



# Augmented vulnerability and entrepreneurship: evidence from Spain

Doctoral Thesis

PhD. Program in Business and Territorial Competitiveness,  
innovation, and Sustainability

Doctoral candidate:

Alaitz Zabala Zarauz  
Deusto Business School  
University of Deusto

Supervisors:

PhD. Iñaki Peña Legazkue  
Deusto Business School  
University of Deusto

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The journey of pursuing this PhD has been a profoundly transformative experience, undeniably marking one of the most complex and defining periods of my life. More than simply an academic endeavour, it has fundamentally reshaped my understanding of the world, introducing me to the rigorous scientific methods and diverse perspectives necessary to comprehend the intricate nature of reality. This pursuit allowed me to delve into some of the most challenging and fascinating questions surrounding the entrepreneurial ecosystem, a field that has always captivated my intellectual curiosity.

As I ventured deeper into my research, this academic pursuit served as an invaluable catalyst for personal growth. It was an eye-opening process that enabled me to critically recognize and comprehend the inherent limitations of my own experiences and perceptions, many of which had been forged during over two decades in the public and private biosciences industry. Consequently, this journey empowered me to shed numerous pre-existing biases and to dismantle ingrained mental structures that might have otherwise hindered a truly objective inquiry. There were, naturally, moments of significant challenge, times when the sheer scale of the undertaking tested my resolve. Yet, the process itself served as a constant reminder of the importance of perseverance, urging me not to "throw in the towel" but rather to embrace the power of sustained effort.

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# ABSTRACT

This study investigates how ‘augmented vulnerability’ influences people’s entrepreneurial trajectories during the most critical stages of their businesses, as well as the prioritization of their business objectives, including the analysis of entrepreneurial intention and the firm creation, growth, and sustainability of businesses. Based on the 2023 Global Entrepreneurship Monitor (GEM) database for Spain (Calvo et al., 2023), this research uses binomial logistic regression to analyze the experiences of key vulnerable groups, including women, seniors and immigrants, as well as those who belong to more than one of these categories at the same time (augmented vulnerability). The empirical findings underscore the profound significance of this intersectionality. The results not only confirm that vulnerability profoundly shapes entrepreneurial trajectories but, crucially, they reveal that belonging to multiple vulnerable groups introduces distinct and often amplified barriers, alongside previously unacknowledged enabling factors. This nuanced understanding is paramount, demonstrating the critical necessity for a more granular and sophisticated approach to policy design and entrepreneurial support. Generic interventions, while broadly beneficial, demonstrably fall short in addressing the specific, interconnected hurdles faced by these multi-vulnerable sub-segments.

# KEYWORDS

augmented vulnerability

entrepreneurial intention

women entrepreneurs

firm creation

senior entrepreneurs

business growth

immigrant entrepreneurs

sustainability

missing entrepreneurs

# Statement AI

During the preparation of this thesis, generative Artificial Intelligence (GenAI) tools were responsibly and ethically utilized to enhance the research and writing process. The application of these tools strictly adhered to the principles of transparency, critical approach, privacy preservation, and ultimate human responsibility for scientific output.

Specifically, the following tools were employed:

- **sCITE:** Primarily used for comprehensive literature analysis, including the discovery, validation, and contextualization of bibliographic references. This involved leveraging its capabilities to identify influential articles and analyze citation patterns.
- **Gemini (by Google):** To support the literature review, validate references, and refine the clarity, tone, and grammar of my original drafts.
- **DeepL:** For translation and writing refinement.
- **ChatGPT (by OpenAI):** Used on a minimal, ad-hoc basis for specific, isolated queries to assist in initial brainstorming or clarify minor conceptual points.

The intensity of use for these tools was in the order presented above, with sCITE being the most frequently utilized for its analytical functionalities, followed by Gemini for text enhancement and reference validation, and ChatGPT for very limited, specific inquiries. At no point was any confidential information, including proprietary data or details from human participants, input into these GenAI systems.

To ensure a proper and ethical application of AI technologies, I completed the "AI Course for Students," instructed by PhD. Andoni Eguíluz Morán at the University of Deusto.

After utilizing these tools and services, the content was meticulously reviewed, critically evaluated, and extensively edited by the author. I take complete responsibility for the content, accuracy, and originality of this dissertation. The use of AI served as a supportive tool to foster research competencies and efficiency, rather than acting as a replacement for my critical thinking, knowledge acquisition, or communication skills.

# **CHAPTER 1: INTRODUCTION**

## 1.1. MOTIVATION FOR THE STUDY

Entrepreneurship, widely recognized as one of the main drivers of the economic growth and social development, plays a pivotal role in job creation, innovation, and fostering a dynamic marketplace (Ács et al., 2009; Autio et al., 2014; Schumpeter, 1934). The role of the entrepreneurial ecosystem has emerged over the past decades, driven by government initiatives, access to funding, and a culture increasingly embracing self-employment (Audretsch, Rocha, et al., 2024; Eddleston et al., 2016). However, this progress is not uniformly distributed across all segments of society (Cardella et al., 2020; Chen et al., 2021). The unequal distribution of entrepreneurial resources, particularly in times of scarcity, contributes to the under-representation of specific demographic groups, notably women and senior citizens. This phenomenon has been named since 2013 as the "missing entrepreneurs" by the OECD (OECD, 2023). Despite the overall positive trajectory, certain vulnerable demographic groups continue to face disproportionate barriers to market entry and success in both, in the labour and in the entrepreneurial landscape. Furthermore, these barriers are heightened if the individuals studied belong to more than one vulnerable group, i.e., if these individuals suffer augmented vulnerability, such as being a woman and senior at the same time (Audretsch, Rocha, et al., 2024; Welter et al., 2017).

The motivation for this study stems from the observed disparity in entrepreneurial participation and outcomes among vulnerable and augmented vulnerable population segments. The research is contextualized within Spain, where recent statistics reflect that, as vulnerable groups -including women, the elderly (55+ years), and immigrants- face, as in many other countries, socio-economic marginalization and systemic barriers in the labour market and entrepreneurship (Instituto Nacional de Estadística, 2023). These population segments constitute significant proportions of the Spanish population (50.99% female, 37.27% elderly, 12.66% immigrants) and shown a constant growing tendency in the last two demographic groups during the last ten years. Self-employment has become a crucial alternative pathway to economic stability for these populations, especially in the context of high unemployment rates post-2008 financial crisis and the COVID-19 pandemic.

While national entrepreneurship rates may indicate a healthy overall picture, a closer examination reveals that individuals facing specific socio-economic disadvantages are often underrepresented in entrepreneurial endeavours. This underrepresentation not only signifies a missed opportunity for individual empowerment and economic independence but also limits the full potential of Spain's entrepreneurial capacity.

The need for more nuanced and inclusive entrepreneurship policies becomes evident, as generic support systems fail to adequately adapt to the distinct challenges these vulnerable segments face (Eddleston et al., 2016; Ghezzi & Cavallo, 2020; Quintillán & Peña-Legazkue, 2019). To better utilize the entrepreneurial potential of augmented vulnerable groups, it is imperative to develop targeted support mechanisms that consider their specific barriers to entry and success in the market (Audretsch, Rocha, et al., 2024; Ghezzi & Cavallo, 2020)

Moreover, fostering entrepreneurship among augmented vulnerable segments is not merely an economic imperative but also a social one. It offers a powerful pathway to social inclusion, reducing reliance on welfare systems, and promoting self-sufficiency and dignity (Kraus et al., 2018; Liñán & Jaén, 2020). Empowering these groups to create their own economic opportunities can lead to a more equitable society, strengthen local communities, and unlock untapped innovation and creativity that might otherwise remain dormant (Hechavarría & Ingram, 2019; Kraus et al., 2018). Moreover, after recessions, they can promote a fair and rapid economic recovery (Liñán & Jaén, 2020; Shepherd et al., 2020).

The present study is thus driven by a compelling need to systematically investigate the entrepreneurial landscape for vulnerable segments. The ultimate aim of this study is to shed light on the specific challenges, motivations, and support mechanisms relevant to these groups, contributing to a more inclusive and effective entrepreneurship policy framework. The insights gained from this research could be used to design targeted interventions, develop tailored support programmes, and advocate for policies that empower augmented vulnerable individuals to successfully navigate the entrepreneurial journey. This would contribute to a more resilient, equitable, and prosperous society.

## 1.2. RESEARCH OBJETIVES

Entrepreneurship has established itself as a key driver of economic health and social cohesion (Acs et al., 2018; Hechavarría & Ingram, 2019). Existing academic literature has extensively documented the inherent benefits of entrepreneurial activity and the various factors that contribute to its success (Ács et al., 2009; Autio et al., 2014; Schumpeter, 1934).

While Spanish national entrepreneurship rates may paint a generally healthy picture, as the firm creation rates increased in from 2022 to 2023 a 2% in the three analysed vulnerable groups (OECD, 2023), a closer examination reveals a persistent underrepresentation of vulnerable population, individuals facing specific socioeconomic disadvantages, in entrepreneurial ventures. This underrepresentation not only denotes a missed opportunity for individual empowerment and economic independence for those persons but also restricts the deployment of the full entrepreneurial potential of nations, such as Spain (Brieger & Gielnik, 2021; Zhu et al., 2021). It is in this context that the critical need to delve deeper into the concept of “augmented vulnerability” emerges, a phenomenon that, to date, has received limited attention in entrepreneurship research (Audretsch et al., 2024).

The concept of “augmented vulnerability” refers to how certain population groups experience and respond to economic shocks differently than their more advantaged counterparts (Audretsch et al., 2024). This concept hinges upon varying levels of resilience, resources, and opportunities available across different populations during crises, such as financial downturns or sudden market changes.

One fundamental aspect of augmented vulnerability is the disparity in outcomes that different demographic segments face during economic shocks. Studies show that women and seniors, particularly in less prosperous areas, may suffer disproportionately from the aftermath of economic disruptions (Audretsch et al., 2024; Liñán et al., 2020). The recovery from crises is often unequal. Individuals from economically disadvantaged backgrounds or regions tend to require significantly more time and support to recover compared to those in more affluent contexts. This disparity suggests that resilience is not merely a personal attribute but is substantially influenced by the socioeconomic environment.

Moreover, the theory of occupational choice provides insight into how age and gender intersect with economic vulnerability. Older individuals are often pressured by a shorter time frame to achieve their financial goals, which can increase their perceived risk in pursuing self-employment during downturns. They may also face significant barriers, including limited access to financial resources, lower education attainment, and societal bias that devalues their contributions (Hechavarria et al., 2019; Zhu et al., 2021). In contrast, higher GDP per capita in some regions enables seniors to have better access to financial capital, improving their chances of success in self-employment ventures (Hechavarria et al., 2019; Soto-Simeone & Kautonen, 2020).

From the perspective of women, augmented vulnerability can be connected to traditional roles and responsibilities that often limit their economic participation during crises. For example, data illustrate that women are frequently overrepresented in sectors most hit by economic downturns, making them more vulnerable to job losses compared to men (Filep et al., 2025; Hechavarria et al., 2019). However, self-employment emerges as a potential escape route for women facing labour market challenges, providing them with greater flexibility and independence, particularly during turbulent times. This suggests that self-employment can serve both as a response to heightened vulnerability and as a means to navigate it (Acs et al., 2018; Zhu, 2024).

Current literature on entrepreneurship in vulnerable segments, such as female or senior entrepreneurship, often emphasizes the cultural dimensions and intrinsic motivations that drive these activities. However, it tends to overlook or insufficiently address the compounding and cumulative challenges faced by these particularly vulnerable subgroups (Hechavarria et al., 2019; Soto-Simeone & Kautonen, 2020; Zhu et al., 2021). The intersectionality of these identities of vulnerability not only amplifies existing barriers but also introduces unique complexities to the entrepreneurial path, ranging from the perception of opportunity and the intention to start a business to the ability to scale and sustain a business over time (Hechavarria et al., 2019; Strawser et al., 2021; Zhu et al., 2021). This gap in academic knowledge represents a significant obstacle to the design of truly inclusive and effective public policies capable of unleashing the entrepreneurial potential latent in all layers of society.

The present study aims to address these significant gaps in the academic literature by investigating the effect of augmented vulnerability on entrepreneurship in Spain. The objective is to analyze whether the intersection of two types of vulnerability at the same time, such as being a woman and immigrant, significantly influences the entrepreneurship.

This comprehensive approach will allow us to unravel how the intersection of vulnerable identities impacts entrepreneurship. To this end, the analysis is structured into three interconnected and fundamental blocks, each covering a critical stage of the entrepreneurial process.

### Block 1: Entrepreneurial Intent and Firm Creation

The first section examined how augmented vulnerability influences an individual's attitude and propensity to start a business, focusing specifically on entrepreneurial intention and firm creation. I conducted an empirical analysis to investigate the impact of belonging to two multiple vulnerable groups on both entrepreneurial intention rates and the total early-stage entrepreneurial activity (TEA) rate, a key indicator of new business creation.

Ajzen's theory of planned behaviour (Ajzen, 1991) serves as the central theoretical framework for this analysis, as it enables the concept of entrepreneurial intention to be broken down into its attitudinal, normative, and perceived behavioural control components. Existing research indicates that augmented vulnerability, encompassing elements such as gender, socioeconomic status, and educational level, significantly influences entrepreneurial intentions and behaviour (Lassalle & Shaw, 2021; Shinnar et al., 2012). The relationship between social norms and entrepreneurial intention suggests that perceptions of normative beliefs can vary substantially across different demographic groups, thereby influencing the likelihood of business creation. Furthermore, studies have found that individuals from marginalized groups often encounter unique barriers that reduce their entrepreneurial activity, necessitating a deeper exploration of their experiences and motivations (Insarauto, 2021; Ricciardi et al., 2021).

## Block 2: Business Growth

The second block analysed the business growth of firms founded by nascent entrepreneurs belonging to an augmented vulnerability population segment. The analysed key dependent variables were the export rate of early-stage entrepreneurs and their job creation expectations, as they are considered critical indicators of the expansion, scalability and growth potential of the companies.

The Uppsala Internationalization Model (Johanson & Vahlne, 1990; J. Johanson & Vahlne, 1977, 2009; J. Johanson & Wiedersheim-Paul, 1975) provided an invaluable framework to address these research objectives of this section. This model posits that companies internationalize their operations incrementally, driven by knowledge acquisition and uncertainty reduction, leading to greater resource commitment and geographic expansion (Pergelova et al., 2018). This model is particularly relevant for assessing how augmented vulnerability might alter this trajectory, notably in the face of barriers like restricted access to international networks and lower human capital. Existing literature emphasizes that entrepreneurs from marginalized backgrounds encounter unique challenges that limit their ability to expand internationally, affecting their overall growth potential (Chen et al., 2021; Gedajlovic et al., 2013). Thus, the intersection of augmented vulnerability and business growth represents a fertile area for empirical research, as understanding these dynamics can serve as a basis for fostering entrepreneurial success among diverse populations (Hechavarria et al., 2019; Perry–Rivers, 2016).

## Block 3: Sustainability

Finally, the examination of the sustainability in newly created companies, in the third block, emphasizes how sociocultural factors influence entrepreneurs' prioritization of sustainability, i.e., their emphasis on social and environmental impact over profitability or pure economic growth. Entrepreneurs from vulnerable groups may exhibit a heightened commitment to sustainability, informed by their experiences and societal challenges (Berger & Blanka, 2024; Muñoz & Cohen, 2017).

This block is crucial to understanding how augmented vulnerability affects not only creation and growth, but also the long-term orientation and contribution of these companies to broader development. As the literature on sustainable entrepreneurship is still emerging, the objective has been to address this gap by

analyzing whether nascent entrepreneurs from augmented vulnerable groups integrate social and environmental dimensions more strongly into their business models.

Drawing upon the Stakeholder Theory (Freeman, 1984), in this block I tried to understand how some entrepreneurs prioritize a broader set of interests, as environmental and community concerns, over mere shareholder value, viewing these as integral to their firm's purpose and long-term viability. Furthermore, I investigated whether their business models are designed to generate economic and social/environmental value simultaneously using the concept of Creating Shared Value (CSV) (Porter & Kramer, 2011). This could be particularly relevant if their personal experiences drive them to address systemic social or environmental issues directly through their ventures.

I also considered the Sustainability Opportunity Approach (Cohen & Winn, 2007), which posits that market failures and gaps in sustainable provision present unique entrepreneurial opportunities. For entrepreneurs facing augmented vulnerability, these opportunities might be particularly salient, as their personal experiences could lead to a deeper understanding of underserved needs or overlooked solutions. I investigated whether this prioritization of sustainability is maintained even in the face of pressures for growth and profitability, which can be particularly acute for companies starting from a more limited resource base. The interconnection between the entrepreneur's personal vulnerability and the resilience and social purpose of their company represents an innovative and largely unexplored line of research (Chaudhary et al., 2023).

By integrating the main theories of entrepreneurial intention, creation, growth, and sustainability, this thesis seeks not only to identify the existence of the existing disparities between the different subsegments of vulnerable population, but also to understand the underlying mechanisms that generate them.

The proposed research has the potential to make significant contributions to the literature on entrepreneurship, as well as to inform the design of more targeted and effective public policies in Spain, ensuring that the entrepreneurial ecosystem is truly equitable and maximizes its transformative impact for all segments of the population.

### 1.3. METHODOLOGY

This research uses data, corresponding to the Spanish geographic area, from the Global Entrepreneurship Monitor (GEM) database, a large-scale international collaborative research consortium that systematically measures entrepreneurship since 1999 (GEM database, n. d.). It's an essential tool in policy development and evaluation for national governments and international bodies.

GEM employs a consistent methodology, sample design, and survey instruments across permanent national teams to collect nationally representative data, enabling cross-economy comparisons and longitudinal tracking of entrepreneurial evolution.

Data collection involves two annual national surveys:

- Adult Population Surveys (APS): Based on a questionnaire assessing attitudes and involvement in entrepreneurial activity, with a minimum representative sample of 2,000 adults per country/region.
- National Expert Surveys (NES): A survey of entrepreneurship experts and entrepreneurs to measure framework conditions. Secondary sources also provide updated information on economic development, demographics, and labour markets.

The Global Entrepreneurship Monitor database distinguishes four stages of entrepreneurship:

- Expecting to start a business:

GEM defines Entrepreneurial Intentions as the percentage of the adult population (aged 18-64, excluding those already involved in entrepreneurial activity) who are latent entrepreneurs and who express a clear intention to start a business within the next three years. This metric serves as a crucial indicator of the potential future supply of entrepreneurial activity within an economy, reflecting individuals' proactive decision-making and preparedness to engage in new venture creation. It captures the attitudinal dimension preceding actual behavioral engagement.

- Nascent entrepreneurs, GEM describes the phase of firm creation as encompassed by the Total Early-Stage Entrepreneurial Activity (TEA) Rate. composed of:

- Start-Up (SU): No wages paid for more than 3 consecutive months.

This index measures the percentage of the 18-64 adult population that is either a nascent entrepreneur or an owner-manager of a new business.

Nascent entrepreneurs are individuals currently involved in setting up a new business, typically having engaged in activities such as organizing a start-up team, developing a business plan, or seeking funding, but without yet having paid salaries or wages for more than three months.

- Baby Business (BB): Wages paid for 3 to 42 consecutive months.

Baby Business owner-managers are individuals who actively own and manage a business that has been operational and paid wages for between 3 and 42 consecutive months (3,5 years).

The Start-Up and Baby Business categories together represent the dynamic initial stages of new venture formation, from conception to early operational existence. These nascent or Early-Stage entrepreneurs together form the Total Early-stage entrepreneurial Activity (TEA) rate, expressed as a percentage of the working-age population (18-64 years).

- Established Business (EB): entrepreneurs whose businesses had paid wages for more than 42 consecutive months.

Additionally, other dependent variables to be analyzed are described as follows:

- Growth: while GEM does not provide a single definition of "growth phase," as explicitly as entrepreneurial intentions or the early-stage activity, it does assess entrepreneurial growth aspirations and actual growth through various indicators. GEM's surveys delve deeper into entrepreneurs' market penetration, going beyond the level of internationalization, measuring, among other indicators, the export rate and job prospects (e.g., how many employees they expect to hire in five years).

- **Sustainability:** GEM's conceptualization of sustainability within the entrepreneurial context has evolved to encompass not merely the longevity and economic survival of a business, but also its broader social and environmental impact. While traditional definitions implied continuity and profitability, GEM increasingly integrates dimensions and indicators of sustainable entrepreneurship. This is evidenced by recent reports that specifically address sustainability, measuring entrepreneurs' awareness and prioritization of actions related to minimizing environmental impacts and maximizing positive social contributions. Sustainability, in this broader sense, reflects the long-term viability of the enterprise while concurrently contributing to societal well-being and ecological preservation, aligning with global frameworks such as the UN Sustainable Development Goals (SDGs). This perspective underscores a shift from solely economic success to a more holistic understanding of a firm's enduring value to society.

The choice of Spain, as the specific geographical context, is grounded in several compelling reasons. Spain represents a distinctive socio-economic environment within the European Union, characterized by particular challenges and opportunities for vulnerable groups. Despite its status as a high-income country, Spain has faced significant economic turbulence, notably due to the 2008 financial crisis and more recently the COVID-19 pandemic (González-Pernía et al., 2018; Liñán & Jaén, 2020; Zabala et al., 2023). These crises had disproportionately adverse effects on some vulnerable segments of the population, leading to heightened rates of unemployment and social exclusion (Insarauto, 2021). Research indicates that these socio-economic setbacks have intensified pre-existing inequalities, illuminating the necessity to study how individuals from disadvantaged backgrounds navigate economic precarity through entrepreneurship. Specifically, entrepreneurship in this context can provide innovative pathways for rebuilding livelihoods and reducing dependency on welfare systems, yielding valuable insights for other developed economies facing similar challenges (Welter et al., 2019).

Spain's policy landscape regarding entrepreneurship, particularly initiatives targeting vulnerable populations, provides a rich context for analysis. The country has implemented some strategic actions under a National Plan for Entrepreneurship to promote inclusive policies tailored for women, immigrants, youth, seniors, and the

unemployed, such as a reduction in social security contributions for young entrepreneurs (Halabisky, 2018). These policies recognize unique barriers faced by specific demographic groups while identifying their inherent potential contributions to the entrepreneurial ecosystem. Studies have shown that supportive policies are crucial for fostering entrepreneurial activity in historically underrepresented groups, illustrating the significance of grants and public support mechanisms (Aparicio et al., 2016).

Moreover, cultural and institutional specificities within Spain significantly shape entrepreneurial attitudes and behaviors, particularly for socially or economically marginalized groups. Research suggests that national culture profoundly influences entrepreneurial decisions; varying degrees of risk aversion and collectivism affect an individual's propensity to engage in self-employment (Perry–Rivers, 2016). Spain's unique cultural heritage, extensively documented in analyses of its entrepreneurial ecosystem lends itself to exploring how these informal institutional factors interact with formal policy mechanisms like grants (González-Pernía & Peña-Legazkue, 2015; Urbano et al., 2024).

The vulnerability influences the entrepreneurial trajectories of those population segments, whose behaviors are often shaped by both broader economic conditions (González-Pernía et al., 2018; Liñán & Jaén, 2020) and specific group vulnerabilities (Zabala et al., 2023). Understanding the interplay of household and community networks is vital, as these social capital dimensions often serve as critical support systems for individuals striving to establish businesses in challenging contexts (Williams & Horodnic, 2016).

The thesis utilizes the 2023 APS data, encompassing 30,201 observations of Spanish individuals aged 18-64. While acknowledging potential limitations, GEM data offers significant advantages due to its representative and diverse samples. The validity of findings relies heavily on sample size and quality of sampling methodology. GEM addresses this by collecting data from a minimum of 2,000 adults aged 18-64 annually per country, with Spain having a larger sample size due to additional regional analyses across three of its 17 autonomous communities.

GEM's use of stratified sampling ensures that survey respondents accurately reflect the broader population's demographic composition, enhancing data

representativeness. This stratification is crucial for capturing diverse entrepreneurial dynamics, including those influenced by marginalization and socio-economic factors, and understanding how personal and contextual elements (e.g., education, local economic conditions) affect entrepreneurial outcomes.

In addition to the dependent, the independent, the explanatory and the control variables, described all of them in Chapter 3.3., I included in the study the interaction variables which are crucial for understanding the complex interplay between different vulnerable groups.

Adopting a positivist paradigm, this research employs a binomial logistic regression for the empirical study. Logistic regression is a valuable tool in entrepreneurship research for its ability to provide insights into complex decision-making based on empirical data. I adopted this methodology because it has been used and validated by some researchers to identify determinants of early-stage entrepreneurial activity (Ndofirepi & Steyn, 2023), explore self-employability dynamics among demographics (Audretsch et al., 2024), and understand perceptual variables influencing entrepreneurial decisions (Arenius & Minniti, 2005). This statistical approach is ideal for modelling binary outcome variables, such as whether an individual engages in a particular entrepreneurial activity, by simultaneously examining the influence of several explanatory factors.

The study employed logistic regression to address its hypotheses, which are structured, as we introduced before, into three distinct analytical blocks. The dependent variables examined within each block, as mentioned in the previous section, are:

- **Entrepreneurial Intention and Firm Creation:** this block analyzes the entrepreneurial intention rate and the Total early-stage Entrepreneurial Activity (TEA) rate, which reflects the proportion of individuals engaged in nascent or new entrepreneurial endeavors.
- **Growth:** this section investigates the early-stage entrepreneur's export rate and job creation expectations, both serving as critical indicators of growth.
- **Sustainability:** this block investigates entrepreneurs' prioritization of sustainability, i.e. social and environmental impact, over traditional metrics such as profitability or growth.

I analyzed entrepreneurial intentions using the entire survey population database and created a new database selecting the emerging entrepreneur's segment to analyze the remaining dependent variables. I also set up a new database selecting the segment of entrepreneurs with an established business (EB) to perform robustness checks.

Additionally, a Chi-square test was applied to determine the statistical association between the dependent and independent variables included in each model. A significant Chi-square result indicates a statistically significant relationship, suggesting that variations in independent variables are related to changes in the dependent variable.

Prior to running the logistic regressions, Pearson correlation analyses were conducted. The primary aim of these analyses was to detect any potential problems of multicollinearity among the independent variables included in each model. The results of these correlation analyses for each set of empirical tests are presented separately in the subsequent sections.

#### 1.4. CONTRIBUTIONS OF THE STUDY

While existing research extensively highlights the cultural dimensions and intrinsic motivations underpinning the entrepreneurial activity of some vulnerable demographic segments, it often fails to adequately address the compounded challenges encountered by these augmented vulnerable subgroups. Research into augmented vulnerability, which recognizes individuals belonging to more than one marginalized group, holds significant implications for fostering entrepreneurial endeavors in Spain across the domains of entrepreneurial intention and firm creation, growth, and the prioritization of sustainability within these newly established or nascent firms.

