustainable entrepreneurship - Personal competences for entrepreneurship: the Sustainable Entrepreneurship Competence Pyramid - Acting as an entrepreneur: opportunity identification and creation of new value for others - Linking sustainable entrepreneurship to SDGs - Focus on social aspects of sustainable entrepreneurship (young women as target of InterGen project) Module 3 – Tools: from theory to practice - Sustainable business models - Flourishing Business Canvas - Impact assessment and measurement of sustainable entrepreneurship - Integrated sustainability reporting - Effective communication - Leadership and collaboration Module 4 – Project work - Define your own entrepreneurial project

4.5.9.3. Good practices: definition and identification procedure

To achieve the objectives of the INTERGEN project, good practices facilitating entrepreneurship education will be mapped and shared with different policymakers and stakeholders, in order to support the social inclusion of young women from a social equity perspective. To do so, it is first of all necessary to outline precisely what is meant by good practice, as well as how it is to be detected. From a terminological point of view, a variety of definitions and meanings of good practice can be found in the specific literature, just as many can be derived from the various experiences of national and international observatories.

The heterogeneity depends essentially on the use that is made of good practice and the context to which it refers. There is no single, exhaustive definition of good practice in the literature, but various definitions that are best suited to individual circumstances. In the scientific literature, national and international, one can find various definitions of 'good practice' that change depending on the context being analysed. The debate on the subject is still open even at the international level, confirming the

hypothesis that the concept can take on different meanings depending on the context of reference and the purposes that good practice-based strategies pursue. A common element of good practice definitions is the presence of strategies, approaches and activities that, through research and evaluation, have proven to be effective, efficient and transferable.

On the other hand, it is agreed that, in order to assign the attribute of practice to a given procedure, it must be characterised by (Comitato di Coordinamento RUS, 2023):

1. well-defined phases;
2. a high level of reliability;
3. and that it is assessable and reproducible.

It is also agreed in the literature that an operational definition of practice should include at least five properties (ivi, p.33):

1. a theoretical basis for the process;
2. the extent of systematic replication;
3. reference to existing literature;
4. the clarity of the results of the process;
5. evidence of organisational validity of its application.

In order to define a practice as 'good', one therefore begins by verifying whether it has a theoretical basis, i.e. whether it is embedded in a broader process of systematisation of hypotheses, predictions and explanations presided over by consistent rules. Added to this is the presence of adequate methodology and the possibility of detecting results and replicating procedures. Finally, social validity, i.e. the degree of acceptability and feasibility of the practice itself, is also important. The presence of these properties in the operational definition of practices can help one navigate the often improper and confusing adjectives that qualify them. It is important to bear in mind that no practice can assume value without the involvement of all stakeholders and without the circulation of ideas necessary to create synergies and exchange of experiences (Peters, Heron, 1993). While the elements listed above may be considered sufficient for the awarding of the judgement of goodness, *best practice* instead refers to the ability of these procedures to achieve the set objectives in the best possible way.

This calls into question the suitability of the objectives with respect to the characteristics of the context and the available resources, but also that of the effectiveness of the interventions to achieve them, their evaluation and reproducibility. To this end, systematic comparisons between cases favour the possibility of improvement in a continuous selective process and in a subsequent systematisation and formalisation of practice using (written) rules (practices) and standards. In this way, practice can be taken as a reference and reproduced to favour the achievement of the best results and framed in specific standards to serve as a model in different contexts. Returning to the definition of good practice, it is interesting to note how the English term 'best practice' has been borrowed in the Italian context with the term 'buona pratica'. In the 'neologisms' section of the Treccani, in fact, under the heading 'best practice' we find the following:

best practice: loc. s.f., good practice, best procedure: the choice of the service with the best operational characteristics and the best quality indicators.

Similarly, in the neologisms section, we also find the definition of 'good practice', which basically has the same meaning as the previous one:

good practice: loc. s.f. Action, diligent and effective practice, taking into account criteria and knowledge established by virtuous custom.

In this regard, Bardach, in explaining the process leading to the definition of good practice, said that this is like: "[...] looking for what seems to have worked well enough, trying to understand exactly how and why it worked, and evaluating its applicability to your specific situation" (Bardach, E., 1994, p. 45).

More generally, the meanings of good and best practice converge in relation to the results it enables to achieve, measurable through the attainment of set objectives, the resolution of critical issues and the level of innovation that qualifies the adjective as positive. But the possibility of implementing new practices in contexts other than the original one can also connote the practice in a positive way. The objective is therefore not to identify the best cases, but exemplary cases from which to draw inspiration

and learn something useful. In this sense, the term practice refers to the need to build skills through the dissemination of tangible actions (Comitato di Coordinamento RUS, 2023).

To identify a practice as 'good', several principles must be observed:

1. effectiveness: ability to pursue set objectives;
2. sustainability: ability to ensure long-term benefits;
3. participation: involvement of all stakeholders, including governments, non-governmental organisations, local communities, private sector;
4. knowledge sharing: documentation and circulation of knowledge with other organisations or countries that could benefit from it;
5. measurability: evaluation and quantification of results, through monitoring which promotes the level of progress and the use of performance indicators;
6. adaptability: the possibility of adapting and customising practices to meet the specific needs of different contexts or communities.

The presence of these properties in the operational definition of practices can help to navigate the often improper and confusing adjectives that qualify them.

Last but not least, in order to evaluate a good practice, it is necessary to establish impact indicators and continuous monitoring mechanisms (Aggett, et al., 2012):

- Impact indicators: they provide clarity regarding the objectives that interventions are intended to achieve, both for those who govern them and for those for whom they are intended, and play a key role in making those involved in the implementation of interventions monitorable. Furthermore, they are an essential metric for assessing expected and actual results against baseline conditions.
- The implementation phase must be accompanied by a robust monitoring and evaluation system. Monitoring that should be regular and continuous, with the aim of collecting accurate data on the progress of practices and making any improvements in real time to adapt them to the changing needs of stakeholders, who are actively involved.

In order to evaluate good practices, it is necessary to establish impact indicators and continuous monitoring mechanisms (Aggett et al. 2012). The former provide clarity with regard to the objectives the interventions are intended to achieve, both for those who govern them and for those for whom they are intended and play a key role in motivating and making those involved in the implementation of the interventions monitorable with the latter. In addition, they constitute an essential metric for assessing the expected and actual results against the starting conditions.

The implementation phase must be accompanied by a robust monitoring and evaluation system. Key performance indicators are needed to measure the effectiveness of the implemented practices. Monitoring should be regular and continuous, with the objective of collecting accurate data on the progress of the practices and making any improvements in real time to adapt them to the changing needs of the actively involved stakeholders. Good Practices are defined as operational processes that enable the achievement of expected objectives in an efficient and effective way. The monitoring of Good Practices is aimed at describing these processes so that they can be taken as a point of reference and guidance in other realities.

4.6. Challenges and solutions in implementing Phygital Hub

Equitable access to technology is one of the key challenges while implementing the Phygital Centre. Many marginalized and disadvantaged groups within the population, especially those living in rural or impoverished regions, lack access to the digital infrastructure needed to engage meaningfully in online learning. The Centre must collaborate with government agencies, NGOs, and private sector partners to develop low-cost or subsidized technology solutions to address this challenge (Mele et al., 2023).

The long-term success of the Phygital Centre depends on effective stakeholder engagement and alignment with national policies. Maintaining robust collaboration with government agencies, private sector actors, educational institutions, and NGOs is imperative to ensure both financial sustainability

and operational effectiveness (Nozdreva et al., 2023).

Furthermore, continuous innovation is essential for the Centre to retain its relevance in an evolving digital landscape. As technological advancements reshape educational paradigms, the Phygital Centre must remain agile and responsive, continuously adapting its educational methodologies and service offerings to meet emerging needs. By adopting an iterative and data-driven approach to program development, the Phygital Centre can reinforce its position as a leading model for digital education, social inclusion, and workforce integration (Mele et al., 2023).

The model utilizes customization enabled by AI and community-based learning spaces, providing a scalable and adaptable framework for empowering disadvantaged individuals. While Phygital Centre serves as an initial case study, its successful implementation may provide insights into the replication of the model in other regions.

Phygital Centre serves as a tangible example of how the theoretical principles discussed in this article can be applied in practice to foster social inclusion and educational equity. By combining digital accessibility with physical engagement, the project offers a pathway to reintegration for some of the most vulnerable members of society. This hybrid interaction model establishes the foundation for the dissolution of the numerous communication barriers that affect the project's target groups, including NEETs and other disadvantaged groups, to varying degrees and with distinct characteristics. In short, GRINS helps build a strong and sustainable knowledge ecosystem in Italy.

The platform plays an indispensable role in fostering resilience and inclusiveness, facilitating the development of quantitative, data-driven approaches in a field, namely the socio-economic field, which has heretofore been primarily governed by qualitative sources.

As it expands, Phygital Centre will demonstrate its scalability, offering a blueprint for other cities seeking to address similar social and educational challenges.

Moreover, the establishment of the Phygital Centre demonstrates GRINS's dedication to developing tangible instruments for inclusiveness by providing pathways for previously marginalized individuals to gain the competencies required for integration into the labor market, thus facilitating the process of cohesive and inclusive development within our country.

So, working on Entrepreneurial Education, the Phygital Centre's aims can be summarized as follow:

- More effective AI-driven customized learning paths, in Entrepreneurial Education, to increase knowledge and skills of target audiences.
- Customized Entrepreneurial Education in the Phygital Centre, supported by AI, Augmented Reality and Immersive Reality, will increase entrepreneurship attitudes in target audiences.
- Increasing entrepreneurial attitudes of disadvantage groups, to increase their economic independence and social inclusion.

Assessing such objectives, Phygital Centre could be identified as a significant contributor to the mitigation of disparities, faced by numerous marginalized individuals. The hybrid nature of the Phygital Centre can ensure that learners acquire not only theoretical knowledge but also develop practical skills, and above all, an entrepreneurial attitude, essential for successful entry into the job market.

The dual-channel approach enhances employability, particularly for those who may not thrive in conventional educational settings (Nguyen et al., 2021). By facilitating collaborations with the Grins Project, the Centre also ensures that training aligns with labor market demands, creating clear pathways to employment and entrepreneurial opportunities. Beyond employment, the Phygital Centre fosters economic independence through "entrepreneurial attitude education". By integrating business training, it empowers learners to develop projects, manage finances, and navigate the complexities of the market. From a policy perspective, the Phygital Centre offers a scalable and adaptable model that can be tailored to various regional and socio-economic contexts. Its flexibility allows policymakers to implement targeted interventions that directly address local labor market conditions and educational needs.

5. Guidelines for Service personalization

5.1. Digital platform infrastructure design for Phygital Hub

The platform (deep tech knowledge management system) required to support the work of the Phygital Centre in Catania should be capable of acquiring, delivering and distributing knowledge in SaaS (Software as a Service) mode in the cloud, respecting the requirements of scalability, security and interoperability between multiple devices (PCs, smartphones and tablets, etc.) and using advanced natural language processing (NLP) technologies. It must be able to acquire text documents of various formats and from various sources for the construction of the "data dictionary".

It also must use NLP algorithms to perform operations for: the automatic identification and structuring of key concepts, entities, relations and topics; the automatic grouping of documents based on their semantic affinity; the addition of metadata and semantic links to increase the information value of the contents; the automatic transformation of complex contents into more understandable versions, maintaining semantic integrity; the information extraction, thematic clustering, semantic enrichment, simplification and advanced indexing to facilitate rapid and relevant searches.

This platform will perform a generative synthesis capable of automatically generating summaries of the acquired documents, with the possibility of customizing the desired level of detail and producing personalized textual contents based on specific requests. It will also provide a multimedia layer for the presentation of the contents and a user-experience that allows the matching between the acquired knowledge contained in the "data dictionary" and the user profile to offer an active, immersive and collaborative learning experience.

In such way, this digital platform represents the core of the Phygital Centre for training and empowerment through the personalized delivery of information contained in the "data dictionary" with respect to the specificities of the target and consistent with the physical and digital context of use. It provides user analysis for the identification of objective targets and clustering consistent with the reference context to ensure the customization of the activity provided by the platform also in light of the recognition of work skills for the creation of occupational profiles and job orientation through specific training and work paths.

Besides this, it provides a frontend for administrative use (admin console) that allows convenient editorial management of platform content, for uploading and adding textual information (e.g. captions, alt text, labels) and for managing the multimedia content creation service (video, animated presentations, podcasts, webinars). Such content and information must also be able to be managed via API services, drawing from a storage cluster and ensuring content management from external consoles.

Additional services provided by the platform will be a simultaneous translation tool to overcome language barriers; secure digital identities for undocumented people (e.g. migrants, homeless); a data dictionary query tool via chatbot; a digital user experience through the use of Virtual Reality (VR) and Augmented Reality (AR) solutions for the provision of interactive and gamification content, as well as the simulation of technical-manual activities, the creation of virtual and metaverse experiences with the creation of virtual spaces, virtual tutoring activities, emotional support and verification of learning progress with interactive quizzes and certification of achieved results.

5.2. Methodological and operational integration of the GRINS Phygital Hub: profiling, adaptive learning and inclusive pedagogies

The integration of artificial intelligence into education increasingly calls for thoughtful adaptation—not only technological, but pedagogical. Within the GRINS Phygital Hub, digital systems such as intelligent tutors, immersive experiences, and adaptive content delivery are intended to enhance, rather than replace, the presence of human educators. This alignment reflects a broader philosophy of collaborative intelligence, where technology serves to strengthen, not overshadow, the emotional and ethical guidance provided by teachers (Wang et al., 2023). Although algorithms can personalize content and simulate workplace scenarios, they cannot replicate the psychological safety, empathy, and motivational support offered by skilled educators (Frumkin et al., 2022). The hybrid approach adopted by GRINS ensures that learners are treated as whole individuals, people with histories and aspirations,

rather than anonymous data profiles. This is especially important for participants with low self-esteem or negative prior experiences in education.

The system's architecture addresses these challenges by offering timely feedback, small achievable milestones, and tailored learning support aimed at fostering confidence and persistence (Alqodsi & Jadalhaq, 2024). Human facilitators, in turn, interpret learner data and adjust interventions to maintain a sense of connection. Immersive technologies play a unique role in this dynamic, offering learners the chance to explore professional roles and test decision-making in safe, simulated environments. These experiences not only develop competencies but also allow learners to reimagine their self-image in more empowered ways (Pietroni, 2025).

Ethical responsibility is embedded in the GRINS framework. Rather than treating AI as a neutral tool, the Hub emphasizes transparency, data protection, and learner autonomy. Participants are informed about how their data is used, have control over their learning paths, and contribute actively to the design of their educational journey (Rodríguez de las Heras, 2024).

In digital environments, many disadvantaged learners face barriers such as inaccessible interfaces and abstract content. The Phygital Hub addresses these issues through human-centered design. The learning environment is tailored to be immersive yet emotionally relevant, technologically advanced yet approachable. Practically, this is achieved by combining conversational AI, multimodal content, and encouragement strategies that respond to learners' unique profiles (Wang et al., 2023). As a result, the training process becomes a broader pathway toward social reactivation and individual empowerment.

5.3. Social and economic impact of GRINS Phygital Centre

The main social impact of the GRINS Phygital Centre is the enhancement of educational and training opportunities for target groups. Through flexible learning paths on the Centre, socio-economic and other barriers to learning are diminished and such possibilities further help learners in the pursuit of quality of life. This is especially true for groups like NEETs, inmates, and migrants who have been traditionally excluded from conventional teaching settings (Schneider, 2021).

Besides that, this Phygital Centre contributes to improving the educational results, as well and greater social inclusion. The Centre reduces the social gap and promotes workplace education by equipping learners with the skills that are required to have confidence for joining the workforce. This is consistent with more inclusive social theories that suggest it is crucial for marginalised people to have access to and be woven into dominant economic and social systems (Silvia et al., 2023).

It is well documented that socio-economic empowerment occurs most effectively when provided through education in entrepreneurship, as this approach is most beneficial to those most disadvantaged in society. The Phygital Centre opens a direct path to economic participation by training learners to create and manage their own businesses. Such business acumen is especially useful to NEETs and prisoners who may find it more difficult to identify traditional routes into employment, and instead can craft their own by embarking into entrepreneurship.

Additionally, the Phygital Centre's emphasis on Entrepreneurship Education ties directly into wider theories of economic development, which posits that encouraging innovation and entrepreneurship is a crucial means of driving local economy and creating employment opportunities (Nozdreva et al., 2023). The Centre is contributing to long-term economic growth and stability by preparing underprivileged learners for success in the digital economy. Phygital education is not only beneficial to learners but long-term it benefits also the society since it also stimulates local economies, particularly in underserved areas, by increasing educational attainment and fostering entrepreneurship. Because of this, employment, income levels and overall economic stability tend to rise (Schneider, 2021).

Moreover, the Phygital Centre's focus on customization guarantees that the educational services offered align directly with the requirements of the local economy. The link between education and economic development is essential for the sustainable existence of both the Centre and the communities (Mele et al., 2023).

5.4. GRINS scalability strategies

The GRINS Phygital Hub is designed with scalability and sustainability in mind. It is more than a localized experiment: it offers a flexible model that can respond to different territorial, demographic, and sectoral needs. In an era marked by rapid digital shifts, changing labor demands, and persistent inequalities, GRINS presents a structured response to the challenge of creating learning systems that are both inclusive and adaptable. This section outlines the rationale behind its replicability and alignment with international educational benchmarks (Holmes et al., 2019; UNESCO, 2021; World Bank, 2021). The Hub is built on a modular infrastructure that integrates adaptive AI, immersive XR learning tools, interoperable credentialing systems, and real-time learning analytics. These components are designed to align with European and international standards such as DigComp, EQF, and ESCO. They can operate in a range of contexts, from high-tech labs to resource-limited classrooms, and are compatible with common learning management systems like Moodle or Canvas.

By using interoperable formats such as ELM and OpenBadges, credentialing data based on micro-competency achievements can circulate across networks, enhancing learner mobility and visibility.

AI supports the individualization and self-optimization of the learning process, reducing dropout rates among vulnerable groups and increasing the likelihood of sustained skills acquisition (Kukulska-Hulme, 2020). The economic model also contributes to sustainability: short-format learning modules, automated feedback, and stackable credentials help reduce operational costs without compromising educational quality. Rather than replicating the Hub identically across locations, the GRINS model is designed to be translated into different contexts. It is adaptable to diverse settings (urban, rural, or sector-specific) and to varied population groups, including NEETs, migrants, and adult learners in transition. This flexibility is supported by strong partnerships with educational providers, businesses, public authorities, and civil society organizations. These collaborations facilitate shared ownership, alignment between training and labor market demands, and the design of learning pathways that are both relevant and inclusive.

The system continuously improves by analyzing user data. Learner interactions feed into an analytics engine that monitors engagement, cognitive load, and emotional indicators. This feedback informs real-time instructional adjustments and supports broader curriculum updates. As Vinuesa et al. (2020) note, artificial intelligence can support sustainable development when it is used transparently and ethically, and when it enhances, rather than undermines, human-centered education.

In this way, the GRINS Phygital Hub functions as an evolving learning ecosystem. Each cohort contributes to improving the learning environment for the next, ensuring that the system remains responsive to technological advances, policy changes, and shifts in workforce needs. Built on open standards and strengthened by cross-sectoral partnerships, the Hub combines scalability with sustainability, and replicability with social inclusion.

Conclusions

The current deliverable represents an attempt to summarize the broad and complex work carried out within Spoke 8, Work Package 4 of the GRINS project.

The main objective was to develop a conceptual and operational framework for a "Phygital Centre for Entrepreneurship Education and Social Inclusion," addressing the needs of disadvantaged groups such as migrants, NEETs, women, and inmates. The activities developed over the past months integrated theoretical research, empirical experimentation, and infrastructure design, with the aim of laying the foundations for scalable and inclusive entrepreneurial education models grounded in hybrid (physical and digital) learning environments.

The theoretical work developed in WP4.1 provided the initial framework for the activities described in this long and articulated report.

Starting from a wide-ranging review of the literature on entrepreneurship education, the analysis set out to better understand how ongoing digital transformation is reshaping not only the tools adopted in training processes but also the underlying pedagogical and strategic assumptions, particularly those

relevant to policymakers.

Special attention was dedicated to the disruptive potential of emerging technologies, especially artificial intelligence, immersive environments, and adaptive learning systems, in supporting the development of personalized learning pathways.

At the same time, the analysis pointed to several risks, such as the reinforcement of digital divides and the potential exclusion of vulnerable individuals from innovation ecosystems, particularly when issues of access are not adequately addressed.

The empirical component of the project was developed through fourteen Business Action Cases (BACs), each focused on a specific target group and socio-territorial context.

These theoretical insights were not treated as abstract reflections: they helped to shape the empirical activities carried out through fourteen Business Action Cases (BACs), each developed in response to specific social needs and local conditions.

The BACs were never meant to be templates or models to replicate, but rather exploratory efforts — concrete trials to test different ways of making entrepreneurial education more inclusive, relevant, and context-sensitive

Some cases focused on digital upskilling, while others emphasized the creation of community-based initiatives grounded in entrepreneurial competences.

All of them contributed to highlighting the importance of developing innovative hybrid learning models that combine digital tools with meaningful human interaction. Rather than defining a single model, the BACs revealed the value of plural, situated experimentation as an essential precondition for any scalable and inclusive innovation in this field.

The design of the Phygital Hub, developed in WP4.2 and refined in WP4.4, can be regarded as one of the most distinctive outcomes of this work package. The Centre was not conceptualised as a conventional training centre, nor as a rudimentary digital platform. Instead, it was conceived as a learning ecosystem, integrating technological tools with human-centred processes.

Its architecture integrates AI-supported profiling systems, gamification dynamics, immersive environments, and mentoring structures, all aimed at fostering engagement and personalization. The Hub was designed to adapt to the specific needs of marginalized individuals, particularly those coming from vulnerable groups, by offering inclusive educational experiences that are flexible and closely aligned with the specific characteristics of each reference cluster.

Of crucial note, the Phygital Centre does not aspire to supplant extant paradigms; instead, it seeks to augment and broaden them through the utilisation of modular components that can be implemented in a phased manner and adapted to diverse contexts. The overarching objective of the project, as has now been elucidated, is to construct infrastructures that are not only innovative but also accessible, relational, and oriented towards long-term social inclusion.

The activities carried out in WP4.4 led to the development of a preliminary business model aimed at ensuring the sustainability and gradual scaling of the Phygital Hub. Somewhat than proposing a rigid framework, the model was designed to be modular and adaptable, in order to align scalability processes with different socio-economic conditions and specific operational environments.

The difficulty of creating meaningful key performance indicators (KPIs) was given special consideration; these should not be only technical measurements but rather practical instruments for comprehending how the Phygital Hub may develop, change, and really interact with its users in the future. Interaction, engagement, advocacy: these were not abstract concepts, but critical dimensions that needed to be observed and nurtured in order to support the continuous evolution of the Hub's activities. Alongside this work, the activities carried out in WP4.6 turned toward a different but equally complex task: designing scalability strategies.

Here too, the approach was clear. Replication could not simply mean copying a model from one context to another. True scalability would have to emerge from careful adaptation, taking into account territorial specificities, local resources and perhaps, most importantly, the dynamics of stakeholder ecosystems on the ground. Building strong partnerships and ensuring the active involvement of community actors were seen as essential, not just for implementation but for long-term sustainability

and real ownership of the initiatives. Of course, there were challenges along the way. A number of significant obstacles emerged throughout WP4's efforts, each of which provided valuable insight into the intricacy of creating hybrid infrastructures for inclusive entrepreneurship education. A persistent barrier that prevented technologies and platforms from effectively reaching the groups that stood to gain the most was the digital divide. It was also occasionally challenging to maintain participants' meaningful participation, particularly when initiatives were seen as outside forces rather than solutions based on the real needs and goals of local communities.

Furthermore, coordinating multi-stakeholder ecosystems turned out to be an ongoing negotiation, often slowed by institutional fragmentation or a lack of trust among actors who were not accustomed to working together.

Finally, the very idea of scalability forced a deep reflection: moving from pilot initiatives to broader systemic impact would not be a matter of repetition, but of continuous learning, flexible adjustment, and an ongoing sensitivity to local realities.

The development steps produced within Spoke 8, Work Package 4 of the GRINS project have laid the foundations for the creation of innovative and inclusive models of entrepreneurial education, capable of integrating digital technologies with human-centered learning approaches.

Rather than offering definitive solutions, the deliverable proposes conceptual frameworks, empirical insights, and specific drivers intended to serve as a basis for guiding future actions.

Future initiatives will need to build on the experiences gained here, further strengthening co-design processes, reinforcing local ecosystems, and ensuring that inclusion remains not just a principle but a concrete and measurable outcome. In this perspective, the work developed within this particularly demanding deliverable nevertheless constitutes an initial but significant step toward fostering entrepreneurial capabilities as a driver of social innovation and territorial development.