With this thesis I will make the next contributions to academic literature:

Firstly, understanding the challenges faced by those who belong to augmented vulnerability population groups—such as those belonging to more than one of these

groups: women, seniors and/or immigrants—can serve as a basis for developing strategies aimed at promoting entrepreneurial intentions within these populations.

Studies indicate that perceived barriers significantly influence entrepreneurial intentions. Determining that cultural perceptions and gender roles can affect entrepreneurial intentions, suggesting that societal norms play a crucial role in the desire to engage in entrepreneurial activities (Shinnar et al., 2012). Therefore, acknowledging augmented vulnerability can lead to tailored interventions that heighten entrepreneurial intentions among these specific population groups.

Subsequently, addressing the firm creation phase is vital, as it ties directly to the initial intentions of potential entrepreneurs. Personal and social identities and values significantly influence decision-making during firm creation (Wraae et al., 2022). It is important to understand them in depth in order to encourage the translation of entrepreneurial intention into effective company creation.

The understanding of how entrepreneurs, belonging to augmented vulnerable segments, think about and develop the growth intentions of their firms is also critical, as firms led by individuals from marginalized backgrounds tend to face distinct challenges in scaling their operations. Researchers demonstrated that motivations behind firm growth often vary by demographic, impacting growth trajectories and overall success (Edelman et al., 2010). Moreover, social capital plays a crucial role in facilitating growth opportunities; those from vulnerable backgrounds might lack access to robust networks that support expansion (Hechavarria et al., 2019). To optimize growth potential, fostering inclusive ecosystems that recognize and support the unique contributions of augmented vulnerable entrepreneurs is essential. This may involve encouraging partnerships, targeted mentorship programs, and leveraging community resources specifically curated for these groups.

Finally, ensuring sustainability within these firms is crucial for their long-term impact on economic development and job creation. Sustainability can be viewed through various lenses, including economic, social, and environmental dimensions, as highlighted by Meek et al. (2010), who discuss the growing importance of sustainability in entrepreneurial practices. Encouraging augmented vulnerable entrepreneurs to adopt sustainable practices not only contributes to their longevity but also aligns with broader societal goals of environmental protection and community development. This is particularly pertinent in Spain, where public

support and regulatory frameworks increasingly favor sustainable business practices. The integration of sustainability principles into the entrepreneurial journey, particularly for those with compounded vulnerabilities, illustrates an avenue through which these entrepreneurs can differentiate themselves in a competitive market.

In conclusion, researching augmented vulnerability yields critical insights into enhancing entrepreneurial intentions, firm creation, growth, and sustainability. Tailored education and support systems, grounded in an understanding of the unique barriers faced by individuals in multiple marginalized groups, can facilitate their successful navigation through the entrepreneurial landscape. Future research should continue to amplify the voices of these entrepreneurs, ensuring their experiences shape policy and practice in a manner that fosters inclusive entrepreneurship.

#### 1.5. SCIENTIFIC RELEVANCE OF THE STUDY

Researching augmented vulnerability—defined as the individuals belonging to a more than a one vulnerable group—holds significant scientific relevance within the context of entrepreneurship. This relevance is especially apparent when examining the entrepreneurial intentions and firm creation, growth, and the prioritization of sustainability in these new firms. The influence of socio-cultural and economic factors that can compound the challenges faced by individuals experiencing augmented vulnerability. By rigorously understanding these dynamics, researchers can develop precisely targeted interventions that promote entrepreneurial engagement within these populations, particularly among women, senior and immigrants' population segments.

Firstly, exploring augmented vulnerability contributes essential insights into entrepreneurial intentions. Some researchers have established the importance of gender and cultural contexts in shaping entrepreneurial perceptions and intentions (Shinnar et al., 2012; Van Gelderen et al., 2018). The applicability of these findings can be extended to understand how multiply marginalized identities or augmented vulnerability —potentially characterized by race, gender, age, and socioeconomic

status—intersect to influence individuals' commitment to pursuing entrepreneurship. Analyzing entrepreneurial intentions through this nuanced lens reveals how cultural norms and biases can act as significant barriers. Furthermore, some scholars also emphasize the necessity of incorporating diverse identity factors to illuminate how personal and social constructs influencing intentions can differ among various groups (Liñán and Fayolle, 2015). Therefore, a comprehensive understanding of augmented vulnerability can refine researchers' and policymakers' approaches toward fostering entrepreneurial intentions in underserved communities.

The firm creation phase also benefits from a focused examination of augmented vulnerability. The challenges faced during this stage often exacerbate due to compounded barriers of identity, which can limit access to resources and networks essential for startup success. Studies on women and immigrant entrepreneurship, highlight specific difficulties in securing funding and navigating bureaucratic systems, emphasizing how gendered and socio-economic factors affect entrepreneurship (Dabić et al., 2020; Williams & Horodnic, 2016). Such insights are crucial in developing support frameworks that not only address technical skills but also promote a cultural understanding of the processes uniquely faced by entrepreneurs from marginalized backgrounds (Welter et al., 2017).

Moreover, the growth phase of entrepreneurial ventures is intricately linked to the social and economic contexts of the customers and markets that augmented vulnerable entrepreneurs navigate. Growth intentions and motivations differ significantly among minority entrepreneurs, impacting their overall business trajectories (Edelman et al., 2010). Understanding these dynamics is vital not only for addressing the unique challenges faced by these entrepreneurs but also for fostering environments that facilitate inclusive economic development and optimize access to supportive networks and collaborations to bolster the growth of ventures led by individuals facing augmented vulnerabilities.

Lastly, sustainability within entrepreneurial ventures is critically contingent upon acknowledging and addressing augmented vulnerabilities. Economic sustainability for entrepreneurs from marginalized backgrounds often hinges on their ability to integrate socio-environmental considerations into their business models. The empirical findings suggest that businesses rooted in social and environmental awareness enjoy improved sustainability outcomes, a vital consideration for entrepreneurs from vulnerable groups seeking long-term viability (Meek et al., 2010). Therefore, the scientific inquiry into how augmented vulnerability shapes the

definition and pursuit of sustainability within these businesses presents both an opportunity for scholarly discourse and practical application, reinforcing that inclusive practices contribute significantly to broader economic and social goals.

In conclusion, the scientific relevance of studying augmented vulnerability in the entrepreneurial context is diverse. By enlightening how intersecting identities affect entrepreneurial intentions, firm creation, growth, and sustainability, researchers can contribute to the development of tailored interventions and strategies that enhance inclusive entrepreneurship. The collaborative exchange of findings and methodologies will ultimately advance the body of knowledge on diversity within entrepreneurship, empowering marginalized individuals to successfully navigate the entrepreneurial landscape.

## 1.6. RESEARCH STRUCTURE

Once the structure and key concepts of the thesis has been detailed in this Chapter 1, Chapter 2 lays the theoretical background for understanding the intricate relationship between vulnerable and augmented vulnerable groups and their engagement in entrepreneurial intention, firm creation, growth and sustainability. This chapter, along with Chapters 3, 4 and 5, is structured to align seamlessly with our three primary research objectives: the analysis of entrepreneurial intention and creation (RO1), growth (RO2), and sustainability (RO3).

The hypotheses analysed regarding Entrepreneurial Intention and Firm Creation (RO1) are:

- Hypothesis 1.A: *Entrepreneurial Intentions* (EI) are more likely to be shown by people who belong to an augmented vulnerable group.
- Hypothesis 1.B: Individuals from augmented vulnerable groups engage in *firm creation* to a greater extent than those not categorized within such groups.

Regarding growth (RO2), the following four hypotheses were analysed:

- Hypothesis 2.A: Early-stage entrepreneurs belonging to augmented vulnerable groups are more prone than the rest to *export*.

- Hypothesis 2.B: Early-stage entrepreneurs belonging to vulnerable groups are more prone to expect *to hire an employee*.
- Hypothesis 2.C: The moderating effect of digitalization increases the growth expectations, increasing their export ratio, of entrepreneurs belonging to vulnerable segments of the population in the initial stage of entrepreneurship.
- Hypothesis 2.D: The moderating effect of digitalization increases the growth expectations, increasing their export ratio, of entrepreneurs belonging to vulnerable segments of the population in the initial stage of entrepreneurship.

For the final objective, to analyse the prioritization of sustainable impact (RO3), I examined two hypotheses:

- Hypothesis 3.A: Early-stage entrepreneurs, belonging to vulnerable groups, are more likely to prioritize the *sustainable impact* in their entrepreneurship.
- Hypothesis 3.B: The moderating effect of digitalization increases the prioritization of the sustainable impact of entrepreneurs belonging to vulnerable segments of the population in the initial stage of entrepreneurship.

Chapter 3 of this dissertation outlines the general research strategy, detailing the methodological approaches employed and how the investigations were carried out.

Chapters 4 and 5 constitute the analytical and interpretative core of the thesis.

Chapter 4 provides a comprehensive analysis of the empirical results derived from our investigation into nascent entrepreneurs belonging to augmented vulnerable groups. I meticulously present the data, highlighting key findings and trends related to entrepreneurial intentions and firm creation, growth expectations, and the prioritization of sustainable impact, among these segments.

Building upon these findings, Chapter 5 delves into how the results refine existing literature on entrepreneurs belonging to vulnerable population segments, proposing new insights. It critically discusses the implications of our empirical observations for theoretical models of entrepreneurial behaviour, discusses the limitations of the study and extends beyond theoretical discourse to outline the practical implications of our findings. It translates the research outcomes into actionable recommendations for various stakeholders, including entrepreneurial support organizations, policymakers, educators, and financial institutions. These

recommendations aim to inform the design of more effective, tailored interventions and policies that can genuinely foster and sustain entrepreneurial activity among vulnerable populations in Spain and beyond.

Chapter 6 offers the concluding remarks of this dissertation, synthesizing the key findings and contributions presented in the preceding chapters.

## **CHAPTER 2: THEORETICAL BACKGROUND**

The concept of entrepreneurship, a cornerstone of economic thought, has undergone a profound evolution, from its nascent characterizations in the 18th century to the complex, multifaceted understandings embraced by contemporary scholars. This historical progression reflects a deepening appreciation for the entrepreneur's pivotal role in economic development and societal transformation.

One of the earliest formal articulations of the entrepreneur emerged in the mid-18th century. The Irish-French economist Richard Cantillon, in his posthumously published *Essai sur la Nature du Commerce en Général* (1755), introduced the term "entrepreneur," defining this individual as a risk-bearer who buys inputs at a certain price to produce outputs for an uncertain market, thus operating under conditions of non-guaranteed returns. Cantillon's foundational work laid the intellectual groundwork for subsequent inquiries into the nature of entrepreneurial activity and its function within the economic system.

Building upon Cantillon's insights, Jean-Baptiste Say further refined the concept in the early 19th century. In his *Traité d'économie politique* (1803), Say critically distinguished entrepreneurial profit from the returns accrued by capital owners. He posited that the profit realized by an entrepreneur stemmed from their distinct ability to coordinate resources, integrate disparate factors of production, and innovatively navigate market dynamics, rather than merely from the investment of capital. This crucial differentiation served to clearly delineate the unique functions of the entrepreneur from those of financiers, thereby establishing a more precise understanding of various economic players.

In *The Protestant Ethic and the Spirit of Capitalism*, Max Weber (Weber, 1905) explored the cultural and religious underpinnings of economic behavior. He argued that certain values, such as hard work, frugality, and a rational, systematic pursuit of profit, created a unique "spirit" conducive to the rise of modern capitalism. This perspective provided a crucial lens for understanding the mindset behind entrepreneurial activity, moving beyond a purely economic analysis to examine how an individual's ethical beliefs and social values could influence their motivation to create and build enterprises.

The 20th century witnessed a significant redefinition of the entrepreneur, most notably by Joseph Schumpeter. In his seminal work, *The Theory of Economic Development* (1934), Schumpeter presented the entrepreneur as the quintessential innovator, the "gale of creative destruction" who propels economic evolution

through the introduction of novel products, processes, new markets, and organizational forms. Schumpeter's dynamic perspective positioned the entrepreneur at the vanguard of economic progress, underscoring the inherent and disruptive role of innovation in achieving and sustaining competitive advantage.

This evolving understanding was further refined by Peter Drucker in the mid-20th century. In *Innovation and Entrepreneurship* (1964), Drucker advanced the notion that an entrepreneur is fundamentally one who maximizes opportunities. His perspective emphasized a proactive, systematic, and resourceful approach to identifying and exploiting emerging possibilities within a constantly shifting market landscape. In this contemporary view, the entrepreneur transcends the role of a mere risk-taker, emerging instead as a critical driver of economic growth who not only identifies but actively shapes opportunities within a dynamic environment.

As the 20th century progressed into the 21st, technological advancements, increased globalization, and pressing global challenges have profoundly reshaped the entrepreneurial landscape. The modern entrepreneur is now understood to inhabit a multifaceted role that extends well beyond traditional profit generation. They are increasingly recognized as agents of change, responsible for developing new markets, fostering innovative products and services, and improving existing processes. This broadened perception highlights their significant contributions to societal advancement, sustainability initiatives, and the resilience of economic systems. Today, the entrepreneur is not merely a profit-seeker but a pivotal figure in innovation, market development, and crucially, in championing the well-being and sustainability of both our planet and its inhabitants.

In the subsequent chapter, this thesis will delve into the defining characteristics of the contemporary entrepreneur, moving beyond general attributes to explore specific nuances that emerge when entrepreneurs belong to **vulnerable population groups**.

In developed nations the recognition of diverse vulnerable groups is formalized often through legislation that aims to address their specific circumstances. These groups are generally characterized as populations experiencing an elevated risk of social, economic, or political marginalization. Consequently, it can be argued that individuals within these segments confront unique challenges that frequently impede, or even entirely obstruct, their capacity to flourish within society.

One of the fundamental reasons why certain collectives are considered vulnerable is their limited access to resources. Economic hardship plays a significant role in this context, as individuals from lower socio-economic strata often lack the financial capital necessary to invest in education, entrepreneurship, or other avenues of upward mobility (Perry-Rivers, 2016). This lack of resources can create a cycle of poverty that is difficult to escape, as individuals may be forced to prioritize immediate survival over long-term investment in their future. In addition, systemic barriers, such as discriminatory lending practices, can further restrict access to financial resources for marginalized groups, particularly women and ethnic minorities (Eddleston et al., 2016). The cumulative disadvantage experienced by these groups can lead to a lack of representation in various sectors, perpetuating their vulnerability and limiting their ability to influence change within their communities (Eddleston et al., 2016; Perry–Rivers, 2016). As a result of the difficulties these groups face in accessing the labor, self-employment has emerged as an important alternative pathway to economic stability for vulnerable populations, including women, seniors, and immigrants.

Social networks also play a crucial role in determining the vulnerability of certain groups. Social capital theory (SCT) posits that social networks and relationships can provide individuals with access to resources, information, and support, which are crucial for entrepreneurial success (Bourdieu, 1985; Gedajlovic et al., 2013). Individuals from marginalized backgrounds may have limited access to strong social ties that can provide support, mentorship, and opportunities for collaboration (Gedajlovic et al., 2013; Sullivan & Ford, 2014). Weak ties, while beneficial in some contexts, may not provide the same level of support as strong ties, which are often built on trust and shared experiences (Sullivan & Ford, 2014). This lack of robust social networks can hinder individuals' ability to navigate challenges, access information, and secure resources necessary for personal and professional growth. Furthermore, the social capital available to marginalized groups may be undervalued or overlooked by mainstream society, leading to further isolation and exclusion from critical networks that facilitate success (Gedajlovic et al., 2013).

Cultural and societal perceptions likewise contribute to the vulnerability of specific groups. Stereotypes and biases can shape how individuals are perceived and treated in various contexts, including the workplace, educational institutions, and entrepreneurial ecosystems (Liu et al., 2023). For example, women entrepreneurs often face biases that question their competence and commitment, which can

hinder their access to funding and support (Eddleston et al., 2016). Similarly, immigrant entrepreneurs may encounter linguistic and cultural barriers that limit their ability to engage with potential customers, partners, and investors (Miller & Le Breton-Miller, 2017). These societal perceptions can create an environment where marginalized individuals are not only disadvantaged by their circumstances but also by the prejudices and biases of those around them. Addressing these perceptions is essential for fostering an inclusive society that recognizes and values the contributions of all individuals, regardless of their background.

The existing literature consistently points to a significant research gap regarding the relationship between vulnerable groups - particularly women, older people and immigrants - and entrepreneurship. The call for more nuanced and comprehensive studies is evident across a range of scholarships, highlighting the importance of addressing these gaps to promote a more inclusive understanding of entrepreneurship.

The subject of entrepreneurship among vulnerable people is critically important for several reasons, including economic empowerment, social inclusion, and the potential for innovation. Entrepreneurship can serve as a powerful tool for economic empowerment among marginalized individuals. Entrepreneurs from disadvantaged backgrounds often create survival and lifestyle ventures that help them escape poverty (Morris et al., 2020). While vulnerable population often face barriers to traditional employment, self-employment and/or entrepreneurship can offer an alternative pathway to economic stability.

In this thesis, I will conduct an in-depth analysis of three focal vulnerable groups for this thesis: women, the elderly, and immigrants, also examining the critical concept of intersectionality where individuals may belong to more than one such group in the entrepreneurial process: in the entrepreneurial intention and firm creation, in the growth and in the sustainability, providing a deeper exploration for each of these three vulnerable population segments.

## 2.1. ENTREPRENEURIAL INTENTION AND FIRM CREATION OF VULNERABLE GROUPS

In this thesis, I analyze the different characteristics of individuals and entrepreneurs belonging to vulnerable population groups (women, seniors and immigrants) in relation to different aspects of the entrepreneurship: entrepreneurial intention and firm creation, growth perspectives and the sustainability. I have delved deeper into the analysis of the interactions that may arise as a result of these individuals belonging to more than one vulnerable group at the same time, i.e., individuals with augmented vulnerability. I have also analyzed the influence in growth perspectives and sustainability of the fact that emerging entrepreneurs belonging to groups with augmented vulnerability have favored the implementation of a high level of digitalization in their nascent companies.

### 2.1.1. Entrepreneurial Intention (EI)

In academic terms, EI is a pivotal concept for understanding the dynamics of entrepreneurship. Its importance stems from its strong predictive power regarding actual entrepreneurial behavior, as intentions are well-established precursors to actions within the entrepreneurial process (Bae et al., 2014; Bullough et al., 2014). Consequently, EI is a critical focus of entrepreneurship research, particularly when investigating vulnerable populations. This study, therefore, aims to first understand the EI of individuals within these specific vulnerable groups, recognizing that comprehending their intentions is the crucial initial step in unraveling their entrepreneurial behavior and decision-making processes.

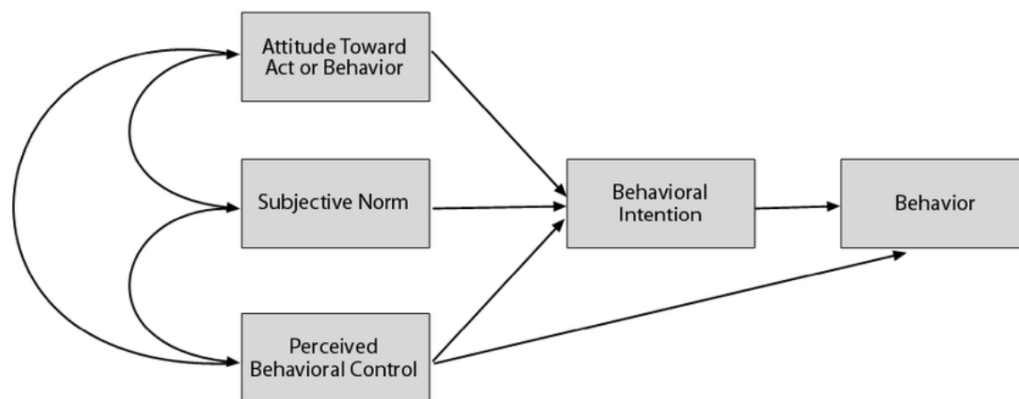
EI refers to the intent to start a new venture, which is influenced by myriad factors including social networks, economic context, and institutional support. Research indicates that various personal and social factors influence entrepreneurial intentions, particularly among minority groups.

The theoretical underpinnings of EI are rooted in several models, such as Shapero's Entrepreneurial Event Model (Shapero, 1982), the Model of

Implementing Entrepreneurial Ideas (Bird, 1988) or the Maximization of the Expected Utility Model (Douglas & Shepherd, 2002) of which the Theory of Planned Behaviour (TPB) is one of the most influential (N. Krueger, 2000; Liñán & Chen, 2009).

According to TPB, intention is influenced by attitudes toward behavior, subjective norms, and perceived behavioral control (Ajzen, 1991; Liñán & Chen, 2009).

Figure1: Theory of Planned Behavior (TPB)



Source: (Ajzen, 1991)

This model posits that individuals are more likely to engage in entrepreneurial activities if they have a positive attitude toward entrepreneurship, perceive social support, and believe in their capabilities to succeed.

According to the TPB, there are three antecedents that explain entrepreneurial intention. The first is Personal Attitude (PA) towards the behaviour, which is defined in the TPB as an individual's overall evaluation of the entrepreneurial behaviour (Ajzen, 1991). This is determined by the total set of accessible behavioural beliefs that link entrepreneurial behaviour to various outcomes and other attributes (Ajzen, 1991).

Studies have demonstrated that positive personal attitudes towards entrepreneurship correlate strongly with the EI to pursue entrepreneurial activities (Liñán et al., 2010; Liñán & Fayolle, 2015). The academics highlight that personal attitude is one of the most relevant factors influencing it, underscoring the significance of fostering positive beliefs through education and exposure (Liñán

et al., 2010). Furthermore, they emphasize that cultivating an optimistic outlook can enhance EI, suggesting that individuals who perceive entrepreneurship as a productive and fulfilling venture are more likely to commit to entrepreneurial actions.

The link between personal attitudes and EI is further supported by research indicating that educational programs aimed at enhancing entrepreneurial skills can significantly alter students' attitudes, thus increasing their intention to start a business (Krueger, 2021; Souitaris et al., 2007). Additionally, the influence of cultural factors should not be overlooked. Some academics have pointed out that personal attitudes towards entrepreneurship can vary across different cultural contexts, which can affect how strongly they influence EI (Liñán & Chen, 2009).

The second component of the TPB is the Subjective Norm (SN), which is defined as the individual's perception of the social pressures to engage (or not to engage) in entrepreneurial behaviour (Ajzen, 1991). The subjective norm consists of two components: normative beliefs and the motivation to comply with these beliefs.

Normative beliefs are shaped by an individual's perceptions of the expectations held by significant others, such as family, friends, and peers, regarding their EI and behaviors. These beliefs can significantly influence individuals' intentions when they perceive that their social environment endorses entrepreneurial activities, thereby increasing their likelihood of pursuing such paths (Kautonen, 2013, 2015).

In addition to normative beliefs, an individual's motivation to comply with these beliefs plays a pivotal role in determining their EI. This motivation reflects the degree to which an individual feels compelled to meet the expectations of their social circle. A strong motivation to comply may arise from a desire to maintain social approval or the fear of social disapproval, which can significantly impact the intention to engage in entrepreneurial activities (Liñán & Chen, 2009). Empirical studies indicate that a supportive environment characterized by positive social norms can enhance EI, as individuals are more likely to align their actions with the expectations of their community (Meek et al., 2010; Meoli et al., 2020). Conversely, if normative beliefs suggest that entrepreneurship is frowned upon, the motivation to comply with these beliefs may deter individuals from acting on their entrepreneurial aspirations (Teixeira et al., 2018).

The third TPB component, Perceived Behavioural Control (PBC), refers to people's perceptions of their ability to perform that behaviour. This concept is, therefore, very

similar to self-efficacy or even the same (see Bandura, 1982). In fact, self-efficacy has replaced Perceived Behavioral Control in numerous studies on EI (Krueger, 2000). Perceived Behavioral Control (PBC) is a central element of the Theory of Planned Behavior (TPB), which denotes the perceived ease or difficulty of performing a behavior. According to Ajzen, PBC refers to individuals' beliefs about whether they can perform a given behavior successfully, which influences their intentions to engage in that behavior (Ajzen, 1991). This variable is crucial in predicting EI, as it nets both the perceived availability of resources and opportunities and the self-efficacy associated with entrepreneurial actions (Liñán et al., 2010; Liñán & Fayolle, 2015). For instance, studies have shown that higher PBC correlates with increased EI, as individuals who believe they possess the necessary skills and resources are more likely to consider starting a business (Liñán et al., 2010). Furthermore, some scholars highlighted that personal attitudes and PBC significantly influence EI, making them essential components for educational initiatives aimed at fostering entrepreneurship (Liñán & Fayolle, 2015). In addition to personal skills, PBC also encompasses broader contextual factors such as societal support and institutional frameworks, which can either facilitate or hinder entrepreneurial activities (Esfandiar et al., 2019; Teixeira et al., 2018).

Motivations for entrepreneurship can be also categorized into push and pull factors, which significantly impact an individual's decision-making process. Push factors, such as job loss or dissatisfaction with current employment, often compel individuals to consider entrepreneurship as a viable alternative. Conversely, pull factors, including the desire for autonomy and the pursuit of personal passions, can inspire individuals to take the leap into entrepreneurship. Research indicates that individuals with strong EI are more likely to act upon their motivations when they perceive favorable conditions, such as access to resources and supportive networks.

Some authors emphasize the need for more research on EI. There have been some longitudinal studies (Kautonen, 2013) and more studies using EI as a framework, which has led to new applications, discrepancies, and specifications. Some authors suggest reconsidering research in this area (Krueger, 2017; Krueger & Day, 2010). (Liñán & Fayolle, 2015) identify various lines of research that would serve to expand and consolidate the usefulness and applicability of EI models. In particular, the intention-action link deserves special attention. It is necessary to conduct

longitudinal studies and to pay attention to the influence of environmental variables on the transformation of intention into effective action (Liñán & Fayolle, 2015).

As indicated at the beginning of this chapter, the motivations underlying EI may differ significantly among different population groups, especially among vulnerable population groups. In the next sections, I will take a closer look at the EI of each of these selected vulnerable groups: female, senior and immigrant.

#### 2.1.1.1. Female Entrepreneurial Intention

Female entrepreneurship has gained significant attention in recent years, reflecting the increasing recognition of women's contributions to economic development and innovation (Brush et al., 2017; Jennings & Brush, 2013). Women's entrepreneurship not only promotes economic advancement but also serves as a vital vehicle for social development, particularly in high-growth activities (Hechavarria et al., 2019).

The literature indicates that gender plays a significant role in shaping EI (Shinnar et al., 2012; Van Gelderen et al., 2018), with women frequently exhibiting lower levels of EI compared to men (Liñán & Fayolle, 2015; Pergelova et al., 2018). Female entrepreneurs often face exceptional challenges that can hold back their EI (Shinnar et al., 2012), making it more difficult for them to pursue entrepreneurial opportunities compared to their male counterparts. These challenges include societal norms (gender stereotypes), access to resources, and limited educational and networking opportunities (Chen et al., 2021; Liñán & Fayolle, 2015; Pergelova et al., 2018).