References

- Abada, T., Hou, F., & Lu, Y. (2014). Choice or necessity: do immigrants and their children choose self-employment for the same reasons? *WORK EMPLOYMENT AND SOCIETY*, 28(1), 78–94. <https://doi.org/10.1177/0950017013511870>.
- Abdullah, N., Hadi, N.U. and Dana, L.P. (2018), “The nexus between entrepreneur skills and successful business: a compositional analysis”, *International Journal of Entrepreneurship and Small Business*, Vol. 34 No. 2, pp. 249-265.
- Abuhussein, T. (2022). The impact of COVID-19 on refugee women’s entrepreneurship in Jordan. *Journal of Enterprising Communities: People and Places in the Global Economy*, (ahead-of-print).
- Acs, Z. J., Audretsch, D. B., & Lehmann, E. E. (2013). The knowledge spillover theory of entrepreneurship. *Small business economics*, 41: 757-774.
- Acs, Z., Astebro, T., Audretsch, D., & Robinson, D. T. (2016). Public policy to promote entrepreneurship: a call to arms. *SMALL BUSINESS ECONOMICS*, 47(1), 35–51. <https://doi.org/10.1007/s11187-016-9712-2>.
- Adams, R. J., Smart, P., & Huff, A. S. (2017). Shades of grey: Guidelines for working with the grey literature in systematic reviews for management and organizational studies. *International Journal of Management Reviews*, 19(4): 432-454.
- Addo, P.-A. (2017). ‘Is It Entrepreneurship, or Is It Survival?’: Gender, Community, and Innovation in Boston’s Black Immigrant Micro-Enterprise Spaces. *Societies*, 7(3). <https://doi.org/10.3390/soc7030020>.
- Adejimola, A.S. (2008), “Language, communication and information flow in entrepreneurship”, *African Journal of Business Management*, Vol. 2 No. 11, p. 201.
- Agarwal, R., Ganco, M., & Raffiee, J. (2022). Immigrant Entrepreneurship: The Effect of Early Career Immigration Constraints on New Venture Formation. *Organization Science*, 33(4), 1372– 1395.
- Aggett S., Dunn A. and Vincent R. (2012). *Engaging with Impact: How do we know if we have made a difference?*. WellcomeTrust, London.
- Agrawal, A., Gans, J. S., & Goldfarb, A. (2019). Exploring the impact of artificial intelligence: Prediction versus judgment. *Information Economics and Policy*, 47, 1-6.
- Aguinis, H., & Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational research methods*, 17(4), 351-371.
- Ahmad, Umirzakova, Mujtaba, Amin and Whangbo (2023). Requirements, Enabling Technologies, and Future Directions.
- Ahmetaj, B., Kruja A, D., Hysa E. (2023), “Women Entrepreneurship: Challenges and Perspectives of an Emerging Economy”. *Administrative Sciences*, 13: 111
- Ahn, K., & Winters, J. V. (2023). Does education enhance entrepreneurship?. *Small Business Economics*, 61(2): 717-743.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179–211.
- Akaehomen, T., Sawang, S., & Walmsley, A. (2023). Enhancing the Entrepreneurial Capabilities of Female Immigrant Entrepreneurs Through Entrepreneurship Education and Training (EET): The Irish Context. *Proceedings of the European Conference on Innovation and Entrepreneurship, ECIE*, 2, 1078–1086.
- Al hawamdeh Dr, N. (2021). Revisiting the entrepreneurial ventures through the adoption of business incubators by higher education institutions. *The International Journal of Management Education*, 19(1), 100419.
- Al Issa, H. E., Thai, M. T. T., & Nguyen, H. (2024). A systematic mapping of social entrepreneurship education: a call for increased collaboration, ethics, and research frameworks. *The International Journal of Management Education*, 22(3), 101025.
- Al-Sadi, R., Belwal, R., Al-Badi, R. (2011), “Woman entrepreneurship in the Al-Batinah region of Oman: an identification of the barriers”, *Journal of International Women’s Studies*, Vol. 12 No. 3, pp. 58-75.
- Alakaleek, W. (2019), “The status of entrepreneurship education in Jordanian universities”, *Education + Training*, Vol. 61 No. 2, pp. 169-186, doi: 10.1108/ET-03-2018-0082.
- Alakaleek, W. (2019). The status of entrepreneurship education in Jordanian universities. *Education+ Training*, 61(2), 169-186.
- Albattat A., Abdulla F., S. (2023). “Challenges Faced by Women Entrepreneurs of 21st Century: Literature Review”. *Journal of Management & Science*
- Aldrich H.E., Jones T.P., McEvoy D., 1984: *Ethnic Advantage and Minority Business Development*, in *Ethnic Communities in Business: Strategies for Economic Survival*, edited by R. Ward e R. Jenkins, Cambridge University Press, Cambridge, pp. 189-210.
- Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review*, 19(4): 645-670.
- Alexandre, L., Salloum, C., & Alalam, A. (2019). An investigation of migrant entrepreneurs: the case of Syrian refugees in Lebanon. *International Journal of Entrepreneurial Behavior & Research*, 25(5), 1147–1164.
- Alexandre, L., Salloum, C., & Alalam, A. (2019). An investigation of migrant entrepreneurs: the case of Syrian refugees in Lebanon. *International Journal of Entrepreneurial Behaviour and Research*, 25(5), 1147–1164. <https://doi.org/10.1108/IJEBr-03-2018-0171>.
- Aliaga-Isla, R. (2014). Immigrants’ perception of business opportunities in Spain: The impact of general and specific human capital; [A percepção de oportunidades de negócios por imigrantes na Espanha: O impacto do capital humano geral e específico]; [La percepción de las oportunidades de negocios por inmigrantes en España: El impacto del capital humano general y específico]. *Revista Brasileira de Gestao de Negocios*, 16(52), 416–433.

<https://doi.org/10.7819/rbgn.v16i52.1615>.

- Alimahomed-Wilson, J. and Reese, E. (eds). 2020. *The Cost of Free Shipping: Amazon in the Global Economy*. London, Pluto Press. DOI: 10.2307/j.ctv16zjhcg
- Alleanza Italiana Per lo Sviluppo Sostenibile, (ASVIS), <https://asvis.it>
- Almahry, F.F., Sarea, A.M. and Hamdan, A.M. (2018), "A review paper on entrepreneurship education and entrepreneurs' skills", *Journal of Entrepreneurship Education*, Vol. 21 No. 1, pp. 1- 7.
- Almohammad, D., Durrah, O., Alkhalaf, T., & Rashid, M. (2021). Entrepreneurship in crisis: The determinants of Syrian refugees' entrepreneurial intentions in Turkey. *Sustainability*, 13(15), 8602.
- Alqodsi, E. M., Jadalhaq, I. M., El Maknouzi, M. E. H. E. H., & Abdulhay, I. E. A. (2024). Promoting responsible AI practices: Legal responsibilities of teachers for students with special needs in the United Arab Emirates. In A. K. Abdallah, A. M. Alkaabi, & R. Al-Riyami (Eds.), *Education on the cutting edge: Innovation in teaching, leadership, technology, and assessment* (pp. 195–211). IGI Global. <https://doi.org/10.4018/979-8-3693-0880-6.ch014>
- Alrawadieh, Z., Karayilan, E., & Cetin, G. (2019). Understanding the challenges of refugee entrepreneurship in tourism and hospitality. *The Service Industries Journal*, 39(9–10), 717–740.
- Alvarado Valenzuela, J. F., & Solano, G. (2022). Study and work paving the way for Moroccan migrants: the entrepreneurial path to transnational and domestic business activities. *ZFW- ADVANCES IN ECONOMIC GEOGRAPHY*, 66(3), 172–184. <https://doi.org/10.1515/zfw-2021- 0021>.
- Amatucci, F., Nelson, P. and Jay, F. (2013), "Sustainability: a paradigmatic shift in entrepreneurship education", *New England Journal of Entrepreneurship*, Vol. 16 No. 1, pp. 7-18.
- Ambrosini M. (2020), *L'invasione immaginaria: L'immigrazione oltre i luoghi comuni*, Gius. Laterza & Figli Spa.
- Ambrosini, M. (2011). *Sociologia delle migrazioni*. Il Mulino, Bologna, nuova edizione.
- Ambrosini, M. (2012). Migrants' entrepreneurship in transnational social fields: research in the Italian context. *International Review of Sociology*, 22(2), 273-292.
- Ambrosini, M., & Boccagni, P. (2006). Self-employment work and small enterprises as channels of integration for immigrants: The case of the Province of Trent; [Lavoro autonomo e piccole imprese come canali di integrazione dal basso degli immigrati: Il caso della Provincia di Trento]. *Studi Emigrazione*, 43(163), 739–758.
- Amornsiripanitch, N., Gompers, P. A., Hu, G., & Vasudevan, K. (2023). Getting schooled: Universities and VC-backed immigrant entrepreneurs. *Research Policy*, 52(7). <https://doi.org/10.1016/j.respol.2023.104782>.
- Analysis Based On Clds 2016. *Singapore Economic Review*, 68(5), 1787–1813. <https://doi.org/10.1142/S0217590822500709>.
- Andersen M. L., Hill Collins P., (2018), "Why Race, Class, and Gender Matter", in Grusky D., Hill J., *Inequality in the 21st Century. A Reader*, New York, Routledge.
- Anderson, A., Ojediran F. (2022). "Perspectives, progress and prospects; researching women's entrepreneurship in emerging economies". *Journal of Entrepreneurship in Emerging Economies* 14: 292–315
- Andrade, J. G., & Dias, P. (2020). "A phygital approach to cultural heritage: Augmented reality at Regaleira". *Virtual Archaeology Review*, vol. 11, n. 22, pp. 15-25.
- Andrade, J. G., & Dias, P. (2020). A phygital approach to cultural heritage: Augmented reality at regaleira. *Virtual Archaeology Review*, 11(22), 15-25.
- Anjum, T., Nazar, N., Sharifi, S. and Farrukh, M. (2018), "Determinants of entrepreneurial intention in perspective of theory of planned behaviour", *Management Theory and Studies for Rural Business and Infrastructure Development*, Vol. 40 No. 4, pp. 429-441.
- Anthias F. (2021), *Translocational belongings. Intersectional dilemmas and social inequalities*, London and New York, Routledge.
- ANVUR. (2020). *Indagine Nazionale sulla Soddisfazione degli Studenti*.
- Apa, R., Noni, I. D., & Ganzaroli, A. (2020). Factors driving the share and growth of Chinese entrepreneurship in Italy. *International Journal of Entrepreneurship and Small Business*, 39(4), 564–584.
- Apetrei, A., Sanchez-Garcia, J. L., & Sapena, J. (2019). The controversial link between entrepreneurial activity and inequality. *International Entrepreneurship and Management Journal*, 15. 485–502.
- Arlacchi, P., & Ryle, M. H. (1986). *Mafia business: the mafia ethic and the spirit of capitalism* (Vol. 3, p. 4). London: Verso.
- Champeyrache, C. (2018). Destructive entrepreneurship: The cost of the mafia for the legal economy. *Journal of Economic Issues*, 52(1), 157-172.
- Armitage, C.J. and Conner, M. (2001), "Efficacy of the theory of planned behaviour: a Meta- analytic review", *British Journal of Social Psychology*, Vol. 40 No. 4, pp. 471-499.
- Armstrong, M. 2006. Competition in two-sided market, *The Rand journal of Economics*, vol. 37, no. 3, 668–91
- Arrighetti, A., Lasagni, A., & Semenza, R. (2023). Multicultural migrant firms: Evidence from Italy. *Entrepreneurial Business and Economics Review*, 11(4), 7–24.
- Arslan, A., Kamara, S., Zahoor, N., Rani, P., & Khan, Z. (2022). Survival strategies adopted by microbusinesses during COVID-19: an exploration of ethnic minority restaurants in northern Finland. *International Journal of Entrepreneurial Behavior & Research*, (ahead-of-print).
- Arun, K., & Okun, O. (2020). The role of participation banks in inclusion of immigrant entrepreneurs in the game. In *Multidisciplinary Approach to Entrepreneurship Education for Migrants*. <https://doi.org/10.4018/978-1-7998-2925-6.ch008>.

- Ashourizadeh, S., Saeedikiya, M., Aeeni, Z., & Temiz, S. (2022). Formal sources of finance boost innovation: Do immigrants benefit as much as natives? *Entrepreneurial Business and Economics Review*, 10(2), 41–59. <https://doi.org/10.15678/EBER.2022.100203>.
- Asoba, S. N. (2020). Current literature on immigrant entrepreneurship in South Africa: Exploring growth drivers. *Academy of Entrepreneurship Journal*, 26(4), 1–15.
- Atkins, M., & Brown, G. (2002). Effective teaching in higher education. Routledge.
- Atonye, O. D., Ofurum, C. O., & Oshi, J. (2024). “The Role of Training and Development in Women Entrepreneur Empowerment in SMEs, Rivers State”. *Asian Journal of Economics, Finance and Management*, 6(1), 195–207
- Au, W. C., Drencheva, A., & Yew, J. L. (2022). How do refugee entrepreneurs navigate institutional voids? Insights from Malaysia. *Disadvantaged Entrepreneurship and the Entrepreneurial Ecosystem*, 14, 121–144.
- Audretsch, D. (2012), “Entrepreneurship research”, *Management Decision*, Vol. 50 No. 5, pp. 755–
- AUDRETSCH, D. (2014). “From the Entrepreneurial University to the University for the Entrepreneurial Society.” *Journal of Technology Transfer*, vol. 39, n. 3, pp. 313–321.
- Avola, M., Cortese, A. (2012). Mobilità e carriere di immigrati imprenditori. *Quaderni di Sociologia*, 58, 7-40.
- Ayuni, R.F. (2018), The role of family business and education in forming actual entrepreneurs. *KnE Social Sciences*. Vol. 1.
- Azar, J., Marinescu, I., & Steinbaum, M. (2022). Labour Market Concentration. *Journal of Human Resources*, 57(S), S167–S199.
- Bacigalupo M, Kampylis P, Punie Y and Van Den Brande L. *EntreComp: The Entrepreneurship Competence Framework*. EUR 27939 EN. Luxembourg (Luxembourg): Publications Office of the European Union; 2016. JRC10158.
- Backman, M., Lopez, E., & Rowe, F. (2021). The occupational trajectories and outcomes of forced migrants in Sweden. Entrepreneurship, employment or persistent inactivity?. *Small Business Economics*, 56, 963–983.
- Backman, M., Lopez, E., & Rowe, F. (2021). The occupational trajectories and outcomes of forced migrants in Sweden. Entrepreneurship, employment or persistent inactivity? *Small Business Economics*, 56(3), 963–983. <https://doi.org/10.1007/s11187-019-00312-z>.
- Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship & Regional Development*, 23(5-6): 373-403.
- Baggen Y., Kampen J.K., Naia A., Biemans H.J.A., Lans T., Mulder M. (2018) Development and application of the opportunity identification competence assessment test (OICAT) in higher education, *Innovations in Education and Teaching International*, 55:6, 735-745, DOI: 10.1080/14703297.2017.1348962.
- Baggen, Y., Lans, T. & Gulikers, J. 2021. Making Entrepreneurship Education Available to All: Design Principles for Educational Programs Stimulating an Entrepreneurial Mindset. *Entrepreneurship Education and Pedagogy*, 2515127420988517.
- Baggio F. (Ed.), 2010: *Brick by Brick. Building Cooperation between the Philippines and Migrants' Associations in Italy and Spain*, Scalabrini Migration Center, Quezon City.
- Bajgar, M., Criscuolo, C., & Timmis, J. (2025). Intangibles and Industry Concentration: A Cross-Country Analysis. *Oxford Bulletin of Economics and Statistics*.
- Baldacchino, G. (2008). Entrepreneurship in smaller jurisdictions: Appraising a glocal elite.
- BALLINA, F., VALDES, L., & DEL VALLE, E. (2019). “Innovative approaches in phygital experiences for retail customers”. *Journal of Consumer Research*, vol. 45, n. 3, pp. 200-212.
- Balraj, K.P. and Velmurugan, R. (2017), “Skill sets of successful rural entrepreneurs in central District of Tamilnadu”, *International Journal of Pure and Applied Mathematics*, Vol. 116 No. 22,
- Bandini, F., Bolzani, D., & Bianchini, S. (2024). An Introduction to Social Entrepreneurship and Migrants' Inclusion in the Adriatic-Ionian Region. *Sustainable Development Goals Series, Part F2933*, 3–6. https://doi.org/10.1007/978-3-031-55791-0_1.
- Banerjee, R. (2024). Growing Together: The Evolution of Indian Immigrants in Canada. In *India Migration Report 2024: Indians in Canada*. <https://doi.org/10.4324/9781003499787-2>.
- Bardach E., (1994). Comment: The Problem of “Best Practice” Research, *Journal of Policy Analysis and Management*, 13(2), 260–268.
- Barth, B. (2017). Can foreign-born residents help rebuild the rust belt? *Planning*, 83(6), 12–17.
- Barth, H., & Zalkat, G. (2020). Immigrant entrepreneurship in Sweden: the liability of newness. *Sustainability*, 12(16), 6478.
- Barth, H., & Zalkat, G. (2021). Refugee entrepreneurship in the agri-food industry: The Swedish experience. *Journal of Rural Studies*, 86, 189–197.
- Bassanini, A., Bovini, G., Caroli, E., Ferrando, J. C., Cingano, F., Falco, P., ... & Popp, M. (2024). Labour market concentration, wages and job security in Europe. *Journal of Human Resources*.
- Bassier, I., Dube, A., & Naidu, S. (2022). Monopsony in movers: The elasticity of labour supply to firm wage policies. *Journal of Human Resources*, 57(S), S50-s86.
- Bates, T., Bradford, W. D., & Seamans, R. (2018). Minority entrepreneurship in twenty-first century America. *SMALL BUSINESS ECONOMICS*, 50(3, SI), 415–427. <https://doi.org/10.1007/s11187-017-9883-5>.
- Battistoni L., Oursana S. (2012), *1° Rapporto sull'associazionismo delle donne immigrate in Italia*, Fondazione Nilde Iotti, <https://www.fondazioneilildeiotti.it/docs/documento8763145.pdf>

- Baycan-Levent, T., & Kundak, S. (2009). Motivation and driving forces of Turkish entrepreneurs in Switzerland. *Innovation–The European Journal of Social Science Research*, 22(3), 283–308.
- Baycan-Levent, T., & Kundak, S. (2009). Motivation and driving forces of Turkish entrepreneurs in Switzerland. *Innovation: The European Journal of Social Science Research*, 22(3), 283–308. <https://doi.org/10.1080/13511610903383710>.
- Béchar, J. P., & Grégoire, D. (2005). Entrepreneurship education research revisited: The case of higher education. *Academy of management learning & education*, 4(1), 22-43.
- Bechard, J.P. and Toulouse, J.P. (1998), “Validation of a didactic model for the analysis of training objectives in entrepreneurship”, *Journal of Business Venturing*, Vol. 13 No. 4, pp. 317-332.
- BECKERS, S. F. M., VAN DOORN, J., & VERHOEF, P. C. (2018). “Good, better, engaged? The effect of company-initiated customer engagement behavior on shareholder value”. *Journal of the Academy of Marketing Science*, vol. 46, n. 3, pp. 366–383.
- Bedi, J. K., & Jia, S. (2024). Quid pro quota: a cross-country study on the impacts of immigration quotas on early-stage entrepreneurship. *SMALL BUSINESS ECONOMICS*. <https://doi.org/10.1007/s11187-024-00870-x>.
- Bedi, J. K., Jia, S., & Williamson, C. R. (2023). Brain gains: a cross-country study on the relationship between remittances and entrepreneurship. *International Journal of Entrepreneurship and Small Business*, 49(1), 32–62. <https://doi.org/10.1504/IJESB.2023.131616>.
- Behrens, K., & Robert-Nicoud, F. (2014). Survival of the fittest in cities: Urbanisation and inequality. *The Economic Journal*, 124(581): 1371-1400.
- Beland, L.-P., Fakorede, O., & Mikola, D. (2020). Short-term effect of COVID-19 on self-employed workers in Canada. *Canadian Public Policy*, 46(1), S66-A81. <https://doi.org/10.3138/CPP.2020-076>.
- Bell, R., & Bell, H. (2020). Applying educational theory to develop a framework to support the delivery of experiential entrepreneurship education. *Journal of Small Business and Enterprise Development*, 27(6), 987-1004.
- Bell, R., & Bell, H. (2023). Entrepreneurship education in the era of generative artificial intelligence. *Entrepreneurship Education*, 6(3), 229-244.
- Bell, R., & Bell, H. (2023). Entrepreneurship education in the era of generative artificial intelligence. *Entrepreneurship Education*, 6(3), 229-244.
- Bellido-Jiménez, V. M., Martín-Martín, D., & Romero, I. (2022). Self-employment in immigrants and the survival of incubated businesses in Andalusia; [Autoempleo en inmigrantes y supervivencia empresarial de los negocios incubados en Andalucía]. *Investigaciones Regionales*, 2022(52), 59–80. <https://doi.org/10.38191/iirr-jorr.22.003>.
- Bello B. G., Scudieri L. (2022), “Praticare l’intersezionalità: un metodo per la ricerca e per la trasformazione sociale. Intervista a Laura Corradi”, *Inchiesta Online*, <https://www.inchiestaonline.it/donne-lavoro-femminismi/praticare-intersezionalita-un-metodo-per-la-ricerca-e-per-la-trasformazione-sociale-intervista-a-laura-corradi/>
- Benmelech, E., & Zator, M. (2022). Robots and firm investment (No. w29676). National Bureau of Economic Research.
- Benmelech, E., Bergman, N. K., & Kim, H. (2022). Strong Employers and Weak Employees: How Does Employer Concentration Affect Wages? *Journal of Human Resources*, 57(S), S200–S250.
- Berger, D., Herkenhoff, K., & Mongey, S. (2022). Labour market power. *American Economic Review*, 112(4), 1147-1193.
- Bergiel, E. B., Nguyen, V. Q., Clenney, B. F., & Stephen Taylor, G. (2009). Human resource practices, job embeddedness and intention to quit. *Management Research News*, 32(3), 205-219.
- Bergman, B. J., & McMullen, J. S. (2022). Helping entrepreneurs help themselves: A review and relational research agenda on entrepreneurial support organizations. *Entrepreneurship Theory and Practice*, 46(3), 688–728.
- Bergman, B. J., & McMullen, J. S. (2022). Helping entrepreneurs help themselves: A review and relational research agenda on entrepreneurial support organizations. *Entrepreneurship Theory and Practice*, 46(3), 688-728.
- Bergmann, H., & Baumgartner, D. (2010). Entrepreneurship in urban and rural Switzerland: Similar or worlds apart? In *The Theory and Practice of Entrepreneurship: Frontiers in European Entrepreneurship Research*. <https://doi.org/10.4337/9781849805933.00019>.
- Berntsen, L., de Lange, T., Kalaš, I., & Hanoeman, R. (2022). Migrant entrepreneurship enablers: from chance encounters to community development. *Work, Employment and Society*, 36(2), 271–289.
- Bertarini, B. (2022). *L'imprenditoria femminile. L'empowerment delle donne tra diritto e mercato*. Giappichelli Editore: Torino.
- Bessen, J. (2020). Information technology and industry concentration. *Journal of Law & Economics*, 63(3), 531.
- Bhagat, A., & Roderick, L. (2020). Banking on refugees: Racialized expropriation in the fintech era. *Environment and Planning A: Economy and Space*, 52(8), 1498–1515.
- Bharadwaj, A. S., Bharadwaj, S. G., & Konsynski, B. R. (1999). Information technology effects on firm performance as measured by Tobin's q. *Management science*, 45(7), 1008-1024.
- Bickley, S. J., Macintyre, A., & Torgler, B. (2024). Artificial intelligence and big data in sustainable entrepreneurship. *Journal of Economic Surveys*.
- Biggs, J. (1999). What the student does: Teaching for enhanced learning. *Higher education research & development*, 18(1), 57-75.
- Billore, S. (2011). Female immigrant entrepreneurship: Exploring international entrepreneurship through the status of Indian women entrepreneurs in Japan. *International journal of Gender and Entrepreneurship*, 3(1), 38–55.
- Bini, M., Mele, C., & Gelsomini, C. (2023). “Leveraging Phygital Technology in Vocational Training”. *International Journal*

- of *Educational Technology*, vol. 12, n. 1, pp. 18-33.
- Birdthistle, N. (2019). Under the microscope—an examination of the supports for ethnic entrepreneurs in Ireland. *Education+ Training*, 61(6), 666-683.
- Bischoff, K., C. Volkmann, And D. Audretsch. (2017). “Stakeholder Collaboration in Entrepreneurship Education: an Analysis of the Entrepreneurial Ecosystems of European Higher Educational Institutions.” *Journal of Technology Transfer*, vo. 43, n. 3, pp. 20–46.
- Bischoff, K., Volkmann, C. K., & Audretsch, D. B. (2018). Stakeholder collaboration in entrepreneurship education: an analysis of the entrepreneurial ecosystems of European higher educational institutions. *The Journal of Technology Transfer*, 43: 20-46.
- Bischoff, K.M., Gielnik, M.M. and Frese, M. (2020), “When capital does not matter: how entrepreneurship training buffers the negative effect of capital constraints on business creation”, *Strategic Entrepreneurship Journal*, Vol. 14 No. 3, pp. 369-395.
- Bisson, M., Palmieri, S., & Ianniello, A. (2023). Academic research in between user needs and industry demands in the context of the silver economy. In L. Gómez Chova, C. González Martínez, & J. Lees (Eds.), *EDULEARN23 Proceedings: 15th International Conference on Education and New Learning Technologies* (Palma, Spain, 3rd–5th July 2023) (pp. 1213–1220). IATED Academy. <https://doi.org/10.21125/edulearn.2023>
- Blackburn, R.A., Hart, M. and Wainwright, T. (2013), “Small business performance: business, strategy and owner-manager characteristics”, *Journal of Small Business and Enterprise Development*, Vol. 20 No. 1, pp. 8-27, doi: 10.1108/14626001311298394.
- Blankesteijn, M. L. M. (2024). Towards transformative experiential learning in science-and technology-based entrepreneurship education for sustainable technological innovation. *Journal of Innovation & Knowledge*, 9(3): 100544.
- Blei, D. M., Ng, A. Y., & Jordan, M. I. (2003). Latent dirichlet allocation. *Journal of machine Learning research*, 3(Jan), 993-1022.
- Block, J., Kohn, K., Miller, D., & Ullrich, K. (2017). Should business incubators focus on “promising” or “winning” entrepreneurs? *Journal of Business Venturing Insights*, 8, 1-9.
- Bloom, B. S. (1956). Taxonomy of. Educational Objectives.
- Blume-Kohout, M. E. (2016). Why are some foreign-born workers more entrepreneurial than others? *Journal Of Technology Transfer*, 41(6), 1327–1353. <https://doi.org/10.1007/s10961-015-9438-3>.
- Boenigk, S., Kreimer, A. A., Becker, A., Alkire, L., Fisk, R. P., & Kabadayi, S. (2021). Transformative Service Initiatives: Enabling Access and Overcoming Barriers for People Experiencing Vulnerability. *Journal Of Service Research*, 24(4), 542–562. <https://doi.org/10.1177/10946705211013386>.
- Boeri, T., Ichino, A., Moretti, E., & Posch, J. (2021). Wage equalization and regional misallocation: evidence from Italian and German provinces. *Journal of the European Economic Association*, 19(6), 3249-3292.
- Bogliacino, F., Codagnone, C., Cirillo, V. and Guarascio, D. 2019. Quantity and quality of work in the platform economy in Zimmermann, K. (ed.), *Handbook of Labour, Human Resources and Population Economics*, London, Springer Nature
- Bohlouli, M., Mittas, N., Kakarontzas, G., Theodosiou, T., Angelis, L., & Fathi, M. (2016). Competence assessment as an expert system for human resource management: A mathematical approach. *Expert Systems with Applications*, 71, 383–400. <https://doi.org/10.1016/j.eswa.2016.04.004>
- Boissevain J., 1981: *Small Entrepreneurs in Changing Europe: Towards a Research Agenda*, Work and Social Change 4, European Centre for Work and Society, Maastricht.
- Bollini, L. (2022). Space as a Narrative Interface. *Phygital Interactive Storytelling in the Field of Cultural Heritage. International Conference Design! OPEN: Objects, Processes, Experiences and Narratives*,
- Bolzani, D. (2021). “Migrant Entrepreneurship”, Emerald Publishing Limited. <https://doi.org/10.1108/978-1-83867-491-520211003>
- Bolzani, D., & Scandura, A. (2024). The role of collaboration networks for innovation in immigrant-owned new technology-based firms. *The Journal of Technology Transfer*, 49(4), 1203-1233.
- Bolzani, D., & Scandura, A. (2024). The role of collaboration networks for innovation in immigrant-owned new technology-based firms. *The Journal of Technology Transfer*, 49(4), 1203-1233.
- Bolzani, D., Munari, F., Rasmussen, E., & Toschi, L. (2021). Technology transfer offices as providers of science and technology entrepreneurship education. *The Journal of Technology Transfer*, 46: 335-365.
- Bonfanti, A., Vigolo, V., Vannucci, V., & Brunetti, F. (2023). Creating memorable shopping experiences to meet phygital customers' needs: evidence from sporting goods stores. *International Journal of Retail & Distribution Management*, 51(13), 81-100.
- Bouk, F. E., Vedder, P., & Poel, Y. T. (2013). The networking behavior of Moroccan and Turkish immigrant entrepreneurs in two Dutch neighborhoods: The role of ethnic density. *Ethnicities*, 13(6), 771–794.
- Bourdieu P. (1998), *La domination masculine*, Paris, Édition du Seuil.
- Bourdieu, P. (1984). “Distinction: A Social Critique of the Judgement of Taste”. *Harvard University Press*.
- Bowden, P., and J. Mummery. 2009. *Understanding Movements in Modern Thought: Understanding Feminism*. Stocksfield, England: Acumen, 2009
- Boyack, K. W., Klavans, R. (2010). “Co-citation analysis, bibliographic coupling, and direct citation: Which citation approach represents the research front most accurately?”, *Journal of the American Society for information Science and*

Technology, vol. 61, n. 12, pp. 2389–2404

- Brancati, E. (2015). Innovation financing and the role of relationship lending for SMEs. *Small Business Economics*, 44(2), 449–473.
- Bresciani, S., Ferraris, A., Romano, M., & Santoro, G. (2021). “*Digital transformation management for agile organizations: A compass to sail the digital world*”, Emerald Publishing Limited.
- Brown, C., Douthwaite, A., Savvides, N., & Costas Batlle, I. (2022). “Five mechanisms for tackling the risks to NEEThood: introducing a pathway to change to guide educators’ support strategies”. *International Journal of Adolescence and Youth*, vol. 27, n. 1, pp. 457–474.
- Browning, J. W., & Bustard, J. (2024). A systematic literature review of entrepreneurial education in electrical, electronic, and computer engineering curricula. *IEEE Access*.
- Bruck, T., Justino, P., Verwimp, P., Avdeenko, A. and Tedesco, A. (2016), “Measuring violent conflict in micro-level surveys: current practices and methodological challenges”, *The World Bank Research Observer*, Vol. 31 No. 1, pp. 29–58.
- Bruneel, J., Ratinho, T., Clarysse, B., & Groen, A. (2011). The evolution of business incubators: Comparing demand and supply of business incubation services across different incubation generations. *Technovation*, 31(5-6), 110–121.
- Brush, C. G., De Bruin, A., & Welter, F. (2009). “A gender-aware framework for women's entrepreneurship.” *International Journal of Gender and Entrepreneurship*, 1(1), 8–24.
- Bruton, G. D., Ahlstrom, D., & Li, H. L. (2010). Institutional theory and entrepreneurship: where are we now and where do we need to move in the future?. *Entrepreneurship Theory and Practice*, 34(3): 421–440.
- Bryant, A., & Charmaz, K. (2007). “The SAGE Handbook of Grounded Theory”. *SAGE Publications*.
- Brynjolfsson, E., & Hitt, L. (1996). Paradox lost? Firm-level evidence on the returns to information systems spending. *Management science*, 42(4), 541–558.
- Brzozowski, J., & Cucculelli, M. (2020). Transnational ties and performance of immigrant firms: evidence from Central Italy. *International Journal Of Entrepreneurial Behavior & Research*, 26(8), 1787–1806. <https://doi.org/10.1108/IJEER-10-2019-0582>.
- Bühler, M.M.; Jelinek, T.; Nübel, K. Training and Preparing Tomorrow’s Workforce for the Fourth Industrial Revolution. *Educ. Sci.* 2022, 12, 782. <https://doi.org/10.3390/educsci12110782>
- Bulla, F. J. M., & Hormiga, E. (2011). Highly-skilled Colombian immigrants in Spain: Do they have to return home to start up in business? *Education and Training*, 53(5), 448–461. <https://doi.org/10.1108/00400911111147749>.
- Burnham, J. F. (2006). Scopus database: a review. *Biomed. Digit. Libr.* 3:1.
- Butler J. (1990), *Gender Trouble. Feminism and the Subversion of Identity*, New York and London Routledge.
- Bůžek, R., & Scheuplein, C. (2022). “The Global Wealth Chains of Private-Equity-Run Physician Practices”. *Tijdschrift voor economische en sociale geografie*, vol. 113, n. 4, pp. 331–347.
- C.B. Brettel e J.F. Hollifield, cit., pp. 77–96.
- Cadenas, G. A., Cantú, E. A., Sosa, R., Carroll, S., Lynn, N., Suro, B., & Ruth, A. (2023). An educational program affirming immigrant entrepreneurship, critical consciousness, and cultural strengths. *Career Development Quarterly*, 71(4), 284–299. <https://doi.org/10.1002/cdq.12335>.
- Cahapay, M. (2021). Kirkpatrick model: Its limitations as used in higher education evaluation. *International Journal of Assessment Tools in Education*, 8(1), 135–144.
- Calderon, G., Iacovone, L. and Juarez, L. (2017), “Opportunity versus necessity: understanding the heterogeneity of female micro-entrepreneurs”, *The World Bank Economic Review*, Vol. 30,
- Calligaris, S., Criscuolo, C., & Marcolin, L. (2018). Mark-ups in the digital era. *OECD*
- Calvo, A. G., Kenney, M., & Zysman, J. (2024). Responding to platform firm power: differing national responses. *New Political Economy*, 1–15.
- Camisón, C., & Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of business research*, 67(1), 2891–2902.
- Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2017). Teaching personal initiative beats traditional training in boosting small business in West Africa. *Science*, 357(6357), 1287–1290.
- Camuffo, A., Cordova, A., Gambardella, A., & Spina, C. (2020). A scientific approach to entrepreneurial decision making: Evidence from a randomized control trial. *Management Science*, 66(2), 564–586.
- Carastathis A. (2014), “The Concept of Intersectionality in Feminist Theory”, in *Philosophy compass*, 9(5): 304–314.
- Carella, M., Italia, L., Conte, D., & Parolini, S. (2024). How to adopt strategic design inside universities: Transforming research in educational formats. In L. Gómez Chova, C. González Martínez, & J. Lees (Eds.), *ICERI2024 Proceedings: 17th International Conference of Education, Research and Innovation* (pp. [inserire le pagine esatte se note]). IATED Academy. <https://doi.org/10.21125/iceri.2024>
- Carlson, M., & Gillberg, N. (2022). State-Sanctioned Educational Initiatives Aimed at Transforming Adult Immigrants: Interpretation, Negotiation and Resistance. In *Transforming Subjectivities: Studies in Human Malleability in Contemporary Times*. <https://doi.org/10.4324/9781003146681-9>.
- Carpenter, C. W., & Loveridge, S. (2018). Differences Between Latino-Owned Businesses and White-, Black-, or Asian-Owned Businesses: Evidence From Census Microdata. *ECONOMIC DEVELOPMENT QUARTERLY*, 32(3), 225–241. <https://doi.org/10.1177/0891242418785466>.

- Carranza, E., Dhakal, C., & Love, I. (2018). *Female Entrepreneurs: How and Why Are They Different?* Washington, DC: International Bank for Reconstruction and Development.
- Carter, S., and S. Marlow. 2003. "Accounting for Change Professionalism as a Challenge to Gender Disadvantage in Entrepreneurship". In *New Perspectives on Women Entrepreneurs*, edited by J. E. Butler, 181-202. Research in Entrepreneurship and Management Series. Greenwich, CT: Information Age Publishing.
- Caterina La Barbera M., Caravantes P., Espinosa Fajardo J. M., & Cassain L. (2022). Dalla teoria alla prassi: un viaggio di andata e ritorno verso l'istituzionalizzazione dell'intersezionalità, *AG AboutGender*, 11 (22), 145-186.
- Cavadi, A. (2010). *La mafia spiegata ai turisti*. Trapani: Di Girolamo.
- CESPI. (2016). Il ruolo degli imprenditori immigrati nell'interscambio commerciale con l'Italia.
- CESPI. (2024). Le imprese a titolarità immigrata in Italia e l'inclusione finanziaria dei cittadini stranieri, p. 7.
- Chakravarty, A., Grewal, R., & Sambamurthy, V. (2013). "Information technology competencies, organizational agility, and firm performance: Enabling and facilitating roles". *Information Systems Research*, vol. 24, n. 4, pp. 976–997.
- Champeyrache, C. (2007). A. The Globalization of Crime. *Organized Crime: From Trafficking to Terrorism [2 volumes]*, 277.
- Champeyrache, C. (2018). Destructive entrepreneurship: The cost of the mafia for the legal economy. *Journal of Economic Issues*, 52 (1), 157-172.
- Chan, J. M. M. (2008). Immigration policies and human resources planning. In *Hong Kong Mobile: Making A Global Population*.
- Chatterjee, N. and Das, N. (2016), "A study on the impact of key entrepreneurial skills on business success of Indian micro-entrepreneurs: a case of Jharkhand region", *Global Business Review*, Vol. 17 No. 1, pp. 226-237.
- Chen, H. and Volpe, R.P. (2002), "Gender differences in personal financial literacy among college students", *Financial Services Review*, pp. 289-307.
- Chen, L., Ifenthaler, D., Yau, J. Y. K., & Sun, W. (2024). Artificial intelligence in entrepreneurship education: a scoping review. *Education+ Training*.
- Chen, L., Ifenthaler, D., Yau, J. Y. K., & Sun, W. (2024). Artificial intelligence in entrepreneurship education: a scoping review. *Education+ Training*.
- Chen, W., Tajeddini, K., Ratten, V., & Tabari, S. (2019). Educational immigrants: evidence from Chinese young entrepreneurs in the UK. *Journal of Enterprising Communities*, 13(1–2), 196–215. <https://doi.org/10.1108/JEC-11-2018-0093>.
- Chiodo E. (Ed.), Aguado P., Attard E., Bugeja Douglas A., István N.P., Lacko Bartosová M., Lemiere J-P., Valente F., Yancheva C. (2013). *Sustainable Development in Higher Education in Europe. Good Practices Compendium*. Edizioni Homeless Book, ISBN: 978-88-96771-84-6.
- Cho S., Crenshaw K. W., McCall L. (2013), "Toward a Field of Intersectionality Studies: Theory, Applications, and Praxis", *Signs*, Vol. 38, No. 4, Intersectionality: Theorizing Power, Empowering Theory, Summer: 785-810.
- Cho, E., Moon, Z. K., & Bounkhong, T. (2019). A qualitative study on motivators and barriers affecting entrepreneurship among Latinas. *Gender In Management*, 34(4), 326–343. <https://doi.org/10.1108/GM-07-2018-0096>.
- Christensen, C. M., Bartman, T., & Van Bever, D. (2016). "The hard truth about business model innovation". *Sloan Management Review*, vol. 58, n. 1, pp. 30–40.
- Christofi, M., Iaia, L., Marchesani, F., & Masciarelli, F. (2021). Marketing innovation and internationalization in smart city development: a systematic review, framework and research agenda. *International Marketing Review*, 38(5), 948-984.
- Ciani, E., David, F., & De Blasio, G. (2017). Local labour market heterogeneity in Italy: estimates and simulations using responses to labour demand shocks. Bank of Italy Temi di Discussione (Working Paper) No, 1112.
- Clark G., 2015: *The Making of a World City: London 1991 to 2021*, Wiley Blackwell, Oxford.
- Clavarite. (2023). *Journal Citation Reports*. <https://clarivate.com/products/scientific-and-academic-research/research-analytics-evaluation-and-management-solutions/journal-citation-reports/>. Accessed September 25, 2024.
- Clayton, P. (2024). Different outcomes for different founders? Local organizational sponsorship and entrepreneurial finance. *Small Business Economics*, 62(1), 23–62. <https://doi.org/10.1007/s11187-023-00753-7>.
- Clemente, L., Iodice, G., Carignani, F., Greco, F., & Bifulco, F. (2024). Phygital approach to value co-creation in international museums. *Measuring Business Excellence*.
- Co, M. and Mitchell, B. (2006), "Entrepreneurship education in South Africa: a nationwide survey", *Education and Training*, Vol. 48 No. 5, pp. 348-359.
- Coalter, F., & Theeboom, M. (2022). Literature review: Analysis of academic and practiceoriented publications on youth work approaches of experiential learning practices aimed at employability (soft) skill development with young NEETs. Brussel: Vrije Universiteit Brussel - Research group Sport & Society.
- Cockburn, I. M., Henderson, R., & Stern, S. (2019). 4. The impact of artificial intelligence on innovation: An exploratory analysis. In *The economics of artificial intelligence* (pp. 115-148). University of Chicago Press.
- Colella, F., e Grassi, V. (2020). *MigrAzioni. Principi, culture e pratiche di giustizia sociale*. Carocci Editore: Roma
- Coll, S. S. (2020). Local social capital and its determinants: Evidence from Catalonia; [El capital social local y sus determinantes: Evidencia de Cataluña]. *CIRIEC-Espana Revista de Economia Publica, Social y Cooperativa*, 99, 203–232. <https://doi.org/10.7203/CIRIEC-E.99.15706>.
- Collins J., Castello A., 1998: *Cosmopolitan Sidney: explore the world in one city*, Pluto Press, Sidney, 1998.

- Collins, J. (2003). Cultural diversity and entrepreneurship: Policy responses to immigrant entrepreneurs in Australia. *Entrepreneurship and Regional Development*, 15(2), 137–149. <https://doi.org/10.1080/0898562032000075168>.
- Combahee River Collective (1977), *The Combahee river collective statement*, [combahee_river_statement20200618-38507-xcxt2r-libre.pdf](https://combaheeriverstatement20200618-38507-xcxt2r-libre.pdf) (d1wqtxts1xzle7.cloudfront.net)
- Comitato di Coordinamento RUS (2023). Rapporto 2023: Capacity building e best practice nelle università italiane. *Comparative Education*, 44(2), 187–201. <https://doi.org/10.1080/03050060802041100>.
- Constant, A., & Shachmurove, Y. (2006). Entrepreneurial ventures and wage differentials between Germans and immigrants. *International Journal Of Manpower*, 27(3), 208–229.
- Cook, D. J., Mulrow, C. D., & Haynes, R. B. (1997). Systematic reviews: Synthesis of best evidence for clinical decisions. *Annals of Internal Medicine*, 126(5), 376–380.
- Cook, D. J., Mulrow, C. D., & Haynes, R. B. (1997). Systematic reviews: synthesis of best evidence for clinical decisions. *Annals of internal medicine*, 126(5): 376-380.
- Cooney, T.M. (2012), “Entrepreneurship skills for growth-orientated businesses”, Report for the Workshop on ‘Skills Development for SMEs and Entrepreneurship, Vol. 28, pp. 1-24.
- Corbisiero F., Nocenzi M., (2023), *Intersezionalità e divario di genere: un paradigma alternativo per il policy-making europeo*, in Rinoldi D. G., Scialdone A., (a cura di), *PNRR PROMESSE DA MANTENERE E MIGLIA DA PERCORRERE Integrità delle politiche pubbliche e prospettive italo-europee di democrazia partecipativa*, Napoli, ESI, pp. 93-121.
- Corbisiero F., Nocenzi M., (a cura di) *Intersezionalità come teoria critica sociale* di Patricia Hill Collins, UTET, Milano, 2022.
- Corradi M. L., (2003), *Il tempo rovesciato. Quotidianità femminile e lavoro notturno alla Barilla*, Milano, Franco Angeli.
- Coveri, A., Cozza, C., & Guarascio, D. (2022). Monopoly Capital in the time of digital platforms: a radical approach to the Amazon case. *Cambridge Journal of Economics*, 46(6), 1341-1367.
- Coveri, A., Cozza, C., & Guarascio, D. (2024). Blurring boundaries: an analysis of the digital platforms-military nexus. *Review of Political Economy*, 1-32.
- Crea, T. M., Loughry, M., O'Halloran, C., & Flannery, G. J. (2017). Environmental risk: Urban refugees' struggles to build livelihoods in South Africa. *International Social Work*, 60(3), 667–682.
- Crenshaw K.W. (1989), “Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics”, *University of Chicago Legal Forum*, 140: 139-176.
- Croitoru, A. (2020). Great Expectations: A Regional Study of Entrepreneurship Among Romanian Return Migrants. *SAGE OPEN*, 10(2). <https://doi.org/10.1177/2158244020921149>.
- Croitoru, A. (2021). Diaspora Start-Up Programs and Creative Industries: Evidence from Romania. *Transylvanian Review of Administrative Sciences*, 17(63), 5–29.
- Croitoru, A. (2021). Stimulating return migration to Romania: a multi-method study of returnees' endorsement of entrepreneurship policies. *Journal of Contemporary European Studies*, 29(2), 264–281.
- Cubico, S., Favretto, G., Ardolino, P., Bellini, D., (2019). Competenze imprenditoriali e formazione all'imprenditorialità: il ruolo delle università in *Counseling*, Volume 12, Numero 2, Giugno 2019, DOI: 10.14605/CS1221903
- Cueto, B., & Rodriguez Alvarez, V. (2015). Determinants of immigrant self-employment in Spain. *International Journal Of Manpower*, 36(6, SI), 895–911. <https://doi.org/10.1108/IJM-10-2013-0233>.
- Cui, J., Sun, J., & Bell, R. (2021). The impact of entrepreneurship education on the entrepreneurial mindset of college students in China: The mediating role of inspiration and the role of educational attributes. *The International Journal of Management Education*, 19(1): 100296.
- Curci, R., & Mackoy, R. (2010). Immigrant business enterprises: A classification framework conceptualization and test. *Thunderbird International Business Review*, 52(2), 107–121.
- Damala, A., & Stojanovic, N. (2012). “Tailoring the Adaptive Augmented Reality (A2R) museum visit: Identifying cultural heritage professionals' motivations and needs”. In *IEEE International Symposium on Mixed and Augmented Reality 2012 Arts, Media, and Humanities Proceedings*, Atlanta, USA, pp. 71–80.
- Damasio, A. R. (1994). Descartes' Error: Emotion, Reason, and the Human Brain.
- Dana, L. P., Tajpour, M., Salamzadeh, A., Hosseini, E., & Zolfaghari, M. (2021). The impact of entrepreneurial education on technology-based enterprises development: The mediating role of motivation. *Administrative Sciences*, 11(4): 105.
- Daniel, E., Henley, A., & Anwar, M. N. (2019). Contemporary ethnic minority entrepreneurship in the UK A quantitative exploration of break out and entrepreneurial quality. *International Journal Of Entrepreneurial Behavior & Research*, 25(7), 1410–1432.
- Darzi, M. A., Bashir, G., & Bhat, S. A. (2016). Empowering Women: Fostering Entrepreneurship. *J. Manage. Co-operat*, 5, 27-39.
- Davies, E., Deffebach, P., Iacovone, L., & Mckenzie, D. (2024). Training microentrepreneurs over Zoom: Experimental evidence from Mexico. *Journal of Development Economics*, 167, 103244.
- Davies, J., Sharifi, H., Lyons, A., Forster, R., & Elsayed, O. K. S. M. (2024). Non-fungible tokens: The missing ingredient for sustainable supply chains in the metaverse age? *Transportation Research Part E: Logistics and Transportation Review*, 182, 103412.
- Davis A. (2018), *Donne, razza e classe*, Roma, Alegre.

- Davis K. (2011), "Intersectionality as Buzzword: A Sociology of Science Perspective on What Makes a Feminist Theory Successful", in Lutz H., Herrera Vivar M.T., Supik L., (eds.), *Framing Intersectionality. Debates on a Multifaceted Concept in Gender Studies*, Burlington, Ashgate.
- De Lange, T. (2018). Welcoming talent? A comparative study of immigrant entrepreneurs' entry policies in France, Germany and the Netherlands. *Comparative Migration Studies*, 6(1), 1–18.
- De Lange, T., Berntsen, L., Hanoeman, R., & Haidar, O. (2021). Highly skilled entrepreneurial refugees: Legal and practical barriers and enablers to start up in the Netherlands. *International Migration*, 59(4), 74–87.
- De Lauretis T. (1999), *Soggetti Eccentrici*, Milano, Feltrinelli.
- De Luca, D., & Ambrosini, M. (2019). Female immigrant entrepreneurs: More than a family strategy. *International Migration*, 57(5), 201–215.
- De Luigi N., Rizza R. (2011). La vulnerabilità dei giovani nel mercato del lavoro italiano: dinamiche e persistenze. *Sociologia del lavoro*, 124: 117-147. DOI: 10.3280/SL2011-124007
- De Pablo Valenciano, J., Uribe-Toril, J., & Ruiz-Real, J. L. (2019). Entrepreneurship and education in the 21st century: Analysis and trends in research. *Journal of Entrepreneurship Education*, 22(4), 1-20.
- De Queiroz Falcao, R. P., Machado, M. M., Cruz, E. P., & Hossein, C. S. (2021). Mixed embeddedness of Brazilian entrepreneurs in Toronto. *International Journal of Entrepreneurial Behavior & Research*.
- De Queiroz Falcao, R. P., Machado, M. M., Cruz, E. P., & Hossein, C. S. (2021). Mixed embeddedness of Brazilian entrepreneurs in Toronto. *INTERNATIONAL JOURNAL OF ENTREPRENEURIAL BEHAVIOR & RESEARCH*, 27(7), 1724–1750.
- De Ridder, M. (2024). Market power and innovation in the intangible economy. *American Economic Review*, 114(1), 199-251.
- Debono, S. (2021). Thinking phygital: A museological framework of predictive futures. *Museum International*, 73(3-4), 156-167.
- Del Giudice, M., Scuotto, V., Ballestra, L. V., & Pironti, M. (2023a). Humanoid robot adoption and labour productivity: a perspective on ambidextrous product innovation routines. In *Artificial Intelligence and International HRM* (pp. 33-59). Routledge.
- Del Giudice, M., Scuotto, V., Orlando, B., & Mustilli, M. (2023b). Toward the human-centered approach. A revised model of individual acceptance of AI. *Human Resource Management Review*, 33(1), 100856.
- Del Río, M.D.L.C., Peris-Ortiz, M., Álvarez-García, J. and Rueda-Armengot, C. (2016), "Entrepreneurial intentions and entrepreneurship education to University students in Portugal", *Technology, Innovation and Education*, Vol. 2 No. 1, p. 7, doi: 10.1186/s40660-016-0013-5.
- Del Río, P., Peñasco, C., & Romero-Jordán, D. (2016). What drives eco-innovators? A critical review of the empirical literature based on econometric methods. *Journal of Cleaner Production*, 112, 2158-2170.
- Del Vecchio, P., Secundo, G., & Garzoni, A. (2023). "Phygital technologies and environments for breakthrough innovation in customers' and citizens' journey. A critical literature review and future agenda". *Technological Forecasting and Social Change*, vol. 189, pp. 122342.
- Delman, F., & Holmquist, C. (2004). Women's Entrepreneurship: Issues and Policies. 2nd OECD Conference of Ministers' on Promoting Entrepreneurship and Innovation SMEs in A Global Economy: Towards A More Responsible and Inclusive Globalisation, Istanbul, Turkey.
- Depalo, D., & Lattanzio, S. (2025). The increase in earnings inequality in Italy: The role and persistence of atypical contracts. *Review of Income and Wealth*, 71(1), e12709.
- Der Sluis, J., van Praag, M., & Vijverberg, W. (2008). EDUCATION AND ENTREPRENEURSHIP SELECTION AND PERFORMANCE: A REVIEW OF THE EMPIRICAL LITERATURE. *JOURNAL OF ECONOMIC SURVEYS*, 22(5), 795–841. <https://doi.org/10.1111/j.1467-6419.2008.00550.x>.
- Desiderio, M. V. (2014). Policies to support immigrant entrepreneurship. *Washington, DC: Migration Policy Institute and Transatlantic Council on Migration*, 1-24.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011, September). From game design elements to gamefulness: defining "gamification". In *Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments* (pp. 9-15).
- Dey, Pascal, and Chris Steyaert. "Rethinking the space of ethics in social entrepreneurship: Power, subjectivity, and practices of freedom." *Journal of Business Ethics* 133 (2016): 627-641.
- Di Pasquale, E., Tronchin, C., & Della Puppa, F. (2023). Talenti e competenze nell'Europa del futuro. I dati del XIII rapporto annuale sull'economia dell'immigrazione. *Quaderni di ricerca sull'artigianato*, 3(settembre-dicembre), 369-371.
- Dill B. T., Zambrana R. E. (eds.), (2009), *Emerging intersections: Race, class, and gender in theory, policy and practice*, New Brunswick, NJ, Rutgers University Press.
- Dinu, V., Grosu, R. M., & Saseanu, A. S. (2015). Romanian Immigrant Entrepreneurship: Utopia Or Reality? An Overview Of Entrepreneurial Manifestations Of Romanian Immigrants In Andalusia, Spain. *Transformations In Business & Economics*, 14(1), 48–64.
- Dissanayake, H., Iddagoda, A., & Popescu, C. (2022). Entrepreneurial education at universities: a bibliometric analysis. *Administrative Sciences*, 12(4): 185.
- Dodaro, M. (2020). Giovani e imprenditorialità: il pluralismo delle strategie e dei fattori di spinta e il ruolo delle politiche.