The factors influencing female EI are many. One of the most important is the impact of education, that has been extensively studied. Research indicates that entrepreneurial education can significantly enhance women's EI by providing them with the necessary skills, knowledge, and inspiration to pursue business opportunities (Ajzen, 1991; Bae et al., 2014; Liñán et al., 2010). A meta-analytic review shows that education, especially in financial aspects, is crucial in shaping entrepreneurial intentions, noting that women's intentions are particularly sensitive to financial literacy compared to their male counterparts (Bae et al., 2014).

Gender disparities in financial knowledge are a global phenomenon with a significant impact on (EI). Research shows that women entrepreneurs frequently encounter systemic barriers that restrict their access to valuable educational resources, particularly financial education. These knowledge gaps not only impede women's ability to capitalize on entrepreneurial opportunities but also negatively affect their self-perception and confidence, both of which are critical for entrepreneurship (Chen et al., 2021).

A lack of financial knowledge is a key predictor of lower EI in women (Chen et al., 2021; Langowitz & Minniti, 2007; Shinnar et al., 2012). This knowledge deficit often leads women to view financial management tasks as difficult, which, in turn, negatively influences their entrepreneurial aspirations. This relationship highlights the critical role of financial education as a prerequisite for EI and suggests that improved financial literacy could help close the gender gap in entrepreneurial activity (Hechavarria et al., 2019; Liñán et al., 2010; Shinnar et al., 2012). Through targeted financial education programs, women can gain the necessary financial knowledge needed to confidently and successfully navigate the entrepreneurial landscape (Hechavarria et al., 2019; Strawser et al., 2021).

Self-efficacy, or belief in one's ability to succeed in specific situations, is also a critical determinant of EI. Studies have shown that women often report lower levels of self-efficacy in entrepreneurial contexts compared to men, which can negatively impact their intentions to start a business (Brush et al., 2009; Chen et al., 2021; Langowitz & Minniti, 2007). Interventions aimed at boosting self-efficacy, such as mentorship and training programs, have been shown to improve women's EI (Brush et al., 2017).

The influence of social norms on female EI should not be understated either. Women often perceive societal expectations as barriers to entrepreneurship, leading to lower intentions to start businesses. Supportive social networks can mitigate the effects of gender-specific barriers often hinder women's EI, including lack of access to mentorship and supportive networks. Programs aimed at addressing these gaps have shown promise in fostering greater engagement among female entrepreneurs (Brush et al., 2017; Brush et al., 2009; Langowitz & Minniti, 2007).

In addition, research indicates that role models significantly impact the entrepreneurial identities and intentions of women, suggesting that having relatable

successes to look up to can inspire similar aspirations among potential female entrepreneurs (Chen et al., 2021). Subjective perceptions influenced by the presence of female entrepreneurs can significantly enhance women's entrepreneurial propensity, thus validating the idea that visibility and representation foster entrepreneurial ambitions (Langowitz & Minniti, 2007).

Furthermore, the cultural and institutional context significantly influences female entrepreneurship (Liñán et al., 2022; Pergelova et al., 2018). Societal norms and institutional frameworks can create an environment that is not conducive to women's entrepreneurial activities. For instance, traditional gender roles may dictate that women prioritize family responsibilities over professional aspirations, limiting their EI and often face the dual burden of managing both business and family responsibilities, which can create significant time constraints and stress. Women's entrepreneurial activities are frequently limited by dual commitments to both the workforce and familial obligations (Brush et al., 2009) and their EI are often hampered by social expectations which dictate that they prioritize family responsibilities over business ambitions, making the pursuit of entrepreneurship seem overly burdensome due to perceived lack of time and support (Chen et al., 2021). This balancing act can deter women from pursuing entrepreneurial ventures, as they may perceive that they lack the time and resources to commit fully to a business. Additionally, the lack of gender-sensitive policies in the business environment can further marginalize women entrepreneurs (Hechavarría & Ingram, 2019).

Normative barriers, including societal attitudes toward women in business, can significantly impact women's EI. Women often encounter skepticism regarding their capabilities as entrepreneurs, which can undermine their confidence and deter them from pursuing business opportunities (Gupta et al., 2019). The perception that entrepreneurship is a male-dominated field can further discourage women from entering this space, as they may feel that they do not fit in.

Furthermore, gender stereotypes play a critical role in shaping the experiences of women entrepreneurs. Research has shown that investors may exhibit bias against women who display behaviors that are perceived as feminine, leading to unfavorable evaluations of their business proposals. Female entrepreneurs are often held to different standards compared to their male counterparts, facing skepticism about their capabilities based on gender perceptions influenced by feminine behaviors displayed during pitching processes (Eddleston et al., 2016).

This bias can limit women's access to funding and support, reinforcing the barriers they face in the creation of new businesses.

It is also worth highlighting women entrepreneurs often report a higher fear of failure compared to their male counterparts, which can significantly impact their EI (Chen et al., 2021; Shinnar et al., 2012). This fear is often exacerbated by societal expectations and the potential for negative judgment from peers and family. The perception that failure is less acceptable for women can create an averseness to take risks associated with starting a business (Bird & Brush, 2002) .

Addressing these barriers requires a comprehensive approach that includes policy interventions, educational initiatives, and the promotion of supportive networks. By creating an environment that empowers women and addresses the specific challenges they face, we can unlock the potential of female entrepreneurs and contribute to economic growth and innovation.

While women entrepreneurs share common challenges, significant disparities exist yet between them based on various factors such as socio-economic status, ethnicity, age, and immigration status (Brush et al., 2009; Shinnar et al., 2012). Women entrepreneurs have increasingly gained visibility in the business world, yet their experiences are not homogeneous. Brush et al. (2009) highlight the strategies women use to navigate these barriers, such as bootstrapping, which reflects their resourcefulness in positioning their businesses for growth (Brush et al., 2009).

However, the effectiveness of these strategies can vary significantly among different groups of women. Consequently, the concept of intersectionality is crucial in understanding the diversity among women entrepreneurs. Factors such as race, ethnicity, age and immigration status intersect to create distinct entrepreneurial experiences (Brush et al., 2009; Shinnar et al., 2012). For instance, immigrant women entrepreneurs may face additional challenges related to cultural differences, language barriers, and legal restrictions, which can hinder their EI and business creation efforts.

There is an urgent need for inclusive research that takes into account the diverse experiences of women entrepreneurs in order to address disparities in EI and outcomes that may exist among different subgroups of women (Jennings & Brush, 2013; Liñán & Chen, 2009). This includes examining the intersection of gender with other identity factors and understanding how these intersections shape EI and

business creation. The existing literature often ignores the unique challenges faced by different subgroups of women, which can lead to unsuccessful policies and support systems.

Some academic references highlight the gaps in researching the heterogeneity of women entrepreneurs, particularly concerning the intersection with vulnerable groups such as seniors and immigrants (Dabić et al., 2020), which is at the core of the notion of augmented vulnerability.

#### 2.1.1.2. Seniors' Entrepreneurial Intention

The phenomenon of senior entrepreneurship has gained significant attention in recent academic research due to its implications for economic development, individual well-being, and societal benefits. Particularly, understanding the motivations of older individuals to engage in entrepreneurial activities provides insights into how cultural, psychological, and economic factors interplay to shape business creation among seniors (Kautonen et al., 2017; Soto-Simeone & Kautonen, 2020; Zhu et al., 2021). As the global population continues to age, comprehending the EI of older adults become crucial for addressing economic development and personal fulfillment (Chistov et al., 2023; Zhu et al., 2021).

Senior entrepreneurs possess a complex mixture of motivations that not only impact on their well-being but also yield societal benefits. Specifically, findings suggest that active participation in entrepreneurship can serve as a catalyst for improved quality of life among older individuals, linking personal aspirations to broader economic outcomes (Kautonen et al., 2017; Zhu et al., 2021). The motivations for senior entrepreneurship often encompass personal satisfaction, a desire for autonomy, and the need for continued engagement in productive activities, all of which contribute positively to well-being in later life (Kautonen et al., 2017; Zhu et al., 2021). Additionally, it is crucial to recognize that the motivations for senior entrepreneurship can be influenced by social identity factors, particularly as life goals shift with age (Kautonen et al., 2017; Zhu et al., 2021).

Moreover, some researchers propose a framework that highlights the role of implementation intentions in transforming EI into actions among older individuals

(Kautonen et al., 2017; Perenyi et al., 2018). This framework asserts that prior work experience significantly influences the EI of older adults, particularly those in the 'third age' category (ages 50-64) (Kautonen et al., 2010). The findings suggest that work-related socialization processes shape attitudes and behaviors toward entrepreneurship, indicating that past employment experiences may either facilitate or hinder entrepreneurial ventures in later life (Kautonen et al., 2010). This connection between work history and EI illustrates the important interplay between an individual's career trajectory and their willingness to engage in entrepreneurship late in life, presenting further implications for tailored support and training programs aimed at this demographic (Kenny & Rossiter, 2018).

Ultimately, the body of research surrounding senior entrepreneurship emphasizes the multifaceted nature of the motivations driving older adults to start businesses, establishing a significant link between entrepreneurial activities and improved quality of life, economic contributions, and personal autonomy in later life (Kautonen et al., 2017; Zhu et al., 2021). Therefore, understanding the diverse motivations and contextual factors that shape the EI of seniors can inform policies and practices geared toward fostering a thriving environment for older entrepreneurs and enhancing their contributions to society.

In addition, the impact of unemployment on entrepreneurship among older people has emerged as an important theme in literature. Some scholars have focused their discussions on how social identity theory can illuminate the motives that drive older people to become entrepreneurs after becoming unemployed. They suggest that these transitions often arise from a desire to maintain social connections and contribute positively to one's community (Soto-Simeone & Kautonen, 2020).

Furthermore, cognitive adaptability plays a significant role in shaping entrepreneurial intention in later life. This emphasizes the mediating roles of entrepreneurial passion, efficacy, which allow individuals to navigate the entrepreneurial landscape more effectively (Dheer & Castrogiovanni, 2023). This concept is particularly relevant for seniors, who may face unique challenges in a rapidly changing economic environment and must leverage their prior experiences in order to succeed.

Psychological characteristics, such as self-efficacy and motivation, play a crucial role in linking EI to business creation (Esfandiar et al., 2019; Liñán et al., 2010; Liñán & Fayolle, 2015). Higher levels of self-efficacy among seniors can lead to

increased confidence in their ability to start and run a business. Furthermore, intrinsic motivations, such as the desire for autonomy, financial necessity, or the pursuit of personal passions post-retirement, can drive older adults to pursue entrepreneurial ventures (Zhu et al., 2021). The digital transformation has opened new avenues for senior entrepreneurs, allowing them to engage in technology-driven ventures that were previously inaccessible (Kautonen et al., 2008; Soto-Simeone & Kautonen, 2020; Zhu et al., 2021). The integration of technology not only enhances their operational capabilities but also expands their market reach, thereby fostering entrepreneurial success.

The framework proposed in the literature emphasizes the importance of individual and contextual antecedents, such as training and ongoing support, which can help older individuals navigate the challenges of starting a business later in life. The social capital accumulated over a lifetime can serve as a vital resource, providing older entrepreneurs with the necessary support and mentorship to navigate the complexities of starting and sustaining a business.

As evidenced by the literature (Liñán & Fayolle, 2015; Liu et al., 2023), educational attainment plays a crucial role in shaping EI, as higher education levels correlate with increased entrepreneurial activity among seniors. Therefore, educational programs focused on senior entrepreneurship have been developed to empower them with the skills and knowledge necessary to start their own business. Research also indicates that participation in these programs significantly improves EI among older adults, with access to social networks and mentoring being crucial in moving from intention to starting a business. Similarly, some scholars highlight the necessity for effective educational frameworks that cater to the distinctive entrepreneurial needs of seniors, especially considering the economic implications of high-quality entrepreneurship for job creation and innovation (Teixeira et al., 2018). As older individuals differ widely in their educational backgrounds and access to resources, a one-size-fits-all approach is unlikely to be effective in developing their EI (Kenny & Rossiter, 2018; Liñán & Fayolle, 2015).

Cultural attitudes towards entrepreneurship also exert a profound influence on senior entrepreneurship. The opportunities for senior entrepreneurs can vary greatly depending on regional characteristics and societal attitudes towards older entrepreneurs (Tervo, 2014). A comparative study across three countries highlights that cultural dimensions significantly impact the motivations and well-being of senior

entrepreneurs, suggesting that the societal context in which individuals operate can either facilitate or hinder their entrepreneurial aspirations (Zhu et al., 2021).

In addition to cultural influences, understanding the external environmental factors, such as governmental support and access to financing, is critical in ascertaining the level of entrepreneurial activity among seniors. The regional context also matters; different areas may offer varying levels of opportunity and support for senior entrepreneurs, affecting their likelihood of engaging in entrepreneurial activities (Tervo, 2014). Academics' findings reveal that perceived capacity and access to resources are significant determinants of EI, suggesting that policies aimed at enhancing these aspects might encourage greater participation in entrepreneurship among seniors (Kautonen et al., 2017).

Furthermore, the literature suggests that EI are not uniform across age groups; rather, they are shaped by life stages, aspirations, and the varied experiences that individuals encounter throughout their careers. Older individuals who have predominantly engaged in blue-collar work tend to have lower entrepreneurial inclinations compared to their younger counterparts, underscoring the role of occupational history in forming EI (Kautonen et al., 2010). This finding highlights the need for tailored interventions that address the specific challenges and motivations of seniors from different professional backgrounds.

Additionally, the interplay between self-employment and quality of life among older adults is a notable area of concern. The study by Kautonen et al. articulates a correlation between late-career entrepreneurship, socioeconomic status, and overall quality of life (Kautonen et al., 2017). This correlation stresses the importance of understanding how entrepreneurial engagements can lead to improved life satisfaction and a sense of purpose for older individuals.

Moreover, the challenges faced by senior entrepreneurs, including age-related biases and the evolving landscape of small business regulations, necessitate further exploration of advocacy and support mechanisms dedicated to this demographic. Some researchers are analyzing the broader implications of declining self-employment rates among individuals nearing retirement. This raises important questions about the systemic barriers these people face when considering entrepreneurship as a viable option (Heim, 2015).

Similarly, researchers' findings on the limited engagement of older entrepreneurs with business support infrastructure fail to account for how these limitations may disproportionately affect senior women and immigrants, who might already have less access to social networks and resources. The last economic crisis has led many older people to become entrepreneurs as a means of financial security (Zhu et al., 2021). With traditional pension systems under pressure, starting a business has become an attractive option for many seniors. The lack of a nuanced understanding of these intersecting vulnerabilities in literature suggests a need for more targeted research that considers the diverse experiences of senior entrepreneurs, particularly those who belong to multiple marginalized groups, to develop effective support systems that address their unique challenges.

#### 2.1.1.3. Immigrants' Entrepreneurial Intention

EI is a critical factor in understanding the entrepreneurial process, particularly among immigrant populations (Dabić et al., 2020; Kloosterman, 2010; Teixeira et al., 2018). The increasing presence of immigrants in the global economy has led to a growing body of literature exploring their EI and behaviors (Dabić et al., 2020). Understanding immigrant entrepreneurship is crucial not only for economic growth (Irastorza & Peña, 2014), but also for the social integration and empowerment of immigrant communities (Dabić et al., 2020; Kloosterman, 2010).

Research has consistently shown that immigrant entrepreneurship is characterized by unique patterns influenced by various socio-economic and cultural factors. Immigrants often exhibit heightened EI due to their unique experiences and challenges in adapting to new environments. This includes, among other factors, poor livelihood options and limited access to the labor market. For that reason, immigrant entrepreneurship has garnered global interest, emphasizing the necessity for understanding the specific drivers of EI within this demographic (Dabić et al., 2020).

Immigrants often exhibit a strong proclivity toward establishing businesses as a means of economic adaptation and social integration. The propensity for self-employment increases with the time spent in the host country, as immigrants gain access to human, financial, cultural, and social capital necessary for business

creation (Brzozowski, 2016). Moreover, immigrant entrepreneurs often engage in different types of businesses, ranging from ethnic niche markets to fully integrated ventures competing on similar grounds with native entrepreneurs (Brzozowski, 2016). Kloosterman provides a framework that illustrates how immigrant entrepreneurship can be analyzed through a mixed embeddedness perspective, which combines both social networks and individual resources, highlighting that the success of immigrant entrepreneurs often hinges on their ability to access opportunities and utilize available resources effectively (Kloosterman, 2010). This relational nature of entrepreneurship underscores the importance of community networks and support systems, which can significantly influence EI.

Research suggests that motivations can stem from necessity as well as opportunity. For many immigrants, entrepreneurship is driven by necessity, particularly in contexts where labor market participation is limited due to barriers such as language, legal status, or educational discrepancies (Dabić et al., 2020). This aligns with findings from the literature, which indicates that immigrants often start businesses out of economic necessity rather than for the potential to leverage existing opportunities (Dabić et al., 2020). In contrast, opportunity-driven entrepreneurs leverage their skills and experiences, often influenced by prior exposure to entrepreneurship in their home countries or as a response to unmet market needs in the host country. Literature reveals that while inclusive entrepreneurship support schemes are primarily focused on business creation, they fall short of sufficiently nurturing growth and development in immigrant enterprises, a gap that could impact the long-term motivations for entrepreneurship (Dabić et al., 2020).

As in other vulnerable groups, age, gender, education, and prior work experience significantly influence the EI of immigrants (Irastorza & Peña, 2014; Samsami et al., 2024). Studies indicate that individuals with previous entrepreneurial exposure or experience in self-employment are more likely to develop EI (Krueger, 2020; Meoli et al., 2020). Educational attainment can enhance self-efficacy and entrepreneurial skills, thereby positively impacting EI (Dabić et al., 2020). Moreover, the psychological traits of immigrants, such as resilience and adaptability, play a significant role in shaping their EI (Dabić et al., 2020; Kautonen, 2013). Individuals facing adverse conditions often develop unique coping mechanisms that can transform into entrepreneurial capabilities. Researchers suggest that negative experiences related to the immigrant journey can foster environments where

resilience becomes a hallmark trait and shapes EI. Their research provides valuable insights into how personal challenges impact the development of essential entrepreneurial traits needed for success in business (Miller & Le Breton-Miller, 2017).

Additionally, the social networks available to immigrants can significantly impact their EI (Dabić et al., 2020). The review of literature indicates that social networks are instrumental in mobilizing resources and shaping entrepreneurial aspirations among immigrants, asserting the diversity in entrepreneurial dynamics influenced by these social structures (Dabić et al., 2020). The interplay between social networks and the broader economic environment greatly influences immigrant entrepreneurship. Social capital derived from immigrant networks presents both opportunities and constraints. Access to support through these networks can enhance immigrants' EI by facilitating the development of trust and collaboration within community contexts, which are vital for business success (Kloosterman, 2010).

Despite their EI, immigrant entrepreneurs encounter numerous barriers that can hinder their ability to start and sustain businesses. Access to financial resources remains one of the most significant challenges, as many immigrants face difficulties securing loans due to information asymmetries and a lack of collateral (Dabić et al., 2020). This issue is compounded by a broader skepticism toward immigrant businesses among financial institutions, which may lead to unfavorable lending conditions for immigrant entrepreneurs (Dabić et al., 2020).

Cultural barriers also play an essential role. Some immigrant groups may confront skepticism or negative stereotypes in the marketplace, which can affect their business viability (Liñán & Chen, 2009). Additionally, regulatory and bureaucratic hurdles in the host country can present significant challenges, inhibiting the ability of immigrants to navigate the legal landscape necessary for establishing a business (Dabić et al., 2020). Additionally, some immigrant groups prefer to create businesses that cater specifically to their ethnic communities, while others strive for complete integration into the broader market landscape. This spectrum of entrepreneurial behavior reflects differing objectives and resources among diverse groups of immigrants, showcasing the complexity of EI within the immigrant population (Brzozowski, 2016).

The immigrant population is highly heterogeneous, comprising individuals from various cultural, socioeconomic, and educational backgrounds. This diversity significantly influences EI and behaviors. Cultural values play a significant role in shaping EI, indicating that the strength of relationships within the Theory of Planned Behavior varies across cultures (Bae et al., 2014; Miller & Le Breton-Miller, 2017).

Despite the breadth of research on immigrant entrepreneurship, there remain significant gaps that warrant further investigation. One notable area that requires further investigation is the intersectionality of EI. Research on immigrant women and older immigrants would provide useful insights into how these groups overcome their unique challenges (Edelman et al., 2010).

In addition, further research exploring the impact of digital transformation on immigrant entrepreneurship, particularly in the aftermath of the COVID-19 pandemic, which has shifted many businesses to online models, is needed (Dabić et al., 2020).

Furthermore, there is a lack of quantitative research that examines the long-term sustainability of immigrant-owned businesses. Studies should focus on longitudinal approaches that can capture the dynamics of immigrant entrepreneurship over time, including the impact of changing immigration policies and economic conditions (Kloosterman, 2010).

As mentioned at the beginning of this chapter, individuals are not homogeneous. Similarly, we cannot consider all potential and active entrepreneurs as such. Therefore, the aim of this paper is to identify the characteristics that best define the people who make up the vulnerable groups. Firstly, by testing whether vulnerable people are relatively more likely to have entrepreneurial intentions than the rest of individuals, and secondly, by testing whether they are relatively more likely to become entrepreneurs.

#### 2.1.1.4. The intersectionality of individuals among vulnerable groups, i.e. the augmented vulnerability, in the Entrepreneurial Intention

The augmented vulnerability in the context of EI highlights the intersectionality of individuals belonging to multiple vulnerable groups, including gender, age, and origin. This intersectionality significantly influences EI, as individuals facing multiple disadvantages often encounter compounded obstacles. Additionally, societal stereotypes can also inhibit their ability to succeed in traditional business environments (Pergelova et al., 2018). This dual marginalization emphasizes the importance of understanding how augmented vulnerability, i.e. the intersecting accumulative vulnerable identities, frame entrepreneurial opportunities and intentions, necessitating a tailored approach to support programs targeted at such concrete demographics. Addressing the systemic barriers faced by individuals belonging to multiple vulnerable groups requires not only awareness of their EI but also institutional support.

*The intersectionality status of being a woman with other vulnerable group, such as the elderly population*, further complicates the landscape of EI (Kautonen et al., 2010; Walker & Webster, 2024; Zhu et al., 2021). Age plays a crucial role in understanding augmented vulnerability concerning EI. Older adults, especially those transitioning from unemployment or facing age-related stereotypes, often possess valuable experiential knowledge yet frequently encounter ageism in entrepreneurial ecosystems (Kenny & Rossiter, 2018; Samsami et al., 2024; Zhu et al., 2021). Research has shown that gendered responsibilities can disrupt pathways to entrepreneurship for older women (Walker & Webster, 2024). These responsibilities may limit their ability to engage fully in entrepreneurial activities or access necessary resources, thereby affecting their overall EI and success.

The existing literature on women entrepreneurship often falls short in addressing the concept of "augmented vulnerability", i.e. for individuals who are both women and part of other marginalized group at the same time, such as senior or immigrant (Audretsch et al., 2024). While studies emphasize the cultural dimensions and intrinsic motivations that drive women, senior or immigrant entrepreneurs, they tend to overlook the compounded challenges faced by the intersectionality of these vulnerable groups (Zhu et al., 2021). For instance, senior women may confront

societal expectations related to caregiving and domestic responsibilities that can hinder their entrepreneurial pursuits, while immigrant seniors often grapple with language barriers and a lack of recognition for their skills and qualifications (Edelman et al., 2010).

*Female immigrants* frequently experience distinct challenges related to both their gender and immigrant status, resulting in lower entrepreneurial engagement compared to their male counterparts (Brieger & Gielnik, 2021; Chen et al., 2021). Research indicates that women immigrant entrepreneurs often face additional socio-cultural barriers that can impact their EI and outcomes. They may experience pressures to conform to traditional gender roles, which can affect their confidence and willingness to engage in entrepreneurial activities (Edelman et al., 2010). They also often struggle with access to critical resources such as finance and mentoring, particularly those from marginalized backgrounds (Brush et al., 2009; Cardella et al., 2020).

Immigrant seniors, on the opposite, may possess distinct motivations for entrepreneurship, often driven by the necessity to integrate into a new society or to leverage skills and resources that are not fully recognized in the mainstream labor market (Zhu et al., 2021). This necessity can lead to a unique entrepreneurial landscape where immigrant seniors utilize their cultural knowledge and networks to create businesses that cater to specific community needs, thus fostering social cohesion while also addressing their economic needs (Kautonen et al., 2010).

The support systems available to these individuals are crucial in facilitating their entrepreneurial endeavors. However, findings suggest that some vulnerable groups, as immigrant seniors, may experience barriers in accessing business support services, often due to language barriers, lack of familiarity with the local business ecosystem, or limited social networks. This highlights the need for tailored support mechanisms that not only address the unique challenges faced by senior entrepreneurs but also consider the additional complexities that immigrant seniors encounter in their entrepreneurial journeys.

The regional context also plays a significant role in shaping the entrepreneurial landscape for senior immigrants. Different regions offer varying levels of resources, opportunities, and community support that can either enhance or hinder the EI of older immigrants (Tervo, 2014). For example, urban areas with diverse populations may provide more opportunities for immigrant seniors to establish businesses that

reflect their cultural backgrounds, while rural areas may. This geographic disparity underscores the importance of localized policies and initiatives that recognize the unique contributions and challenges of senior immigrant entrepreneurs, fostering an inclusive environment that promotes their economic participation.

In summary, each of these above-mentioned intersectionalities create a unique set of obstacles that are not sufficiently explored in the current literature, which often treats EI as a homogenous experience of the population belonging to each of those vulnerable groups (women, senior or immigrant), rather than one influenced by multiple, overlapping identities. Understanding these intersecting factors is essential for developing comprehensive support systems that empower the EI of each individual to navigate the complexities of starting and sustaining a business in a rapidly changing economic environment.

To conclude, understanding the nuanced interplay between gender, age, and origin in relation to augmented vulnerability is vital for fostering inclusive entrepreneurial intentions and practices, thus promoting a thriving ecosystem for all entrepreneurs.

### 2.1.2. Firm creation in vulnerable population groups

The process of creating and launching a new company is a complex phenomenon. Academic research on business creation focuses on two main approaches to explaining entrepreneurship rates: human capital factors and contextual factors. These approaches can be explained through theories that focus mainly on three fundamental pillars: the individual, the opportunity, and the environment.

The Individual-centric Approach argues that the characteristics and motivations of the founder are the primary drivers of a new company's creation and success. Theories on Human Capital highlight the critical role of the entrepreneur's prior knowledge, skills, and work experience. Complementing this, the theory of Need for Achievement suggests that individuals with a strong drive to success and a tolerance for risk are more likely to undertake the demanding journey of starting a company. The trait of resilience, internal locus of control, and self-confidence are crucial for persevering through the inherent challenges of a new business launch.