- Sociologia Del Lavoro, 158(3), 264-283 [10.3280/SL2020-158013].
- Dremel, C., Wulf, J., Herterich, M. M., Waizmann, J. C., & Brenner, W. (2017). "How AUDI AG established big data analytics in its digital transformation". *MIS Quarterly Executive*, vol. 16, n. 2, pp. 81–100.
- Duan, C. (2023a). Correction: Theory selection and applications for immigrant enterprises, entrepreneurs and entrepreneurship (IEEE) research. *Entrepreneurship Education*, 6(1), 69-89, 10.1007/s41959-022-00088-6.
- Duan, C. (2023b). Knowledge mapping of entrepreneurship research during COVID-19 and forecasting research directions for the post-pandemic era. *Aslib Journal of Information Management*. <https://doi.org/10.1108/AJIM-11-2022-0504>.
- Duch-Brown, N., Gomez-Herrera, E., Mueller-Langer, F., & Tolan, S. (2022). "Market power and artificial intelligence work on online labour markets". *Research Policy*, vol. 51, n. 3, 104446.
- Dumay, J. (2014), "Reflections on interdisciplinary accounting research: the state of the art of intellectual capital", *Accounting, Auditing and Accountability Journal*, Vol. 27 No. 8, pp. 1257- 1264.
- Dumay, J. and Cai, L. (2014), "A review and critique of content analysis as a methodology for inquiring into IC disclosure", *Journal of Intellectual Capital*, Vol. 15 No. 2, pp. 264-290.
- Durnescu, I. (2015). Active Inclusion Learning Network. YAP Ireland. <https://www.yapireland.ie/assets/files/publications/Active-Inclusion-Research-Report-2015.pdf>
- Dutta, N., Kar, S., & Sobel, R. S. (2021). What influences entrepreneurship among skilled immigrants in the USA? Evidence from micro-data. *Business Economics*, 56(3), 146–154. <https://doi.org/10.1057/s11369-021-00220-9>.
- Dzomonda, O., & Fatoki, O. (2018). Owners' demographic factors and awareness of government support programmes by immigrant entrepreneurs in South Africa. *Academy of Entrepreneurship journal*, 24(4), 1–11.
- Easton-Calabria, E., & Hakiza, R. (2021). In the interest of saving: Refugee-led microfinance in Kampala, Uganda. *Development Policy Review*, 39(1), 22–38.
- Ediagbonya, K. (2013). The roles of entrepreneurship education in ensuring economic empowerment and development. *Journal of business administration and education*, 4(1), 35-46.
- Efthymiou, E. (2023). Inclusive phygital learning approaches and strategies for students with special needs. IGI Global.
- Eggers, J. P., & Park, K. F. (2018). "Incumbent adaptation to technological change: The past, present, and future of research on heterogeneous incumbent response". *Academy of Management Annals*, vol. 12, n. 1, pp. 357–389.
- Eimmermann, M., Tillberg Mattsson, K., & Carson, D. A. (2019). International tourism entrepreneurs in Swedish peripheries: Compliance and collision with public tourism strategies. *Regional Science Policy & Practice*, 11(3), 479–492.
- Elkington J. (2018) 25 Years Ago I Coined the Phrase "Triple Bottom Line. Here's Why It's Time to Rethink It, <https://hbr.org/2018/06/25-years-ago-i-coined-the-phrase-triple-bottom-line-heres-why-im-giving-up-on-it>.
- Entre Comp, <https://eur-lex.europa.eu/IT/legal-content/glossary/entrecomp.html>
- Erdmann, C. (2016). Germany: Family business paradox and gender role strain: An example of father–daughter succession from germany. In *Father-Daughter Succession in Family Business: A Cross-Cultural Perspective*. <https://doi.org/10.4324/9781315582009-24>.
- Eresia-Eke, C., & Okerue, C. (2020). Owner-manager human capital and business coping ability in African immigrant small businesses in Southern Africa. *DEVELOPMENT SOUTHERN AFRICA*, 37(2), 348–361. <https://doi.org/10.1080/0376835X.2019.1701414>.
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Princeton University Press.
- Essers C., Dey P., Tedmanson D. e Verduyn K. (2017). *Critical Perspectives on Entrepreneurship. Challenging Dominant Discourses*. Oxon and New York: Routledge.
- Etzkowitz, H. (2004). The evolution of the entrepreneurial university. *International Journal of technology and globalisation*, 1(1), 64-77.
- EU Skills Panorama. (2020). European Centre for the Development of Vocational Training (Cedefop).
- European Commission (2016). *EU Guidebook to promote and support migrant entrepreneurship*. Brussel, European Commission. Available at https://ec.europa.eu/migrant-integration/library-document/eu-guidebook-promote-and-support-migrant-entrepreneurship_en (accessed 28 July 2023).
- European Commission, Joint Research Centre, GreenComp, European Competence Framework for Sustainability, Publications Office of the European Union <https://data.europa.eu/doi/10.2760/172626>).
- European Commission, Legislative Decree No. 13/2013. (2013).
- European Commission. (2008). The European Qualifications Framework for Lifelong
- European Commission. (2018). European Toolkit for the integration of third-country nationals.
- European Commission. (2021). EU Recommendation 2021/C 66/01 on digital competence certification.
- European Training Foundation. (2020). European Skills Index.
- European Union. (2020). EU Ecolabel – Official Website.
- Eurostat. (2021). *Migration and migrant population statistics*.
- Evans, D. 2003. Some empirical aspects of multisided platform industries, *Review of Network Economics*, vol. 2, no. 3, 191–209.
- Evans, D. S. and Schmalensee, R. 2008. Markets with Two-Sided Platforms in *Issues in Competition Law and Policy* (ABA Section of Antitrust Law), vol. 1, ch. 28, 667–693
- Evans, P. C. and Gawer, A. 2016. The rise of the platform enterprise: a global survey
- Eyben, R. Kabeer, N. and Cornwall, A. (2008). Conceptualising Empowerment and the Implications for Pro Poor Growth. A

paper for the DAC Poverty Network.

- Ezennia, J. C., & Mutambara, E. (2020). Entrepreneurial Innovation Factors Influencing African Immigrant-Owned Micro Businesses In Durban, South Africa. *Academy of Entrepreneurship Journal*, 26(2), 1–13.
- Fairlie, R. W. (2014). Crossing the employer threshold: Determinants of firms hiring their first employee. In *Small Business and Employment: Nonemployers, First Employees, and Job Creators*.
- Fairlie, R. W., & Meyer, B. D. (1996). Ethnic and racial self-employment differences and possible explanations. *Journal Of Human Resources*, 31(4), 757–793.
- Fairlie, R. W., Krashinsky, H., Zissimopoulos, J., & Kumar, K. B. (2012). Indian entrepreneurial success in the United States, Canada, and the United Kingdom. *Research in Labor Economics*, 36, 285–318. [https://doi.org/10.1108/S0147-9121\(2012\)0000036012](https://doi.org/10.1108/S0147-9121(2012)0000036012).
- Fairlie, R., & Woodruff, C. M. (2010). Mexican-American entrepreneurship. *Contributions to Economic Analysis and Policy*, 10(1). <https://doi.org/10.2202/1935-1682.2479>.
- Falcone, G., & Padovani, M. (1992). *Cose di cosa nostra*. Rizzoli.
- Fan, Z., Su, T., Sun, M., Noyman, A., Zhang, F., Pentland, A. S., & Moro, E. (2023). Diversity beyond density: Experienced social mixing of urban streets. *PNAS nexus*, 2(4): 1-11.
- Fatoki, O. (2014). The financing preferences of immigrant small business owners in South Africa. *Mediterranean Journal of Social Sciences*, 5(20), 184.
- Fauve-Chamoux, A. (2001). Continuity and change among the Rhemish proletariat: Preindustrial textile work in family perspective. *History of the Family*, 6(2), 167–185. [https://doi.org/10.1016/S1081-602X\(01\)00067-7](https://doi.org/10.1016/S1081-602X(01)00067-7).
- Fazzin, S. (2022). EdTech economy and the transformation of education. IGI Global.
- Fayolle, A., Verzat, C. and Wapshott, R. (2016a), “In quest of legitimacy: the theoretical and methodological foundations of entrepreneurship education research”, *International Small Business Journal: Researching Entrepreneurship*, Vol. 34 No. 7, pp. 895-904.
- Fernandes, C., Ferreira, J.J., Raposo, M., Sanchez, J. and Hernandez-Sanchez, B. (2018), “Determinants of entrepreneurial intentions: an international cross-border study”, *International Journal of Innovation Science*, Vol. 10 No. 2, pp. 129-142.
- Ffe-Ye (2012). Impact of Entrepreneurship Education in Denmark - 2011. In L. Vestergaard, K. Moberg & C. Jørgensen (Eds.). Odense: The Danish Foundation for Entrepreneurship - Young Enterprise.
- Fini, R., Grimaldi, R., Marzocchi, G.L. and Sobrero, M. (2009), “The foundation of entrepreneurial intention”, Summer Conference, Vol. 7, pp. 17-19.
- Fisher, M., & Lewin, P. A. (2018). Push and pull factors and Hispanic self-employment in the USA. *Small Business Economics*, 51(4), 1055–1070. <https://doi.org/10.1007/s11187-018-9987-6>.
- Florida R L, 2002: *The rise of the creative class : and how it's transforming work, leisure, community and everyday life*, Basic Books, New York, NY.
- Fondazione Leone Moressa. (2023). Rapporto annuale 2023 sull'economia dell'Immigrazione.
- Fonseca, M. J., & Mealha, Ó. (2022). “Student smartphone experience narratives mediated by the phygital school library for learning ecosystems”. In *Conference on Smart Learning Ecosystems and Regional Development*, pp. 13-28. Singapore: Springer Nature Singapore.
- Foucault M., (1980), *Language, counter-memory, practice: Selected essays and interviews*, Ithaca N.Y., Cornell University Press.
- Frederking, L. C. (2004). A cross-national study of culture, organization and entrepreneurship in three neighbourhoods. *Entrepreneurship and Regional Development*, 16(3), 197–215.
- Frese, M. and Gielnik, M.M. (2014), “The psychology of entrepreneurship”, *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 1 No. 1, pp. 413-438.
- Frumkin, L., Evans, B., Coopamootoo, K., Jesus, V., & Little, S. (2022). Digital technologies, power and control: A review of how organisations can empower individuals and communities to develop trust, uphold their privacy and curate their identity in a secure digital environment. The Open University.
- Gallino L., (2016), “Una sociologia per la società mondo”, *Quaderni di Sociologia*, 70-71, 247-264.
- Galvao, A., Marques, C.S. and Marques, C.P. (2018), “Antecedents of entrepreneurial intentions among students in vocational training programmes”, *Education+ Training*, Vol. 1.
- Galvão, G. D. A., De Nadae, J., Clemente, D. H., Chinen, G., & De Carvalho, M. M. (2018). Circular economy: Overview of barriers. *Procedia Cirp*, 73, 79-85.
- García-Pabón, J., & Klima, K. (2017). Latino small businesses in northwest Washington: Perceptions, challenges, and needs. *Community Development*, 48(3), 370–384. <https://doi.org/10.1080/15575330.2017.1301976>.
- Garnero, A., Kampelmann, S., & Rycx, F. (2015). Minimum wage systems and earnings inequalities: Does institutional diversity matter?. *European Journal of Industrial Relations*, 21(2), 115-130.
- Gazzetta Ufficiale dell'Unione Europea, (2018). RACCOMANDAZIONE DEL CONSIGLIO del 22 maggio 2018 relativa alle competenze chiave per l'apprendimento permanente. Disponibile online: [https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:32018H0604\(01\)](https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:32018H0604(01)) Ultimo accesso: 08/08/2024
- Gelsomini, C., & Mancuso, M. (2021). “From Retail to Education: The Expanding Role of Phygital in Disadvantaged Communities”. *Journal of Economic Studies*, vol. 48, n. 4, pp. 1020-1043.
- Gelsomini, M., Spitale, M., & Garzotto, F. (2021). Phygital interfaces for people with intellectual disability: an exploratory

- study at a social care center. *Multimedia Tools and Applications*, 80(26), 34843-34874.
- George, G., & Bock, A. J. (2011). The business model in practice and its implications for entrepreneurship research. *Entrepreneurship Theory and Practice*, 35(1): 83-111.
- Ghosh, P. (2017). "Gender and entrepreneurship in the context of institutional theory." *Gender in Management: An International Journal*, 32(2), 132-153.
- Gibb, A. (2005). "Towards the Entrepreneurial University. Entrepreneurship Education as a Lever for Change". *NCGE Policy paper series*, n. 15, pp. 1-46.
- Gibbs, S., Singh, R. P., Butler, J. S., & Scott, C. (2018). The role of networking, entrepreneurial environments, and support systems in the creation, survival and success of ventures founded by minority, women, and immigrant entrepreneurs. *New England Journal of Entrepreneurship*.
- Gibson M. (2013), *Finding Out: An Introduction to LGBT Studies*, London, SAGE Publications.
- Gielnik, M. M., Barabas, S., Frese, M., Namatovu-Dawa, R., Scholz, F. A., Metzger, J. R., & Walter, T. (2014). A temporal analysis of how entrepreneurial goal intentions, positive fantasies, and action planning affect starting a new venture and when the effects wear off. *Journal of Business Venturing*, 29(6), 755-772.
- Girling, R. A. (2022). Privileged core-state migrant entrepreneurs in Poland: an ethnic economy in reverse?. *International Journal of Entrepreneurial Behavior & Research*.
- Glaeser, E. L., & Xiong, W. (2017). Urban productivity in the developing world. *Oxford Review of Economic Policy*, 33(3), 373-404. <https://doi.org/10.1093/oxrep/grx034>.
- Glaser, B. G., & Strauss, A. L. (1967). "The Discovery of Grounded Theory: Strategies for Qualitative Research". *Aldine Publishing*.
- Gold, S. (1994). Israeli immigrants in the United States: The question of community. *Qualitative Sociology*, 17(4), 325-363. <https://doi.org/10.1007/BF02393335>.
- Goleman, D. (1998). The emotional intelligence of leaders. *Leader to leader*, 1998(10), 20-26.
- González-Agüero, M., & Burcu, O. (2024). The vulnerabilities of skilled irregular Venezuelan migrants and entrepreneurs in Chile. *Journal of Ethnic and Migration Studies*, 50(14), 3453-3471. <https://doi.org/10.1080/1369183X.2024.2305270>.
- Goodkind, J. R. (2005). Effectiveness of a community-based advocacy and learning program for Hmong refugees. *American Journal of Community Psychology*, 36(3-4), 387-408.
- Gorman, G., Hanlon, D. and King, W. (1997), "Some research perspectives on entrepreneurship education and education for small business management: a ten-year literature review", *International Small Business Journal*, Vol. 15 No. 3, pp. 56-77.
- Graham, N., & Pottie-Sherman, Y. (2022). Higher education, international student mobility, and regional innovation in non-core regions: International student start-ups on "the rock." *Canadian Geographer*, 66(2), 234-247. <https://doi.org/10.1111/cag.12730>.
- Graham, N., & Pottie-Sherman, Y. (2021). The experiences of immigrant entrepreneurs in a medium-sized Canadian city: The case of St. John's, Newfoundland and Labrador, Canada. *The Canadian Geographer/Le Géographe canadien*, 65(2), 184-196.
- Granovetter, M. (1985). Economic Action And Social Structure: The Problem Of Embeddedness. *American Journal of Sociology*.
- Grashof, N., & Kopka, A. (2023). Artificial intelligence and radical innovation: an opportunity for all companies?. *Small Business Economics*, 61(2), 771-797.
- Green Comp, The European Sustainability competence framework, <https://op.europa.eu/it/publication-detail/-/publication/bc83061d-74ec-11ec-9136-01aa75ed71a1>
- Green, A., & Taylor, A. (2018). Desk-based research on 'What Works' to support the development of the Employment Support Framework. West Midlands Combined Authority. <https://www.wmca.org.uk/media/hj0fipp3/2018112-desk-review-assent-anne-green.pdf>
- Greene, P. G., Hart, M. M., Gatewood, E. J., Brush, C. G., & Carter, N. M. (2003). Women entrepreneurs: Moving front and center: An overview of research and theory. *Coleman White Paper Series*, 3(1), 1-47.
- Grete, P., Dolence, J. C., Miller, J. M., Brown, J., Ryan, B., Gaspar, A., ... & Roberts, L. F. (2023). "Parthenon—a performance portable block-structured adaptive mesh refinement framework". *The International Journal of High Performance Computing Applications*, vol. 37, n. 5, pp. 465-486.
- Grönroos, C., & Voima, P. (2013). "Critical service logic: Making sense of value creation and co-creation". *Journal of the Academy of Marketing Science*, vol. 41, n. 2, pp. 133-150.
- Guichard, J. (2009). Self-constructing. *Journal of Vocational Behavior*, 75(3), 251-258. <https://doi.org/10.1016/j.jvb.2009.03.004>
- Gulzar, F., & Fayaz, A. (2023). Youth entrepreneurial intentions: an integrated model of individual and contextual factors. *International Journal of Organizational Analysis*, 31(5), 1279-1303.
- Guo, X., Gong, J., & Pang, M.-S. (2024). Creation Or Destruction? Stem Opt Extension And Employment Of Information Technology Professionals. *MIS Quarterly: Management Information Systems*, 48(2), 715-730. <https://doi.org/10.25300/MISQ/2023/17585>.
- Gupta, N., & Matharu, M. (2022). Examining the enablers of sustainable entrepreneurship—an interpretive structural modelling technique. *Journal of Entrepreneurship in Emerging Economies*, 14(5), 701-726.

- Gurău, C., Dana, L. P., & Light, I. (2020). Overcoming the liability of foreignness: A typology and model of immigrant entrepreneurs. *European Management Review*, 17(3), 701–717.
- Gusso D., 2010: «Pane e cioccolata. Cronaca ordinaria di una straordinaria emigrazione, la ristorazione italiana nella Svizzera anni '70», *Italiaes. Littérature – civilisation – société*, n. 14, pp. 485-502.
- Guthrie, J. and Murthy, V. (2009), “Past, present and possible future developments in human capital accounting”, *Journal of Human Resource Costing and Accounting*, Vol. 13 No. 2, pp. 125- 142.
- Guthrie, J. and Parker, L.D. (2011), “Reflections and projections 25 years of interdisciplinary perspectives on accounting, auditing and accountability research”, *Accounting, Auditing and Accountability Journal*, Vol. 25 No. 1, pp. 6-26.
- Guthrie, J., Ricceri, F. and Dumay, J. (2012), “Reflections and projections: a decade of intellectual capital accounting research”, *The British Accounting Review*, Vol. 44 No. 2, pp. 68-82.
- Hagger, M.S., Chatzisarantis, N.L., Barkoukis, V., Wang, J.C., Hein, V., Pihu, M. and Karsai, I. (2007), “Cross-cultural generalizability of the theory of planned behavior among young people in a physical activity context”, *Journal of Sport and Exercise Psychology*, Vol. 29 No. 1, pp. 1-19.
- Guzzetti, A., Crespi, R., & Belvedere, V. (2024). Phygital luxury experiences. A correspondence analysis on retail technologies. *International Journal of Consumer Studies*, 48(2), e13008.
- Hackett, S. M., & Dilts, D. M. (2004b). A systematic review of business incubation research. *The Journal of Technology Transfer*, 29(1), 55-82.
- Hagan, J., Demonsant, J. L., & Chávez, S. (2014). Identifying and Measuring the Lifelong Human Capital of “Unskilled” Migrants in the Mexico-US Migratory Circuit 1. *Journal on Migration and Human Security*, 2(2), 76–100. <https://doi.org/10.1177/233150241400200202>.
- Halford, S., and P. Leonard. 2006. “Place, Space and Time: Contextualizing Workplace Subjectivities.” *Organization Studies* 27(5): 657-676.
- Hall, J. K., Daneke, G. A., & Lenox, M. J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of business venturing*, 25(5): 439-448.
- Hallot, P., Lambert, M., & Jouan, P. (2021). Communication tools for inaccessible places of significance. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 46, 293-299.
- Hammarstedt, M. (2001). Immigrant self-employment in Sweden - its variation and some possible determinants. *Entrepreneurship and Regional Development*, 13(2), 147–161.
- Hancock A-M. (2007), Intersectionality as a Normative and Empirical Paradigm, *Politics & Gender*, 3(2): 248-254.
- Hannon, P. D. (2005). Incubation policy and practice: Building practitioner and professional capability. *Journal of Small Business and Enterprise Development*, 12(1), 57-75.
- Hannon, P. D., & Chaplin, P. (2003). Are incubators good for business? *Proceedings of the Institute for Small Business and Entrepreneurship Conference*.
- Hansen, M. T., Chesbrough, H. W., Nohria, N., & Sull, D. N. (2000). Networked incubators. *Harvard Business Review*, 78(5), 74-84.
- Hanushek, E. A., & Woessmann, L. (2007). The Role of Education Quality in Economic Growth. *World Bank Policy Research Working Paper n. 4122*, 1-94, available at SSRN: <https://ssrn.com/abstract=960379>
- Harima, A., Freudenberg, J., & Halberstadt, J. (2019). Functional domains of business incubators for refugee entrepreneurs. *Journal of Enterprising Communities: People and Places in the Global Economy*, 14(5), 687–711.
- Harrison, J., & Vanbaelen, R. (2016). Lifelong learning as a steppingstone to entrepreneurship and innovation. *IEEE International Professional Communication Conference, 2016-November*. <https://doi.org/10.1109/IPCC.2016.7740508>.
- Hassan, R.H.; Hassan, M.T.; Sameem, M.S.I.; Rafique, M.A. Personality-Aware Course Recommender System Using Deep Learning for Technical and Vocational Education and Training. *Information* 2024, 15, 803. <https://doi.org/10.3390/info15120803>
- Haynie, M., & Shepherd, D. A. (2009). A measure of adaptive cognition for entrepreneurship research. *Entrepreneurship Theory and Practice*, 33(3), 695-714.
- Hearn J., Louvrier J. (2015), “Theories of Diversity and Intersectionality: What Do They Bring to Diversity Management?” in R. Bendl, I. Bleijenbergh, E. Henttonen and A. J. Mills (eds), *The Oxford Handbook of Diversity in Organizations*, Oxford, Oxford University Press.
- Hedfeldt, M., & Lundmark, M. (2015). New firm formation in old industrial regions – a study of entrepreneurial in-migrants in Bergslagen, Sweden. *Norsk Geografisk Tidsskrift*, 69(2), 90–101. <https://doi.org/10.1080/00291951.2015.1011226>.
- Hegde, D., & Tumlinson, J. (2021). Information frictions and entrepreneurship. *STRATEGIC MANAGEMENT JOURNAL*, 42(3), 491–528. <https://doi.org/10.1002/smj.3242>.
- Heilbrunn, S., & Kushnirovich, N. (2008). The impact of policy on immigrant entrepreneurship and businesses practice in Israel. *International Journal of Public Sector Management*, 21(7), 693–703.
- Heilman, M. E., and J. J. Chen. 2003. “Entrepreneurship as a Solution: The Allure of Self-employment for Women and Minorities.” *Human Resource Management Review* 13(2): 347-364.
- Henry, C., Hill, F. and Leitch, C. (2005), “Entrepreneurship education and training: can entrepreneurship be taught?”, *Education and Training*, Vol. 47 No. 2, pp. 98-111.
- Herrera, A. M., & Minetti, R. (2007). Informed finance and technological change: Evidence from credit relationships. *Journal of Financial Economics*, 83(1), 223-269.
- Hill Collins P. (2015), “Intersectionality’s Definitional Dilemmas”, *Annual Review of Sociology*, 41:1–20.