The Opportunity-centric Approach, in the other hand, shifts the focus from the entrepreneur to the market itself, contending that a viable business idea is the most important factor. The act of launching a company is therefore a response to an opportunity that already exists but has been overlooked by others. Creative Destruction Theory goes one step further and considers the entrepreneur as an innovator who doesn't just find an opportunity but actively creates it.

Finally, the Environmental Approach emphasizes that the success or failure of a new venture is heavily influenced by the external context. Social Capital Theory, for example, stresses the importance of the entrepreneurs' network. A founder's access to crucial resources—such as funding, mentorship, and key partnerships—is often determined by the strength of their professional and social connections.

Considering the latter, scholars confirmed that entrepreneurs from disadvantaged backgrounds often create survival and lifestyle ventures that help them escape poverty (Morris et al., 2020). While vulnerable population often face barriers to traditional employment, self-employment and/or entrepreneurship can offer an alternative pathway to economic stability.

Self-employment and entrepreneurship not only provide income but also foster a sense of agency and self-sufficiency to these collectives. Supporting entrepreneurship in a vulnerable population can lead to job creation, increased economic activity, and improved living standards, thereby contributing to broader economic development. Moreover, those entrepreneurs often bring diverse perspectives and innovative solutions to the market. Pidduck and Clark introduce the concept of Transitional Entrepreneurship, emphasizing that socially and institutionally marginalized individuals can drive valuable theoretical advancements in entrepreneurship (Pidduck & Clark, 2021).

By fostering an inclusive entrepreneurial ecosystem, society can benefit from the unique insights and solutions that marginalized entrepreneurs offer, particularly in addressing social issues and environmental challenges. The participation of marginalized groups in entrepreneurship can promote social inclusion and cohesion and provide a pathway for marginalized individuals to integrate into the economy (Williams & Horodnic, 2016). By creating opportunities for these individuals, society can foster a more equitable environment that values diversity and promotes social justice. Furthermore, the challenges faced by marginalized entrepreneurs, such as limited access to resources and networks, underscore the need for targeted support

mechanisms. Addressing these barriers through policy interventions and support programs can enhance their chances of success (Pinkse & Groot, 2015).

The potential for social entrepreneurship among marginalized groups is significant, as important as the social norms in shaping entrepreneurial actions that create societal benefits (Meek et al., 2010). By empowering marginalized entrepreneurs to pursue social ventures, society can address pressing social and environmental issues while simultaneously fostering economic growth. Therefore, understanding these complex dynamics is crucial for developing effective support strategies that address the specific needs of marginalized entrepreneurs.

#### 2.1.2.1. Business start-ups by vulnerable groups: female population

Women are an important vulnerable group, particularly in the context of labor market participation. Despite improvements in educational attainment and increased participation rates, women continue to face significant challenges such as gender discrimination in the labor market, pay gaps and a high prevalence of part-time work.

Although increasing numbers of women are entering the labor market, the persistent influence of cultural stereotypes and inadequate access to resources continues to inhibit their entrepreneurial actions (Audretsch et al., 2024; Halabisky, 2018), making considerably challenging for women to transition from employment to entrepreneurship.

Focusing on the central theme of this thesis, entrepreneurship, the data show that one significant aspect is the persistent association of entrepreneurship with masculine stereotypes, which can hinder women's participation in business ventures, especially in the creation of them. Research suggests that entrepreneurship is often perceived as a male-dominated field, which can discourage women from pursuing entrepreneurial opportunities. This stereotype can lead to a lack of confidence among women and a perception that they are less capable of succeeding in business compared to their male counterparts.

Moreover, the barriers that women face in entrepreneurship are compounded by human capital factors and contextual factors, by broader societal norms and expectations regarding gender roles. Studies have shown that women entrepreneurs often encounter discrimination and other obstacles that can impede their business success. The traditional gender-role orientation prevalent in many societies may limit women's access to resources, networks, and support systems that are crucial for entrepreneurial success (Liñán et al., 2022).

Focusing in the capital factors, the situation requires targeted interventions, such as entrepreneurship education, which has been found to positively influence women's entrepreneurial outcomes (Liñán et al., 2022). By equipping women with the necessary skills and knowledge, such educational initiatives, especially in the financial sphere, can help mitigate some of the disadvantages they face in the entrepreneurial landscape. Furthermore, higher education has been identified as a potential compensatory factor for women, allowing them to overcome some of the barriers associated with gender discrimination. By attaining higher educational qualifications, women can enhance their employability and entrepreneurial capabilities, thereby reducing their vulnerability in the labor market. This is particularly relevant in a context where educational attainment is increasingly linked to economic opportunities.

Moreover, women often lack access to the same resources and networks that facilitate business creation and growth for men (Chen et al., 2021). Studies indicate that female entrepreneurs often find themselves at a disadvantage within traditional financial institutions, showcasing systemic biases that favor male applicants. Women entrepreneurs generally possess lower levels of social capital, which is crucial for networking and securing funding opportunities, compared to their male counterparts. This gap leads to a significant financing accessibility barrier that reflects broader gender disparities in entrepreneurial contexts (Van Gelderen et al., 2018).

Focusing on the contextual factors, precisely, one of the most significant structural barriers women faces is the access to financial resources (Liñán & Fayolle, 2015). Research indicates that women entrepreneurs often encounter difficulties in securing funding from traditional financial institutions. Female entrepreneurs are often held to a different standard than male entrepreneurs in obtaining financing from banks, which reflects implicit biases affecting access to funding (Eddleston et al., 2016). They are frequently offered smaller loan amounts and face higher

rejection rates compared to their male counterparts, which significantly limits their ability to start and scale their businesses. This gender bias in lending practices is compounded by the requirement for collateral that many women lack, further exacerbating the financial challenges they face and undermining women's entrepreneurial ambitions and business creation and growth potential.

In addition, women entrepreneurs often lack access to essential support services, such as mentorship programs, networking opportunities, and business development resources. The absence of these resources can create a sense of isolation and hinder women's ability to navigate the entrepreneurial landscape effectively (Brush et al., 2009; Cardella et al., 2020).

The literature on female entrepreneurship has made significant strides in recent years. However, several critical gaps remain that warrant further investigation. One of the most pressing gaps in the literature is the need for a deeper exploration of intersectionality in female entrepreneurship. While some studies have begun to address how race, ethnicity, origin, and socio-economic status intersect with gender to impact entrepreneurial experiences, there remains a lack of comprehensive research that examines how these intersecting identities influence access to resources, networks, and opportunities (Welsh et al., 2016), especially during crises, when the intersectionality of gender with other vulnerable groups, makes women particularly susceptible to adverse outcomes (Alon et al., 2020).

The role of institutions and policies in supporting female entrepreneurship is another critical area that requires further exploration. Institutional environments can influence female entrepreneurship implementing specific policies and programs aimed at supporting women firm creation.

The intricacies surrounding female entrepreneurship represent a critical area of inquiry that can yield impactful strategies for fostering gender equality within the entrepreneurial ecosystem. By recognizing and addressing the unique challenges and opportunities faced by women entrepreneurs, researchers and practitioners alike can devise initiatives that not only elevate the status of female entrepreneurs but also catalyze economic growth and sustainability. This discourse is further substantiated by empirical evidence indicating that gender-diverse entrepreneurial environments contribute significantly to innovation, creativity, and overall economic performance (Ahl & Marlow, 2012). Thus, the need for comprehensive research into female entrepreneurship is paramount for several compelling reasons.

Firstly, engaging in targeted research endeavors allows for the elucidation of factors that facilitate or hinder women's participation in entrepreneurial activities. Identifying these factors provides policymakers and practitioners essential insights into the creation of supportive infrastructures that nurture female entrepreneurship. For instance, research can highlight the importance of access to finance, mentorship programs, and inclusive networks—all of which are critical for empowering women entrepreneurs (Brush et al., 2018).

Secondly, the theoretical contributions of such research extend beyond mere representation. By incorporating diverse perspectives and experiences into the existing entrepreneurship literature, scholars can enhance our understanding of entrepreneurship as a multifaceted phenomenon, thereby enriching the theoretical frameworks that underpin this field (Ahl, 2006). This synthesis not only reinforces the need for more inclusive and equitable research practices but also aligns academic inquiry with contemporary societal needs and challenges.

Finally, there is an urgent call for action in the form of new research initiatives that address the evolving landscape of female entrepreneurship in the context of global economic shifts. Consideration of intersectional factors—such as race, socioeconomic status, and geographic location—within the study of female entrepreneurship can further inform nuanced strategies aimed at dismantling barriers to entry and success.

Tackling the complexities of female entrepreneurship through rigorous research not only offers substantial insights for enhancing gender equality in entrepreneurship but also serves as a pivotal mechanism for driving economic advancement. By fostering an inclusive entrepreneurial climate that recognizes and valorizes the contributions of female entrepreneurs, we can cultivate a more vibrant, innovative, and equitable economic landscape.

#### 2.1.2.2. Business start-ups by vulnerable groups: senior population

Population aging presents significant economic and social challenges globally, marked by escalating dependency ratios and a growing demand for long-term care services. This demographic shift necessitates innovative responses, particularly in the labor market as older workers navigate a non-linear transition from full-time employment to retirement. Research indicates that rather than a straightforward exit from the workforce, many middle-aged and older individuals encounter various labor market transitions. These can encompass reductions in hours worked, shifts from full-time to part-time employment, or movements between wage and salary positions and self-employment, reflecting the complex realities of aging in the workforce and the need for flexible employment opportunities (Azoulay et al., 2020; Soto-Simeone & Kautonen, 2020).

All the above described explains the interest in senior entrepreneurship, also often referred to as "silver entrepreneurship," which the extant literature defines as people aged 50-plus starting up in business (Kautonen, 2013; OECD, 2019; Soto-Simeone & Kautonen, 2020). GEM's specialized reports on senior entrepreneurship distinguish between four segments of entrepreneurs according to age: young entrepreneurs (18–29 years), mid-aged entrepreneurs (30–49 years), senior entrepreneurs (50–64 years) and older entrepreneurs (65–80 years) (Schott et al., 2017). In this thesis, based on this classification, I will consider senior entrepreneurs as entrepreneurs who are 50 years old or older.

The interest in senior entrepreneurship could be also explained by 'push' and 'pull' motives. In one hand, regarding to the main 'push' motive, the data demonstrate that societal perception of older adults can contribute to their marginalization. Ageism, or discrimination based on age, can lead to reduced opportunities for social engagement and economic participation, further entrenching their vulnerable status (Pidduck & Clark, 2021). This societal bias can manifest in various ways, including limited access to employment opportunities and social services tailored to their needs.

Age discrimination, coupled with the challenges of adapting to new technologies and changing job requirements, often limits older workers' employment opportunities. In addition, social determinants of health, income, education, and

access to resources significantly influence the well-being of seniors, making them more vulnerable to economic and health-related shocks. Moreover, older workers who lose their jobs may find it particularly difficult to re-enter the labor market, leading to long-term unemployment and economic insecurity.

The 'pull' main argumentation suggests that mature individuals with the experience, know-how and financial means for entrepreneurship choose self-employment as a late-career option, for example because it is a flexible alternative to organizational employment that offers an attractive work-life balance or because it generates additional income in or for retirement that allows the individual to maintain their preferred lifestyle.

One of the primary motivations for older adults to engage in entrepreneurship is the desire for social inclusion and economic independence. Supporting older entrepreneurship can mitigate socioeconomic challenges, such as unemployment and the financial strain on welfare systems, by harnessing the experience and skills of older individuals. This aligns with findings from Zhu et al., who note that while late-career entrepreneurship may not significantly increase income, it contributes positively to the quality of life, suggesting that older entrepreneurs often prioritize personal fulfillment over financial gain (Zhu et al., 2021). Moreover, the motivations for older adults to start businesses often extend beyond economic necessity. Intrinsic factors, such as the pursuit of achievement and the desire to foster social relationships, play a crucial role in motivating older individuals to embark on entrepreneurial ventures. This intrinsic motivation can lead to a more profound engagement in their businesses, as older entrepreneurs seek to create environments that enhance their emotional well-being.

The promotion of late-career entrepreneurship is advocated as part of the portfolio of policy measures to tackle the grand challenge of population aging. The principal societal benefit of late-career entrepreneurship is that it can extend aging workers' careers: research shows that self-employed individuals tend to retire later than their employed counterparts, which generates savings in public pensions and the prolonged deployment of those individuals' human capital in the economy (Kautonen et al., 2017).

The Global Entrepreneurship Monitor (GEM) highlights that while the entrepreneurial activity rate among older adults is lower than that of younger individuals, it is nonetheless significant and growing, reflecting a shift in societal

attitudes towards aging and entrepreneurship. There is generally a false belief that entrepreneurial activity is an endeavor undertaken mainly by young people (Schott, T. et al., 2017).

For all these reasons, and as the population ages, the European Union (EU) recognizes the potential of older individuals to contribute significantly to economic growth and social innovation. This demographic transition presents both challenges and opportunities, as older adults often possess a wealth of experience, skills, and networks that can be leveraged in entrepreneurial ventures (Soto-Simeone & Kautonen, 2020).

Research indicates that many older entrepreneurs are driven by a desire to create meaningful ventures that address unmet needs within their communities, which can lead to innovative business models specifically tailored for older adults (Zhu et al., 2021). The literature also has a broad consensus that a higher educational level is a factor that drives entrepreneurial activity among senior professionals (Zissimopoulos & Karoly, 2007).

Ageism can also present barriers, limiting opportunities for older (Zhu et al., 2021). Furthermore, the intergenerational transfer of knowledge is crucial, as experienced older entrepreneurs can mentor younger individuals, fostering a culture of entrepreneurship that benefits both age groups (Perenyi et al., 2018).

In the other hand, research suggests that mature individuals are more capable of starting and running a business than younger people (Kautonen, 2013; Singh & DeNoble, 2003). Compared to their younger counterparts, older entrepreneurs can possess advantages such as more developed networks that can assist in the obtention of resources, getting support and help, creating legitimacy during start-up and growth, and establishing viable business relations. Older entrepreneurs have more work and industry experience and in consequence, a higher technical and managerial skills level. In-depth knowledge of an industry could help the individual identify gaps in the current business offerings. Previous studies have indicated that in general, industry experience is a more important predictor of business success than managerial experience. Older individuals can be in a stronger financial position than younger people because they no longer have dependents in the household, they have paid off their mortgage and they have accumulated savings over a long working career. Of course, this does not apply to all older individuals, such as the long-term unemployed that are the focus of some policy initiatives.

Senior entrepreneurs often engage in sectors that are underrepresented, such as health and wellness, which are increasingly relevant in aging societies (Zhu et al., 2021). Moreover, the concept of the "silver economy" has emerged, emphasizing the economic opportunities associated with the aging population. This includes the development of products and services tailored to older adults, which can be driven by senior entrepreneurs who understand the unique needs of this demographic group (Zhu et al., 2021). The synergy between the silver economy and senior entrepreneurship can foster sustainable development, creating a win-win situation for both the economy and society at large (Zhu et al., 2021).

The economic implications of senior entrepreneurship are profound. Consequently, various policies and initiatives have been implemented across Europe to support the integration and retention of older workers in the labor market and empower senior entrepreneurship. These policies include financial incentives, training programs, and support services tailored to the unique needs of senior entrepreneurs. Furthermore, the European Union has emphasized the importance of lifelong learning and active aging strategies to ensure that older workers can continue to contribute to the economy effectively.

Training and education are critical components of empowering senior entrepreneurs. Initiatives aimed at enhancing the entrepreneurial skills of older individuals have gained traction in recent years. For instance, various programs have been developed to provide seniors with the necessary tools and knowledge to start and manage their businesses effectively. These initiatives often focus on areas such as digital literacy, financial management, and marketing strategies, which are essential for navigating the modern entrepreneurial landscape. By equipping seniors with relevant skills, these programs help to reduce barriers to entry and increase their chances of success in entrepreneurship.

Moreover, intergenerational initiatives have emerged as a promising approach to fostering senior entrepreneurship. These programs encourage collaboration between older and younger entrepreneurs, facilitating knowledge transfer and mentorship opportunities. Research indicates that intergenerational entrepreneurship can lead to innovative business ideas and enhance social cohesion within communities. By creating platforms for seniors to share their experiences and expertise with younger generations, these initiatives not only empower older entrepreneurs but also contribute to the development of a more inclusive entrepreneurial ecosystem.

Access to financing is another critical factor influencing senior entrepreneurship. Many older individuals face challenges in securing funding for their ventures, often due to age-related biases from traditional lenders. To address this issue, various financial support mechanisms have been established, including grants, microloans, and specialized funding programs aimed at senior entrepreneurs. These initiatives help to alleviate financial barriers and provide seniors with the resources needed to launch and sustain their businesses.

Additionally, the role of technology in empowering senior entrepreneurs cannot be overlooked. With the increasing importance of digital tools in entrepreneurship, initiatives aimed at enhancing the digital skills of older individuals have become essential. Programs that provide training in information and communication technologies (ICT) can help seniors leverage online platforms for marketing, networking, and sales, ultimately expanding their reach and enhancing their business prospects. By fostering digital literacy among senior entrepreneurs, these initiatives contribute to their competitiveness in the modern marketplace.

The field of senior entrepreneurship has emerged as a vital area of study. However, despite the growing interest, significant gaps remain in the literature that warrant further investigation.

One of the most pressing gaps in the senior entrepreneurship literature is the scarcity of longitudinal studies that track the growth trajectories and sustainability of businesses led by older entrepreneurs. Most existing research tends to focus on cross-sectional analyses, which provide a snapshot of the current state of senior entrepreneurship but fail to capture the dynamic nature of business development over time. Longitudinal studies are essential for understanding how older entrepreneurs navigate challenges such as market fluctuations, technological advancements, and changing consumer preferences. Such insights could inform the development of targeted support programs that address the unique needs of older entrepreneurs.

Another critical area that requires further exploration is the intersectionality of age with other demographic factors, such as gender, race, and socio-economic status. While some studies have begun to address how these intersecting identities impact entrepreneurial experiences, comprehensive research is still lacking. Understanding how these intersecting identities influence access to resources, networks, and

opportunities is crucial for developing inclusive policies that support diverse groups of senior entrepreneurs.

The rapid advancement of technology presents both opportunities and challenges for senior entrepreneurs. However, literature often overlooks how older adults adapt to and leverage digital tools in their entrepreneurial ventures. Some research emphasizes the need for resilience in the face of disruptions, such as those caused by the COVID-19 pandemic, which disproportionately affected older entrepreneurs. Investigating how senior entrepreneurs can effectively utilize technology to enhance their business operations and reach new markets is essential for fostering their success in an increasingly digital economy.

Senior entrepreneurship represents a vital and growing area within the broader discourse on labor market dynamics and economic sustainability in aging societies. By recognizing and harnessing the potential of older adults, society can transform demographic challenges into opportunities for innovation and growth. Continued efforts to support senior entrepreneurship through targeted policies and programs are essential for facilitating their economic participation while promoting greater social inclusion (Azoulay et al., 2020; Zhu et al., 2021).

#### 2.1.2.3. Business start-ups by vulnerable groups: immigrants' population

Immigrant entrepreneurship refers to the entrepreneurial activities undertaken by individuals who have relocated from their home country to another, often in search of better economic opportunities. This phenomenon is particularly pronounced in urban areas, where immigrants tend to establish businesses that cater to both their co-ethnic communities and the broader market. Research indicates that immigrants are often more likely to engage in entrepreneurial activities than native-born residents due to various factors, including labor market constraints and a strong entrepreneurial drive (McKenzie, 2017; Welsh et al., 2016).

Additionally, refugees often encounter additional challenges, such as trauma and instability, which can hinder their ability to secure stable employment. Efforts to improve the employability of immigrants have included targeted training programs and initiatives aimed at facilitating their integration into the labor market. However,

significant gaps remain, and many individuals from these backgrounds continue to experience precarious employment conditions. As a result, entrepreneurship is recognized by them as a possible chance for their economic integration and social inclusion.

Research indicates that many individuals from these groups are motivated by the desire to create their own opportunities in the face of limited employment options. For instance, a comparative study highlights that immigrant entrepreneurs are driven by a combination of necessity and opportunity, seeking to rebuild their lives and contribute to their communities (Irastorza & Peña, 2014). Moreover, the desire for autonomy and control over one's work environment is a significant motivator. Many immigrants prefer entrepreneurship as it allows them to leverage their skills and experiences while circumventing the barriers they face in traditional employment settings.

Despite the potential benefits of entrepreneurship, immigrants encounter numerous challenges that can hinder their success. Access to capital is a significant barrier, as traditional funding sources may be less accessible to these entrepreneurs because it is closely linked to entrepreneurs' social integration and local economic conditions (Dabić et al., 2020). Microfinance institutions can play a crucial role in democratizing access to finance for refugee entrepreneurs, highlighting the importance of third-party signals in crowdfunding efforts (Kloosterman, 2010). This underscores the need for tailored financial solutions that address the unique circumstances of immigrant entrepreneurs.

Social stigma and discrimination also pose significant challenges (Brieger & Gielnik, 2021). Immigrant entrepreneurs often face negative stereotypes that can undermine their credibility and hinder their ability to attract customers and investors (Edelman et al., 2010). As some researchers confirm, access to resources and opportunities often depends on overcoming societal barriers (Kloosterman, 2010). This lack of social capital can limit their access to resources, mentorship, and opportunities for collaboration.

To address these challenges, various support systems and policy interventions have been proposed, implementing initiatives aimed at promoting entrepreneurship among immigrants, including financial incentives and training programs. These initiatives are designed to enhance the skills and capabilities of these entrepreneurs, enabling them to navigate the complexities of starting and running a

business. Community-based organizations also play a vital role in supporting immigrant and refugee entrepreneurs.

These organizations often provide networking opportunities, mentorship, and access to resources that can help individuals from these groups navigate the entrepreneurial landscape. Studies indicate that social support is crucial for the success of immigrant and refugee entrepreneurs, as it can enhance their confidence and provide them with the necessary tools to succeed (Perry-Rivers, 2016). Additionally, social enterprises have emerged as a promising model for supporting immigrant entrepreneurs. These organizations often focus on creating inclusive environments that empower individuals to engage in entrepreneurial activities. Research highlights the resilience of these entrepreneurs in the face of adversity, suggesting that supportive environments can foster entrepreneurial intentions and success (Morris et al., 2020).

The literature on immigrant entrepreneurship has grown significantly, yet several critical gaps keep on that require additional investigation. Understanding these gaps is essential for developing a more comprehensive framework that can inform policy, practice, and future research.

One of the most significant issues in the immigrant entrepreneurship literature is its fragmentation. Some researchers note that while the body of work is extensive, it often lacks coherence and is heavily contextual, focusing on specific immigrant groups or case studies that may not be generalizable (Dabić et al., 2020). This fragmentation leads to a limited understanding of the overarching drivers of immigrant entrepreneurship. A more integrated approach that synthesizes findings across different contexts and immigrant groups is necessary to develop a comprehensive understanding of the phenomenon.

Another critical gap is the lack of longitudinal studies that examine the growth trajectories and sustainability of immigrant-led businesses over time. Most existing research tends to be cross-sectional, providing a snapshot of immigrant entrepreneurship at a particular moment without considering the dynamic nature of these ventures. Longitudinal studies could offer insights into how immigrant entrepreneurs adapt to changing market conditions, regulatory environments, and socio-economic factors, thereby enhancing our understanding of their long-term success and challenges.

The intersectionality of immigrant entrepreneurship is another area that requires further investigation. While some studies have begun to explore how race, origin, gender, and socio-economic status intersect with immigration status, there is still a lack of comprehensive research that examines these intersections in depth. Future research should focus on how these intersecting identities influence access to resources, networks, and opportunities in various contexts, particularly in relation to the silver economy, which is increasingly relevant as populations age.

The COVID-19 pandemic has highlighted the vulnerabilities of immigrant entrepreneurs, yet research on how such exogenous shocks affect their businesses remains limited. Some researchers review the importance of mapping the temporal dynamics of entrepreneurial finance during crises, but specific insights into how immigrant entrepreneurs navigate these challenges are lacking (Chen et al., 2021). Understanding the adaptive strategies employed by immigrant entrepreneurs during crises can inform policy responses and support mechanisms tailored to their needs.

The digital transformation of economies presents both opportunities and challenges for immigrant entrepreneurs. While some studies have examined the role of digital tools in entrepreneurship, there is a lack of research focusing specifically on how immigrant entrepreneurs leverage digital platforms to access markets and resources. As the silver economy grows, understanding how immigrant entrepreneurs can utilize digital technologies to cater to older adults' needs is crucial. This includes exploring how digital literacy and access to technology influence their business success.

Finally, there is a need for research that examines the effectiveness of existing policies and support systems for immigrant entrepreneurs. Understanding how government initiatives, funding programs, and community support can be tailored to address the unique challenges faced by immigrant entrepreneurs is essential for fostering their growth and sustainability.

In sum, the contributions of immigrant entrepreneurs to the economy should not be underestimated. By leveraging their unique perspectives and experiences, these individuals can drive innovation and create value in various sectors. However, as in the case of the vulnerable population groups previously described, it is necessary to continue researching in this field, in order to have a deeper knowledge that will help design policies that facilitate and favor entrepreneurship among the individuals who are part of this group.

#### 2.1.2.4. The augmented vulnerability in the firm creation processes.

Intersectionality, i.e. the multiplier effect of intersecting social positions - such as gender, race and socio-economic status - creates unique vulnerabilities that require tailored interventions (Dabić et al., 2020; Lassalle & Shaw, 2021; Yamamura & Lassalle, 2025). This perspective is essential for understanding not only the usual inequalities, but also how crises such as the COVID-19 pandemic can exacerbate existing ones, requiring a more inclusive approach to policymaking and support systems in entrepreneurship (Alon et al., 2020).

The confluence of these intersecting factors often exacerbates the challenges faced by individuals within these groups, leading to compounded disadvantages (Hechavarria et al., 2019; Welsh et al., 2016). For example, women from ethnic minority backgrounds may experience both gender and racial discrimination, which can limit their access to resources, opportunities and social networks essential for personal and professional development (Brieger & Gielnik, 2021; Cardella et al., 2020).

A critical element of intersectionality theory is that intersecting social positions exert multiplicative effects rather than additive ones (Martinez Dy et al., 2018). Research indicates that women and ethnic minorities face significant disadvantages in entrepreneurship, significantly limiting their firm creation. Some researchers have used intersectionality theory to explore the complex processes of identity construction for ethnic minority women entrepreneurs, highlighting how their unique experiences are influenced by the intersection of diverse social identities (Lassalle & Shaw, 2021). Additionally, others have sought to explore the intersections of gender, ethnicity, and entrepreneurial identity to better understand the nuanced challenges faced by these entrepreneurs (Brieger & Gielnik, 2021; Yamamura & Lassalle, 2025).

Understanding the dynamics of vulnerability requires an exploration of how these intersecting identities influence individuals' experiences and opportunities in different contexts. This intersectional approach highlights the need for tailored interventions that address the specific challenges faced by these groups, rather than a one-size-fits-all strategy.

The study of entrepreneurship and its intersectionality among vulnerable groups, such as women, seniors and immigrants in Spain, is of crucial importance for the following reasons.

First, these groups often face unique barriers that hinder their entrepreneurial potential and create new firms, including access to resources, social networks, and financial capital. Understanding these barriers allows policymakers and support organizations to design targeted interventions that can facilitate entrepreneurship in these specific populations. For instance, studies have shown that women entrepreneurs often encounter significant challenges related to family support and societal expectations, which can impact their business creation, performance and growth (Welsh et al., 2016). By focusing on these specific challenges, research can help to create a more inclusive entrepreneurial ecosystem that empowers these groups, even the augmented vulnerable populations, such as immigrant women, to ultimately foster economic growth.

Moreover, entrepreneurship in vulnerable populations can lead to significant social and economic benefits. For example, women entrepreneurs have been shown to contribute positively to job creation and economic development, particularly in emerging markets (European Institute for Gender Equality, 2024). Similarly, seniors and immigrants bring diverse perspectives and experiences that can lead to innovative business ideas and solutions. Research indicates that immigrant entrepreneurs often leverage their unique cultural backgrounds to identify niche markets and create businesses that cater to specific community needs.

By studying these dynamics and understanding the entrepreneurial landscape for augmented vulnerable populations can inform broader discussions about social equity and inclusion. Entrepreneurship is often viewed as a pathway to economic independence and empowerment, yet many individuals from vulnerable groups face systemic barriers that limit their opportunities. By investigating these barriers and the experiences of these entrepreneurs, researchers can contribute to a more nuanced understanding of social inequality and the role of entrepreneurship in addressing these disparities. This knowledge can be instrumental in advocating for policies that promote equitable access to resources and support for all entrepreneurs, regardless of their background.

Finally, the COVID-19 pandemic has underscored the importance of resilience and adaptability in entrepreneurship, particularly for vulnerable populations. The

pandemic has disproportionately affected these groups, highlighting existing inequalities and creating new challenges for entrepreneurs. Researching how these populations navigate crises can provide valuable insights into their resilience and the strategies they employ to overcome obstacles.

The concept of vulnerability encompasses a complex interplay of factors that contribute to the marginalization of certain groups. Limited access to resources, weak social networks, and societal biases all play significant roles in perpetuating the challenges faced by vulnerable individuals. Understanding these dynamics is crucial for developing targeted interventions that address the unique needs of marginalized groups and promote their empowerment. By recognizing the intersectionality of vulnerability and working to dismantle the systemic barriers that contribute to it, society can create a more equitable environment where all individuals can thrive.

For all the aforementioned, and according to the TPB Theory, the main propositions are:

**P1.A.: Belonging to a vulnerable group encourages Entrepreneurial Intention.**

- ✓ P1.A. – 1: women
- ✓ P1.A. – 2: senior
- ✓ P1.A. – 3: immigrants
  
- ✓ P1.A. – 4: Belonging to an **augmented vulnerable group**, i.e. belonging to more than one vulnerable group, encourages **Entrepreneurial Intention**.
  - 4 - a: female and senior
  - 4 - b: female and immigrant
  - 4 - c: senior and immigrant

Researching the relationship between belonging to vulnerable groups—specifically women, seniors, and immigrants—and EI is crucial as it highlights how social

identity and life circumstances influence entrepreneurial behaviour. Vulnerable groups experience distinctive challenges and opportunities shaped by their identities, which can enhance their EI, particularly as they navigate economic adversity. Studies suggest that women often possess unique motivations and capabilities that facilitate entrepreneurial activities, such as resilience and adaptive strategies in response to economic pressures (Audretsch, Ghalwash, et al., 2024; Soto-Simeone & Kautonen, 2020). Additionally, immigrant entrepreneurs frequently draw on their cultural capital and social networks, which can help mitigate barriers to entry in the entrepreneurial landscape (Brieger & Gielnik, 2021; Dabić et al., 2020).

Furthermore, augmented vulnerability or intersectionality plays a significant role in understanding these dynamics, as individuals at the crossroads of multiple marginalized identities may exhibit different entrepreneurial responses compared to those belonging to single categories (Yamamura & Lassalle, 2025).

This interplay of gender, age, and immigration status necessitates further examination to grasp the full scope of entrepreneurial intention within these groups (Pidduck & Clark, 2021).

**P1.B.: Belonging to a vulnerable group encourages Firm Creation.**

- ✓ P1.B. – 1: women
- ✓ P1.B. – 2: senior
- ✓ P1.B. – 3: immigrants
  
- ✓ P1.B. – 4: Belonging to an **augmented vulnerable group**, i.e. belonging to more than one vulnerable group, encourages **Firm Creation**.
  - 4 - a: female and senior
  - 4 - b: female and immigrant
  - 4 - c: senior and immigrant

Research into the relationship between vulnerable groups—specifically women, seniors, and immigrants—and their propensity for business or firm creation is essential for understanding how diverse social identities and backgrounds can influence entrepreneurial behaviour. Historically marginalized groups may face unique challenges that could enhance their entrepreneurial motivations and opportunities (Hechavarria et al., 2019; Soto-Simeone & Kautonen, 2020). Furthermore, the systemic barriers these vulnerable groups face can lead them to develop unique business models that differ significantly from those of their more privileged counterparts. This differentiation underscores the need for policies that promote inclusive entrepreneurship by addressing the specific challenges these groups encounter, such as access to funding, mentorship, and market entry. Exploring these aspects can provide valuable insights into effectively fostering entrepreneurial initiatives that contribute to economic diversity and growth, emphasizing the critical role academic research can play in crafting strategies tailored to the unique experiences of women, seniors, and immigrants in entrepreneurial ecosystems. At the same time, cultivating an entrepreneurship ecosystem that supports these vulnerable demographics could contribute to economic development and job creation, making it essential to study and refine the factors that promote EI and businesses creation among these populations (Hechavarria et al., 2019). By focusing on the underlying psychological and socio-economic factors affecting these groups, researchers can inform policy, practice, and educational frameworks tailored to foster inclusive entrepreneurship (Eddleston et al., 2016; Liñán et al., 2022; Van Gelderen et al., 2018).

## 2.2. ASPIRATION FOR ENTREPRENEURIAL GROWTH OF ENTREPRENEURS OF VULNERABLE GROUPS

Entrepreneurs' aspirations for growth are increasingly recognized as a vital component of the broader entrepreneurial landscape. It goes beyond mere financial gain. It involves a comprehensive approach toward expanding the business, be it through scaling operations, diversifying products or services, or penetrating new markets. They also seek to create jobs and contribute positively to the economy, as export-oriented entrepreneurship positively affects economic growth (González-Pernía & Peña-Legazkue, 2015b). They are a critical area of study within entrepreneurship research because growth aspirations not only affect individual firms but also contribute to overarching economic development (Ács et al., 2018).

The exploration of entrepreneurship growth aspirations can be approached through various theoretical frameworks, each contributing different insights addressing entrepreneurial growth, emphasizing the role of human capital, social networks, gender, cultural factors, and institutional environments. There are several theories that deepen the knowledge about entrepreneurship growth: the Resource-Based View (RBV), the knowledge-based theory, the dynamic capabilities theory, the upper echelon theory and the resource dependence theory, etc. According to the knowledge-based theory (Grant, 1996), companies can outperform their competitors and thus gain a competitive advantage by managing their knowledge capital, which is recognized as the company's most fundamental strategic resource.

The Resource-Based View (RBV), whose predecessor was the Growth Theory of the Firm by the same author, and which began to take shape in the 1980s, was first put forward by Penrose, who proposed a model for the effective management of firm resources, diversification strategy and production opportunities (Penrose, 2009). Penrose's publication was the first to propose conceptualizing a firm as a coordinated set of resources to address and how it can achieve its objectives and strategic behavior (Penrose, 2009). Later, Barney's previous was instrumental in the emergence and mainstreaming of RBV and this theory became the dominant paradigm in strategic management and strategic planning work (Barney, 1991).

Another key framework is the concept of the National Systems of Entrepreneurship (NSE), which emphasizes the relationship between entrepreneurial initiatives and

the institutional environment. Academics argue that entrepreneurs act as agents who commercialize innovations, thereby influencing economic growth dynamics contextualized within institutional arrangements. They illustrate that both the availability of resources and the institutional context fundamentally shape growth aspirations (Ács et al., 2014, 2018)

Other key frameworks are the network theory and resource-dependence theory. The structural characteristics of entrepreneurs' networks impact their ability to address shifting resource requirements, especially in the early stages of venture development. Their findings illustrate how entrepreneurs use networks to navigate changing resource needs to promote access to newly necessary resources, thereby supporting growth aspirations (Sullivan & Ford, 2014).

Additionally, the motivations behind entrepreneurship, particularly among minority groups, add another layer to understanding growth aspirations. For instance, higher levels of opportunity-driven entrepreneurial activity, or a greater export rate, correlate with accelerated economic growth (V. K. Gupta et al., 2019). The inherent differences in entrepreneurial motivations and intentions to grow suggest that these varying motivational drivers must be thoroughly accounted for when assessing growth aspirations across diverse entrepreneurial demographics (Edelman et al., 2010).

Furthermore, sustainability and its timing within the entrepreneurial lifecycle introduce another important dimension to growth aspirations. The introduction of sustainability goals may impact growth differently depending on the stage of venture maturity, with significant effects observed when such objectives are integrated during the mature stage of the entrepreneurial process (Chistov et al., 2023).

The Resource-Based View (RBV) posits that firms achieve superior performance through the unique resources that they control. These resources encompass tangible assets, intangible assets, and organizational capabilities that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). Access to resources is fundamental for startups, and entrepreneurs must adapt their networks to meet shifting demands as their ventures progress (Sullivan & Ford, 2014). This reinforces the RBV by suggesting that relational resources—such as partnerships and social capital—are equally critical as traditional tangible resources. RBV has been a

keystone for understanding how businesses can achieve growth through resource acquisition and optimization.

However, as some researchers argue, traditional RBV frameworks do not consider properly the gendered socialization, which shapes behavioral norms and risk preferences for entrepreneurs (Pergelova et al., 2018). This limitation suggests that conventional growth theories should incorporate a gender-sensitive analysis to better capture the nuances of entrepreneurship. Accompanying the RBV is the role of institutional economics, which focuses on the impact of institutional contexts on entrepreneurial activities. Entrepreneurs act as catalysts for economic growth by commercializing innovations, with growth trajectories heavily influenced by their organizational and institutional environments. Organizational capital elements, like firm capacity to adapt quickly to changes and the ability to implement appropriate strategies, are important intangible assets, related positively to venture performance and firm survival and growth (Peña, 2002). The interaction between entrepreneurship and institutions highlights that supportive legal and regulatory frameworks are necessary to facilitate entrepreneurial growth (Ács et al., 2018).

Thus, entrepreneurs driven by independence and achievement-oriented motivations are more likely to set ambitious growth targets and pursue aggressive growth strategies (Dávila et al., 2003), particularly in uncertain environments where new market opportunities arise (Delmar et al., 2003).

Education also plays a significant role in shaping growth intentions, with higher levels of education correlating with stronger aspirations for growth (Delmar et al., 2003; Sullivan & Ford, 2014), particularly in relation to gender differences. In the other hand, strong social ties can provide entrepreneurs with access to resources, information, and support, which can enhance their growth intentions, being determinant building and maintaining these social networks for entrepreneurs seeking to achieve their growth aspirations (Sullivan & Ford, 2014).

Moreover, cultural attitudes towards entrepreneurship, risk-taking, and innovation significantly impact growth intentions (Edelman et al., 2010). In cultures that celebrate entrepreneurial success and view failure as a learning opportunity, individuals are more likely to aspire to grow their businesses.

In other words, entrepreneurs in regions with a strong entrepreneurial culture are more likely to aspire to grow their businesses, as they benefit from a supportive network and access to resources. Economic conditions, including access to financing and market opportunities, also influence entrepreneurial growth aspirations. But little is known on the aspiration for growth of vulnerable groups of entrepreneurs (i.e. women, senior and immigrants).

### 2.2.1. Early-stage entrepreneurs' export rate

#### 2.2.1.1. Female early-stage entrepreneurs' export rate

Research indicates that the ambition for high growth among women entrepreneurs is influenced by diverse factors, including both personal and external constraints. This highlights the necessity for a nuanced understanding of women's entrepreneurial ambitions, which are often overshadowed by traditional gender roles that promote small-scale business operations over high-growth trajectories (V. K. Gupta et al., 2019; Hechavarria et al., 2019).

Going deeper in the growth strategies of female early-stage entrepreneurs in this thesis I analyze the internationalization as a critical activity of their growth strategy, specifically their export rate. Research indicates that the number of female entrepreneurs is increasing, along with their engagement in international export activities. Female-led small and medium enterprises (SMEs) are more likely to internationalize through exports rather than foreign direct investment, challenging some traditional assumptions regarding entrepreneurial internationalization pathways (Pergelova et al., 2018). This trend suggests that women are leveraging their entrepreneurial activities on a global scale, though their success may vary based on the support systems in place.

The export performance of female entrepreneurs is influenced by various factors, including human and social capital. Chen et al. highlighted significant gender gaps in opportunity-driven entrepreneurship, largely due to discrepancies in resources available to male and female entrepreneurs, such as access to networks and financing (Chen et al., 2021). This disparity can hinder women's ability to navigate the complexities of international markets. The economic development stage of a country affects female entrepreneurs' startup opportunities and their ability to

pursue export ventures, revealing that contextual factors can either support or constrain women's internationalization efforts (Welsh et al., 2016).

Examining the unique challenges faced by female entrepreneurs necessitates consideration of the cultural and institutional environments that shape their activities. Cultural attitudes toward female entrepreneurship significantly influence their willingness to engage in export activities (Shinnar et al., 2012). Additionally, social capital plays a critical role, with studies suggesting that supportive networks can substantially enhance women's entrepreneurial potential, facilitating entry into export markets (Gedajlovic et al., 2013). Therefore, while female entrepreneurs demonstrate increasing engagement in exporting their goods and services, various systemic issues still require attention to ensure they can fully capitalize on these opportunities.

Access to financial resources significantly influences business survival and growth, remaining as a critical barrier for female entrepreneurs (Eddleston et al., 2016). This lack of access to financial resources can hinder their ability to internationalize, grow and sustain their businesses. Related to that, researchers state that gender gaps in financial literacy also have a profound effect on the women's businesses' growth, as these are directly related to accessing the resources necessary to finance the internationalization and growth of their businesses.

The initial phases of company growth are critical for establishing a business and determining its future trajectory. Financial literacy significantly impacts the capacity of entrepreneurs to make informed decisions regarding funding, budgeting, internationalizing and making strategic investments during these early stages. As businesses transition from startup to sustained growth phases, the need for robust financial management becomes even more crucial. Studies suggest that businesses led by financially literate entrepreneurs are more likely to survive and thrive amidst competition. Ongoing financial education enhances not only growth but also resilience in times of economic uncertainty (Walker & Webster, 2024).

A significant number of women entrepreneurs report deficiencies in financial knowledge, which hampers their ability to secure funding and plan effectively for growth. This lack of financial acumen can lead to suboptimal decisions that inhibit firm growth (Chen et al., 2021; Hechavarria et al., 2019). The disadvantage faced by female entrepreneurs who lack strong financial backgrounds may result in less

successful presentations of their business cases to potential investors, stymieing initial growth (Hechavarria et al., 2019).

In addition, a lack of financial literacy, combined with gendered socialization, contributes to the formation of risk-averse behavior in women, which affects their financial decision-making style. These social constructs lead women to internalize a preference for lower-risk strategies, which can stifle entrepreneurial innovation and discourage the pursuit of aggressive growth (Pergelova et al., 2018). On the other hand, there are important gender gaps in opportunity-driven entrepreneurship, where social and human capital play crucial roles in shaping women's capacity and willingness to pursue high-growth paths (Chen et al., 2021). Studies suggest that women, compared to their male counterparts, are often less likely to leverage available opportunities for growth due to social biases and systemic barriers (Chen et al., 2021; Hechavarria et al., 2019). This highlights the need for targeted interventions to bridge this gap.

Many researchers have also confirmed that female entrepreneurs who engage with supportive networks are more likely to develop the confidence and resources needed to pursue growth aspirations (Sullivan & Ford, 2014). This perspective emphasizes the importance of building and maintaining international relationships that can facilitate access to funding, mentorship, and market opportunities. Facilitating mentorship and networking opportunities can significantly impact their growth aspirations, enabling them to connect with experienced entrepreneurs and industry professionals to enhance their confidence and provide access to essential resources (Brush et al., 2009).

For all these reasons, it is worthwhile considering adopting different approaches to educational aspects, like entrepreneurship training or financial education, depending on the gender targeted. Some studies indicate that female students may benefit differently from education compared to their male counterparts (C. Brush et al., 2017). Tailoring education and training programs to meet the needs of female entrepreneurs could enhance their skills and confidence, ultimately influencing their growth aspirations (Brush et al., 2009; C. Brush et al., 2017). Family responsibilities and a desire for work-life balance are significant motivational drivers for female entrepreneurs (Eddleston et al., 2016). The authors investigate how family dynamics impact women's EI, highlighting challenges arising from balancing business and family commitments; their research suggests that women entrepreneurs often prioritize flexibility and work-life balance, which can

subsequently influence their growth aspirations and business strategies (Eddleston et al., 2016).

Examining institutional and economic contexts is also crucial in understanding female entrepreneurs' growth aspirations. Different stages of economic development influence women entrepreneurs' startups across various countries. Research has concluded that women are more likely to establish growth-oriented businesses in more developed nations than in developing economies, where socio-economic constraints and limited access to financial resources persist (Cheraghi et al., 2019; Welsh et al., 2016). Policymakers play a vital role in fostering an environment that supports female entrepreneurship by ensuring access to funding, providing resources for business development, and promoting gender equality in entrepreneurship to enhance women's growth aspirations (Acs et al., 2018).

Although there is a growing body of research that goes deeper into understanding the growth of women-owned businesses, there are still many research gaps that need to be explored. Addressing these gaps will significantly enhance the comprehension of female entrepreneurship growth and contribute to the development of effective policies and programs designed to support women entrepreneurs in their endeavors.

One of the foremost gaps in the literature on female entrepreneurship is the limited focus on high-growth female entrepreneurs, often referred to as 'gazelles.' High-growth firms are fundamental to economic development, yet research specifically on women-led high-growth enterprises remains scarce. Most studies have concentrated on small-scale, or microenterprises led by women, neglecting the unique challenges and opportunities faced by those aspiring to accelerate their business growth (Chistov et al., 2023; Hechavarria et al., 2019). This gap highlights the need for in-depth studies that examine factors promoting or hindering high-growth trajectories among female entrepreneurs, including internationalization, access to venture capital and networking opportunities (McKenzie, 2017; Welsh et al., 2016).

Another significant gap exists in the intersection of cultural norms and the entrepreneurial identity of women. Gender-role orientations can constrain women's entrepreneurial perceptions and intentions (Liñán et al., 2022). The literature doesn't sufficiently explore how the interplay of cultural expectations and personal identity influences women's entrepreneurial journeys. Women are not an

homogeneous group as they vary by age (i.e., senior women entrepreneurship) and origin (i.e., immigrant women entrepreneurs). Qualitative research examining how different profiles of women navigate these cultural landscapes and how these dynamics impact their growth aspirations and decision-making throughout the entrepreneurial lifecycle is essential.

Furthermore, while female entrepreneurs face considerable challenges securing funding due to gender biases, there's a lack of extensive analysis on how discrepancies in financial education impede women entrepreneurs from effectively utilizing financial resources (C. Brush et al., 2017; Wu et al., 2019). A thorough exploration into financial literacy programs tailored for women and their correlation with increased funding outcomes and business growth could address a critical gap, offering insights into facilitating female entrepreneurship growth.

The impact of digital technologies on female entrepreneurship is another area that requires further investigation. While digital technologies have the potential to democratize entrepreneurship, there is limited research on how female entrepreneurs leverage these technologies for growth and internationalization. Future studies should explore the barriers women face in accessing digital tools and how these tools can be utilized to enhance their entrepreneurial ventures (Pergelova et al., 2018). This exploration is particularly relevant in the context of the ongoing digital transformation that is reshaping various industries and entrepreneurial landscapes.

The absence of longitudinal studies focusing on the growth patterns of female entrepreneurs is an additional notable gap. Most existing research captures data at a single point in time, obscuring an understanding of how women's entrepreneurial ventures evolve over time. More detailed longitudinal studies could track female entrepreneurs' growth trajectories through various life stages and economic cycles, thereby contributing to a more nuanced understanding of the barriers and facilitating factors encountered throughout different phases of business growth (Eddleston et al., 2016; Hechavarría & Ingram, 2019).

Lastly, the impact of policy frameworks specifically targeting female entrepreneurship remains underexplored. Existing studies predominantly examine individual entrepreneurs and their experiences while paying less attention to how institutional environments and public policies could better support women's entrepreneurial growth (Halabisky, 2018). The relationship between policy

frameworks and their effectiveness in promoting female entrepreneurship warrants thorough investigation, particularly concerning how different governmental and non-governmental policies affect women entrepreneurs' access to resources, markets, and growth opportunities, crucial for developing strategies that foster inclusive entrepreneurial ecosystems (Halabisky, 2018; Welsh et al., 2016).

#### 2.2.1.2. Senior early-stage entrepreneurs' export rate

The aspirations of senior entrepreneurs towards growth in their ventures are influenced by a myriad of factors ranging from individual motivations to external market conditions. Among the most salient drivers of senior entrepreneurs' growth aspirations are personal and contextual motivations. These vary across age cohorts and social backgrounds.

Research has shown that older entrepreneurs often view business growth as a means of achieving financial stability, which can improve their overall quality of life (Zhu et al., 2021). This financial motivation is particularly salient for those who may not have sufficient savings or pension plans to support their desired retirement lifestyle. In addition, research has also proven that older entrepreneurs tend to have a strong focus on opportunity recognition, which can positively influence their growth aspirations (Brieger & Gielnik, 2021). Senior entrepreneurs often bring with them extensive work histories and professional networks that can substantially influence their aspirations for growth (Kautonen et al., 2010). Those with diverse professional backgrounds may possess the necessary skills and networks to pursue growth-oriented ventures. These skills and networks are crucial for identifying opportunities and overcoming the barriers to internationalization and growth that businesses may encounter.

Internationalization is one of the pillars on which business growth can be based. Therefore, in this thesis, I will analyze the export rate of vulnerable groups — in this case, the elderly — as a dependent variable in the growth of companies led by early-stage entrepreneurs. This will reveal the multifaceted motivations behind their engagement in the international market. Senior entrepreneurs often leverage their extensive professional experiences and networks to facilitate entry into export markets, which can result in higher economic contributions compared to younger

counterparts. Research indicates that older entrepreneurs are motivated not only by economic benefits but also by personal fulfillment and social contributions, enhancing their well-being and integrating them into broader societal frameworks (Zhu et al., 2021). Comparative motivations vary across cultures, with cultural dimensions significantly influencing the levels of engagement in export activities by senior entrepreneurs (Zhu et al., 2021).

Moreover, various factors contribute to the unique characteristics of senior entrepreneurs that influence their export rates. These include a blend of intrinsic motivations, life experiences, and professional networks that provide a solid foundation for undertaking international ventures. A study conducted on Australian senior entrepreneurs noted that their perceptions of opportunities and barriers significantly shape their entrepreneurial activities, including those related to exports (Perenyi et al., 2018). The findings highlight that intentionality, motivation, and perceptions of support systems play critical roles in determining their export engagement, which is often more pronounced than in younger entrepreneurs, who may lack the same level of market insight and connections (Perenyi et al., 2018).

Notably, the age factor can influence modes of internationalization, as studies have suggested that older entrepreneurs may prefer certain entry strategies like exporting over foreign direct investment (FDI). This trend could reflect a cautious approach due to accumulated life experiences, leading to a preference for less risky ventures like exporting (Pergelova et al., 2018). Additionally, elder entrepreneurs face distinctive challenges when entering international markets, including accessing funding or understanding market dynamics, which can impede their potential. Overall, the export rates among senior early-stage entrepreneurs indicate a complex interplay of personal, economic, and social dimensions that not only highlight their capabilities but also the need for tailored support mechanisms to foster their success in international markets (Perenyi et al., 2018; Pergelova et al., 2018; Zhu et al., 2021).

#### 2.2.1.3. Immigrant early-stage entrepreneurs' export rate

The export rates of early-stage immigrant entrepreneurs are significantly influenced by various contextual factors, including the interplay between economic, social, and

institutional environments. There is a growing body of literature suggesting that immigrant entrepreneurship is shaped by the resources available within these environments, which can either facilitate or hinder opportunities for export activities (Dabić et al., 2020). The mixed embeddedness model illustrates that an immigrant's ability to access these resources is often contingent upon their integration into the host country's economic and community networks.

The mixed embeddedness model is a theoretical framework used to understand entrepreneurship, particularly within immigrant communities. This model posits that entrepreneurial opportunities do not exist in isolation but are the outcomes of complex interconnections among the economic, social, and institutional environments surrounding the entrepreneur. Some scholars articulate that successful entrepreneurship is contingent upon the alignment of available resources with suitable opportunities within these varied contexts, emphasizing the importance of individual traits and capabilities alongside the broader embeddedness in both formal institutions and informal networks, which can either facilitate or hinder entrepreneurial activities (Kloosterman, 2010).

Researchers have pointed out that the role of social capital in the entrepreneurial process is vital, especially concerning export activities among immigrant entrepreneurs. Social networks can provide critical resources, information, and support, which can enhance an entrepreneur's likelihood of engaging in international markets (Gedajlovic et al., 2013). For instance, immigrant entrepreneurs with robust connections within their communities may benefit from shared knowledge and experiences that could inform better export strategies (Chen et al., 2021). This dynamic interplay can lead to a higher export rate, as connected entrepreneurs are often privy to valuable insights regarding market entry processes and potential clientele. However, those who are less integrated into their local or ethnic networks may find themselves at a disadvantage, reinforcing the necessity of a mixed embeddedness approach that considers individual aspirations and how well these aspirations are supported by the surrounding community (Brieger & Gielnik, 2021; Chen et al., 2021).

#### 2.2.1.4. The augmented vulnerability in early-stage entrepreneurs' export rate

The dynamics of globalization increasingly demand adaptability in business models, which can be particularly challenging for marginalized entrepreneurs who are often overlooked in mainstream economic narratives (Lassalle & Shaw, 2021; Yamamura & Lassalle, 2025). Recent studies indicate that fostering sustainable entrepreneurial ecosystems can help bridge the gap for vulnerable groups, enhancing their capabilities to engage more fully in global markets (Chaudhary et al., 2023; Rosário et al., 2022).