- Hill Collins P., Chepp V. (2013), *Intersectionality*, in Waylen G., Celis K., Kantola J., Weldon S. L. (eds.), *Intersectionality*, Oxford, Oxford University Press.
- Hirsch, B., Jahn, E. J., Manning, A., & Oberfichtner, M. (2022). The Urban Wage Premium in Imperfect Labour Markets. *Journal of Human Resources*, 57(S), S111–S136.
- Hjerm, M. (2004). Immigrant entrepreneurship in the Swedish welfare state. *Sociology-The Journal Of The British Sociological Association*, 38(4), 739–756.
- Högberg, L., Schölin, T., & Jones, T. (2016). Categorising and labelling entrepreneurs: Business support organisations constructing the Other through prefixes of ethnicity and immigrantship. *International Small Business Journal*, 34(3), 242–260.
- Högberg, L., Schölin, T., Ram, M., & Jones, T. (2016). Categorising and labelling entrepreneurs: Business support organisations constructing the Other through prefixes of ethnicity and immigrantship. *International Small Business Journal*, 34(3), 242–260.
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*. Center for Curriculum Redesign.
- Hooks b. (2000), *Feminism is for Everybody: Passionate Politics*. Cambridge MA, South End.
- Hoskisson, R. E., Chirico, F., Zyung, J., & Gambeta, E. (2017). Managerial risk taking: A multitheoretical review and future research agenda. *Journal of Management*, 43(1), 137–169.
- Hoskisson, R. E., Chirico, F., Zyung, J., & Gambeta, E. (2017). Managerial risk taking: A multitheoretical review and future research agenda. *Journal of management*, 43(1): 137-169.
- Hossain, K.A. (2023). Evaluation of Technological Breakthrough in Global Education and Future Employment Opportunity <https://jlahnet.com/wp-content/uploads/2023/11/1.pdf>
- Huang, B., Tani, M., & Zhu, Y. (2021). Does higher education make you more entrepreneurial? Causal evidence from China. *Journal of Business Research*, 135: 543-558.
- Huang, X., & Liu, C. Y. (2019). Immigrant entrepreneurship and economic development: A local policy perspective. *Journal of the American Planning Association*, 85(4), 564–584.
- Huey, D. (2001). The potential utility of problem-based learning in the education of clinical psychologists and others. *Education for Health*, 14(1), 11-19.
- Hui-Chen, C., Kuen-Hung, T. and Chen-Yi, P. (2014), “The entrepreneurial process: an integrated model”, *International Entrepreneurship and Management Journal*, Vol. 10 No. 4.
- Hyder, S. and Lussier, R.N. (2016), “Why businesses succeed or fail: a study on small businesses in Pakistan”, *Journal of Entrepreneurship in Emerging Economies*, Vol. 8 No. 1, pp. 82-100, doi: 10.1108/JEEE-03-2015-0020.
- Hyndman-Rizk, N., & de Klerk, S. (2019). Culture as opportunity: Skilled migration and entrepreneurship in Australia. *Contributions to Management Science*, 25–45. https://doi.org/10.1007/978-3-030-12342-0_3.
- Idris, M. (2019). A Microenterprise initiative among newly resettled refugees in a city of the US south: challenges, successes, and lessons learned. *Annals of Anthropological Practice*, 43(2), 39–52.
- Ikpe, I., Mat, N., & Razak, R. C. (2011). Attributes, Environmental Factors and Women Entrepreneurship: A Literature Review. *Asian Social Science*, 7(9), 124-130.
- Indriya, I., Mukri, S. G., & Tandjung, H. (2023). Preservation of islamic cultural arts with the value of entrepreneurship education through IRD Batik Walisongo Motif. In *Islamic Economic Institutions In Indonesia: Are They Successful In Achieving The Maqasad-al-shari'ah*. https://doi.org/10.1142/9789811272691_0004.
- Infocamere (2023). L'imprenditoria straniera in Italia. Una lettura attraverso i dati del Registro delle Imprese. II semestre 2023. Available at: <https://www.integrazionemigranti.gov.it/AnteprimaPDF.aspx?id=6073>, retrieved 6 February 2025.
- International Labour Organization (ILO). (2020). The Impact of Training Programs on Employment Outcomes. International Organization for Migration (IOM). (2020). *Migrant entrepreneurship: Evidence from the global compact for migration*. Retrieved from <https://www.iom.int>.
- International Organization for Migration (IOM). (2022). *Global migration trends: 2021 report*. Retrieved from <https://www.iom.int>.
- International Organization for Standardization (ISO). (2015). ISO 14001: Environmental management systems — Requirements with guidance for use.
- Intrinsic (2021), Final Report INTRINSIC INnovative educaTion foR sustainable eNtrepreneurShIP In Life sCIences, Erasmus+ Strategic Partnership, 01-09-2018 - 31-12-2021, www.intrinsic.eu
- Intrinsic Project, www.intrinsic.eu
- IOANNIDIS, S., & KONTIS, A.-P. (2023). The 4 Epochs of the Metaverse. *Journal of Metaverse*, 3(2), 152-165.
- IOM, 2015: *World Migration Report 2015. Migrants and Cities: New Partnerships to Manage Mobility*, Geneva.
- IOM. (2022). Immigrant Entrepreneurship: A global phenomenon on the rise.
- Isenberg, D. J. (2010), How to start an entrepreneurial revolution. *Harvard business review*, 88(6): 40-50.
- Istat (2024). *Rapporto Annuale 2024. La situazione del Paese*. Disponibile online: <https://www.istat.it/it/files/2024/05/Rapporto-Annuale-2024.pdf> Ultimo accesso: 10/08/2024
- Iwu, C.G., Opute, P.A., Nchu, R., Eresia-Eke, C., Tengeh, R.K., Jaiyeoba, O. and Aliyu, O.A. (2019), “Entrepreneurship education, curriculum and lecturer-competency as antecedents of student entrepreneurial intention”, *The International Journal of Management Education*, Vol. 19 No. 1.

- Jacob, F., Pez, V., & Volle, P. (2023). Shifting to phygital experience management with design science: a six-step method to manage customer journeys. *Journal of Strategic Marketing*, 31(5), 961-982.
- Janjuha–Jivraj, S. (2003). The sustainability of social capital within ethnic networks. *Journal of business ethics*, 47, 31–43.
- Jena, R.K. (2020), “Measuring the impact of business management Student’s attitude towards entrepreneurship education on entrepreneurial intention: a case study”, *Computers in Human Behavior*, Vol. 107, p. 106275.
- Johnson, M. P., & Schaltegger, S. (2020). Entrepreneurship for sustainable development: A review and multilevel causal mechanism framework. *Entrepreneurship Theory and Practice*, 44(6): 1141-1173.
- Johnson, M., & Barlow, R. (2021). Defining the phygital marketing advantage. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(6), 2365-2385.
- Johnson, R. C., & Shaw, C. S. (2019). A new career in a new town: Entrepreneurship among Syrian refugees in Germany and the Netherlands. *International Journal of Entrepreneurship*, 23(2), 1–10.
- Johnson, R., & Barlow, M. (2021). “Phygital: Redefining Customer Engagement in the Post-Pandemic World”. *Harvard Business Review*, vol. 36, n. 2, pp. 92-105.
- Jones, B. and Iredale, N. (2010), “Enterprise education as pedagogy”, *Education and Training*, Vol. 52 No. 1, pp. 7-19.
- Jones, S., Singh, P., & Dean, D. (2023). “To Bin or Not to Bin?”. *Journal of Customer Behaviour*, vol. 22, n. 1-2, pp. 68-77.
- Joshi, M., Joshi, G. and Pathak, S. (2020), “Awareness, entrepreneurial event theory and theory of planned behaviour as antecedents of student entrepreneurial intentions: an indian perspective”, *International Journal of Business and Globalisation*, Vol. 25 No. 2, pp. 170-184.
- Joshi, R. (2014). Entrepreneurship education: Core, context and challenges. *Journal of Entrepreneurship and Management*, 3(2), 27-36.
- Jung, T., Chung, N., & Leue, M. C. (2015). “The determinants of recommendations to use augmented reality technologies: The case of a Korean theme park”. *Tourism Management*, vol. 49, pp. 75–86.
- Juntti, M., & Ozsezer-Kurnuc, S. (2023). Factors influencing the realisation of the social impact of urban nature in inner-city environments: A systematic review of complex evidence. *Ecological Economics*, 211, 107872.
- Kabeer, N. (1999) Resources, Agency, Achievements: Reflections on the Measurement of Women’s Empowerment. *Development and Change*, 30, 435-464. <https://doi.org/10.1111/1467-7660.00125>
- Kabeer, N. (2012). Women's Economic Empowerment and Inclusive Growth: Labor Markets and Enterprise Development. SIG Working Paper 1.
- Kacbkar, O., Mohammed, M. O., Saad, N. M., & Kayadibi, S. (2016). Integrated Cash Waqf micro–enterprise support model for enhancing refugee livelihood. *Islam. Q*, 60, 343–368.
- Kachkar, O.A. (2017). Towards the establishment of cash waqf microfinance fund for refugees. *ISRA International Journal of Islamic Finance*, 9(1), 81–86.
- Kalu, K., & Okafor, O. N. (2021). Programming for Immigrant Women in Canada: Is Entrepreneurship Neglected? *International Migration*, 59(1), 105–125. <https://doi.org/10.1111/imig.12724>.
- Kanas, A., van Tubergen, F., & van der Lippe, T. (2009). Immigrant Self-Employment Testing Hypotheses About the Role of Origin- and Host-Country Human Capital and Bonding and Bridging Social Capital. *WORK AND OCCUPATIONS*, 36(3), 181–208.
- Kandemir, O., Ulusoy, G., & Kandemir, C. M. (2024). “Immersive Learning Experience for Design Education in the Lens of Education 4.0”. In *Multidisciplinary Applications of Extended Reality for Human Experience*, pp. 317-355. IGI Global.
- Kannan, P. K., & Li, H. A. (2017). “Digital marketing: A framework, review and research agenda”. *International Journal of Research in Marketing*, vol. 34, n. 1, pp. 22–45.
- Karali, S. (2013), The Impact of Entrepreneurship Education Programs on Entrepreneurial Intentions: An Application of the Theory of Planned Behavior, Master Thesis, Erasmus University of Rotterdam.
- Karimi, J., & Walter, Z. (2015). “The role of dynamic capabilities in responding to digital disruption: A factor-based study of the newspaper industry”. *Journal of Management Information Systems*, vol. 32, n. 1, pp. 39–81.
- Karimi, S., Biemans, H., Lans, T., Chizari, M., Mulder, M. and Naderi, K. (2013), “Understanding role models and gender influences on entrepreneurial intentions among college students”, *Procedia – Social and Behavioral Sciences*, Vol. 93, pp. 204-214.
- Kaviasasu, S. J., Ramasamy, P. (2022). “Socio-economic difficulties faced by women entrepreneurs from Chennai city’s slums”. *Social Science*, 1(1).
- Kenney, M. and Zysman, J. 2016. The rise of the platform economy, *Issues in Science and Technology*, vol. 32, no. 3, 61–9
- Kenney, M. and Zysman, J. 2020. The platform economy: restructuring the space of capitalist accumulation, *Cambridge Journal of Regions, Economy and Society*, vol. 13, no. 1, 55–76
- Kenney, M., & Patton, D. (2015). Gender, ethnicity and entrepreneurship in initial public offerings: illustrations from an open database. *RESEARCH POLICY*, 44(9, SI), 1773–1784. <https://doi.org/10.1016/j.respol.2015.01.003>.
- Kenney, M., Zysman, J. and Bearson, D. 2020. Transformation or structural change? What Polanyi can teach us about the platform economy, *Sociologica*, vol. 14, no. 3, 227–40
- Kerr J., McDaniel P. e M. Guinan, 2014: *Reimagining the Midwest: Immigration Initiatives and the Capacity of Local Leadership*, The Chicago Council of Global Affairs and the American Immigration Council, Chicago and Washington, D.C.
- Kerr, G., Schlosser, F., & Golob, M. (2017). Leisure activities and social capital development by immigrant serial/portfolio

- and lifestyle entrepreneurs. *Journal of Developmental Entrepreneurship*, 22(04).
- Kerr, W. R. (2022). INTERNATIONAL MIGRATION AND US INNOVATION: Insights from the
- Khan, M. I. (2015). Women empowerment, entrepreneurship, and capacity development. *Journal for Studies in Management and Planning*, 1(9), 43-56.
- Khaw, K.W., Thurasamy, R., Al-Abrrow, H., Alnoor, A., Tiberius, V., Abdullah, H. O., & Abbas, S. (2023). Influence of generational status on immigrants' entrepreneurial intentions to start new ventures: a framework based on structural equation modeling and multicriteria decision-making. *Journal of Entrepreneurship in Emerging Economies*, 15(3), 589–634.
- Khojasteh, M., & Raja, S. (2017). Agents of Change: How Immigrant-Run Ethnic Food Retailers Improve Food Environments. *Journal of Hunger and Environmental Nutrition*, 12(3), 299–327. <https://doi.org/10.1080/19320248.2015.1112759>.
- Khyareh, M. M., & Rostami, N. (2018). Competitiveness and Entrepreneurship, and their Effects on Economic Growth. *International Journal of Management, Accounting y Economics*, 5(10), 833- 848.
- Kim, D. Y. (1999). Beyond co-ethnic solidarity: Mexican and Ecuadorean employment in Korean- owned businesses in New York City. *Ethnic and Racial Studies*, 22(3), 581–605. <https://doi.org/10.1080/014198799329431>.
- Kim, D. Y., & Kulkarni, V. S. (2009). The Role of Father's Occupation on Intergenerational Educational and Occupational Mobility: The Case of Second-Generation Chinese Americans in New York. *SOCIOLOGICAL FORUM*, 24(1), 104–134. <https://doi.org/10.1111/j.1573-7861.2008.01088.x>.
- Kirby, D.A. (2004). "Entrepreneurship education: can business schools meet the challenge?", *Education and Training*, Vol. 46 Nos 8-9, pp. 510-519.
- Kiuma, A. K., Araar, A., & Kaghoma, C. K. (2020). Internal migration and youth entrepreneurship in the Democratic Republic of the Congo. *REVIEW OF DEVELOPMENT ECONOMICS*, 24(3, SI), 790–814. <https://doi.org/10.1111/rode.12669>.
- Klastrup, L., & Tosca, S. (2004). "Transmedial worlds: Rethinking cyberworld design". In *2004 International Conference on Cyberworlds*, pp. 409–416.
- Klein J. T., (2017), Typologies of Interdisciplinarity: The Boundary Work of Definition, in Frodeman R. (ed.), *The Oxford Handbook of Interdisciplinarity*, 2nd edn, Oxford Handbooks.
- Klepsch, M., Schmitz, F., & Seufert, T. (2017). Development and validation of two instruments measuring intrinsic, extraneous, and germane cognitive load. *Frontiers in psychology*, 8, 1997.
- Kloosterman, R. C. (2010). Matching opportunities with resources: A framework for analysing (migrant) entrepreneurship from a mixed embeddedness perspective. *Entrepreneurship and Regional Development*, 22(1), 25–45.
- Kloosterman, R., & Rath, J. (2001). Immigrant entrepreneurs in advanced economies: mixed embeddedness further explored. *Journal of ethnic and migration studies*, 27(2), 189–201.
- Kloosterman, R., & Rath, J. (2001). Immigrant entrepreneurs in advanced economies: mixed embeddedness further explored. *Journal of Ethnic and Migration Studies*, 27(2).
- Kloosterman, R., Van Der Leun, J., & Rath, J. (1999). Mixed embeddedness: (in)formal economic activities and immigrant businesses in the Netherlands. *International journal of urban and regional research*, 23(2), 252–266.
- Kloosterman, R., Van Der Leun, J., & Rath, J. (1999). Mixed embeddedness:(in) formal economic activities and immigrant businesses in the Netherlands. *International journal of urban and regional research*, 23(2), 252-266.
- Kloosterman, R.C. (2014). Faces of migration: migrants and the transformation of Amsterdam. In: B. Kochan (Ed.) *Migration and London's growth*. London: London School of Economics (pp. 127–143).
- Koch, T., & Windsperger, J. (2017). "Seeing through the network: Competitive advantage in the digital economy". *Journal of Organization Design*, vol. 6, n. 1.
- Kontos, M. (2003). Self-employment policies and migrants' entrepreneurship in Germany. *Entrepreneurship & Regional Development*, 15(2), 119–135.
- Kooli, C. (2023). Chatbots in education and research: A critical examination of ethical implications and solutions. *Sustainability*, 15(7), 5614.
- Korinek, A., & Vipra, J. (2025). Concentrating intelligence: scaling and market structure in artificial intelligence. *Economic Policy*, 40(121), 225-256.
- Korsgaard, S., & Anderson, A. R. (2011). Enacting entrepreneurship as social value creation. *International Small Business Journal*, 29(2), 135-151.
- Kothari, T., Elo, M., & Wiese, N. (2022). Born as a citizen and reborn as an alien: migrant superdiversity in global business. *AIB Insights*. <https://doi.org/10.46697/001c.35243>
- Kristiansen, S., & Ryen, A. (2002). Enacting their business environments: Asian entrepreneurs in East Africa. *African and Asian Studies*, 1(3), 165–186. <https://doi.org/10.1163/15692090260234001>.
- Krueger, N.F. and Carsrud, A.L. (1993), "Entrepreneurial intentions: applying the theory of planned behaviour", *Entrepreneurship and Regional Development*, Vol. 5 No. 4, pp. 315-330.
- Kuhn T. (1970), *The Structure of Scientific Revolutions*. Chicago University Press, Chicago, tr. It., *La struttura delle rivoluzioni scientifiche*, Torino, Einaudi, 1979.
- Kukulska-Hulme, A. (2020). Mobile AI and the Future of Inclusive Learning. *British Journal of Educational Technology*, 51(6), 1651–1655.

- Kumar, A. and Velusamy, S. (2017), Energising Youth through Skill Development, YOJANA, pp. 40-44.
- Kumar, J., Rana, S., Rani, G., & Rani, V. (2024). How phygital customers' experience transforms the retail banking sector? Examining customer engagement and patronage intentions. *Competitiveness Review: An International Business Journal*, 34(1), 92-106.
- Kuratko, D. F. (2005). The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship theory and practice*, 29(5), 577-597.
- Kushnirovich, N. (2009). Policy for supporting business minorities: a study of women and immigrant entrepreneurs. *International Journal of Management and Enterprise Development*, 7(4), 394-408.
- Kushnirovich, N., & Heilbrunn, S. (2008). Financial funding of immigrant businesses. *Journal of Developmental Entrepreneurship*, 13(02), 167-184.
- Kuzilwa, J. (2005). The Role of Credit for Small Business: A Study of the National Entrepreneurship Development Fund in Tanzania. *The Journal of Entrepreneurship*, 14(2), 131-161.
- Kwak, M.-J. (2013). Immigrant entrepreneurship and the opportunity structure of the international education industry in Vancouver and Toronto. *Asian and Pacific Migration Journal*, 22(4), 547-571. <https://doi.org/10.1177/011719681302200405>.
- Kwak, M.-J., & Hiebert, D. (2010). Globalizing Canadian education from below: A case study of transnational immigrant entrepreneurship between seoul, Korea and vancouver Canada. *Journal of International Migration and Integration*, 11(2), 131-153. <https://doi.org/10.1007/s12134-010-0130-z>.
- Lackeus, M., & Williams Middleton, K. (2018). Assessing experiential entrepreneurship education: Key insights from five methods in use at a venture creation programme. *Experiential learning for entrepreneurship: Theoretical and practical perspectives on enterprise education*, 19-49.
- Ladzani, W. M., & Van Vuuren, J. J. (2002). Entrepreneurship training for emerging SMEs in South Africa. *Journal of small business management*, 40(2), 154-161.
- Lagerström, K., & Andersson, M. (2003). Creating and sharing knowledge within a transnational team—the development of a global business system. *Journal of World Business*, 38(2), 84-95.
- Lamberton, C., & Stephen, A. T. (2016). “A thematic exploration of digital, social media, and mobile marketing: Research evolution from 2000 to 2015 and an agenda for future inquiry”. *Journal of Marketing*, vol. 80, n. 6, pp. 146-172.
- Lans T. (2020), *Sustainable Entrepreneurship for Food Technologists*, Webinar at UNITE, March 2020.
- Lans T., Blok V., Wesselink R. (2014). Learning apart together: Towards an integrated framework for sustainable entrepreneurship competence in higher education. *Journal of Cleaner Production*, 62, 37-47.
- Lans T., Lubberink R., Ploum L., Ammann M., Gondwe S. (2021). Entrepreneurial Learning at the Boundary: How to Learn From a Local Cheese Maker. *Entrepreneurship Education and Pedagogy* 4, 527-548. 10.1177/2515127420925015.
- Lans T., Plum L., (2018), *Presentation for the Intrinsic Erasmus + Project*, October 2018. Non published paper.
- Laukkanen, M. (2000), “Exploring alternative approaches in high-level entrepreneurship education: Creating micromechanisms for endogenous regional growth”, *Entrepreneurship and Regional Development*, Vol. 12 No. 1, pp. 25-47.
- Lavie, D. (2006). “Capability reconfiguration: An analysis of incumbent responses to technological change”. *Academy of Management Review*, vol. 31, n. 1, pp. 153-174.
- Lee, D.-J., Yu, G. B., & Sirgy, M. J. (2023). Reflections on phygital experiences: conceptual boundaries, wellbeing benefits and methodological suggestions. *Qualitative Market Research: An International Journal*.
- Lee, H., Ahmed, U., Zhussupova, B., & Khalid, N. (2019). Impact of innovation capability and competitiveness on entrepreneurial orientation regarding to the entrepreneurial education in business performance among South Korean firms. *Polish Journal of Management Studies*, 20.
- Lee, M.-S., Puryear, A. N., Rogoff, E. G., Onochie, J., Haynes, G. W., & Zachary, R. K. (2010). Exploring the impact of education on Korean-American entrepreneurs. *New England Journal of Entrepreneurship*, 13(1), 47-59. <https://doi.org/10.1108/NEJE-13-01-2010-B004>.
- Lee, O. K. D., Sambamurthy, V., Kim, K. H., & Wei, K. K. (2015). “How does IT ambidexterity impact organizational agility?”. *Information Systems Research*, vol. 26, n. 2, pp. 398-417.
- Lee, Y. S., & Eesley, C. (2018). The persistence of entrepreneurship and innovative immigrants. *Research Policy*, 47(6), 1032-1044. <https://doi.org/10.1016/j.respol.2018.03.007>.
- Leffel, A. (2008), “Prediction of employment status choice: an analytical approach on the relation between an entrepreneurship class at a Us university and employment status intentions”, *United States Association for Small Business and Entrepreneurship. Conference Proceedings.*, p. 401.
- Legodi, K. and Kanjere, M. (2015), “Challenges faced by informal traders in greater Letaba municipality in Limpopo province”, *Africa's Public Service Delivery and Performance Review*, Vol. 3 No. 4, pp. 57-75.
- Lemon, K. N., & Verhoef, P. C. (2016). “Understanding customer experience throughout the customer journey”. *Journal of Marketing*, vol. 80, n. 6, pp. 69-96.
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of marketing*, 80(6), 69-96.
- Leonhardt, D., Haffke, I., Kranz, J., & Benlian, A. (2017). “Reinventing the IT function: the role of IT agility and IT ambidexterity in supporting digital business transformation”. In *ECIS Proceedings*, Guimarães, Portugal, pp. 968-984.

- Lerner, J. (2000), "The government as venture capitalist: the long-run impact of the SBIR program", *The Journal of Private Equity*, Vol. 3 No. 2, pp. 55-78.
- Leung, M.W. (2003). Beyond Chinese, beyond food: unpacking the regulated Chinese restaurant business in Germany. *Entrepreneurship & Regional Development*, 15(2), 103–118.
- Li, J., Xie, H., & Qu, S. (2023). Dialect Ability, Cultural Diversity And Migrant Entrepreneurship Activity. *Singapore Economic Review*.
- Liang, C., Liang, C. T., & Ip, C. Y. (2020). Tenacity in design entrepreneurship: how to stimulate entrepreneurial intention. *International Journal of Technology and Design Education*, 1-18.
- Libert, B., Beck, M., & Wind, J. (2016). *The network imperative: How to survive and grow in the age of digital business models*. Harvard: Business Review Press.
- Lichtenstein, G.A. and Lyons, T.S. (2001), "The entrepreneurial development system: transforming business talent and community economies", *Economic Development Quarterly*, Vol. 15 No. 1, pp. 3-20, doi: 10.1177/089124240101500101.
- Light I., 1972: *Ethnic Enterprise in America: Business and Welfare among Chinese, Japanese, and Blacks*, University of California Press, Berkeley-Los Angeles.
- Light, I., & Bonacich, E. (1988). *Immigrant entrepreneurs*. University of California Press.
- Lin, X., & Tao, S. (2012). Transnational entrepreneurs: Characteristics, drivers, and success factors. *Journal of International Entrepreneurship*, 10(1), 50–69. <https://doi.org/10.1007/s10843-011-0082-1>.
- Linton, G., & Kinton, M. (2019). University entrepreneurship education: a design thinking approach to learning. *Journal of innovation and Entrepreneurship*, 8(1), 1-11.
- Liu, D. Y., Chen, S. W., & Chou, T. C. (2011). "Resource fit in digital transformation – Lessons learned from the CBC bank global e-banking project". *Management Decision*, vol. 49, n. 10, pp. 1728–1742.
- Loebbecke, C., & Picot, A. (2015). "Reflections on societal and business model transformation arising from digitization and big data analytics: A research agenda". *Journal of Strategic Information Systems*, vol. 24, n. 3, pp. 149–157.
- Loi, M., & Fayolle, A. (2021). Impact of entrepreneurship education: a review of the past, overview of the present, and a glimpse of future trends. *Annals of Entrepreneurship Education and Pedagogy–2021*, 170-193.
- Lombardo E., Rolandsen Agustín L. (2016), "Intersectionality in European Union policymaking: the case of gender-based violence", *Politics*, 36(4): 364-373.
- Loosemore, M., Alkilani, S., & Mathenge, R. (2020). The risks of and barriers to social procurement in construction: a supply chain perspective. *Construction Management and Economics*, 38(6), 552–569.
- López, A. S. (2012). Transnationalism, motherhood, and entrepreneurship: Chinese women in Spain. *Advances in Gender Research*, 16, 39–59. [https://doi.org/10.1108/S1529-2126\(2012\)0000016006](https://doi.org/10.1108/S1529-2126(2012)0000016006).
- LU, Y., & RAMAMURTHY, K. R. (2011). "Understanding the link between information technology capability and organizational agility: An empirical examination". *MIS Quarterly*, vol. 35, n. 4, pp. 931–954.
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence Unleashed: An Argument for AI in Education*. Pearson.
- Lumpkin, G. T., & Bacq, S. (2019). Civic wealth creation: A new view of stakeholder engagement and societal impact. *Academy of Management Perspectives*, 33(4), 383-404.
- Lumpkin, G. T., Bacq, S., & Pidduck, R. J. (2018). Where change happens: Community-level phenomena in social entrepreneurship research. *Journal of Small Business Management*, 56(1), 24-50.
- Luo, B., & Chong, T. T.-L. (2019). Regional differences in self-employment in China. *SMALL BUSINESS ECONOMICS*, 53(3), 813–837. <https://doi.org/10.1007/s11187-018-0063-z>.
- Lüthje, C. and Franke, N. (2002), "Fostering entrepreneurship through university education and training: Lessons from MA institute of technology", *European Academy of Management 2nd Annual Conference on Innovative Research in Management*, Stockholm, pp. 9-11
- Lutz H. (2014), *Intersectionality's (Brilliant) Career – How to Understand the Attraction of the Concept?*, Frankfurt, Institute of Sociology, Goethe University.
- Lyon, F., Sepulveda, L., & Syrett, S. (2007). Enterprising Refugees: Contributions and Challenges in Deprived Urban Areas. *Local Economy*, 22(4), 362–375.
- Lyons, E., & Zhang, L. (2018). Who does not benefit from entrepreneurship programs?. *Strategic Management Journal*, 39(1): 85-112.
- Lyotard, J.-F. (1984). "The Postmodern Condition: A Report on Knowledge". *University of Minnesota Press*.
- Malerba, R. C., & Ferreira, J. J. (2020). Immigrant entrepreneurship and strategy: A systematic literature review. *Journal of Small Business & Entrepreneurship*, 33(2), 183–217.
- Malhotra, A., Schuler, S.R. and Boender, C. (2002) *Measuring Women's Empowerment as a Variable in International Development*. The World Bank, Washington DC.
- Malhotra, A., Schulte, J., Patel, P. and Petesch, P. (2009). *Innovation for Women's Empowerment and Gender Equality*. International Center for Research on Women (ICRW). Washington DC.
- Maloni, M. J., Gligor, D. M., Blumentritt, T., & Gligor, N. (2022). Fear or Competition? Antecedents to U.S. Business Student Immigration Attitudes. *Journal of Management Education*, 46(4), 715–750. <https://doi.org/10.1177/10525629211065623>.
- Malsch, F., Guieu, G. (2019). "How to get More with Less? Scarce Resources and High Social Ambition: Effectuation as KM Tool in Social Entrepreneurial Projects." *Journal of Knowledge Management*, vol. 23, n.10, pp. 1949–1964.