The intersection of augmented vulnerable population groups with the export rate and internationalization of nascent companies represents a critical area of entrepreneurship research. Economic conditions are pivotal in shaping the entrepreneurial landscape, particularly for these vulnerable groups. As such, these barriers hinder the export growth potential of nascent companies that could otherwise thrive given the right contextual support (Belitski et al., 2023; Insarauto, 2021).

An examination of the intersection between vulnerable nascent entrepreneurs and their export rates reveals that specific subsets of individuals are affected by multiple, overlapping layers of vulnerability. As an example, senior entrepreneurship is increasingly recognized for its potential to contribute significantly to economic growth and job creation, yet the intersection of age and gender complicates access to resources and opportunities necessary for successful international venture expansion. I.e., women who are senior entrepreneurs represent a unique demographic that faces compounded challenges in the internationalization of their ventures. Research indicates that older women entrepreneurs often encounter barriers related to age discrimination, gender biases, and limited access to financial resources, significantly impacting their ability to enter and thrive in international markets (Audretsch et al., 2024; Hechavarria et al., 2019). The interplay between their gender and age has been shown to hinder their entrepreneurial ambitions, making them less likely to engage in high-growth opportunities that typically correlate with increased exporting activities (Audretsch et al., 2024; Hechavarria et al., 2019).

Moreover, the nuanced reality for this demographic extends beyond access to capital. Emotional intelligence and social capital play significant roles in shaping their entrepreneurial journeys, especially during times of economic downturn

(Pergelova et al., 2018; Quintillán & Peña-Legazkue, 2019). Older women entrepreneurs often harness emotional intelligence to navigate complex international landscapes; however, their limited networking opportunities can result in under-utilization of these skills, restricting their ability to secure essential partnerships and networks necessary for export success (Dy et al., 2018; Quintillán & Peña-Legazkue, 2019). Furthermore, insights from the digital economy reveal that digital literacy and access to technology are crucial for enhancing the international reach of these vulnerable groups, highlighting a significant disparity that could either facilitate or impede their internationalization efforts (Belitski et al., 2023).

Lastly, the role of supportive policy frameworks cannot be overstated, as tailored interventions can dramatically improve the export rate and internationalization prospects of women and senior entrepreneurs (Audretsch et al., 2024). Implementing targeted training and resources specifically designed for these intersectional entrepreneurs may help foster resilience, empowering them to overcome the barriers inherent in their dual vulnerable status, as both women and seniors (Yamamura & Lassalle, 2025).

Additionally, the subgroup compounded by female immigrant entrepreneurs are also often limited by a dual disadvantage: they grapple with the inherent challenges of establishing a business as women, while simultaneously facing additional hurdles associated with their immigrant status, such as lack of familiarity with local markets and limited access to financing (Brieger & Gielnik, 2021; Lassalle & Shaw, 2021). These barriers can hinder their capacity to scale operations and engage in international trade, which is critical not only for individual business success but also for the broader economic contributions that these businesses can make.

Moreover, the networks available to female immigrant entrepreneurs are frequently less developed than those of their native counterparts. This disconnection can severely limit their access to essential resources, mentorship, and market intelligence, which are vital for successful international business operations (Brieger & Gielnik, 2021; Lassalle & Shaw, 2021). Research shows that the social and institutional contexts in which immigrant entrepreneurs operate play a crucial role in shaping their entrepreneurial success. For instance, female immigrants may encounter prejudicial attitudes or systemic biases that further restrict their networking opportunities, thereby limiting their ability to form the partnerships necessary for exporting (Lassalle & Shaw, 2021).

To conclude, it should be added that the integration of complex identities observed in senior immigrants who engage in entrepreneurship exhibits significant implications for their export capabilities and internationalization efforts. This demographic navigates a series of compounded obstacles stemming from both their age and immigrant status, which can impede their ability to penetrate global markets successfully (Audretsch et al., 2024; Soto-Simeone & Kautonen, 2020). Notably, these entrepreneurs may experience age-related stereotypes that affect their interactions with potential customers and stakeholders, thus restricting their opportunities for growth and visibility in international contexts. Research identifies that such barriers limit access to essential financial resources and social networks, consequently diminishing their capacity to achieve export growth and engage effectively in cross-border trade (Audretsch et al., 2024).

The emotional and social realities faced by senior immigrants in entrepreneurship likewise require exploration. Research highlights that, while senior entrepreneurs have invaluable life experiences, they may lack contemporary digital skills essential for thriving in increasingly technology-driven markets (Quintillán & Peña-Legazkue, 2019; Zhu et al., 2021). This gap can hinder their competitiveness, given that internationalization often necessitates familiarity with modern digital tools and platforms. It is crucial, therefore, that policymakers recognize the emotional undertones tied to these barriers and develop strategies not only to improve their technical skills but also to foster their confidence and adaptability within changing markets, thus enabling enhanced export activities (Quintillán & Peña-Legazkue, 2019).

All the above mentioned underscores the need for tailored support programs that cater specifically to the nuances of these demographic subgroups as augmented vulnerability can affect a company's internationalization and export rate and consequently to the company's growth. Such efforts would empower these entrepreneurs and facilitate cultural exchange and innovation, highlighting the importance of diversity in driving economic growth within global trade networks.

## 2.2.2. Early-stage entrepreneurs' hiring expectations

### 2.2.2.1. Female early-stage entrepreneurs' hiring expectations

Societal and entrepreneurial norms significantly shape the hiring expectations of early-stage female entrepreneurs, often influenced by gender-role orientation that dictates behaviors more suitable for men. Despite the potential of female entrepreneurship, evidence reveals gender disparities in entrepreneurship, especially regarding opportunity-driven ventures. Women are frequently less likely than men to capitalize on opportunities due to varying levels of human and social capital (Chen et al., 2021). This suggests that, although the number of female entrepreneurs is increasing, systemic barriers may be hindering their growth ambitions, compared to their male counterparts, limited by adaptive preferences characterized by risk-averse behaviors and conservative approaches to hiring (Liñán et al., 2022). This ingrained socialization process impacts women's perceptions of their entrepreneurial identity and their corresponding hiring expectations, which may lean towards more cautious choices. Consequently, the hiring decisions made by female entrepreneurs often align with gender expectations, potentially restricting their growth and expansion opportunities in international markets and limiting job creation.

Moreover, the entrepreneurial environment plays a crucial role in shaping the hiring expectations of female entrepreneurs. A supportive entrepreneurial climate can empower female entrepreneurs and enhance their willingness to adopt more ambitious hiring strategies (Cardella et al., 2020). Conversely, unfavorable economic contexts may compel women entrepreneurs to adopt more conservative hiring expectations, with employment perceived as a critical step in their entrepreneurial journeys. Understanding the constraints faced by women in making hiring decisions is paramount for fostering an inclusive entrepreneurial ecosystem, particularly as female entrepreneurship is recognized as a significant driver of job creation and economic development. The literature suggests that for female entrepreneurs to realize their full potential in job creation, implementing policies that bolster their capacity to hire is essential, thereby enhancing their contributions to economic vitality (Insarauto, 2021).

#### 2.2.2.2. Senior early-stage entrepreneurs' hiring expectations

Senior early-stage entrepreneurs exhibit distinct hiring expectations influenced by their unique experiences and the social contexts in which they operate. Research indicates that older entrepreneurs often leverage their extensive networks and prior professional experiences to establish their businesses, which affects their hiring practices and expectations (Soto-Simeone & Kautonen, 2020). They tend to prioritize hiring practices that create stable, reliable teams, as their enterprises may focus on sustainability rather than rapid growth. Although evidence regarding the influence of work history on hiring practices among older entrepreneurs is limited, prior research suggests that they possess a significant understanding of the importance of team dynamics and cultural fit within their firms, often reflecting values derived from their previous work and personal lives (Kautonen et al., 2010). This demographic is less likely to rely on informal hiring practices prevalent among younger, less experienced entrepreneurs, adopting a more formalized approach that emphasizes job security and employee retention (Zhu et al., 2021).

Moreover, senior entrepreneurs are often influenced by access to resources, which can further shape their hiring expectations. The expectation for hiring within this group can be rooted in perceived competencies related to age, potentially creating biases either positively or negatively (Soto-Simeone & Kautonen, 2020). Hiring expectations may also reflect an inclination to foster mentorship within their teams, as older entrepreneurs may prefer to hire younger individuals whom they can guide, thereby creating a symbiotic learning environment that emphasizes experience and innovation. This dual focus on mentorship and professional stability uniquely positions senior entrepreneurs in the labor market and contributes to the expectations they hold. Ultimately, these considerations reflect a broader intersection of personal values, professional experiences, and societal norms that together inform the hiring practices of senior early-stage entrepreneurs.

### 2.2.2.3. Immigrant early-stage entrepreneurs' hiring expectations

Immigrants often demonstrate a heightened inclination towards self-employment, significantly impacting job creation and innovation within their host economies. Statistical analyses reveal that businesses founded by immigrants represent a crucial segment of the economic landscape, frequently achieving superior growth rates compared to their native counterparts in various regions (Dabić et al., 2020). This phenomenon underscores the integral role of immigrant entrepreneurs, who not only contribute to economic dynamism but also foster diversity in the entrepreneurial ecosystem (Brieger & Gielnik, 2021). For instance, the OECD underscores the contribution of immigrant businesses, noting their role in not just employment generation but also in propelling innovation (Dabić et al., 2020).

Immigrant early-stage entrepreneurs exhibit varied hiring expectations significantly shaped by their unique socio-economic contexts and cultural backgrounds. One critical aspect influencing these expectations is the availability of social networks, which often determines access to talent and resources (Sullivan & Ford, 2014). Social ties can impact entrepreneurs' intentions regarding hiring practices; however, it is also noted that social norms may have a weak influence on entrepreneurial intentions as younger individuals often base their career decisions more on personal attitudes rather than social considerations. Immigrant entrepreneurs frequently rely on their ethnic networks to identify suitable employees, which informs their hiring strategies (Sullivan & Ford, 2014). Furthermore, the cultural dimension plays a pivotal role in shaping perceptions and attitudes toward employment, as societal norms may dictate acceptable hiring practices and influence the types of employment relationships established by immigrant entrepreneurs (Lassalle & Shaw, 2021). These variables emphasize the importance of a comprehensive understanding of the immigrant hiring landscape, especially as these entrepreneurs navigate unfamiliar labor markets (Lassalle & Shaw, 2021).

#### 2.2.2.4. The augmented vulnerability in early-stage entrepreneurs' hiring expectations

Research highlights that various external pressures, such as economic instability and socio-cultural biases, amplify the challenges faced by new entrepreneurs when it comes to hiring expectations (Alon et al., 2020). For instance, the impact of the COVID-19 pandemic has disproportionately affected women and minority entrepreneurs, exacerbating pre-existing inequalities. The intersectional dimensions of identity, such as gender and ethnicity, play a critical role in shaping how entrepreneurs perceive their hiring capabilities and opportunities. Augmented vulnerability, particularly for women in entrepreneurship, can lead to lower hiring expectations, as systemic biases might result in restricted access to essential resources and networks, further diminishing confidence in their hiring prospects (Chen et al., 2021; Insarauto, 2021). Consequently, this dynamic not only impacts the growth trajectory of individual enterprises but also has broader implications for overall employment rates and economic recovery in the wake of economic crises (Alon et al., 2020).

Furthermore, recent studies suggest that the hiring expectations of early-stage entrepreneurs are also influenced by their perceptions of social norms and cultural expectations surrounding entrepreneurial behavior. Entrepreneurs may internalize these norms to the extent that they dictate their confidence and willingness to recruit talent. For instance, some researchers highlight that younger entrepreneurs, influenced by personal attitudes and self-efficacy rather than societal expectations, often demonstrate a more optimistic outlook towards hiring. However, this personal agency can be undermined by prevailing gendered socialization, which often associates certain hiring behaviors with efficacy, thus further exacerbating hiring hesitation among underrepresented groups (Pergelova et al., 2018).

As a result, addressing these augmented vulnerabilities necessitates a comprehensive approach that not only recognizes individual entrepreneurial ambitions but also actively seeks to dismantle the social and institutional barriers that perpetuate these disparities (Chen et al., 2021; Welsh et al., 2016). Enhanced support systems and policies targeting the unique challenges faced by diverse entrepreneurs could mitigate the effects of these vulnerabilities and lead to improved hiring outcomes across various entrepreneurial sectors.

### 2.2.3. The moderating effect of the digitalization level in early-stage entrepreneurs' aspirations to growth

The relationship between digitalization levels and the growth aspirations of nascent entrepreneurs is increasingly significant in the contemporary entrepreneurial landscape. This field is explored through several key theoretical lenses, each offering a unique perspective on how digital technologies influence entrepreneurial processes and outcomes. One foundational perspective is the creative destruction theory (Schumpeter, 1934). In an updated point of view, focused on the digital context, this theory explains how new digital technologies disrupt existing markets and business models, creating new opportunities for digital entrepreneurs while compelling traditional firms to innovate or risk obsolescence.

Another major theoretical lens is the technology-driven entrepreneurship perspective (Cooper, 1971). This view focuses on the unique characteristics of digital technologies, such as scalability, global reach, and low marginal costs, as enablers of new ventures. This framework highlights how entrepreneurs leverage these digital affordances to create entirely new business models, develop innovative products, and access global markets in ways previously impossible. For instance, the rise of platform-based businesses and services can be directly attributed to the unique capabilities of digital infrastructure.

Finally, the study of digital entrepreneurship is also deeply intertwined with theories of strategic adaptation and organizational change. The digital transformation approach argues that for ventures to succeed in a digitalized world, they must not only adopt new technologies but also undergo fundamental changes in their organizational culture, processes, and strategic focus. This perspective moves beyond a purely technological view, emphasizing the need for new skills and leadership, and the redefinition of a firm's value proposition to remain competitive. This theoretical integration helps explain how entrepreneurs navigate the complexities of a rapidly changing digital landscape and provides various affordances that can enhance entrepreneurial performance through improved access to resources and broader market potentials. For early-stage entrepreneurs, these affordances may play a crucial moderating role by shaping both their growth aspirations and outcomes. Research indicates that the strategic alignment of digital technologies with entrepreneurial objectives can foster an environment conducive

to growth, thereby confirming that higher digitalization levels may positively influence entrepreneurial aspirations (Autio et al., 2014; Belitski et al., 2023; Li et al., 2016). The increased adoptions of digital tools allows these entrepreneurs to attain efficiencies in operations, which can directly correlate with their intentions to pursue growth-focused strategies (Nambisan, 2017).

Moreover, the COVID-19 pandemic has heightened the importance of digital transformation for entrepreneurs, acting as a “great accelerator” for digitalization across various sectors. In this context, the level of digitalization is not just an asset but may also shape the contours of entrepreneurial ecosystem, thereby determining potential for growth. For example, firms engaged in digital initiatives report significant innovation in their business models, which can refine their competitive advantages and market positioning (George et al., 2020).

Hence, nascent entrepreneurs leveraging advanced digital tools are positioned favorably to benefit from increased visibility and engagement with consumers, both of which are critical for stimulating growth ambitions (Ghezzi & Cavallo, 2020).

However, it is also essential to understand that the interplay between digitalization and entrepreneurial aspirations is not uniformly positive across different demographics. Factors such as access to technology, digital literacy, and socio-economic conditions can moderate the extent to which digitalization influences growth aspirations. Particularly for underrepresented groups, such as women and minority entrepreneurs, these barriers may inhibit potential benefits (Edelman et al., 2010; Hechavarria et al., 2019). Inefficiencies in digital engagement can create disparities in growth intentions, demonstrating that while digitalization can enhance entrepreneurial dynamics, it also necessitates policies aimed at inclusive access to technology and training opportunities to ensure that all entrepreneurs can capitalize on these shifts (Muñoz & Cohen, 2017).

The moderating effect of digitalization thus invites a nuanced examination of its implications, emphasizing the importance of both digital investment and equitable access to ensure that growth aspirations are not selectively gated by resource disparities.

### 2.2.3.1. The moderating effect of the digitalization level in female early-stage entrepreneurs' growth aspirations

Digitalization offers significant advantages that can enhance a female entrepreneur's ability to thrive in competitive markets. Digital technologies provide access to vital resources, networks, and markets critical for growth, as supported by recent literature (Nambisan, 2017). Furthermore, the integration of digital tools reshapes business models, allowing female entrepreneurs to innovate and adapt more readily to changing market demands, which can boost their growth aspirations (George et al., 2020).

Gender dynamics in the entrepreneurial landscape significantly influence how digitalization impacts growth aspirations. Female entrepreneurs often navigate numerous structural barriers, including access to finance and social capital, which can moderate the interaction between digitalization and their growth efforts (N. Gupta & Mirchandani, 2018; Hechavarria et al., 2019). Studies indicate that effective use of digital resources helps level the playing field, allowing women to overcome traditional barriers to entrepreneurship and pursue aggressive growth plans (Dy et al., 2018). The confidence and ambition of female entrepreneurs are significantly enhanced by increased digital literacy and the implementation of tailored support programs (Welter et al., 2019).

Accordingly, the strategic collaboration between policymakers and educational institutions in fostering a supportive environment for digital technology adoption is paramount to the growth trajectories of women entrepreneurs (Halabisky, 2018). This underscores a nuanced understanding of digitalization as not merely a tool, but a critical transformative lever that, in conjunction with enabling socio-economic structures, shapes female entrepreneurs' growth aspirations and their contributions to economic development.

Digitalization acts as a catalyst that can significantly enhance the internationalization efforts of female entrepreneurs, providing them with tools that broaden their market reach and facilitate communication and collaboration across borders (Belitski et al., 2023). Research indicates that women entrepreneurs who effectively leverage digital tools exhibit higher internationalization rates, as these technologies enable them to overcome traditional barriers such as limited access to

resources and networks (Pergelova et al., 2018). The ability to integrate digital strategies into their internationalization plans can empower female entrepreneurs to effectively respond to global demand, enhancing their potential for sustainable growth.

Conversely, the implications of hiring expectations among female entrepreneurs concerning their digitalization levels reveal another layer of complexity in their growth narratives. Digitalization has transformed expectations around hiring practices, leading female entrepreneurs to prioritize skills that align with contemporary digital demands (Li et al., 2016). Women-led ventures that adopt digital innovations are often proactive about talent acquisition as a strategy for further growth (Pergelova et al., 2018). This shift is particularly pertinent as women entrepreneurs seek to build teams capable of navigating digital ecosystems, where proficiency in technology is increasingly essential (Soto-Simeone & Kautonen, 2020). Moreover, the enhanced capabilities that come from digital tools can assist these entrepreneurs in implementing agile hiring processes that better match their evolving business needs (George et al., 2020).

Female entrepreneurs equipped with higher digital proficiency are more likely to develop expansive networks that facilitate access to skilled labor, thereby enhancing their hiring potential (Yamamura & Lassalle, 2025). The expectation to hire becomes more pronounced in a digital environment, where the flexibility provided by technology enables female-led ventures to swiftly respond to market demands and seize growth opportunities.

Additionally, digital platforms allow these entrepreneurs to tap into a wider talent pool, instrumental in building diverse teams that foster innovation and resilience (Cardella et al., 2020). Analyzing the intersection between female entrepreneurship and hiring expectations highlights how digitalization empowers women to reshape the growth trajectories of their ventures, illustrating that their entrepreneurial ambitions extend beyond mere survival to encompass value creation and job provision within their communities (Liñán & Jaén, 2020).

### 2.2.3.2. The moderating effect of the digitalization level in senior early-stage entrepreneurs' growth aspirations

The digitalization of senior entrepreneurs presents a vital but often overlooked dynamic within the broader context of entrepreneurship. As the senior population increasingly engages in entrepreneurial activities, their growth aspirations can be significantly influenced by their level of digital capabilities. The integration of digital tools can facilitate greater market access and operational efficiencies, which are crucial for sustained growth (Audretsch et al., 2024; Zhu et al., 2021). Scholars reveal that seniors who embrace digital advancements are better equipped to navigate the contemporary business landscape, enabling them to translate their experience and wisdom into viable business strategies (Belitski et al., 2023). This capability underscores the moderating role of digitalization, as seniors effectively leverage technology to address market demands and enhance their competitive edge.

Moreover, the effects of economic and social contexts on senior entrepreneurs highlight varying responses to digitalization depending on demographic factors. Research indicates that higher GDP per capita in different regions positively influences the propensity of seniors to engage in entrepreneurship, indicating that socioeconomic factors can enhance the impact of technology on business growth (Audretsch et al., 2024). However, challenges such as age-related biases and limited access to digital resources remain significant obstacles that can undermine growth aspirations among senior entrepreneurs (Soto-Simeone & Kautonen, 2020). These barriers underscore the necessity of tailored support mechanisms that can bolster seniors' ability to harness digital platforms effectively, thereby fostering an environment conducive to growth.

The relationship between the digitalization level of senior early-stage entrepreneurs and their aspirations for growth is particularly evident in the context of internationalization. Digitalization enhances access to global markets, enabling entrepreneurs to expand beyond local boundaries and engage in international trade more effectively. With the rise of digital technologies, entrepreneurs can leverage online platforms for marketing and sales, thus increasing their competitive abilities on a global scale (Amankwah-Amoah et al., 2021; Belitski et al., 2023). The integration of digital tools facilitates knowledge acquisition and resource allocation essential for navigating international environments, which, in turn, is associated with increased growth aspirations among senior entrepreneurs (Amankwah-Amoah

et al., 2021; Nambisan, 2017). Moreover, emotional intelligence, which plays a significant role in entrepreneurial decision-making, is often heightened by familiarity with digital networks that encourage cross-border collaboration and learning, further supporting international growth ambitions (Quintillán & Peña-Legazkue, 2019).

In conjunction with internationalization, the level of digitalization significantly influences hiring expectations among senior entrepreneurs. As digital processes become critical to operational efficiency and scalability, the demand for skilled employees proficient in digital technologies rises (Balsmeier & Woerter, 2019; Pinkse & Groot, 2015). Senior entrepreneurs equipped with advanced digital skills are likely to set higher expectations for hiring technologically adept professionals, thereby impacting their growth strategies (George et al., 2021). Consequently, digitalization not only reshapes the skill sets that entrepreneurs seek but also affects their perceptions of workforce availability and the capacity to innovate, providing a solid foundation for future expansion (Balsmeier & Woerter, 2019). Furthermore, the ability to adapt to digital tools directly correlates with hiring intentions, as a digitally adept workforce is seen as integral to leveraging new market opportunities, thereby enhancing overall growth potential for these entrepreneurial ventures (Kraus et al., 2018; Pinkse & Groot, 2015).

#### 2.2.3.3. The moderating effect of the digitalization level in immigrant early-stage entrepreneurs' growth aspirations

The moderating effect of the digitalization level on the growth aspirations of immigrant early-stage entrepreneurs is multifaceted and impacted by cultural, institutional, and contextual factors. Digital affordances are indicated as critical components in facilitating entrepreneurial dynamics, influencing not only operational efficiency but also the strategic alignment of business models with technology (Li et al., 2016a). Immigrant entrepreneurs who adopt advanced digital tools may be more likely to experience a growth mindset characterized by increased innovation, adaptability, and resilience, although specific empirical evidence in this area remains limited (George et al., 2020).

Moreover, the intersection of digitalization and entrepreneurial growth is further complicated by the diverse cultural and institutional contexts that shape immigrant

experiences. Immigrants' embeddedness within their host economies can influence their ability to harness digital technologies effectively (Brieger & Gielnik, 2021). Studies have shown that supportive economic and social conditions can bolster the capacity of immigrant entrepreneurs to pursue growth; thus, digitalization serves as a double-edged sword: offering potential for growth while also requiring an awareness of the existing institutional challenges and barriers faced by immigrants (Dabić et al., 2020). The specific digital skills and resources that immigrant entrepreneurs possess will ultimately determine how effectively they can convert digital opportunities into growth aspirations (Kraus et al., 2018).

When examining the relationship between digitalization and internationalization, it becomes evident that the digital landscape significantly impacts how immigrant entrepreneurs approach market expansion. Digital transformation functions as a facilitator of internationalization, as it enables entrepreneurs to access global markets and diverse customer bases with relative ease (Amankwah-Amoah et al., 2021). Evidence suggests that immigrant entrepreneurs often leverage their cultural connections and digital networks to facilitate entry into international markets, thereby significantly enhancing their growth aspirations (Quintillán & Peña-Legazkue, 2019). Moreover, the use of digital marketing techniques and e-commerce platforms can remove some of the barriers to entry that typically challenge immigrant entrepreneurs, such as lack of market knowledge and high entry costs (Nambisan, 2017). This capacity to engage with international markets is crucial for nascent immigrant entrepreneurs aiming for substantial business growth.

In terms of hiring expectations, the influence of digitalization is particularly pronounced within immigrant entrepreneurial ventures. As these entrepreneurs navigate the digital landscape, the recruitment of skilled workers becomes central to scaling their operations. The evidence indicates that investment in digital tools often requires complementary human capital, and those immigrants who can attract digital talent are likely to see enhanced growth opportunities. Furthermore, digitalization allows immigrant entrepreneurs to better utilize social networks for recruitment, which may vary across cultural contexts and affect their hiring strategies (McKelvie & Wiklund, 2010).

As digital technologies continue to evolve, immigrant entrepreneurs must strategically adopt and leverage these tools to enhance their capabilities, broaden their market reach, and foster sustainable growth. Balancing the potential of digital

affordances with the unique challenges presented by their immigrant status will remain critical in shaping their entrepreneurial journeys.

As mentioned at the beginning of this chapter, we cannot consider all entrepreneurs as a homogeneous group of individuals, with the same characteristics and entrepreneurial growth aspirations. Therefore, the aim of this thesis is to identify if early-entrepreneurs of vulnerable groups are more prone to expect growth, sized in their exportation ratios and in their job creation expectations. Firstly, by testing whether vulnerable early-stage entrepreneurs are relatively more prone than the rest to export more than the 10% of their company's´ turnover, and secondly, by testing whether they have more growth expectations than the rest, sized in expecting to create one or more jobs in the next 5 years.

All of the above has led me to the following main propositions:

P2.A.: Belonging to a **vulnerable group** promotes entrepreneurial growth, as measured by the **export rate**.

- ✓ P2.A. - 1: women
- ✓ P2.A. - 2: senior
- ✓ P2.A. - 3: immigrants
  
- ✓ P2.A. – 4: belonging to an **augmented vulnerable group** promotes entrepreneurial growth, as measured by the **export rate**.
  - 4 - a: female and senior
  - 4 - b: female and immigrant
  - 4 - c: senior and immigrant

P2.B.: Belonging to a **vulnerable group** increases the **hiring expectations**.