- Mambali, E. R., Kapipi, M. S., & Changelima, I. A. (2024). Entrepreneurship education and business and science students' green entrepreneurial intentions: The role of green entrepreneurial self-efficacy and environmental awareness. *The International Journal of Management Education*, 22(2), 100987.
- Mancusi, M. L., & Vezzulli, A. (2014). R&D and credit rationing in SMEs. *Economic Inquiry*, 52(3), 1153-1172.
- Manhart, M. and Thalmann, S. (2015), "Protecting organizational knowledge: a structured literature review", *Journal of Knowledge Management*, Vol. 19 No. 2, pp. 190-211.
- Mannheim K. (1953), *Ideology and Utopia*, New York, Routledge & Kegan.
- Manning, A. (2021). Monopsony in Labour Markets: A Review. *ILR Review*, 74(1), 3-26.
- Manning, A., & Petrongolo, B. (2017). How local are labour markets? Evidence from a spatial job search model. *American Economic Review*, 107(10), 2877-2907.
- Mansilla, J. C., Betancur, L. M., & Lambach, C. Q. (2019). "Transmedial worlds with social impact: Exploring intergenerational learning in collaborative video game design". *Journal of Childhood Studies*, pp. 103-110.
- Marchand, K., & Dijkhuizen, J. (2018). Entrepreneurship as a tool for a new beginning—Entrepreneurship training for refugees in a New Homeland. *Entrepreneurship and the sustainable development goals*, 8, 135-149.
- Marchetti S. (2013), "Intersezionalità" in Botti C., (a cura di) "Le etiche della diversità culturale", Firenze, Le Lettere.
- Marcu, N., Siminică, M., Noja, G. G., Cristea, M., & Dobrotă, C. E. (2018). Migrants' integration on the European labor market: A spatial bootstrap, SEM and network approach. *Sustainability*, 10(12), 4543.
- Marinescu, I., Ouss, I., & Pape, L. D. (2021). Wages, hires, and labour market concentration. *Journal of Economic Behavior & Organization*, 184, 506-605.
- Markides, C. (2006). "Disruptive innovation: In need of better theory". *Journal of Product Innovation Management*, vol. 23, n. 1, pp. 19-25.
- Marlow, S., & Patton, D. (2005). "All credit to men? Entrepreneurship, finance, and gender." *Entrepreneurship & Regional Development*, 17(1), 1-12.
- Martín-Montaner, J., Serrano-Domingo, G., & Requena-Silvente, F. (2018). Networks and self- employed migrants. *Small Business Economics*, 51(3), 735-755. <https://doi.org/10.1007/s11187-017-9962-7>.
- Martín-Ruel, E. (2020). Training in deontological requirements of interpreters dealing with refugees: International protection as an opportunity for social entrepreneurship in translation and interpreting studies in Spain. *Hermes (Denmark)*, 60, 155-170. <https://doi.org/10.7146/HJLCB.V60I0.121317>.
- Martin, L. M., Warren-Smith, I., Schofield, C., & Millman, C. (2013). Exploring SME advice and training needs for entrepreneurial rural firms. *International Journal of Entrepreneurship and Innovation*, 14(2), 95-102. <https://doi.org/10.5367/ijei.2013.0110>.
- Martinelli, G., & Bolzani, D. (2021). Research report on incubators' training needs to serve migrant entrepreneurs.
- Martinez-Lopez, F. J., Merig, J. M., Valenzuela-Fernandez, L., And Nicolas, C. (2018). Fifty years of the European journal of marketing: a bibliometric analysis. *Eur. J. Marketing* 52, 439-468.
- Massaro, M., Dumay, J. and Garlatti, A. (2015), "Public sector knowledge management: a structured literature review", *Journal of Knowledge Management*, Vol. 19 No. 3, pp. 530-558.
- Massaro, M., Dumay, J. and Guthrie, J. (2016), "On the shoulders of giants: undertaking a structured literature review in accounting", *Accounting, Auditing and Accountability Journal*, Vol. 29 No. 5, pp. 767-801.
- Matthews, C.H. and Moser, S.B. (1996), "Longitudinal investigation of the impact of family background and gender on interest in small firm ownership", *Journal of Small Business Management*, Vol. 34 No. 2, pp. 29-43.
- Mayo C., Blackburn M. (2020), *Queer, Trans, and Intersectional Theory in Educational Practice. Student, Teacher, and Community Experiences*, New York and London, Routledge.
- Mazzanti, G. M., Ecchia, G., & Komatsu, T. (2016). Innovative partnerships for the utilization of confiscated assets previously owned by mafias. *Social Enterprise Journal*, 12(1), 21-41.
- Mcadam, M., & Marlow, S. (2013). "Females' entrepreneurial opportunities: Examining the intersection of gender and institutional context." *International Journal of Gender and Entrepreneurship*, 5(3), 263-280.
- McCall L. (2005), "The Complexity of Intersectionality", *Signs: Journal of Women in Culture and Society*, 30: 1771-1800.
- McCracken, K., Marquez, S., Kwong, C., Stephan, U., Castagnoli, A., & Dlouhá, M. (2015). Women's Entrepreneurship: closing the gender gap in access to financial and other services and in social entrepreneurship. European Parliament, Policy Department C: citizens' rights and constitutional affairs. Brussels: European Union.
- McKenzie, D. (2020). Small Business Training to Improve Management Practices in Developing Countries. *Development Research*.
- McKinsey Global Institute. (2020). The future of work in Europe: Automation, workforce transitions and the role of policy. McKinsey & Company.
- Mckinsey, 2018 retrieved from <https://www.mckinsey.com/featured-insights/artificial-intelligence/the-role-of-education-in-ai-and-vice-versa>
- McKinsey, 2020 retrieved from <https://www.mckinsey.com/industries/education/our-insights/how-artificial-intelligence-will-impact-k-12-teachers>
- Mckinsey, 2023 <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/the-organization-of-the-future-enabled-by-gen-ai-driven-by-people>
- McMahon, M., Calligaris, S., Doyle, E., & Kinsella, S. (2021). Scale, market power and competition in a digital world: Is

bigger better?.

- Meister, A. D., & Mauer, R. (2019). Understanding refugee entrepreneurship incubation—an embeddedness perspective. *International Journal of Entrepreneurial Behavior & Research*, 25(5), 1065–1092.
- Mele, C., & Russo-Spena, T. (2022). “Phygital Transformation in Public Services”. *Journal of Public Administration Research and Theory*, vol. 43, n. 1, pp. 17-38.
- Mele, C., Mancuso, M., & Russo-Spena, T. (2023). “Blending Realities: Phygital Integration in the Educational Sector”. *Academy of Management Review*, vol. 48, n. 3, pp. 1105-1125.
- Mele, C., Russo-Spena, T., Tregua, M. And Amitrano, C.C. (2021), “The millennial customer journey: a Phygital mapping of emotional, behavioural, and social experiences”, *Journal of Consumer Marketing*, vol. 38, n. 4, pp. 420-433.
- Mele, C., Spena, T. R., Marzullo, M., & Di Bernardo, I. (2023). The phygital transformation: a systematic review and a research agenda. *Italian Journal of Marketing*, 2023(3), 323-349.
- Melnikova, J. (2020). Leading complementary schools as non-profit social entrepreneurship: Cases from Lithuania. *Management in Education*, 34(4), 149–156. <https://doi.org/10.1177/0892020620945331>.
- Melnikova, J., Jurgaityte, V., Zašcerinska, J., Aleksejeva, L., Leete, A., Koppel, H., Rohdin, I., & Olsson, A. H. (2019). Immigrants and Asylum Seekers’ Digital Entrepreneurship Competence: Evaluation of the Theoretical Framework. *Balkan Region Conference on Engineering and Business Education*, 3(1), 390–397. <https://doi.org/10.2478/cplbu-2020-0047>.
- Melnikova, J., Jurgaityte, V., Zašcerinska, J., Aleksejeva, L., Leete, A., Koppel, H., Rohdin, I., & Olsson, A. H. (2020). Report on Adult Educators’ Competence Training for the Development of Immigrant and Asylum Seeker Digital Entrepreneurship (EDUAIM). *Journal of Ethnology and Folkloristics*, 14(2), 147–149. <https://doi.org/10.2478/jef-2020-0022>.
- Mesch, G. S., & Czamanski, D. (1997). Occupational closure and immigrant entrepreneurship: Russian Jews in Israel. *Journal of Socio-Economics*, 26(6), 597–610. [https://doi.org/10.1016/S1053-5357\(97\)90060-3](https://doi.org/10.1016/S1053-5357(97)90060-3).
- Mets, T., Holbrook, J., & Läänelaid, S. (2021). Entrepreneurship education challenges for green transformation. *Administrative Sciences*, 11(1): 15.
- Mewes H. (2020). FU-BEST Digital Lecture Series: Sustainable Entrepreneurship – Can Green Businesses Make a Change? <https://www.youtube.com/watch?v=F6w2xmmYwf0&feature=youtu.be>
- Milgram, P., & Kishino, F. (1994). “A taxonomy of mixed reality visual displays”. *IEICE Transactions on Information and Systems*, vol. 77, n. 12, pp. 1321–1329.
- Ministero del Lavoro (2023). La presenza dei migranti nelle città metropolitane. Sintesi dei rapporti. Available at: <https://www.lavoro.gov.it/documenti-e-norme/studi-e-statistiche/quaderno-sintesi-ram-2023>, retrieved 6 February 2025.
- Ministero dello Sviluppo Economico (2020). Italia Startup Visa & Hub. Fourth quarterly report 2019. Rome: Ministero dello Sviluppo Economico.
- Ministero per la Pubblica Amministrazione (2021). Indice di soddisfazione dei cittadini per i servizi pubblici.
- Mirvis, J. (2024). The Entrepreneurship Process of Western Immigrants Who Have Impacted Religious Education in Israel: A Qualitative Study. *Religious Education*, 119(1), 59–75. <https://doi.org/10.1080/00344087.2023.2283667>.
- Moberg K., Fosse H.B., Hoffman A., Junge M. (2015). *Impact of entrepreneurship education in Denmark—2014*, Danish Foundation for Entrepreneurship, www.effectuation.org.
- Mogaji, E., Balakrishnan, J., Nwoba, A. C., & Nguyen, N. P. (2021). “Emerging-market consumers’ interactions with banking chatbots”. *Telematics and Informatics*, vol. 65, 101711.
- Mohammed, R. A., de Rosa, M., & Perito, M. A. (2021). Upward transition of indian entrepreneurs: From simple working to ethnic entrepreneurship. a case study in an italian region. *European Countryside*, 13(3), 536–549. <https://doi.org/10.2478/euco-2021-0031>.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & TP Group. (2009). Linee guida per il reporting di revisioni sistematiche e meta-analisi: il PRISMA Statement. *PLoS Med*, 6(7), e1000097.
- Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., Stewart, L. A., & PRISMA-P Group (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews*, 4(1), 1-9.
- Mol, M. J., & Birkinshaw, J. (2009). The sources of management innovation: When firms introduce new management practices. *Journal of business research*, 62(12), 1269-1280.
- Moloi, L. Y., Mosweunyane, L., & Chipunza, C. (2022). Assessing immigrant entrepreneur’s contribution to entrepreneurial development: A case of small retailers in the Mangaung, Free State province. *Southern African Journal of Entrepreneurship and Small Business Management*, 14(1). <https://doi.org/10.4102/sajesbm.v14i1.440>.
- Monge, C. B. (2018). Identifying Cross-Country Key Drivers of Social Entrepreneurial Activity. *Journal of Social Entrepreneurship*, 9(3), 181–199. <https://doi.org/10.1080/19420676.2018.1467333>.
- Monte, F., Redding, S. J., & Rossi-Hansberg, E. (2018). Commuting, migration, and local employment elasticities. *American Economic Review*, 108(12), 3855-3890.
- Moore, D., Buttner, E. (1997). *Women Entrepreneurs: Moving Beyond the Glass Ceiling*. Londra: Sage Publications.
- Morris, M. and Lewis, P. (1995), “The determinants of entrepreneurial activity”, *European Journal of Marketing*, Vol. 29 No. 7, pp. 31-48.
- Morselli, D., & Magagnoli, S. (2024). The next generation of change makers: un approccio pedagogico e glottodidattico per

- il gaming per l'imprenditorialità sostenibile nella formazione tecnica. In *Le emergenze nella formazione* (pp. 89-97). Pensa Mutlimedia.
- Motta, V. F., & Galina, S. V. R. (2023). Experiential learning in entrepreneurship education: A systematic literature review. *Teaching and Teacher Education*, 121, 103919.
- Moulaert, F., MacCallum, D., & Hillier, J. (2013). Social innovation: intuition, precept, concept, theory and practice. The international handbook on social innovation: Collective action, social learning and transdisciplinary research, 13, 13-24.
- Mrkajic, B. (2017). Business incubation models and institutionally void environments. *Technovation*, 68, 44-55.
- Mrozewski, M. J., & Hering, D. (2023). What makes migrants more entrepreneurial? Investigating the role of cultural distance and human capital. *International Entrepreneurship And Management Journal*, 19(1), 151-176. <https://doi.org/10.1007/s11365-022-00813-6>.
- Mukwarami, S., Tengeh, R. K., & Mukwarami, J. (2020). Responsible entrepreneurship: Is there scope for its adoption by immigrant-owned businesses in South African townships? *Entrepreneurship and Sustainability Issues*, 7(3), 1887-1901. [https://doi.org/10.9770/jesi.2020.7.3\(30\)](https://doi.org/10.9770/jesi.2020.7.3(30)).
- Mungila Hillemane, B. S., Satyanarayana, K., & Chandrashekar, D. (2019). Technology business incubation for start-up generation: A literature review toward a conceptual framework. *International Journal of Entrepreneurial Behavior & Research*, 25(7), 1471-1493.
- Munkejord, N. (2017). Immigrant entrepreneurship contextualised: Becoming a female migrant entrepreneur in rural Norway. *Journal of Enterprising Communities*.
- Murphy, P. J., Smothers, J., Novicevic, M. M., Humphreys, J. H., Roberts, F. B., & Kornetsky, A. (2018). Social enterprise in Antebellum America: the case of Nashoba (1824-1829). *Journal of Management History*, 24(1), 99-119. <https://doi.org/10.1108/JMH-06-2017-0032>.
- Murray, A., Crammond, R. J., Omeihe, K. O., & Scuotto, V. (2018). Establishing successful methods of entrepreneurship education in nurturing new entrepreneurs. *Journal of Higher Education Service Science and Management (JoHESM)*, 1(1).
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics*, 13(2), 187-221.
- Naidu, S., & Posner, E. A. (2022). Labour Monopsony and the Limits of the Law. *Journal of Human Resources*, 57(S), S284-S323.
- Naqvi, S., Matriano, M. T. D. G., & Alimi, J. T. (2023). Student and faculty perceptions on an entrepreneurship course: an exploratory study from Oman. *Journal of Science and Technology Policy Management*, 14(5), 885-911.
- Nayak, G., Salovaara, I. M., & Wade, J. (2019). Self-regulated learning in refugee entrepreneurship education: A university-based program for Tibetan entrepreneurs in India. *Diaspora, Indigenous, and Minority Education*, 13(2), 81-96.
- Neck, H. M., & Corbett, A. C. (2018). The scholarship of teaching and learning entrepreneurship. *Entrepreneurship Education and Pedagogy*, 1(1), 8-41.
- Neck, H.M. and Greene, P.G. (2011), "Entrepreneurship education: known worlds and new frontiers", *Journal of Small Business Management*, Vol. 49 No. 1, pp. 55-70.
- Neodemos. (2015). L'integrazione delle comunità immigrate e l'imprenditoria straniera.
- Neumann, T. (2021). The impact of entrepreneurship on economic, social and environmental welfare and its determinants: a systematic review. *Management Review Quarterly*, 71(3): 553-584.
- Neupert, K. E., & Baughn, C. (2013). Immigration, education and entrepreneurship in developed countries. *Journal of Enterprising Communities*, 7(3), 293-310. <https://doi.org/10.1108/JEC-12-2011-0033>.
- Newman, A. B., & Christensen, L. J. (2021). Doing it right, but getting it wrong: Best practices for refugee focused incubators. *Journal of Developmental Entrepreneurship*, 26(03), 2150019.
- Ng, H. S., Hung Kee, D. M., & Khan, M. J. (2021). Effects of personality, education and opportunities on entrepreneurial intentions. *Education+ Training*, 63(7/8), 992-1014.
- Nicotra, M., Del Giudice, M., & Romano, M. (2021). "Fulfilling University third mission: towards an ecosystemic strategy of entrepreneurship education". *Studies in Higher Education*, vol. 46, n. 5, pp. 1000-1010.
- Nijhoff, K. (2021). Refugees starting a business: experiences of barriers and needs in the Netherlands. *Journal of Small Business and Enterprise Development*, 28(7), 1057-1074.
- Nocenzi M., (2023), *Dal cambiamento alla transizione. Ripensare la società fra crisi e sostenibilità*, Milano, Franco Angeli
- Norström A.V., Cvitanovic C., Löf M.F. et al., (2020), Principles for knowledge co-production in sustainability research, *Nature Sustainability*, 3, 182-190.
- North, D. (1990). "Institutions, institutional change and economic performance". Cambridge, MA: *Cambridge University Press*.
- North, D.C. (1955). Location theory and regional economic growth. *Journal of political economy*, 63(3), 243-258.
- Nowiński, W., Haddoud, M.Y., Lančarič, D., Egerová, D. and Czeglédi, C. (2019), "The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the visegrad countries", *Studies in Higher Education*, Vol. 44 No. 2,
- Nozdreva, N., Silva, M., & Cachinho, H. (2023). "Scaling Phygital Solutions for Inclusive Education". *Educational Review Quarterly*, vol. 61, n. 2, pp. 149-172.
- Nozdreva, R., Konina, N., & Ponomareva, E. (2023). Marketing in Global Business. In *World Economy and International*

- Business: Theories, Trends, and Challenges (pp. 707-720). Springer.
- O'Connor, A. (2013). A conceptual framework for entrepreneurship education policy: Meeting government and economic purposes. *Journal of business venturing*, 28(4): 546-563.
- O'Brien, E., & Cooney, T. M. (2024). Enhancing inclusive entrepreneurial activity through community engagement led by higher education institutions. *Journal of Enterprising Communities*. <https://doi.org/10.1108/JEC-10-2023-0189>.
- Obschonka, M., & Audretsch, D. B. (2020). Artificial intelligence and big data in entrepreneurship: a new era has begun. *Small Business Economics*, 55, 529-539.
- OECD (2023). *The Missing Entrepreneurs 2023*. Paris: OECD Publishing.
- OECD. (2011). Report on the Gender Initiative: Gender Equality in Education, Employment and Entrepreneurship. Paris: Meeting of the OECD Council at Ministerial Level, 25-26 May, 2011.
- OECD. (2013). OECD Skills Outlook 2013: First Results from the Survey of Adult Skills.
- OECD. (2020). Education responses to COVID-19: Embracing digital learning and online collaboration. OECD Policy Brief.
- OECD. (2021). Education at a Glance 2021: OECD Indicators
- OECD. (2021). Entrepreneurship and innovation: A pathway for migrant integration. Retrieved from <https://www.oecd.org>.
- OECD. (2021). Skills for jobs: Review of financial literacy. Retrieved from <https://www.oecd.org>.
- OECD. (2021). Supporting entrepreneurship and innovation in the post-COVID-19 era. Retrieved from <https://www.oecd.org>.
- OECD. (2022). *Migrant entrepreneurship in the digital age*.
- Omar, H. (2011). Arab American entrepreneurs in San Antonio, Texas: Motivation for entry into self-employment. *Education, Business and Society: Contemporary Middle Eastern Issues*, 4(1), 33-42. <https://doi.org/10.1108/17537981111111256>.
- Opusunju, M.I., Zwingina, T.C., Murat, A. and Jiya, N.S. (2018), "Effect of political environment on entrepreneurship development: a small business perspective in Abuja, FCT", *International Journal of Operational Research in Management, Social Sciences and Education*, Vol. 4 No. 2,
- Organizzazione Internazionale per le Migrazioni. (2020). L'impresa multiculturale come modello emergente.
- Ornati, M., & Kalbaska, N. (2022). Looking for haptics. Touch digitalization business strategies in luxury and fashion during COVID-19 and beyond. *Digital Business*, 2(2), 100035.
- Orozco, M. (2022). The salience of ethnic identity in entrepreneurship: an ethnic strategies of business action framework. *Small Business Economics*, 59(1), 243-268. <https://doi.org/10.1007/s11187-021-00532-2>.
- Osterwalder A., Pigneur Y. (2010) *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. Wiley.
- Oxfam. (2024). Rapporto Oxfam: *Disuguaglianza: il potere al servizio di pochi*. Disponibile online: https://www.oxfamitalia.org/wp-content/uploads/2024/01/Rapporto-OXFAM-Disuguaglianza-il-potere-al-servizio-di-pochi_15_1_2024.pdf Ultimo accesso: 08/08/2024
- Ozasir-Kacar,, S., & Essers, S. (2023). The regulatory environment for migrant and women entrepreneurs. *International Migration*, 61(2), 107-122.
- Özcan, V., & Seifert, W. (2000). Self-employment of immigrants in Germany: Exclusion or path to integration? *Soziale Welt-Zeitschrift Fur Sozialwissenschaftliche Forschung Und*, 51(3), 289.
- Özkan, T. and Lajunen, T. (2005), "Masculinity, femininity and the bem sex role inventory in Turkey", *Sex Roles*, Vol. 52 Nos 1/2, pp. 103-110.
- Pacelli, L., & Passerini, F. (2024). Monopsony and Rent Sharing: Evidence from Italian Hiring Subsidies. *Economics Letters*, 244, 112002.
- Packham, G., Jones, P., Miller, C., Pickernell, D. and Thomas, B. (2010), "Attitudes towards entrepreneurship education: a comparative analysis", *Education + Training*, Vol. 52 No. 8/9,
- Paivio, A. (1991). Dual coding theory: Retrospect and current status. *Canadian Journal of Psychology/Revue canadienne de psychologie*, 45(3), 255.
- Palalić, R., Ramadani, V., Đilović, A., Dizdarević, A., & Ratten, V. (2017). Entrepreneurial intentions of university students: a case-based study. *Journal of Enterprising Communities: People and Places in the Global Economy*, 11(03), 393-413.
- Palmatier, R. W., Houston, M. B., & Hulland, J. (2018). Review articles: Purpose, process, and structure. *Journal of the Academy of Marketing Science*, 46, 1-5.
- Paral, R. (2006). Latinos of the new Chicago. In *The New Chicago: A Social and Cultural Analysis*.
- Parker, G. and Van Alstyne, M. (2005). Two-sided network effect: a theory of information product design, *Management Science*, vol. 51, no. 10, 1494-504
- Parker, G. G., Van Alstyne, M. W. and Choudary, S. P. (2016). *Platform Revolution: How Networked Markets are Transforming the Economy and How to Make Them Work for You*, New York, WW Norton & Company
- Parker, G. G., Van Alstyne, M. W. and Choudary, S. P. 2016. *Platform Revolution: How Networked Markets are Transforming the Economy and How to Make Them Work for You*, New York, WW Norton & Company
- Partridge, M. D., Betz, M. R., & Lobao, L. (2013). Natural resource curse and poverty in appalachian America. *American Journal of Agricultural Economics*, 95(2), 449-456. <https://doi.org/10.1093/ajae/aas086>.
- Passavanti, C., Ponsiglione, C., Primario, S., & Rippa, P. (2023). The evolution of student entrepreneurship: State of the art and emerging research direction. *The International Journal of Management Education*, 21(2), 100820.
- Pato, L. and Teixeira, A.A.C. (2019), "Are new rural ventures different from new urban ones? An exploratory analysis of