- ✓ P2.B. - 1: women
- ✓ P2.B. - 2: senior
- ✓ P2.B. - 3: immigrants
  
- ✓ P2.B. - 4: belonging to an **augmented vulnerable group** increases the **hiring expectations**.
  - 4 - a: female and senior
  - 4 - b: female and immigrant
  - 4 - c: senior and immigrant

P2.C: **high levels of digitalization** moderate positively the relationship between nascent augmented vulnerable entrepreneurs and their venture's **growth expectations**.

### 2.3. THE SUSTAINABLE IMPACT OF ENTREPRENEURS OF VULNERABLE GROUPS

Sustainable entrepreneurship research has emerged as one of the most vibrant subdomains reflecting the surge of entrepreneurial solutions to social and environmental problems, as evidenced by the emergence of for-profit purpose-driven businesses (Muñoz & Cohen, 2017). Sustainable impact entrepreneurship refers to entrepreneurial activities that seek not only economic profit but also contribute positively to social and environmental well-being. In recent years, individual entrepreneurs have emerged as pivotal players in this endeavor, often driven by motivations that include a desire to create social impact and comply with evolving stakeholder demands (Spanuth & Urbano, 2024). This evolving paradigm has gained momentum as entrepreneurs increasingly engage in initiatives that strive to balance profit-making with sustainability principles, particularly considering global challenges such as economic downturns and environmental crises. Social enterprises seek legitimacy not only for financial survival but to establish credibility and trust, allowing them to operate effectively across diverse contexts and ecosystems (Spanuth & Urbano, 2024). This perspective aligns with the framework proposed by Patzelt and Shepherd which broadens the understanding of sustainability beyond environmental aspects to include communal dimensions as well (Patzelt & Shepherd, 2011).

In addition, digitalization is increasingly recognized as a transformative force in the field of entrepreneurship, influencing various aspects of venture creation and growth. In the current digital age, digitalization has significantly reshaped entrepreneurial practices, driven by various structural, contextual and technological factors (Nambisan, 2017). This transformation is characterized by the emergence of new business models, increased market reach and the creation of innovative value propositions. The dynamics introduced by digital technologies are reshaping the way entrepreneurs operate, communicate and strategize.

In this section I examine the theoretical background of the sustainable impact of individual entrepreneurs, focusing particularly on how their motivations, challenges, and socio-economic contexts intersect to shape their entrepreneurial experiences in one hand, and how the digitalization level affects them.

### 2.3.1. The sustainable impact of entrepreneurs who belong to vulnerable groups.

Sustainable entrepreneurship can be defined as the practice of creating ventures that balance economic growth with ecological integrity and social equity. This entails not only the initiation and development of new businesses but also the integration of sustainability principles throughout the entrepreneurial process. Several scholars have emphasized the need for a multi-faceted understanding of this concept, considering various theoretical perspectives such as social capital theory and the resource-based view (Patzelt & Shepherd, 2011). By understanding these theoretical frameworks, entrepreneurs can better navigate the complexities of their environments while striving for sustainability objectives.

Social capital theory posits that the networks of relationships among individuals can provide a valuable resource for achieving personal and communal benefits (Dabić et al., 2020). In the context of entrepreneurship, social capital plays a crucial role in enabling access to resources, knowledge, and opportunities that can enhance business performance. The resource-based view (RBV) suggests that firms should leverage their unique resources and capabilities to gain a competitive advantage. Individual entrepreneurs can utilize their personal skills, experiences, and specific attributes of their businesses, such as innovation and adaptability, to create sustainable practices and achieve long-term success. In the rapidly changing economic landscape, particularly during the COVID-19 pandemic, entrepreneurs who adeptly navigate their resource environments can emerge successfully, illustrating the pertinence of this perspective.

Additionally, the entrepreneurial ecosystem approach has been recognized for its potential to enhance strategies aimed at achieving sustainability goals. These ecosystems create a collaborative environment that empowers entrepreneurs to generate social and ecological value, thereby reinforcing their role in sustainable development (Chaudhary et al., 2023).

The dialogue surrounding sustainable impact entrepreneurship indicates a shift within entrepreneurship research, particularly following the influence of the United Nations Sustainable Development Goals, which are reshaping entrepreneurial objectives. This evolving landscape calls for further examination of how different

entrepreneurial approaches can contribute to broader sustainability agendas, emphasizing the pivotal role of individual entrepreneurs in driving this change (Ricciardi et al., 2021).

Furthermore, some academics explore the relationship between entrepreneurial ecosystems and sustainable development, asserting that these ecosystems are essential for fostering sustainable entrepreneurship by addressing both institutional and market barriers (Audretsch, Ghalwash, et al., 2024). Research has shown that entrepreneurs' motivations and socio-economic contexts significantly inform their practices and strategies, advocating for a holistic understanding of the entrepreneurial landscape related to sustainable initiatives (Bertello et al., 2022).

Self-employed individuals often exert greater control over their work outcomes, this allows them to pursue objectives that are not solely profit-driven but also socially and environmentally responsible (Chaudhary et al., 2023). Heightened awareness of environmental challenges within entrepreneurial ecosystems enhances the capacity for entrepreneurs to generate social and ecological value. As such, entrepreneurs leveraging their autonomy may find it easier to align their business objectives with broader sustainability goals.

The motivations of driving entrepreneurs are deeply intertwined with their capacity to implement sustainable practices, creating a synergistic relationship between personal values and broader societal goals and frequently transcends mere financial motivations. Many entrepreneurs chase the dual goals of financial success and societal impact, often driven by altruistic values that prioritize community well-being and environmental stewardship. A change in entrepreneurial focus is necessary to address broader aims of sustainable development, thereby facilitating innovation in models that prioritize both economic and environmental outcomes (Rosário et al., 2022). Some scholars highlight how periods of economic insecurity, such as during the COVID-19 pandemic, can intensify psychological distress among entrepreneurs, prompting them to pursue business models that reflect their deeper values regarding social responsibility and community engagement (Spanuth & Urbano, 2024). This connection between personal motivations and sustainable entrepreneurial practices underscores the multi-dimensional nature of entrepreneurship today.

Furthermore, the relationship between individual motivations and the achievement of sustainability-oriented outcomes is critical. Evidence from the literature review

emphasizes that sustainable entrepreneurship not only addresses pressing concerns such as environmental degradation and social inequity but fundamentally integrates economic, social, and ecological objectives (Ricciardi et al., 2021). A meta-analysis of sustainable business models validates it also and reveals the essential role that holistic approaches play in fostering sustainable entrepreneurship within dynamic ecosystems (Mondal et al., 2022).

Despite their contributions to sustainability, individual entrepreneurs face numerous challenges, particularly regarding accessing financial resources. Financial constraints significantly affect individual entrepreneurs and limit their capacity to adopt sustainable practices. Research indicates that credit rationing often leads to undercapitalization, hampering their initiatives to start or expand environmentally friendly ventures (Chaudhary et al., 2023; Muñoz & Cohen, 2017). Crowdfunding and social finance represent emerging trends that enable entrepreneurs to gather necessary capital while also engaging community stakeholders in their sustainable missions (Rosário et al., 2022; Sreenivasan & Suresh, 2023). These alternative financing avenues not only reduce traditional financial barriers but also foster accountability, thereby enhancing the overall impact of sustainable business practices (Bertello et al., 2022). Economic theories and frameworks that address these financing barriers are critical for understanding how entrepreneurs can adapt and thrive within the sustainable development paradigm (Chaudhary et al., 2023; Muñoz & Cohen, 2017).

Additionally, regulatory environments present substantial hurdles for entrepreneurs aiming to integrate sustainable practices into their operations. Complex legal frameworks and compliance requirements disproportionately burden new ventures, complicating their decision-making processes (Pinkse & Groot, 2015).

Entrepreneurial ecosystems, characterized by policies and institutional supports favoring sustainable practices, can be instrumental in alleviating some of these barriers (Chaudhary et al., 2023). Understanding how these regulations intertwine with market dynamics is essential for fostering an environment conducive to sustainable entrepreneurship (Berger & Blanka, 2024).

Moreover, the socio-cultural context significantly influences entrepreneurs' ability to pursue sustainable practices. Cultural norms and societal expectations may either facilitate or obstruct entrepreneurial activities (Rosário et al., 2022). For example, immigrant entrepreneurs often navigate additional socio-ethnic factors that shape their entrepreneurial journey, making it critical to incorporate cultural analyses

alongside economic assessments to comprehend the full spectrum of challenges faced by these individuals (Chaudhary et al., 2023; Welter et al., 2019).

Finally, an entrepreneur's success within the sustainability domain is greatly influenced by broader economic climates and institutional frameworks. Supportive policies can incentivize sustainable business models and entrepreneurship, suggesting that a nuanced understanding of the economic landscape is vital for individual entrepreneurs (Argiolas et al., 2024). Recognizing the interplay between institutional support and sustainable entrepreneurship encapsulates the essence of navigating the complex challenges prevalent in today's entrepreneurial ecosystem.

#### 2.3.1.1. Sustainable impact of female entrepreneurship

The relationship between gender and entrepreneurship has become an important area of research, particularly in terms of sustainable impact. The importance of women's entrepreneurship in addressing major societal challenges, such as those articulated in the United Nations Sustainable Development Goals (SDGs), has been recognized as a transformative force in entrepreneurship research (Ricciardi et al., 2021). As the global landscape evolves, it becomes increasingly essential to understand how female entrepreneurs not only confront distinct barriers but also leverage their contributions for sustainable impact.

Research indicates that sustainable entrepreneurship has emerged as a dynamic subdomain, characterized by the alignment of traditional entrepreneurial endeavors with environmental and social objectives. This shift is particularly pronounced among female entrepreneurs, who are more likely than their male counterparts to engage in sustainable practices. This inclination is attributed to a combination of factors, including a greater sense of social responsibility, family values, and a heightened awareness of environmental issues (Muñoz & Cohen, 2017).

Female entrepreneurs frequently engage in sectors that address social inequalities while also incorporating sustainable practices into their business models. This dual focus can result in enhanced community welfare and ecological benefits, thereby serving as a catalyst for social change (Rosário et al., 2022). Studies consistently show that female entrepreneurs possess a heightened awareness of social and

ecological issues, which prompts them to launch ventures that not only seek profit but also aim to generate a positive societal impact (Muñoz & Cohen, 2017). Furthermore, research illustrates that women are increasingly advocating for sustainable solutions as a natural extension of their values, reflecting a trend in which sustainability becomes an integral part of their entrepreneurial strategy (Chaudhary et al., 2023).

To comprehensively comprehend the entrepreneurial processes among women, it is important to consider how they recognize opportunities for sustainable development. Traditional models of opportunity recognition—primarily grounded in economic motivations—are inadequate when examining female entrepreneurs' unique experiences. Studies suggest that knowledge of communal and natural environments, coupled with a sense of altruism, significantly influences their ability to identify sustainable ventures (Patzelt & Shepherd, 2011). Consequently, a framework that integrates gender-specific factors with existing entrepreneurial theories can provide deeper insights into the mechanisms driving female entrepreneurship towards sustainability.

Moreover, the legitimacy of social enterprises led by women plays a critical role in their sustainability efforts. Female entrepreneurs often navigate multi-faceted challenges in obtaining legitimacy within their respective ecosystems, necessitating strategic actions to secure support and resources (Spanuth & Urbano, 2024). By exploring the institutional contexts in which female entrepreneurs operate, we gain a clearer understanding of how these women can effectively create social impact through their engagements (Chaudhary et al., 2023). The legitimacy framework emphasizes the importance of societal acceptance and institutional support as essential pathways to enhancing sustainable outcomes in female-led ventures.

In addition to legitimacy, the role of entrepreneurial ecosystems in fostering women's entrepreneurship is critical. Effective ecosystems not only provide the necessary resources and support but also connect female entrepreneurs with key stakeholders, facilitating collaborations for sustainable initiatives (Chaudhary et al., 2023; Theodoraki et al., 2022). Research underscores the importance of supportive institutional frameworks and networks that can empower female entrepreneurs, aiding them in overcoming the barriers they face and maximizing their potential for impactful ventures (Berger & Blanka, 2024). Recognizing the collaborative nature of these ecosystems, policymakers and practitioners can create tailored interventions that promote female entrepreneurial success.

Furthermore, emerging trends indicate that sustainable business practices are increasingly characterized by innovative financing models, particularly among female entrepreneurs. Non-traditional financing avenues such as crowdfunding can offer women entrepreneurs the opportunity to engage with communities while securing funding for impactful initiatives (Horne & Fichter, 2022). It is therefore essential for these female entrepreneurs to have a strong and up-to-date financial education. This diversification of funding sources not only alleviates financial constraints typically faced by women in entrepreneurship but also aligns with the growing demand for sustainable business operations.

Lastly, understanding the life cycle of entrepreneurial ventures from a gender perspective enriches the dialogue surrounding sustainable entrepreneurship. Female entrepreneurs, through their distinct approaches to business development, contribute to a more sustainable economic landscape. By engaging in efforts that harmoniously blend economic viability with social responsibility, women can significantly influence the entrepreneurial ecosystem's evolution toward sustainability (Di Vaio et al., 2022). Such contributions reinforce the necessity of integrating gender considerations into the broader discourse on entrepreneurship and sustainability.

In conclusion, the body of literature surrounding sustainable impact female entrepreneurship indicates significant interplay between gender dynamics, opportunity recognition, legitimacy, and ecosystem factors. By blending these concepts, we can attain a more nuanced understanding of how female entrepreneurs are leading the charge toward sustainable development. Future research should continue to explore these intersections to further elucidate the vital contributions of women in fostering sustainable entrepreneurial practices.

#### 2.3.1.2. Sustainable impact of senior entrepreneurship

The evolving landscape of sustainable entrepreneurship invites older individuals to engage in business initiatives that resonate with the values embodied in Sustainable Development Goals, thereby reinforcing their role as vital contributors to both economic and social domains (Chaudhary et al., 2023; Ricciardi et al., 2021). As demographic shifts lead to a growing population of older adults, the

intersection of senior entrepreneurship and sustainable practices has attracted attention to scholars for its potential to deliver both personal and societal benefits.

Research on the topic of entrepreneurship and age suggests that senior entrepreneurs are, in fact, more likely than their younger counterparts to engage in sustainable and social ventures (Soto-Simeone & Kautonen, 2020; Zhu, 2024). This is motivated by a complex interplay of factors. Senior entrepreneurs are driven not only by the pursuit of self-realization and improved work-life balance but also by the desire to contribute positively to their communities and society at large through their ventures (Lévesque & Minniti, 2006; Soto-Simeone & Kautonen, 2020; Zhu et al., 2021). Additionally, motivations are shaped by cultural contexts (Muñoz & Cohen, 2017; Rosário et al., 2022), emphasizing the significant role of environmental and communal awareness in senior entrepreneurs' opportunity recognition (Patzelt & Shepherd, 2011).

The involvement of older adults in entrepreneurship is significant as they often leverage their extensive work experiences and social networks to create businesses that align with sustainable practices. These entrepreneurial efforts can address pressing environmental challenges and enable social good, thus underlining the dual aspects of personal achievement and societal contribution found in senior entrepreneurship (Berger & Blanka, 2024; Zhu et al., 2021). Entrepreneurship in later life often emerges after experiences of unemployment, where the desire to help both familiar (known others) and broader communities (unknown others) plays a vital role in this age group's entrepreneurial decisions (Soto-Simeone & Kautonen, 2020).

Furthermore, seniors who engage in entrepreneurship have reported improvements in work-life balance, enhanced self-realization, and broader social contributions (Kenny & Rossiter, 2018). The notion of "impact drift," where socially responsible entrepreneurs may experience shifts in their priorities or focus as their ventures evolve, necessitates an ongoing commitment to sustainability, especially in the face of changing societal needs (Argiolas et al., 2024). Understanding these dynamics allows for the development of supportive structures that harness the unique potential of senior entrepreneurs for sustainable impact.

The role of ecosystems is crucial, as they can provide resources, mentorship, and collaboration opportunities that foster a sustainable entrepreneurial climate (Chaudhary et al., 2023). Studies suggest that interconnected actors within these

ecosystems, such as government bodies, educational institutions, and community organizations, play a vital role in creating environments conducive to sustainable entrepreneurship, thereby amplifying the contributions of senior entrepreneurs to local economies (Audretsch, Ghalwash, et al., 2024).

As we look toward the future, the interplay between sustainability and senior entrepreneurship presents numerous opportunities for research. The growing emphasis on the Sustainable Development Goals (SDGs) challenges entrepreneurs to align their business objectives with broader social and environmental needs (Sreenivasan & Suresh, 2023). By integrating sustainable practices into their business models, senior entrepreneurs can contribute significantly to achieving these goals, showcasing the potential of older adults as vital contributors to socio-economic development (Kautonen et al., 2017).

#### 2.3.1.3. Sustainable impact of immigrants' entrepreneurship

Immigrant sustainable impact entrepreneurship presents a complex interplay of opportunities and challenges shaped by individual backgrounds, socio-economic contexts, and prevailing market conditions. As evidenced by the growing literature, fostering sustainable entrepreneurship among immigrants not only enhances their individual successes but contributes significantly to local and global sustainability goals (Chaudhary et al., 2023; Dabić et al., 2020).

Sustainable entrepreneurship has emerged as a pivotal area of inquiry, focusing on the intersection of entrepreneurial activity and the pursuit of sustainable development goals. Sustainable impact entrepreneurship integrates economic, social and environmental objectives into business practice, highlighting the trend of for-profit, purpose-driven businesses emerging in response to societal and environmental challenges (Muñoz & Cohen, 2017). This framework is beneficial in examining the role of immigrant entrepreneurs who often navigate complex socio-economic contexts while striving for sustainable social impacts in their host countries.

Additionally, sustainable entrepreneurship involves recognizing opportunities that align with sustainable development. Some research suggests that the discovery of

sustainable opportunities is moderated by entrepreneurs' environmental knowledge and awareness of community needs (Patzelt & Shepherd, 2011). Such insights are particularly relevant for immigrant entrepreneurs, who may leverage their unique perspectives and experiences to identify sustainable solutions that resonate with both local and international communities (Rosário et al., 2022).

Immigrant entrepreneurship is increasingly recognized as a significant contributor to economic growth and innovation in host societies. In many cases immigrant entrepreneurs not only generate income for themselves but also foster knowledge transfer and economic dynamism within their communities. This points to the potential of immigrant entrepreneurs to contribute to sustainable impact through their ventures. The diversity of perspectives brought by immigrants often leads to innovative approaches to traditional business practices, which can enhance community resilience and sustainability (Brieger & Gielnik, 2021). Scholars also highlight the embeddedness of immigrant entrepreneurs in their economic, social and institutional contexts, noting that significant barriers remain, particularly for women and other marginalized groups. Addressing these barriers is essential for facilitating the growth of immigrant-led ventures that prioritize sustainability.

Immigrant entrepreneurs aiming for sustainable ventures face various barriers that hinder their growth and sustainability potential, as imperfect information, monopolistic markets, and government intervention that sustain existing business paradigms (Pinkse & Groot, 2015). Such barriers can be particularly pronounced for immigrant entrepreneurs, who may already face challenges related to socio-economic disadvantages or lack access to critical resources necessary for scaling sustainable practices in their entrepreneurial efforts.

The literature underscores the importance of creating supportive ecosystems for immigrant entrepreneurs. A mixed embeddedness perspective could offer a framework for understanding how immigrant entrepreneurs can better match their opportunities with available resources (Kloosterman, 2010). Thus, fostering an environment that enables immigrant entrepreneurs to navigate these barriers is crucial for enhancing their contributions to sustainable impact.

The concept of entrepreneurial ecosystems is critical in facilitating the growth of sustainable immigrant entrepreneurship. Entrepreneurial ecosystems can significantly influence the capacity of sustainable immigrant entrepreneurs to achieve their goals, particularly in light of expanding environmental challenges and

social responsibilities (Chaudhary et al., 2023). Effective ecosystems should provide not only financial support but also social capital and mentorship to immigrant entrepreneurs, encouraging innovative sustainable practices. Further research and practical initiatives must focus on dismantling barriers and strengthening ecosystems that support immigrant entrepreneurs dedicated to achieving sustainable outcomes.

#### 2.3.1.4. The sustainable impact of augmented vulnerable nascent entrepreneurs

We cannot consider nascent entrepreneurs who belong to certain vulnerable demographic groups as a homogeneous group, particularly when we consider the specific cumulative barriers faced by those who are considered particularly vulnerable. Different combinations of vulnerability, such as being female and a senior citizen, being female and an immigrant, or being a senior citizen and an immigrant, may lead to different life experiences and barriers to entry in the entrepreneurial process. This may mean that different sub-groups have a particular sensitivity or predisposition to sustainable entrepreneurship. It is therefore important to examine each of these sub-segments more closely. Therefore, the third main objective of this thesis is to see if nascent entrepreneurs from augmented vulnerable groups are more likely to prioritize sustainable entrepreneurship or not.

A multifaceted approach is essential to support these subgroups in navigating their challenges in sustainable entrepreneurship. It is crucial that policies aimed at fostering entrepreneurship are designed to accommodate not only the unique barriers faced by women, seniors, and immigrants, particularly in terms of access to financial resources, mentorship, and training programs targeting sustainable practices (Chaudhary et al., 2023), but also the cumulative ones, generated as a consequence of belonging to a more than one of these vulnerable population groups.

Women entrepreneurs, particularly those who are also seniors or immigrants, often encounter significant barriers as they seek to empower themselves through sustainable business ventures. Research indicates that both gender and age affect entrepreneurial behaviours, with older women frequently facing heightened

obstacles due to societal stereotypes and economic limitations (Audretsch et al., 2024; Brieger & Gielnik, 2021). Moreover, immigrant women face additional layers of complexity in accessing resources and networks essential for successful entrepreneurship, often linked to cultural and institutional barriers (Brieger & Gielnik, 2021; Dabić et al., 2020; Lassalle & Shaw, 2021). The unique position of these women can incite a dual opportunity: they can pioneer businesses that are not only economically viable but also socially and ecologically responsible, essentially positioning themselves as potential leaders in sustainable practices within their communities (Muñoz & Cohen, 2017; Rosário et al., 2022).

Sustainable entrepreneurship is deeply connected with social capital and community networks, which play crucial roles in the entrepreneurial journey of vulnerable groups, including seniors and immigrants. For instance, senior individuals, particularly women, demonstrate resilience and adaptability during economic shocks, evidencing their capability for self-employment as a pathway to regain agency in a troubled economy (Audretsch, Ghalwash, et al., 2024; Soto-Simeone & Kautonen, 2020). Exploring the intersectionality of their experiences reveals that the social networks built around shared identity can be more robust in promoting entrepreneurship among these vulnerable groups (Brieger & Gielnik, 2021; Yamamura & Lassalle, 2025). In sustainable entrepreneurship, the intention to create ventures that address both environmental and social concerns can be amplified through the collaboration and community orientation often found among immigrant and senior populations, thus leading to ventures that not only solve market deficiencies but also enhance social welfare (Berger & Blanka, 2024; Rosário et al., 2022).

### 2.3.2. The moderating effect of digitalization in vulnerable entrepreneurs' impact

Digitalization refers to the integration of digital technologies into everyday operations, enhancing processes, products, and services. More specifically, in the context of entrepreneurship, it involves the adoption of digital tools and platforms that facilitate the creation, delivery, and capture of value (Belitski et al., 2023; Kraus

et al., 2018). Traditional business frameworks are being restructured to support rapid iterations and responsive strategies (Ghezzi & Cavallo, 2020). New digital technologies enable unique business interactions and relationships that allow entrepreneurs to connect with customers and partners in innovative ways that impact business outcomes (Belitski et al., 2023). These interactions and relationships set the stage for further investigation into how such affordances can enhance entrepreneurial performance and foster networking opportunities.

Moreover, the structural implications of digitalization extend to networking practices. Entrepreneurs use digital networks to accumulate social capital more effectively (Smith et al., 2017). The potential to build both bonding and bridging social capital online is magnified, allowing entrepreneurs to leverage relationships across geographical boundaries and traditional barriers. This shift towards digital social capital illustrates how entrepreneurs can build and maintain relationships across geographical boundaries, leading to increased collaboration and resource sharing, which is critical for innovation and market penetration. The transition to a digital landscape has transformed the social capital available to entrepreneurs.

Contextual factors such as market dynamics and socio-economic conditions are profoundly influenced by digitalization. The abrupt outbreak of the COVID-19 pandemic, referred to as the "great accelerator" of digitalization has compelled businesses to adopt digital methodologies or risk obsolescence (Amankwah-Amoah et al., 2021; Chatterjee et al., 2022). The pandemic exemplifies how unforeseen global events can catalyze a rapid shift in entrepreneurial practices, necessitating a flexible approach that blends traditional entrepreneurship with new digital tools and platforms.

Furthermore, the role of digital innovations in addressing global challenges such as climate change highlights a shift towards sustainable entrepreneurship (George et al., 2020). This evolving context requires entrepreneurs to integrate digital solutions that align not only with market demands but also with broader societal needs, indicating a trend where contextual awareness becomes pivotal in shaping strategic entrepreneurial decisions.

Technologically, the digital landscape presents tools and resources that redefine the entrepreneurial experience. Business processes are streamlined and facilitated by digital technologies, which enable greater flexibility and innovation (Nambisan, 2017). This technological shift allows entrepreneurs to interact directly with

customers and stakeholders on multiple platforms, gathering information that informs product development and market strategies in real time.

As organizations embrace digital transformation, they encounter both challenges and opportunities that necessitate a reevaluation of traditional innovation strategies (Nambisan et al., 2019). Innovations in digital tools are reshaping the entrepreneurial landscape to be more generative and responsive, enabling new business models.

The landscape of entrepreneurship is undergoing fundamental changes due to digitalization, influenced by a constellation of structural, contextual, and technological factors. These changes necessitate that entrepreneurs not only adapt their practices but also rethink their strategic frameworks to leverage the full potential of digital tools and networks. As highlighted by the numerous studies referenced, the interplay of these factors enhances the capacity for innovation and shapes the entrepreneurial narrative in the digital age, providing a robust foundation for future research and practice in the field.

In the context of small- and medium-sized enterprises (SMEs), the concept of leadership is decisive. (Li et al., 2016b) develop a theoretical model that emphasizes the alignment of digital strategies with business goals, advocating that effective e-leadership can enhance operational sustainability. This highlights the importance of strategic thinking in harnessing digital technologies for entrepreneurial advancement, particularly in an era characterized by rapid digital transformation.

Digital transformation is often viewed as a double-edged sword, while it offers substantial opportunities, it also poses significant challenges. Jafari-Sadeghi et al. (2021) identify the crucial role of technology readiness in navigating these challenges, emphasizing that organizations must effectively explore and exploit new technologies to thrive in today's business landscape (Jafari-Sadeghi et al., 2021). This necessitates a thorough understanding of the implications for entrepreneurship, particularly in terms of market expansion and innovation processes.