- businesses located in Portuguese incubators and science parks”, *Journal of Entrepreneurship and Public Policy*, Vol. 8 No. 4, pp. 470-482
- Patricia P. (2024) The Role of Entrepreneurship Education in Universities to Pursue Sustainable Development Goals, *Journal of Human Resource* Vol. 4, No. 1, April 2024.
- Patton, D., & Marlow, S. (2011). University technology business incubators: helping new entrepreneurial firms to learn to grow. *Environment and Planning C: Government and Policy*, 29(5), 911-926.
- Patton, D., Warren, L., & Bream, D. (2009). Elements that underpin high-tech business incubation processes. *The Journal of Technology Transfer*, 34(6), 621-636.
- Patuzzi, L. (2019). Start-up visas: A passport for innovation and growth. *Washington: Transatlantic Council on Migration/Migration Policy Institute*.
- Patuzzi, L. (2019). Start-up visas: a passport for innovation and growth. *Washington: Transatlantic Council on Migration/Migration Policy Institute*.
- Paul, J., Lim, W. M., O’Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). *International Journal of Consumer Studies*, 45(4), O1-O16.
- Paul, J., Lim, W. M., O’Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). *International Journal of Consumer Studies*, 45(4), O1-O16.
- Peraldi M. (Ed.), 2002: *La fin des norias? Réseaux migrants dans les économies marchandes en Méditerranée*, Maisonneuve & Larose, Paris.
- Pereira, I., & Patel, P. C. (2022). Impact of the COVID-19 pandemic on the hours lost by self- employed racial minorities: evidence from Brazil. *SMALL BUSINESS ECONOMICS*, 58(2, SI), 769– 805.
- Perilli V. (2009), “Il concetto di intersezionalità nel contesto europeo: il caso francese e italiano”, in Bonfiglioli C. et al. (a cura di), *La straniera*, Roma, Alegre.
- Perilli V., L. Ellena (2012), “*Intersezionalità. Una difficile articolazione*”, in S. Marchetti, J.M.H. Mascot, V. Perilli (a cura di), *Femministe a parole. Grovigli da districare*, Roma, Ediesse.
- Peroni, C., Riillo, C. A. F., & Sarracino, F. (2016). Entrepreneurship and immigration: evidence from GEM Luxembourg. *Small Business Economics*, 46(4), 639–656. <https://doi.org/10.1007/s11187-016- 9708-y>.
- Peters, M. T., Heron, T. E., (1993). When the best is not good enough: An examination of best practice. *The Journal of Special Education*, 26 (4)
- Peterson, M. F. (1995). Leading Cuban-American Entrepreneurs - The Process Of Developing Motives, Abilities, And Resources. *Human Relations*, 48(10), 1193–1215. <https://doi.org/10.1177/001872679504801005>.
- Pfitzer, M., Bockstette, V., & Stamp, M. (2013). Innovating for shared value. *Harvard business review*, 91(9), 100-107.
- Picciotto, L. (2015, May). The social innovation of social cooperatives operating on confiscated mafia properties: support factors and critical issues. In *Managing Intellectual Capital and Innovation for Sustainable and Inclusive Society: Managing Intellectual Capital and Innovation; Proceedings of the MakeLearn and TIIM Joint International Conference 2015* (pp. 543-558).
- Pietroni, E. (2025). Multisensory museums, hybrid realities, narration and technological innovation: A discussion around new perspectives in experience design and sense of authenticity [Preprint]. *Preprints.org*. <https://doi.org/10.20944/preprints202502.0440.v1>
- Pio, E., & Achtenhagen, L. (2013). Teaching ethnic minority entrepreneurship through parables. *International Journal of Entrepreneurship and Small Business*, 18(2), 154–172. <https://doi.org/10.1504/IJESB.2013.052056>.
- Pironti, M. (2022). *Intelligenze artificiali e aumentate: Elementi di economia e management*. EGEA spa.
- Pittaway, L. and Cope, J. (2007), “Entrepreneurship education: a systematic review of the evidence”, *International Small Business Journal*, Vol. 25 No. 5, pp. 479-510.
- Pittaway, L., & Cope, J. (2007). Simulating entrepreneurial learning: Assessing the utility of experiential learning designs. *Management Learning*, 38(2), 211-233.
- Piumatti, G., Lamberti, F., Sanna, A., & Montuschi, P. (2017). Robust robot tracking for next-generation collaborative robotics-based gaming environments. *IEEE Transactions on Emerging Topics in Computing*, 8(3), 869-882.
- Ploum L., Blok V., Lans T., Omta O. (2018). Toward a validated competence framework for sustainable entrepreneurship. *Organization & environment* 31, 113-132.
- Poggesi, S., & Mari, M. (2024). Immigrant women entrepreneurship research: mapping the field. *Journal of Management History*. <https://doi.org/10.1108/JMH-09-2023-0099>.
- Polanyi, K. (2002). The great transformation. *Readings in Economic Sociology*, 38-62.
- Portes A. (Ed.), 1995a: *The Economic Sociology of Immigration*, Russell Sage Foundation, New York.
- Prasetya, F., Fortuna, A., Samala, A. D., Latifa, D. K., Andriani, W., Gusti, U. A., Raihan, M., Criollo-C, S., Kaya, D., & Cabanillas García, J. L. (2025). Harnessing artificial intelligence to revolutionize vocational education: Emerging trends, challenges, and contributions to SDGs 2030. *Social Sciences & Humanities Open*, 11, 101401. <https://doi.org/10.1016/j.ssaho.2025.101401>
- Price, D. J. S. (1965). “Networks of Scientific Papers -The pattern of bibliographic references indicates the nature of the research front”. *Science*, n. 149, pp. 510–515.
- Price, M. D. (2012). Hispanic entrepreneurship in a global city: The Bolivian diaspora in Washington, DC. *Research in Race and Ethnic Relations*, 17, 133–153. [https://doi.org/10.1108/S0195- 7449\(2012\)0000017009](https://doi.org/10.1108/S0195- 7449(2012)0000017009).

- Price, M., & Chacko, E. (2009). The mixed embeddedness of ethnic entrepreneurs in a new immigrant gateway. *Journal of Immigrant & Refugee Studies*, 7(3), 328–346.
- Priya, K. M, Balakrishnan, S., Punithavalli, R., Padmapriya, G., Deepa. N, Yamini Priya, S., Gnanaselvi, G., Manopriya, V., (2024). *Empowering Women Entrepreneurs: Catalysts for Sustainable Business Growth. Volume 23 Issue 1, 2024 ISSN: 1856-4194* 492– 496
- Pulizzi, J. (2012). The rise of storytelling as the new marketing. *Publishing research quarterly*, 28(2), 116-123.
- Pyysiäinen, J., Anderson, A., McElwee, G. and Vesala, K. (2006), “Developing the entrepreneurial skills of farmers: some myths explored”, *International Journal of Entrepreneurial Behavior and Research*, Vol. 12 No. 1, pp. 21-39
- Qin, S. (2023). Positionality of refugee business support and hospitality building under cognitive dissonance theory: an enterprising route of refugee entrepreneurship. *Journal of Enterprising Communities: People and Places in the Global Economy*, 17(2), 242–260.
- Qing, P., Li, C., Chan, S. H. J., & Deng, S. (2021). Farmer entrepreneurs in China: an empirical investigation of their motivations, success factors, and challenges faced. *Journal of Small Business and Entrepreneurship*, 33(3), 349–369. <https://doi.org/10.1080/08276331.2020.1818539>.
- Quagraine, F. A., Kaban, A. A. M., Adams, S., & Dankwa, A. D. (2023). 3Ps model of entrepreneurial resourcefulness among micro-youth entrepreneurs. *Journal of Entrepreneurship in Emerging Economies*, 15(5), 1194-1214.
- Quak, E., Barenboim, I., & Guimaraes, L. (2022). “Female entrepreneurship and the creation of more and better jobs in sub-Saharan African countries”. *Institute of Development Studies Research Repository*, 2.
- Rahman, K. S. and Thelen, K. 2019. The rise of the platform business model and the transformation of twenty-first-century capitalism, *Politics & Society*, vol. 47, no. 2, 177–204
- Raijman, R. (2001). Mexican immigrants and informal self-employment in Chicago. *HUMAN ORGANIZATION*, 60(1), 47–55. <https://doi.org/10.17730/humo.60.1.emtq4bq4c70tqvqr>.
- Ram, M., Jones, T., & Villares-Varela, M. (2017). Migrant entrepreneurship: Reflections on research and practice. *International Small Business Journal*, 35(1), 3-18.
- Ram, M., Jones, T., Doldor, S., Villares-Varela, M., & Li, H. (2022). What happens to refugee-origin entrepreneurs? Combining mixed embeddedness and strategy perspectives in a longitudinal study. *Ethnic and Racial Studies*, 45(16), 1–27.
- Ramadani, V., Hisrich, R.D. And Gerguri-Rashiti, S. (2015), “Female entrepreneurs in transition economies: insights from Albania, Macedonia and Kosovo”. *World Review of Entrepreneurship, Management and Sustainable Development*, Vol.1 1No.4,pp. 391-413.
- Rane, N. L., Choudhary, S. P., & Rane, J. (2024). Education 4.0 and 5.0: Integrating artificial intelligence (AI) for personalized and adaptive learning. *Reseapro Journals*. <https://doi.org/10.2139/ssrn.4603206>
- Rashid, L., & Cepeda-García, S. (2021). Self-Categorising and Othering in Migrant Integration: The Case of Entrepreneurs in Berlin. *Sustainability*, 13, 2145.
- Rashid, S. M., Mccusker, J. P., Pinheiro, P., Bax, M. P., Santos, H. O., Stingone, J. A., ... & Mcguinness, D. L. (2020). “The semantic data dictionary—an approach for describing and annotating data”. *Data intelligence*, vol. 2, n. 4, pp. 443-486.
- Rashman, L., Withers, E., & Hartley, J. (2009). Organizational learning and knowledge in public service organizations: A systematic review of the literature. *International Journal of Management Reviews*, 11(4): 463-494.
- Rath J. (Ed.), 2002: *Unravelling the Rag Trade. Immigrant Entrepreneurship in Seven World Cities*, Berg, Oxford.
- Rath J. (Ed.), 2007: *Tourism, Ethnic Diversity and the City*, Routledge, London-New York..
- Ratinho, T., Amezcu, A., Honig, B., & Zeng, Z. (2020). Supporting entrepreneurs: A systematic review of literature and an agenda for research. *Technological Forecasting and Social Change*, 154, 119956.
- Ratten, V., & Pellegrini, M. M. (2020). Female transnational entrepreneurship and smart specialization policy. *Journal of Small Business and Entrepreneurship*, 32(6), 545–566. <https://doi.org/10.1080/08276331.2019.1616257>.
- Ray, A., Jana, S., & Rana, N. P. (2023). An NLP-based Mixed-method Approach to Explore the Impact of Gratifications and Emotions on the Acceptance of Amazon Go. *Asia Pacific Journal of Information Systems*, 33(3), 541-572.
- Rayyan.ai <https://new.rayyan.ai/> version 2024
- Rehan, F., Block, J., & Fisch, C. (2019). Entrepreneurship in Islamic communities: How do Islamic values and Islamic practices influence entrepreneurship intentions?. *Journal of Enterprising Communities: People and Places in the Global Economy*, 13(5), 557–583.
- Reichel, A. (1996). Management development in Israel: Current and future challenges. *Journal of Management Development*, 15(5), 22–36. <https://doi.org/10.1108/02621719610117222>.
- Reynolds P., Niels B., Autio E., Hunt S., De Bono N., Servais I., Lopez-Garcia P. e Chin N. (2005). Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998-2003. *Small Business Economics*, 24: 205-231. DOI: 10.1007/s11187-005-1980-1
- Rice, M. P. (2002). Co-production of business assistance in business incubators: An exploratory study. *The Journal of Business Venturing*, 17(2), 163-187.
- Richardson, J., (1986) *Handbook of Theory and Research for the Sociology of Education*, Westport, CT: Greenwood, pp. 241–58
- Rickardsson, J. (2021). The urban-rural divide in radical right populist support: the role of resident’s characteristics, urbanization trends and public service supply. *ANNALS OF REGIONAL SCIENCE*, 67(1), 211–242.

- <https://doi.org/10.1007/s00168-021-01046-1>.
- Rieta Carbonell, J., Pedraz Hernandez, J. C., & Lara Garcia, F. J. (2014). Business creation by immigrant entrepreneurs in the valencian community. The influence of education. *International Entrepreneurship And Management Journal*, 10(2), 409–426.
- Rikap, C. and Lundvall, B. 2020. Big tech, knowledge predation and the implications for development, Innovation and Development. doi:10.1080/2157930X.2020.1855825.
- Rinz, K. (2022). Labour Market Concentration, Earnings, and Inequality. *Journal of Human Resources*, 57(S), S251–S283.
- Roach, M., & Skrentny, J. (2021). Rethinking immigration policies for STEM doctorates: Many Ph.D.'s follow an inefficient path to green cards through visas aimed at entry-level workers. *Science*, 371(6527), 350–352. <https://doi.org/10.1126/science.abe7151>.
- Roberts, M. E., Stewart, B. M., & Tingley, D. (2019). Stm: An R package for structural topic models. *Journal of statistical software*, 91, 1–40.
- Rochet, J. C. and Tirole, J. 2003. Platform competition in two-sided markets, *Journal of the European Economic Association*, vol. 1, no. 4, 990–1029
- Rochet, J. C. and Tirole, J. 2006. Two-sided markets: a progress report, *The Rand journal of Economics*, vol. 37, no. 3, 645–67
- Rodríguez de las Heras, T., López-Tarruella, A., 'A European Regulatory Framework for the Metaverse' (2024) MetaverseUA Research Paper #1, <https://metaversechair.ua.es/workingpapers/>
- Rodriguez-Gutierrez, M. J., Romero, I., & Yu, Z. (2020). Guanxi and risk-taking propensity in Chinese immigrants' businesses. *INTERNATIONAL ENTREPRENEURSHIP AND MANAGEMENT JOURNAL*, 16(1), 305–325. <https://doi.org/10.1007/s11365-019-00566-9>.
- Romano M., (2023) Report on disadvantaged entrepreneurship education in ensuring economic empowerment and fostering social cohesion, Economic and financial sustainability of systems and territories, Grins project.
- Ruan, M., Baskaran, A., & Zhou, S. (2022). Mainland Chinese Immigrant-owned SMEs in Malaysia: Case Studies. *Millennial Asia*, 13(1), 5–34.
- Rubin G. (1975), "The Traffic in Women: Notes on the 'Political economy' of Sex", in Reiter R. R. (ed.), *Toward an Anthropology of Women*, New York and London, Monthly Review Press, 157–210.
- Rueda-Armengot, C., & Peris-Ortiz, M. (2012). The emigrant entrepreneur: A theoretical framework and empirical approximation. *International Entrepreneurship and Management Journal*, 8, 99–118. <https://doi.org/10.1007/s11365-010-0164-x>.
- Sabary, G. S., Durda, L., Asad, A. I., & Ključnikov, A. (2023). Key motivational factors behind Asian immigrant entrepreneurship: A causal relationship analysis employing the DEMATEL approach for Germany. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 18(1), 287–318. <https://doi.org/10.24136/eq.2023.009>.
- Saebi, T., Foss, N. J., & Linder, S. (2019). Social entrepreneurship research: Past achievements and future promises. *Journal of management*, 45(1), 70–95.
- Sahay, A. (2014). Reverse brain drain: New strategies by developed and developing countries. In *Global Diasporas and Development: Socioeconomic, Cultural, and Policy Perspectives*. https://doi.org/10.1007/978-81-322-1047-4_11.
- Said, E. W. (1993). Culture and Imperialism.
- Sajjad, M., Kaleem, N., Chani, M. I., & Ahmed, M. (2020), "Worldwide role of women entrepreneurs in economic development". *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(2), 151–160.
- Sambamurthy, V., Bharadwaj, A., & Grover, V. (2003). "Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary firms". *MIS Quarterly*, vol. 27, n. 2, pp. 237–263
- Santamaria-Alvarez, S. M., & Śliwa, M. (2016). Transnational entrepreneurship in emerging markets: The Colombian case", *Journal of Enterprising Communities: People and Places in the Global Economy*, 10(2), 203–223.
- Santarelli, E., & Tran, H. T. (2013). The interplay of human and social capital in shaping entrepreneurial performance: the case of Vietnam. *SMALL BUSINESS ECONOMICS*, 40(2), 435–
- Sarasvathy S.D. (2009). *Effectuation: Elements of entrepreneurial expertise*, Edward Elgar Publishing.
- Sarasvathy, S. D., & Venkataraman, S. (2011). Entrepreneurship as method: Open questions for an entrepreneurial future. *Entrepreneurship theory and practice*, 35(1), 113–135.
- Sassen S., 1991: *The Global City: New York, London, Tokyo*, Princeton University Press, Princeton.
- Sassen, S. (2018). *Espulsioni. Brutalità e complessità nell'economia globale*. Il Mulino: Bologna
- Saxenian, A., & Edulbheham, J. (1998). Immigrant Entrepreneurs in Silicon Valley. *Berkeley Planning Journal*, 12(1).
- Schmidt, V.A. (2008). Discursive institutionalism: The explanatory power of ideas and discourse. *Annual Review of Political Science*, 11, 303–326.
- Schmitter Heisler B., 2000: *The Sociology of Immigration. From Assimilation to Segmented Integration, from the American Experience to the Global Arena*, in *Migration Theory...*, edited by
- Schneider, B. (2021). "The Phygital Era: Merging Digital and Physical Experiences". *Global Education Journal*, vol. 52, n. 4, pp. 27–43.
- Schneider, B. (2021). Phygital Reality: Consumer lifestyles will straddle the physical and digital worlds in 2021. P. (Euromonitor).
- Schøtt, T. (2017). Immigrant and indigenous youth in Europe: Entrepreneurial intention building on human, financial and

- social capital. *International Journal of Entrepreneurship and Small Business*, 30(3), 374–394. <https://doi.org/10.1504/IJESB.2017.081981>.
- Schwartz, E. (1976). Entrepreneurship: A new female frontier. *Journal of Contemporary*, 5(1), 523–531.
- Scillitoe, J. L., & Chakrabarti, A. K. (2010). The role of incubator interactions in assisting new ventures. *Technovation*, 30(3), 155–167.
- Sciortino, G. (2015). È possibile misurare l'integrazione degli immigrati? Lo stato dell'arte. *Quaderni di Sociologia*, 63.
- Scoppetta, A., & Buckenleib, A. (2018). Tackling long-term unemployment through risk profiling and outreach (Technical Dossier No. 6). ESF Transnational Platform, Directorate-General for Employment, Social Affairs and Inclusion, European Commission. <https://doi.org/10.2767/524273>
- Scott, C. E. (1986). Why more women are becoming entrepreneurs. *Journal of Small Business Management*, 24(4), 37–44.
- Scott, C. K., & Richardson, R. B. (2021). Farmer social connectedness and market access: A case study of personal networks among emerging farmers. *Journal of Agriculture, Food Systems, and Community Development*, 10(2), 431–453. <https://doi.org/10.5304/jafscd.2021.102.024>.
- Scuotto, V., & Morellato, M. (2013). Entrepreneurial knowledge and digital competence: Keys for a success of student entrepreneurship. *Journal of the Knowledge Economy*, 4, 293–303.
- Scuotto, V., & Murray, A. (2018). A holistic approach to the delivery of effective enterprise education. *Experiential Learning for Entrepreneurship: Theoretical and Practical Perspectives on Enterprise Education*, 125–144.
- Secundo, G., Ndou, V., Del Vecchio, P. and De Pascale, G. (2020), “Sustainable development, intellectual capital and technology policies: a structured literature review and future research agenda”, *Technological Forecasting and Social Change*, Vol. 153, 119917.
- Seidl R., Brand F.S., Stauffacher, M. *et al.*, (2013) Science with Society in the Anthropocene, *AMBIO*, 42, 5–12.
- Sen, G. (1998). Empowerment as An Approach to Poverty, Human Development Report, Background Paper, 1997. In BRAC, ICDDR, Joint Research Project Working Paper 28(1). New York.
- Sengupta, A., Datta, S.K. And Mondal, S. (2013), “Women’s entrepreneurial abilities: a study in the Indian informal service sector”, *Journal of Entrepreneurship*, Vol. 22 No. 2, pp. 223–243.
- Seo, M.-G., & Creed, W. E. D. (2002), “Institutional Contradictions, Praxis, and Institutional Change: A Dialectical Perspective”. *Academy of Management Review*, 27(2), 222–247
- Sepulveda, L., Syrett, S., & Lyon, F. (2011). Population superdiversity and new migrant enterprise: the case of London. *Entrepreneurship and Regional Development*, 23, 469–497.
- Serpente, G., Martinelli, G., & Bolzani, D. (2024). 17 Entrepreneurial Support for Migrant Entrepreneurs: A Systematization of a Growing Stream of Literature. *De Gruyter Handbook of Migrant Entrepreneurship*, 339.
- Shabbir, M. S. (2023). Exploring the relationship between sustainable entrepreneurship and the United Nations sustainable development goals: A comprehensive literature review. *Sustainable Development*, 31: 3070–3085.
- Shane, S.A. and Venkataraman, S. (2000), “The promise of entrepreneurship as a field of research”, *Academy of Management Review*, Vol. 25 No. 1, pp. 217–226.
- Sharabi, M., Shdema, I., & Abboud-Armaly, O. (2021). Nonfinancial employment commitment among Muslims and Jews in Israel: examination of the core-periphery model on majority and minority groups. *EMPLOYEE RELATIONS*, 43(1), 227–243. <https://doi.org/10.1108/ER-12-2019-0486>.
- Sharma, S., Goyal, D. P., & Singh, A. (2021). Systematic review on sustainable entrepreneurship education (SEE): A framework and analysis. *World Journal of Entrepreneurship, Management and Sustainable Development*, 17(3), 372–395.
- Sharpe B., Hodgson A., Leicester G., Lyon A., Fazey I. (2016). Three horizons: a pathways practice for transformation. *Ecology and Society* 21, 47.
- Sheehan M., Mc Namara A. (2015). Business Start-Ups & Youth Self-Employment. A Policy Literature Review Synthesis Report. *STYLE Working Papers*. Brighton: University of Brighton.
- Shepherd, D. A., & Majchrzak, A. (2022). Machines augmenting entrepreneurs: Opportunities (and threats) at the Nexus of artificial intelligence and entrepreneurship. *Journal of Business Venturing*, 37(4), 106227.
- Shiri, N., Shinnar, R.S., Mirakzadeh, A.A. e Zarafshani, K. (2017), "Valori culturali e intenzioni imprenditoriali tra gli studenti di agricoltura in Iran", *International Entrepreneurship and Management Journal*, Vol. 13 No. 4, pp. 1157–1179.
- Shneor, R., Jenssen, J. I., & Vissak, T. (2016). Introduction to the special issue Current challenges and future prospects of entrepreneurship in Nordic and Baltic Europe. *BALTIC JOURNAL OF MANAGEMENT*, 11(2), 134–141. <https://doi.org/10.1108/BJM-01-2016-0013>.
- Short, C. E., & Short, J. C. (2023). The artificially intelligent entrepreneur: ChatGPT, prompt engineering, and entrepreneurial rhetoric creation. *Journal of Business Venturing Insights*, 19, e00388.
- Silva, D. G., & Cachinho, H. (2021). Places of phygital shopping experiences? The new supply frontier of business improvement districts in the digital age. *Sustainability*, 13(23), 13150.
- Silva, M., & Cachinho, H. (2021). “Creating Inclusive Learning Ecosystems through Phygital Technologies”. *European Journal of Digital Education*, vol. 45, n. 2, pp. 89–106.
- Silvia, J., Del Vecchio, M., & Giovannini, S. (2023). “AI-Driven Customization in Phygital Educational Hubs”. *Digital Transformation Review*, vol. 39, n. 1, pp. 45–58.
- Simarasl, N., Moghaddam, K., & Williams, D. W. (2021). Antecedents of business location decisions: The case of aspiring immigrant opportunity entrepreneurs. *Journal of Small Business and Enterprise Development*, 28(7), 1075–1094.

- Singh, A., & Hess, T. (2017). "How chief digital officers promote the digital transformation of their companies". *MIS Quarterly Executive*, vol. 16, n. 1, pp. 1–17.
- Siqueira, A. C. O., Honig, B., Mariano, S., Moraes, J., & Cunha, R. M. (2023). Creating economic, social, and environmental change through entrepreneurship: An entrepreneurial autonomy perspective informed by Paulo Freire. *Journal of Business Venturing Insights*, 19, e00386.
- Sklyar, A., Kowalkowski, C., Tronvoll, B., & Sörhammar, D. (2019). "Organizing for digital servitization: A service ecosystem perspective". *Journal of Business Research*, vol. 104, pp. 450–460.
- Smith, J., & Johnson, P. (2022). "The impact of AI on medical data analysis: A case study of IBM Watson health". *Journal of Health Informatics*, vol. 45, pp. 145-156.
- Solano, G. (2020). The mixed embeddedness of transnational migrant entrepreneurs: Moroccans in Amsterdam and Milan. *Journal of Ethnic and Migration Studies*, 46(10), 2067-2085.
- Solano, G. (2023). A level playing field for migrant entrepreneurs? The legal and policy landscape across EU and OECD countries. *International Migration*, 61(2), 27-47.
- Solano, G., Gaspani, F. (2017). L'embeddedness strutturale degli imprenditori immigrati transnazionali a Milano. *ARGOMENTI*, 7, 41-59 [10.14276/1971-8357.1006].
- Solano, G., Wolffhardt, A., & Xhani, A. (2019). *Measures to support early-stage migrant entrepreneurs*. MEGA Handbook. Available at <https://www.migpolgroup.com/wp-content/uploads/2019/06/A.1.b-1.pdf>, retrieved 6 February 2025.
- Solesvik, M.Z., Westhead, P., Kolvereid, L. and Matlay, H. (2012), "Student intentions to become self-employed: the ukrainian context", *Journal of Small Business and Enterprise Development*, Vol. 19 No. 3, pp. 441-460.
- Solomon, G. (2007), "An examination of entrepreneurship education in the United States", *Journal of Small Business and Enterprise Development*, Vol. 14 No. 2, pp. 168-182.
- Solomon, G. T., Alabduljader, N., & Ramani, R. S. (2019). Knowledge management and social entrepreneurship education: lessons learned from an exploratory two-country study. *Journal of Knowledge Management*, 23(10): 1984-2006.
- Sombart W., 1916: *Der Moderne Kapitalismus*, Duncker & Humblot, Berlin (trad. it. *Il capitalismo moderno*, Utet, Torino 1967).
- Sotirakoglou, M., Laspita, S., & Sarri, K. (2021). Entrepreneurship education for migrants as a path to social inclusion. *Proceedings of the European Conference on Innovation and Entrepreneurship, ECIE*, 929–935. <https://doi.org/10.34190/EIE.21.067>.
- Spivak G. C. (1989), "Subaltern Studies: Deconstructing Historiography," in R. Guha and G. C. Spivak (eds.), *Selected Subaltern Studies*, New York, Oxford University Press.
- Steinbugler A. C., Press J. E., Johnson Dias J. (2006), "Gender, Race, and Affirmative Action: Operationalizing Intersectionality Survey Research", *Gender & Society*, 20(6), 805-825.
- Stephen, F., Urbano, D. and van Hemmen, S. (2009), "The responsiveness of entrepreneurs to working time regulations", *Small Business Economics*, Vol. 32 No. 3, pp. 259-276.
- Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American economic review*, 71(3), 393-410
- Stinchcombe, A. L. (1965). Social structure and organizations. In R. McNally (Eds.), *Handbook of Organizations*.
- Stiperski, Z., Lončar, J., & Rajter, M. (2021). Recommendation for a typology of cities and municipalities in Croatia according to development level. *Folia Geographica*, 63(1), 85–109. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109183788&partnerID=40&md5=d6095200adca6a9238aab7c3dc33f563>.
- Storti L., 2007: *Imprese per la gola. Una ricerca sugli imprenditori della gastronomia italiana in Germania*, Carocci, Roma.
- Strawser, J. A., Hechavarria, D. M., & Passerini, K. (2021), "Gender and entrepreneurship: Research frameworks, barriers and opportunities for women entrepreneurship worldwide". *Journal of Small Business Management*, 59(1), 1–15
- Sun, B., & Fong, E. (2021). Immigrant entrepreneurship in hong kong. *Urban Book Series*, 67–96. https://doi.org/10.1007/978-3-030-50363-5_4.
- Sun, S. B., & Fong, E. (2022). The role of human capital, race, gender, and culture on immigrant entrepreneurship in Hong Kong. *Journal of Small Business and Entrepreneurship*, 34(4), 363–396. <https://doi.org/10.1080/08276331.2021.1959177>.
- Taatila, V. and Down, S. (2012), "Measuring entrepreneurial orientation of university students", *Education and Training*, Vol. 54 No. 8, pp. 744-760.
- Tallon, P. P., & Pinsonneault, A. (2011). "Competing perspectives on the link between strategic information technology alignment and organizational agility: Insights from a mediation model". *MIS Quarterly*, vol. 35, n. 2, pp. 463–486.
- Tarabasz, A., Selaković, M., & Abraham, C. (2018). The classroom of the future: Disrupting the concept of contemporary business education. *Entrepreneurial Business and Economics Review*, 6(4), 231.
- Tata, J., & Prasad, S. (2010). Ethnic community involvement, entrepreneurial social capital, and business performance. *Global Business and Economics Review*, 12(1–2), 151–170. <https://doi.org/10.1504/GBER.2010.032322>.
- Tavakoli, M., Faraji, A., Vrolijk, J., Molavi, M., Mol, S. T., & Kismihók, G. (2022). An AI-based open recommender system for personalized labor market driven education. *Advanced Engineering Informatics*, 52, 101508. <https://doi.org/10.1016/j.aei.2021.101508>
- Tedeschi, E. (2024). Immigration and the U.S. economy since the pandemic: an accounting exercise. *Briefing Book*, 01 April 2024. <https://www.briefingbook.info/p/immigration-and-the-us-economy-since>
- Teece, D. J. (2010). "Business models, business strategy and innovation". *Long Range Planning*, vol. 43, n. 2–3, pp. 172–

194.

- Tenold, S. (2009). Vernon's product life cycle and maritime innovation: Specialised shipping in Bergen, Norway, 1970–1987. *Business History*, 51(5), 770–786.
- Terjesen, S., Hessels, J., & Li, D. (2016). Comparative international entrepreneurship: A review and research agenda. *Journal of Management*, 42(1), 299–344.
- Testa, S., & Frasccheri, S. (2015). Learning by failing: What we can learn from un-successful entrepreneurship education. *The International Journal of Management Education*, 13(1): 11–22.
- The Human Safety Net. (2021). *Mapping Refugee & Migrant Entrepreneurship in Europe*. The Human Safety Net & Impact Hub.
- Thierry, Y. U., Mallaye, D., & Araar, A. (2017). Education Language and Youth Entrepreneurship in Chad. *Journal Of Development Studies*, 53(8), 1178–1193.
- Thoreson, A. (2024). Employer Concentration and Wages for Specialized Workers. *American Economic Journal: Applied Economics*, 16(1), 447–479.
- Thottoli, M. M., Cruz, M. E., & Al Abri, S. S. S. (2025). The incubation revolution: transforming entrepreneurial education with artificial intelligence. *Asia Pacific Journal of Innovation and Entrepreneurship*, 19(1), 2–23.
- Thottoli, M. M., Cruz, M. E., & Al Abri, S. S. S. (2025). The incubation revolution: transforming entrepreneurial education with artificial intelligence. *Asia Pacific Journal of Innovation and Entrepreneurship*, 19(1), 2–23.
- Tibaingana, A., Sendawula, K., Buyinza, F., Kimuli, S. N. L., Ssemuyaga, E., Tumusiime, C., ... & Atukwasa, R. (2024). Entrepreneurship skills: do all dimensions of skills matter for sustainable business start-up?. *Journal of Entrepreneurship and Public Policy*, 13(1), 1–17.
- Tiberius, V., & Weyland, M. (2023). Identifying constituent elements of entrepreneurship curricula: A systematic literature review. *Administrative Sciences*, 14(1), 1.
- Tiemann I., Fichter K. (2016) *Developing business models with the Sustainable Business Canvas: Manual for conducting workshops*. Oldenburg and Berlin. <https://www.borderstep.de/wp-content/uploads/2016/10/Tiemann-Fichter-Workshopkonzept-EN-RZ2.pdf>
- Tindiwensi, C.K., Munene, J.C., Sserwanga, A., Abaho, E. and Namatovu-Dawa, R. (2020), “Farm management skills, entrepreneurial bricolage and market orientation”, *Journal of Agribusiness in Developing and Emerging Economies*, Vol. 10 No. 5, pp. 717–730.
- Tomczyk, P., Brüggemann, P., & Vrontis, D. (2024). AI meets academia: transforming systematic literature reviews. *EuroMed Journal of Business*, (ahead-of-print).
- Toohy, S. (1999). *Designing courses for higher education*. McGraw-hill education (UK).
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3): 207–222.
- Triandis, H. C. (1995), “Individualism & Collectivism”. *Westview Press*.
- Turco, M. L., & Giovannini, E. C. (2020). Towards a phygital heritage approach for museum collection. *Journal of Archaeological Science: Reports*, 34, 102639.
- Tursi, V., & Silipo, R. (2018). From words to wisdom: An introduction to text mining with KNIME. In: Zurich: KNIME Press.
- Turulja, L., & Bajgoric, N. (2019). Innovation, firms’ performance and environmental turbulence: is there a moderator or mediator?. *European Journal of Innovation Management*, 22(1), 213–232.
- Venkataraman, S. (1997), “The distinctive domain of entrepreneurship research”, *Advances in Entrepreneurship, Firm Emergence and Growth*, Vol. 3 No. 1, pp. 119–138.
- U.S. Department of Justice (2010). Horizontal Merger Guidelines.
- Ulcuse, M. (2020). Self-employment as a stepping stone to better labor market matching: a comparison between immigrants and natives. *Journal Of Demographic Economics*, 86(4), 479–501. <https://doi.org/10.1017/dem.2020.1>.
- Unel, B. (2024). Effects of immigration on native entrepreneurship in the US: an analysis of self-employment over 1980–2018. *Small Business Economics*. <https://doi.org/10.1007/s11187-024-00914-2>.
- UNESCO (2022), Sustainable Development, <https://en.unesco.org/themes/education-sustainable-development/what-is-esd/sd>.
- UNESCO (2023). Guida all'intelligenza artificiale generativa nell'educazione: principi e pratiche. <https://unesdoc.unesco.org/ark:/48223/pf0000386693>
- UNESCO Institute for Statistics. (2012). International Standard Classification of Education: ISCED 2011.
- UNESCO. (2017). Education for Sustainable Development Goals: Learning Objectives
- UNESCO. (2021). Reimagining our futures together: A new social contract for education. United Nations Educational, Scientific and Cultural Organization.
- Unioncamere, InfoCamere. (2023). Futurae. Programma imprese migranti. Report 2023.
- United Nations (1987) Report of the World Commission on Environment and Development: Our Common Future.
- United Nations, Statistics Division (1999). Standard Country or Area Codes for Statistical Use (Rev. 4). *Series M: Miscellaneous Statistical Papers*, 49. New York: United Nations.
- Urban, B., & Townsend, S. (2022). Ahmed Mujtaba Razzak: an immigrant entrepreneur with big dreams. *Emerald Emerging Markets Case Studies*, 12(4), 1–29. <https://doi.org/10.1108/EEMCS-09-2022-0300>.

- US experience. In *Routledge Handbook of Immigration and Refugee Studies, Second Edition*. <https://doi.org/10.4324/9781003194316-12>.
- Vallas, S. and Schor, J. B. 2020. What do platforms do? Understanding the gig economy, *Annual Review of Sociology*, vol. 46, 273–94
- Vallaster, C., Kraus, S., Nielsen, A., And Merigo Lindhal, J. M. (2019). Ethics and entrepreneurship: a bibliometric study and literature review. *J. Bus. Res.* 99, 226–237
- Van der Hel S., (2016), New science for global sustainability? The institutionalisation of knowledge co-production in Future Earth, *Environmental Science & Policy*, 61, 165-175.
- Varian, H. R., Farrell, J. and Shapiro, C. 2004. *The Economics of Information Technology: An Introduction*, Cambridge (NY), Cambridge University Press
- Venkatraman, V. (2017). *The Digital Matrix: New Rules for Business Transformation Through Technology*. Vancouver, Canada: Greystone Books.
- Verduijn, K., & Essers, C. (2013). Questioning dominant entrepreneurship assumptions: the case of female ethnic minority entrepreneurs. *Entrepreneurship & Regional Development*, 25(7–8), 612–630.
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). “Digital transformation: A multidisciplinary reflection and research agenda”. *Journal of business research*, vol. 122, pp. 889-901.
- Verhoef, P. C., Kannan, P. K., & Inman, J. (2015). “From multi-channel retailing to omnichannel retailing: Introduction to the special issue on multi-channel retailing”. *Journal of Retailing*, vol. 91, n. 2, pp. 174–181.
- Verhoef, P. C., Kooze, E., & Walk, N. (2016). *Creating value with big data analytics – Making smarter marketing decisions*. Routledge.
- Verhoef, P. C., Stephen, A. T., Kannan, P. K., Luo, X., Abhishek, V., Andrews, M., ... Zhang, Y. (2017). “Consumer connectivity in a complex technology-enabled, and mobile-oriented world with smart products”. *Journal of Interactive Marketing*, vol. 40, pp. 1–8.
- Vertovec, S. (2007). *New complexities of cohesion in Britain: Super-diversity, transnationalism and civil-integration*.
- Vinogradov, E. (2011). Ethical Aspects of Research on Ethnic/Immigrant Entrepreneurship.
- Vinogradov, E., & Kolvereid, L. (2007). Cultural background, human capital and self-employment rates among immigrants in Norway. *ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT*, 19(4), 359–376. <https://doi.org/10.1080/08985620701223213>.
- Vinuesa, R., Azizpour, H., Leite, I., Balaam, M., Dignum, V., Domisch, S., ... & Nerini, F. F. (2020). The role of artificial intelligence in achieving the Sustainable Development Goals. *Nature Communications*, 1(9).
- Violaris, I., Gorovaia-Zeniou, N., & Tziortzi, A. (2016). Entrepreneurship issues impacting good governance within the immigrant family business. In *Governance in Immigrant Family Businesses: Enterprise, Ethnicity and Family Dynamics*. <https://doi.org/10.4324/9781315585468>.
- Virgillito D., Russo F., Munnia A., Romano M., (2024). The rise of Phygital Reality: insights from Structural Topic Modelling. Sinergie-SIMA 2024 - Management Conference. Management of sustainability and well-being for individuals and society. ISBN 978-88-94-7136-5-7; DOI 10.7433/SRECP.SP.2024.01
- Virgillito, D., Russo, F., Munnia, A., Romano M., (2024). “The rise of Phygital Reality: insights from Structural Topic Modelling”. *Conference Proceedings Sinergie-Sima Management Conference*, 13-14 June 2024, Parma, pp. 529-534.
- Vita, L. D., Mari, M., & Poggesi, S. (2019), Work-family conflicts and satisfaction among Italian women entrepreneurs. *Work-Family Conflicts and Satisfaction among Italian Women Entrepreneurs*, 1(1).
- Vuorio, A.M., Puumalainen, K. and Fellnhofer, K. (2018), “Drivers of entrepreneurial intentions in sustainable entrepreneurship”, *International Journal of Entrepreneurial Behavior and Research*, Vol. 24 No. 2, pp. 359-381.
- Wade, R. (2020). How can migrant entrepreneurship education contribute to the achievement of the sustainable development goals? The experience of the fresh start programme. *Policy & Practice: A Development Education Review*, 30.
- Wagner, J., & Sternberg, R. (2004). *Start-up activities, individual characteristics, and the regional milieu: Lessons for entrepreneurship support policies from German micro data*. *The Annals of Regional Science*, 38(2), 219-240
- Wagner, M. and Schaltegger, S. (2010), “Classifying entrepreneurship for the public good: empirical analysis of a conceptual framework”, *Journal of Small Business and Entrepreneurship*, Vol. 23 No. 3, pp. 431-443.
- Wagner, M. and Schaltegger, S. (2010), “Classifying entrepreneurship for the public good: empirical analysis of a conceptual framework”, *Journal of Small Business and Entrepreneurship*, Vol. 23 No. 3, pp. 431-443.
- Waldinger R., Aldrich H., Ward R. et al., 1990: *Ethnic Entrepreneurs. Immigrant Business in Industrial Societies*, Sage Publications, London-New Delhi.
- Waldinger, R. (1993). The ethnic enclave debate revisited. *International journal of urban and regional research*, 17, 444–444.
- Waldinger, R., & Aldrich, H. (1990). Ethnicity and entrepreneurship. *Annual review of sociology*.
- Waldinger, R., Aldrich, H., & Ward, R. (1990). *Ethnic entrepreneurs: immigrant business in industrial societies*. SAGE, Newbury Park (CA)-London-New Delhi.
- Walter, S. G., & Block, J. H. (2016). Outcomes of entrepreneurship education: An institutional perspective. *Journal of Business venturing*, 31(2): 216-233.
- Walther A. (2005). Risks and Responsibilities? The Individualisation of Youth Transitions and the Ambivalence between Participation and Activation in Europe. *Social Work & Society*, 3(1): 116-127.

- Wang, A., Dong, J., Lee, L.-H., Shen, J., & Hui, P. (2024). Towards AI-architecture liberty: A comprehensive survey on design and generation of virtual architecture by deep learning. arXiv. <https://arxiv.org/abs/2305.00510>
- Wang, Q. (2023). Planning for an Inclusive Entrepreneurial Ecosystem: COVID-19 and Business Resilience in Underserved Communities. *Journal of the American Planning Association*, 89(3), 295–
- Wang, Y., & Warn, J. (2019). Break-out strategies of Chinese immigrant entrepreneurs in Australia. *International Journal of Entrepreneurial Behavior & Research*, 25(2), 217–242.
- Warren, L., Patton, D., & Bream, D. (2009). Knowledge acquisition processes during the incubation of new high technology firms. *International Entrepreneurship and Management Journal*, 5(4), 481–495.
- Weber L. (2001), *Understanding race, class, gender and sexuality: A conceptual framework*, New York, McGraw-Hill.
- Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS quarterly*, XIII-XXIII.
- Webster, N. A., & Haandrikman, K. (2017). Thai women entrepreneurs in Sweden: Critical perspectives on migrant small businesses. *Women's Studies International Forum*, 60, 17–27. <https://doi.org/10.1016/j.wsif.2016.11.001>.
- Weche, J. P., & Wagner, J. (2021). Markups and concentration in the context of digitization: Evidence from German manufacturing industries. *Jahrbücher für Nationalökonomie und Statistik*, 241(5-6), 667-699.
- Wei, X., & Zhu, H. (2020). Return migrants' entrepreneurial decisions in rural China. *Asian Population Studies*, 16(1), 61–81.
- Weiler, S., and A. Bernasek. 2001. "Dodging the Glass Ceiling? Networks and the New Wave of Women Entrepreneurs." *The Social Science Journal*, 38(1): 85-103.
- Weller, M., Jordan, K., DeVries, I., & Rolfe, V. (2018). Mapping the open education landscape: Citation network analysis. *International Review of Research in Open and Distributed Learning*, 19(4).
- Welter, F., & Smallbone, D. (2011). "Institutional perspectives on entrepreneurial behaviour." *International Journal of Entrepreneurial Behaviour & Research*, 17(2), 105-117.
- Wiklund, J., Nicolaev, B., Shir, N., Foo, M., & Bradley, S. (2019). Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing*, 34(4): 579-588.
- Winkler, C., Hammoda, B., Noyes, E., & Van Gelderen, M. (2023). Entrepreneurship education at the dawn of generative artificial intelligence. *Entrepreneurship Education and Pedagogy*, 6(4), 579-589.
- World Bank Group, World Trade Organization, (2020). *Women and Trade: The Role of Trade in Promoting Gender Equality*, Washington. Disponibile online: <https://documents1.worldbank.org/curated/en/353941596181488653/pdf/Women-and-Trade-The-Role-of-Trade-in-Promoting-Gender-Equality.pdf> Ultimo accesso: 08/08/2024
- World Bank. (2021). Remote Learning During the Global School Lockdown: Multi-country lessons
- World Commission on Environment and Development (WCED). (1987). *Our Common Future (OCF)*, Oxford University Press.
- Xavier, S.R., Kelley, D., Kew, J., Herrington, M. and Vorderwulbecke, A. (2013), "Global entrepreneurship monitor 2012 global report", available at: <https://www.gemconsortium.org/report/gem-2012-global-report> (accessed 25 January 2021).
- Xiao, L.; Chu, F.; Mao, J.; Yang, J.; Liu, Z. How Does New Media Shape the Sense of Belonging and Social Identity? The Social and Psychological Processes of Sustainable Successful Reintegration for Rehabilitated People. *Sustainability* 2024, 16, 7958. <https://doi.org/10.3390/su16187958>
- Xiao, W., & Wu, M. (2021). Life-cycle factors and entrepreneurship: evidence from rural China. *Small Business Economics*, 57(4), 2017–2040. <https://doi.org/10.1007/s11187-020-00370-8>.
- Yadav, V., And Unni, J. (2016), "Women entrepreneurship: research review and future directions". *Journal of Global Entrepreneurship Research*, 6:12.
- Yalcintas, M., Iyigun, O., & Karabulut, G. (2023). PERSONAL CHARACTERISTICS AND INTENTION FOR ENTREPRENEURSHIP. *SINGAPORE ECONOMIC REVIEW*, 68(02), 539–561.
- Yang, J., Yu, M., Tang, J., & Ma, J. (2022). Cognitive cultural intelligence and entrepreneurial alertness: evidence from highly educated, employed immigrants in the USA. *Cross Cultural and Strategic Management*, 29(2), 427–447. <https://doi.org/10.1108/CCSM-03-2021-0048>.
- Yang, X., & Lin, X. (2022). Overcoming informal barriers to trade: Immigrant educational attainment vs. network competence. *INTERNATIONAL BUSINESS REVIEW*, 31(1). <https://doi.org/10.1016/j.ibusrev.2021.101918>.
- Yasin, N., & Hafeez, K. (2023). Three waves of immigrant entrepreneurship: a cross-national comparative study. *SMALL BUSINESS ECONOMICS*, 60(3), 1281–1306.
- Yeh, C., Macaluso, C., & Hershbein, B. (2022). Monopsony in the U.S. labour market. *American Economic Review*, 112(7), 2099-2138.
- Yemini, M. and Haddad, J. (2010), "Engineer-entrepreneur: combining technical knowledge with entrepreneurship education-the Israeli case study", *International Journal of Engineering Education*, Vol. 26, No. 5, pp. 1220-1229.
- Yemini, M., & Yeheskel, O. (2011). Not born here-evaluation of the country of origin effect on the entrepreneurial intentions of Israeli engineering students. *International Journal of Learning*, 17(10), 329–342.
- Yendaw, E., Baatiema, L., & Ameyaw, E. K. (2023). Perceived risks, challenges and coping strategies among West African immigrant entrepreneurs in Ghana. *Heliyon*, 9(11). <https://doi.org/10.1016/j.heliyon.2023.e21279>.
- Yi, S., & Duval-Couetil, N. (2022). Standards for evaluating impact in entrepreneurship education research: Using a

- descriptive validity framework to enhance methodological rigor and transparency. *Entrepreneurship Theory and Practice*, 46(6), 1685-1716.
- Yoon, I.-J. (1995). The growth of Korean immigrant entrepreneurship in Chicago. *Ethnic and Racial Studies*, 18(2), 315-335. <https://doi.org/10.1080/01419870.1995.9993865>.
- You, T., & Zhou, M. (2021). Gender and transnational dynamics in immigrant entrepreneurship: A case study of Chinese-owned nail salons in New York City. *Journal of Chinese Overseas*, 17(2), 239-
- Yu, T., Khalid, N., & Ahmed, U. (2021). Factors Influencing Entrepreneurial Intention among Foreigners in Kazakhstan. *Sustainability*, 13(13), 7066.
- Yunus, M., Moingeon, B., & Lehmann-Ortega, L. (2010). Building social business models: Lessons from the Grameen experience. *Long range planning*, 43(2-3): 308-325.
- Yuval-Davis N. (2006), "Intersectionality and Feminist Politics", *European Journal of Women's Studies*, 13(3): 193-209.
- Zafar, S., & Ammara, S. (2024). Self-employment of immigrants and natives: an empirical analysis using the Integrated values Survey. *Quality and Quantity*. <https://doi.org/10.1007/s11135-024-01953-3>.
- Zaitseva, E. V., Goncharova, N. V., & Daineko, L. V. (2023). "Application of Phygital Games at the University in the Context of Digitalization". In *International Conference on Professional Culture of the Specialist of the Future*, pp. 19-34.
- Zalkat, G., Barth, H., & Rashid, L. (2024). Refugee entrepreneurship motivations in Sweden and Germany: a comparative case study. *Small Business Economics*, 63(1), 477-499. <https://doi.org/10.1007/s11187-023-00830-x>.
- Zanfrini L. (Ed.), 2015: *The Diversity Value. How to Reinvent the European Approach to Immigration*, McGraw-Hill Education, Maidenhead, UK
- Zanfrini L., 2022: *From slaves to key workers? How the Covid-19 pandemic questions the sustainability of the Italian model of migrants' integration*, "Rassegna Italiana di Sociologia", LXIII,n. 1, pp. 35-62
- Zhai, X., Chu, X., Chai, C. S., Jong, M. S. Y., Istenic, A., Spector, M., ... & Li, Y. (2021). A Review of Artificial Intelligence (AI) in Education from 2010 to 2020. *Complexity*, 2021(1), 8812542.
- Zhang, F., Schell, R., Kaufman, D., Salgado, G., & Jeremic, J. (2017). "Social interaction between older adults (80+) and younger people during intergenerational digital gameplay". In J. Zhou & G. Salvendy (Eds.), *Human aspects of IT for the aged population: Applications, services, and contexts*, vol. 10298, pp. 308-322), Cham, Switzerland: Springer International.
- Zhu, L., Kara, O., Chu, H.M. And Chu, A. (2015), "Female entrepreneurship: evidence from Vietnam", *Journal of Business and Entrepreneurship*, Vol. 26 No.3, pp. 103-128
- Zhuang, J., & Sun, H. (2023). Impact of institutional environment on entrepreneurial intention: The moderating role of entrepreneurship education. *The International Journal of Management Education*, 21(3), 100863.
- Zighan, S. (2021). Challenges faced by necessity entrepreneurship, the case of Syrian refugees in Jordan. *Journal of Enterprising Communities: People and Places in the Global Economy*, 15(4), 531-547.
- Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of educational psychology*, 81(3), 329.
- Zolfagharian, M., & Iyer, P. (2020). The effects of intergroup boundary permeability and hierarchy legitimacy on immigrant entrepreneurs' affective states, exchange strategies, and intentions toward suppliers. *Industrial Marketing Management*, 89, 373-388.
- Zollo, L., Laudano, M.C., Ciappei, C. and Zampi, V. (2017), "Factors affecting universities' ability to foster students' entrepreneurial behaviour: an empirical investigation", *Journal of Management Development*, Vol. 36 No. 2, pp. 268-285.
- Zubair, M., & Bögenhold, D. (2018). Social bonds: Migration and comparative analysis of remitting behaviour between Pakistani and Indian diaspora. *International Journal of Business and Globalisation*, 21(2), 180-192. <https://doi.org/10.1504/IJBG.2018.094969>.
- Zuboff, S. 2019. *The Age of Surveillance Capitalism*, New York, Public Affairs.
- Zulfiqar, S., Sarwar, B., Aziz, S., Ejaz Chandia, K., & Khan, M. K. (2019). An analysis of influence of business simulation games on business school students' attitude and intention toward entrepreneurial activities. *Journal of Educational Computing Research*, 57(1), 106-130.