Furthermore, demographic factors serve as moderating elements in the relationship between digitalization and entrepreneurship as these influence on how entrepreneurs perceive and engage with digital tools (Chatterjee et al., 2022). This

perspective is vital for developing inclusive strategies that consider diverse entrepreneurial experiences in the digital realm.

Looking forward, the trajectory of digital entrepreneurship will likely continue to evolve alongside technological advancements. The increasing emphasis on digital sustainability indicates a growing recognition of the interplay between entrepreneurship and pressing societal challenges such as climate change (George et al., 2020). This relationship warrants further exploration, as digital innovations provide avenues for sustainable business practices, thereby contributing to broader societal goals.

A comprehensive research agenda on digital entrepreneurship is essential for advancing understanding in this field. Several key themes emerge from the literature, including the exploration of digital business models, the integration of digital technologies in traditional industries, and the examination of the ethical implications of digital entrepreneurship (Nambisan et al., 2019; Verhoef et al., 2021). These themes provide a framework for future inquiries that could drive empirical advancements and theoretical insights.

#### 2.3.2.1. High digitalization level and female entrepreneurs

Understanding the dynamics of digitalization is essential to understanding the implications for female entrepreneurship, as digital technologies can provide unique affordances that facilitate entrepreneurial endeavors, has created opportunities for innovative business models and enhanced operational efficiency, particularly for female entrepreneurs who may have previously faced barriers to entry in traditional markets.

Digital affordances refer to the capabilities provided by digital technologies that enable entrepreneurs to connect and engage with customers, suppliers, and other stakeholders more effectively than ever before. The complementary effects of digitalization are crucial for maximizing the performance of entrepreneurial firms, particularly in an increasingly competitive landscape (Belitski et al., 2023). The transition from traditional to digital business models necessitates a nuanced understanding of how these technologies operate and the strategic opportunities

they create for female entrepreneurs, who often encounter distinct challenges in accessing resources and networks.

The intersection of gender and digital entrepreneurship reveals intrinsic disparities that influence the entrepreneurial journey for women. Female entrepreneurs, historically underrepresented in the entrepreneurship ecosystem, may leverage digital tools to overcome traditional barriers such as networking deficiencies, capital access and market visibility. Understanding these gender-specific experiences in digital entrepreneurship can unlock significant insights into the unique pathways women take in business (Kraus et al., 2018).

In the social media arena, digital platforms offer women entrepreneurs better ways to build social capital (Smith et al., 2017). The ability to bridge and bond within these networks can lead to increased visibility and support, crucial elements in the entrepreneurial process. This is particularly relevant in a world where relationships often pave the way for entrepreneurial success and access to funding. Digital technologies are reshaping the nature of entrepreneurial agency, enabling female entrepreneurs to navigate uncertainties in ways that were previously unfeasible (Nambisan, 2017).

Digital transformation encompasses more than just technology adoption; it represents a fundamental shift in how businesses create and capture value. This transformation challenges conventional business models and compels organizations to explore new digital technologies proactively (Jafari-Sadeghi et al., 2021). For female entrepreneurs, this shift may present opportunities to innovate in response to evolving market demands and consumer behaviors, thus broadening their market reach.

Moreover, during the COVID-19 pandemic, digitalization accelerated significantly, prompting many entrepreneurs to adapt swiftly. This "great acceleration" has varied effects, with certain sectors benefitting from rapid digital adoption, an area where female entrepreneurs can gain a competitive advantage by harnessing digital tools effectively (Amankwah-Amoah et al., 2021). However, it is also essential to recognize that these transformational opportunities come with unique risks, such as the potential for digital divide and employee well-being issues, which policymakers must address. Effective leadership in digital environments is critical for navigating the complexities associated with digital entrepreneurship.

E-leadership emerges as a pivotal element in harnessing digital technologies to support strategic alignment within small and medium-sized enterprises (SMEs) (Li et al., 2016b). For female entrepreneurs, cultivating e-leadership competencies can enhance decision-making and operational efficiencies, enabling them to scale their businesses more effectively.

Strategic alignment ensures that digital tools are not merely implemented but are integrated in ways that complement organizational objectives. This concept is critical for female entrepreneurs who may often manage multiple roles and seek to align their business aspirations with available digital resources. The need for e-leadership competencies underscores the importance of training and development programs tailored to women in entrepreneurship, ensuring they are equipped to lead in the digital age.

Policymakers and practitioners alike must consider the unique experiences of female entrepreneurs as they navigate digital transformation. As researchers note, digital sustainability—a concept emerging at the intersection of digital innovation and social responsibility—can guide a new research agenda focusing on how digital tools can address societal challenges including gender inequality in entrepreneurship (George et al., 2020).

Digitalization is not merely a trend but a critical factor that can enhance female entrepreneurship if leveraged effectively. As digitalization continues to reshape the entrepreneurial landscape, it presents unprecedented opportunities and challenges for female entrepreneurship research. Understanding the dynamics of digital technologies, how they relate to women's leadership strategies, and the broader implication of this transformation is crucial to harnessing its potential. Further research pathways may include exploring demographic factors' moderating effects on digitalization in SMEs (Chatterjee et al., 2022), promoting more targeted and specialized interventions that support female entrepreneurship. Additionally, understanding the implications of digital affordances on entrepreneurial ecosystems, could provide valuable insights for crafting supportive environments conducive to female entrepreneurs (Autio, 2018).

### 2.3.2.2. High digitalization level and senior entrepreneurs

Digitalization fundamentally alters the entrepreneurial process by introducing new tools and platforms for business operation. According to some researchers, agile business model innovation, particularly through lean startup approaches, allows senior entrepreneurs to adapt quickly to changing market conditions and consumer demands (Ghezzi & Cavallo, 2020). The leveraging of digital technologies enables these entrepreneurs to engage in rapid iteration and testing of their business models, mitigating risks associated with new ventures.

Digital affordances play a critical role in entrepreneurship (Belitski et al., 2023). These digital mechanisms connect senior entrepreneurs with customers and suppliers more effectively than previous means, enriching their networking opportunities and potentially increasing market reach.

Furthermore, the integration of digital technologies can lead to enhanced operational efficiencies and a reduction of overhead costs, allowing seniors to pursue entrepreneurial endeavors with fewer financial constraints (Jafari-Sadeghi et al., 2021). This shift toward digitalization can enable seniors to maintain longevity in their careers and foster a sense of purpose and community engagement.

Digital networks facilitate the accumulation of social capital for entrepreneurs (Smith et al., 2017). For senior entrepreneurs, leveraging social networks through digital platforms not only widens their reach but also enhances their ability to seek mentorship, advice, and resources critical for business growth.

The concept of bridging and bonding social capital is particularly relevant in this context. Bridging social capital allows seniors to connect with individuals outside their immediate social circle, leading to innovative collaborations and access to new markets (Autio, 2018). In contrast, bonding social capital reinforces existing relationships and community ties, fostering a supportive environment that can be especially beneficial for seniors navigating their entrepreneurial journeys.

Despite the numerous benefits digitalization offers to senior entrepreneurs, challenges persist. Many seniors encounter a digital skills gap that can hinder their ability to maximize the potential of digital tools and platforms (Nambisan et al., 2019). Many entrepreneurial training programs lack specific focus on how digital

technologies can empower older entrepreneurs (Nambisan et al., 2019). Addressing this skills gap through targeted education and training could enhance seniors' digital literacy and confidence in navigating online business environments.

Moreover, issues of ageism and bias can negatively impact senior entrepreneurs. The perception that older individuals may lack the adaptability necessary for success in the fast-paced digital economy can limit their access to funding and support. The COVID-19 pandemic has exposed these issues while also catalyzing digital transformations across various sectors, emphasizing the need for tailored strategies to support senior entrepreneurs (Amankwah-Amoah et al., 2021).

Effective leadership in digital environments is crucial for achieving strategic alignment between digital tools and business objectives (Li et al., 2016b). Navigating digital platforms effectively requires not only understanding the tools themselves but also the ability to lead teams and manage relationships in these digitally mediated environments. For senior entrepreneurs, who may have extensive experience but limited familiarity with digital environments, developing e-leadership skills is essential for ensuring that their ventures can thrive in an increasingly digital economy. In addition, e-leadership promotes a culture of innovation within senior-led enterprises. By embracing digitalization and fostering a proactive approach to technology uptake, senior entrepreneurs can create agile organizations that respond quickly to market changes and consumer needs. This adaptability is a significant advantage as the business landscape continues to evolve.

The future of entrepreneurship looks increasingly promising, if support systems are improved, as digital transformation continues to gain ground and as a result of an ageing population. Researchers emphasize the need for a multidisciplinary approach to understanding this sector and the intricate dynamics at play (Verhoef et al., 2021). Policymakers and business educators must collaborate to foster inclusive environments that encourage lifelong learning and digital engagement among seniors. Additionally, further research is needed to explore how demographic factors may interact with digitalization and entrepreneurship in the senior demographic (Chatterjee et al., 2022). Understanding these nuances can inform the development of tailored support mechanisms that address the unique challenges faced by senior entrepreneurs, ultimately leading to greater inclusivity and participation in the economy.

### 2.3.2.3. High digitalization level and immigrant entrepreneurs

With an increasing number of immigrants contributing to host economies through entrepreneurial ventures, understanding how digitalization affects these activities is crucial. The intersection of immigrant entrepreneurship and digitalization represents an emerging field of inquiry that combines insights from entrepreneurship theory, immigration studies, and digital technologies. Digital technologies, referred to as "digital affordances," provide unique opportunities for entrepreneurs, influencing their performance and the dynamics of their businesses in profound ways (Belitski et al., 2023).

Digital affordance enables entrepreneurs to optimize their business models and extend their networks. Understanding the complementary effects of digitalization is essential for enhancing the performance of entrepreneurial firms (Belitski et al., 2023). In the context of immigrant entrepreneurship, access to digital affordances can significantly reduce barriers to entry, enabling immigrants to forge connections with customers, suppliers, and partners globally (Autio, 2018). These affordances facilitate not only market innovation but also enhance operational efficiencies, thus contributing to the sustainability of immigrant-owned ventures (Kraus et al., 2018).

The experiences of immigrant entrepreneurs can vary significantly based on their technology readiness and familiarity with digital environments, which are often influenced by their prior interactions with technology in their countries of origin (Jafari-Sadeghi et al., 2021). Hence, immigrant entrepreneurs must navigate these realms to find opportunities that align with their unique capabilities.

The trajectories of immigrant entrepreneurs can often reflect their socio-demographic characteristics (Dabić et al., 2020), as well as their gender dynamics (Brieger & Gielnik, 2021), and these can influence the entrepreneurial activities of immigrant populations. The gender gap in immigrant entrepreneurship is exacerbated by cultural expectations and institutional barriers that disproportionately affect women, steering them away from entrepreneurship despite their desire to succeed.

Cultural background not only informs EI but also influences access to resources, networks, and mentoring opportunities. In fact, the Theory of Planned Behavior (TPB) is applied differently across cultures, underscoring the necessity of a framework that accounts for cultural variance when examining EI among

immigrants. This cultural lens allows for understanding how values, norms, and traditions dictate the entrepreneurial landscape within immigrant communities.

Online platforms serve as facilitators for relationship building, allowing immigrant entrepreneurs to leverage both their ethnic networks and broader community connections to access resources and market opportunities. The integration of digital tools into entrepreneurial practices is closely linked to the concept of social capital, particularly in immigrant communities. Research indicates that immigrant entrepreneurs often utilize their unique social networks to fulfill cultural needs while ensuring business viability (Kloosterman, 2010). These networks not only provide emotional support but also offer access to critical information about industry trends, technological advancements, and consumer preferences. The development of digital social capital, in this context, enables immigrants to effectively leverage their connections in the face of competitive pressures (Chatterjee et al., 2022).

Immigrant entrepreneurs, who are often less prepared for rapid shifts, such as the COVID-19 pandemic, due to varying levels of technological adoption, face specific challenges as they adapt to this new landscape (Jafari-Sadeghi et al., 2021). Immigrant entrepreneurs often must balance existing business models with the pressures of integrating new technologies, risking the sustainability of their operations.

Moreover, the effects of digitalization are not uniform across demographics. The potentialities and moderating roles of demographic factors must be understood to navigate the varied impacts that digital tools have on different groups of immigrant entrepreneurs (Chatterjee et al., 2022). As such, the interplay of these dynamics necessitates a nuanced approach to policymaking and support mechanisms that cater to the diverse landscape of immigrant businesses (Nambisan et al., 2019).

Digitalization in immigrant entrepreneurship reveals a multifaceted landscape shaped by digital affordances, socio-cultural influences, social capital, and the ongoing challenges of digital transformation. Given the significant role of immigrant entrepreneurs in economic growth and innovation, an interdisciplinary approach that draws from entrepreneurship theory, sociology, and technological studies is essential. This comprehensive understanding not only contributes to academic

literature but also provides practical insights that can inform effective policy and entrepreneurial support systems.

As mentioned at the beginning of this chapter, we cannot consider all entrepreneurs as a homogeneous group of individuals. As mentioned in the last two chapters, the prioritization of sustainability and the adoption of digitalization could be very closely related, being the high digitalization a characteristic that moderates the prioritization of sustainability of unconventional early-stage entrepreneurs.

Therefore, the aim of this paper is to determine whether high digitalization is a characteristic that explains the moderation of the prioritization of sustainability by unconventional early-stage entrepreneurs.

In consideration of the aforementioned points, I hereby submit the following primary propositions:

P3.A.: Entrepreneurs belonging to **vulnerable groups** are more likely to pursue **sustainable development goals** in their ventures compared to their conventional counterparts.

- ✓ P3.A. - 1: women
- ✓ P3.A. - 2: senior
- ✓ P3.A. - 3: immigrants
  
- ✓ P3.A. - 4: Entrepreneurs belonging to **augmented vulnerable** groups are more likely to pursue sustainable **development goals** in their ventures compared to their conventional counterparts.
  - 4 - a: female and senior
  - 4 - b: female and immigrant
  - 4 - c: senior and immigrant

P3.B.: The **moderating effect of digitalization increases the prioritization** of the **sustainable impact** of entrepreneurs belonging to vulnerable segments of the population in the initial stage of entrepreneurship.

- ✓ P3.B. - 1: women
- ✓ P3.B. - 2: senior
- ✓ P3.B. - 3: immigrants
  
- ✓ P3.B. - 4: **digitalization** moderates positively the relationship between **augmented vulnerability** and **sustainable impact**.



## **CHAPTER 3: RESEARCH STRATEGY**

### 3.1. GENERAL DATA DESCRIPTION

#### 3.1.1. Context of research

Vulnerable groups include a diverse range of populations characterized by varying degrees of socio-economic marginalization and systemic barriers, particularly in contexts such as entrepreneurship. The female population in Spain represents 50.99% of the total population, the elderly population (45 years or more) 37.27% and immigrants and refugees 12.66%, and they increased their populations by 3.8%, 16.72% and 30.22% respectively during 2023 in Spain (INE as of 31/12/2023).

As in other many countries, self-employment has gained recognition as a crucial alternative pathway to economic stability for vulnerable populations such as women, seniors, and immigrants. The rising importance of self-employment options is particularly pertinent in the context of economic adversity and post-crisis recovery, emphasizing the resilience of these groups in navigating economic challenges.

The economic landscape in Spain has been characterized by high unemployment rates, particularly following the 2008 financial crisis and more recently due to the COVID-19 pandemic. As traditional employment opportunities have dwindled, self-employment has become an increasingly viable option for those facing barriers in the labor market.

Recent research highlights that in regions with higher GDP per capita, there is a significant positive moderation of the relationship between gender, age, and the propensity for entrepreneurship, particularly for women and older adults (Audretsch, Ghalwash, et al., 2024). This indicates that contextual economic factors can enhance the ability of vulnerable populations to engage in self-employment, creating opportunities for financial independence and social integration.

Moreover, the concept of entrepreneurship as a mechanism for improving economic conditions for disadvantaged groups has gained traction. Studies have illustrated that vulnerable populations, including immigrants, often resort to self-

employment as a strategy for economic survival, especially in the face of limited access to conventional employment opportunities (Morris et al., 2020). This trend reflects a broader phenomenon where self-employment serves as a vital conduit for vulnerable individuals to achieve economic stability and enhance their social mobility (Morris et al., 2020; Strawser et al., 2021).

Data from the Spanish National Institute of Statistics (INE) indicates that as of 2023, approximately 16% of the workforce was self-employed, with a notable representation from vulnerable groups, accounting women the 35% of all self-employed individuals in the country, often driven by the need for flexible working conditions that accommodate family responsibilities.

According to a report by the European Commission, female self-employment in Spain has been on the rise. This trend highlights the potential for self-employment as a means for those people to achieve economic independence and stability, particularly in a context where traditional employment may not be accessible.

According to the Spanish National Statistics Institute (INE), in 2024, the female unemployment rate stood at approximately 12,5%, compared to 10% for men. This implies a gap of 2.5 points between the rates of both segments. If we analyze the disaggregated data, we can see that the unemployment rate for women exceeds the unemployment rate for men in all age ranges. According to ICEX, although in 2023 the wage gap in Spain between men and women decreased to 18.6%, Spanish women should earn 4,341 € gross more per year to match their average salary (23,301€) to that of male employees (27,642€).

If we analyze the activity rate, the data show that the rate corresponding to that of men also exceeds that of women, in all age groups. Men recorded an activity rate of 63.67% while the activity rate of women stood at 53.58% in 2024, which causes a gap of more than 10 points.

The professions with the highest female predominance continue to be the "Household Activities as employers of domestic staff" and "Health and social service activities" with a 89.0% and 76.9%, respectively, even increasing in relation to the previous year. Another highly feminized profession is education, in which 68.7% of workers are women. Women often bear the brunt of caregiving responsibilities, which can limit their ability to participate fully in the labor market

(Insarauto, 2021). On the other hand, there are some professions with a large male predominance, such as "Construction" or "Industries" or "extractive activities".

Labor Force Survey (EPA) of the National Institute of Statistics of Spain, corresponding to the last quarter, shows a majority of women (2,252,600) compared to men (806,400) who are employed part-time; This means that 73.6% of those employed part-time are women. The main reasons why women choose a part-time contract is to complement it with the care of children or adults who are sick, disabled or and other family or personal obligations (93.3% and 79.0%, respectively). This situation highlights the need for targeted policies to support women's employment and address the systemic barriers they face.

In relation to academic training, carried out prior to the start of the professional stage, the data show that although 57.0% of university students are women. The gender distribution according to branch of education is still very heterogeneous. The degrees in which the fewest women participate are computer science, engineering and mathematics (17.2%, 27.3% and 36.3% respectively), while the most studied are those related to education and care: teachers, early childhood education, social work, nursing and medicine (90.7%, 84.4%, 81.7% and 70.8% respectively).

In terms of political power, and after the implementation of laws that promoted women's access to the highest bodies of power, Spain has managed to be at the top of the European ranking in 2024, along with Sweden, Finland and France, in terms of the percentage of women in top-level bodies. At the executive level, the presence of women in the Council of Ministers is 47.8%, and at the legislative level it is 44.5% in the Congress of Deputies. Regarding the Senate, the percentage of elected senators was 42.8%. In addition, most political parties reached a female presence above 40%.

With regard to the situation of the analyzed second vulnerable group, the Spanish ageing population, the most highlighting aspect is its significant increase in recent decades. Spain stands out as one of the countries with the highest life expectancy in the world, with 84 years at birth in 2024, following Hong Kong and Japan which are the two main standards in this regard.

This critical demographic shift has a major impact on economic stability. The rising rates of childlessness and delayed first births in Western cultures can alter family structures and dynamics, which in turn affects labor markets and economic

productivity. The implications of these changes are profound, as they may lead to a shrinking workforce and increased dependency ratios, thereby straining social security systems and economic resources (Welsh et al., 2016).

Ageism, or discrimination based on age, can lead to reduced opportunities for social engagement and economic participation, further entrenching their vulnerable status (Pidduck & Clark, 2021). This societal bias can manifest in various ways, including limited access to employment opportunities and social services tailored to their needs. In Spain these demographic faces higher unemployment rate, compared to younger age groups, which stood at around 10,1% in 2024.

Related to the third vulnerable group I analyzed, the immigrants, we can observe that, according to the INE dataset, the unemployment rate among foreign-born individuals in Spain was approximately 20,4% in 2023, significantly higher than the national. Many immigrants find themselves in precarious employment situations, often working in low-wage jobs that do not reflect their skills or qualifications. Many immigrants face barriers to employment due to language difficulties, lack of recognition of foreign qualifications, and discrimination. This economic marginalization can lead to higher rates of poverty and social exclusion compared to native populations.

Delving deeper into the analysis of the current situation of Entrepreneurial Intention in Spain, as the data obtained by GEM confirm, during 2023 the percentage of potential entrepreneurs increased moderately after the period of uncertainty experienced in 2020, 2021 and 2022, because of the Covid19 crisis (Calvo et al., 2024). The percentage of entrepreneurs increased to 11.2%, a level not reached since 2012. These data reflect the fact that in Spain there are more and more people with entrepreneurial intentions.

Spain presents a unique context for examining female EI and creation, as it has witnessed a notable increase in female entrepreneurship in recent years, driven by various socio-economic factors, including the need for economic independence and the rise of digital entrepreneurship. Recent changes towards greater gender equality and the promotion of female entrepreneurship have also changed traditional gender roles and expectations for women, encouraging the development of their entrepreneurial initiatives. As the data obtained by GEM show, in 2023 there is a significant increase in the EI of both men and women (Calvo et al., 2024). Although the percentage of men willing to become entrepreneurs is higher (11.5%),

the increase is greater in the case of women, who go from 8.8% in 2022 to 10.9% in 2023. The role of education in shaping female EI in Spain is particularly noteworthy. Studies indicate that women who engage in entrepreneurial education programs are more likely to develop intentions to start their own businesses (Liñán & Fayolle, 2015).

Furthermore, Spanish universities are increasingly recognizing the importance of fostering entrepreneurial skills among students, leading to the development of specific programs for smaller groups with more specific profiles. However, challenges persist, and understanding the specific dynamics of EI in Spain is essential for promoting inclusive entrepreneurship.

In addition, initiatives have been taken to provide more targeted entrepreneurs with financial support, training and resources to enhance their entrepreneurial intentions and skills.

### 3.1.2. Global Entrepreneurship Monitor dataset

I used the Global Entrepreneurship Monitor (GEM) database for this research (*GEM database*, s. f.). The GEM is defined as a large-scale international collaborative research consortium that systematically and consistently measures entrepreneurship and its associated characteristics in a way that is coherent over time and space.

The GEM Consortium consists of national teams, each using the same precise research methodology, sample design and survey instruments to collect nationally representative data on entrepreneurship. It allows the level and nature of entrepreneurship to be monitored by making direct comparisons between economies at the same time, and by tracking the evolution of entrepreneurship within the same economy over time.

The GEM terminology distinguishes four stages of entrepreneurship: (1) expecting to start a business in the next 3 years, (2) start-up (SU), if no wages or salaries have been paid for 3 months, (3) baby business (BB), if wages or salaries have been paid for between 3 and 42 months, and (4) established business (EB), if wages or salaries have been paid for more than 42 months (Calvo et al., 2024).

Nascent entrepreneurs and baby businesses are included in total early-stage entrepreneurial activity (TEA). All data are expressed as a percentage of the working age population (18-64 years). For more detailed results, entrepreneurs are disaggregated by stage of entrepreneurship and by gender.

Since its inauguration in 1999, GEM data (*GEM database*, s. f.) have played a significant role in policy development and policy evaluation for national governments, as well as for international bodies including the World Bank, the European Commission, the World Economic Forum, and the United Nations.

Each National Team taking part in GEM commits every year to undertake two national surveys: the Adult Population Survey (APS) and the National Expert Survey (NES). Meaning that data collection is carried out through:

- Adult Population Surveys (APS): are based on a special questionnaire revealing respondents' attitudes to conditions of entrepreneurial activity and their involvement in the entrepreneurial process. The minimal representative sample in each country/region is 2.000 adults. Results are then cross-checked and quality-approved by GEM's technical team.
- National Expert Surveys (NES): a survey of entrepreneurs and experts in entrepreneurship to measure framework conditions of entrepreneurship, using special questionnaires and in-depth interviews. The questionnaire has 10 parts corresponding to GEM classifications of main framework conditions influencing entrepreneurial activity and economic growth. The selection of experts was conducted through a semi-standardized procedure. The expert sample should comprise at least 36 experts and include men and women from various areas of professional activity and different geographical regions.

The primary goals of GEM are to provide a comprehensive understanding of the factors that contribute to or inhibit entrepreneurship on a global scale, to identify trends in entrepreneurial activity, and to offer insights that can inform policy decisions and support the development of entrepreneurship ecosystems. In numbers, it represents:

- 25 years of data, allowing longitudinal analysis in and across geographies on multiple levels, from 120 economies across five continents.
- Collaboration with over 370+ specialists in entrepreneurship research.

- Involvement of some 150+ academic and research institutions.
- Support from more than 150+ funding institutions.
- Up to 170.000+ interviews annually with experts and adult populations, including entrepreneurs of all ages.

To measure entrepreneurial activity, one of the most important statistics, GEM Adult Population Survey provides the TEA (total early-stage entrepreneurial activity) index, and the percentage of established business among the population. The TEA index is the percent of early-stage entrepreneurs in the population. This data, among many others, is available at all regional levels.

### 3.2. DESCRIPTION OF THE SAMPLE

For this thesis, I used the 2023 APS data. This includes 30,201 observations of Spanish individuals, restricted to the 18-64 age group.

While there may be some limitations, the Global Entrepreneurship Monitor (GEM) data (*GEM database*, s. f.) offers numerous advantages for our research topic. It is essential for effective analysis to utilize representative and diverse samples that capture different territorial contexts and individuals' varied profiles. The validity of the findings significantly hinges not only on the size of the sample, but also on the quality of the sampling methodology employed.

As mentioned above, GEM effectively addresses these concerns by selecting a minimum of 2.000 adults aged 18 to 64 each year per country to enhance data reliability and representativeness (Ndofirepi & Steyn, 2023). But in the concrete case of Spain, the number of people interviewed is higher because in addition a national analysis, some regions do their own analysis limited to their specific geographic area.

GEM's application of a stratified sampling technique plays a critical role in its methodology. This approach is designed to guarantee that the survey respondents adequately reflect the demographic composition of the broader population, thus further enhancing the representativeness of the data collected. By focusing on different subgroups within the population, including various forms of marginalization

and socio-economic factors, the GEM data encompasses a wide range of entrepreneurial dynamics through a nuanced lens (Pidduck & Clark, 2021). This detailed stratification is vital not only for capturing distinct entrepreneurial capabilities as driven by personal factors but also for understanding how these factors interact with contextual elements, such as education and local economic conditions, to affect entrepreneurial outcomes (Audretsch, Ghalwash, et al., 2024).

As above mentioned, the GEM observatory is based on the next sources of information:

- The survey of the population aged 16-64 (APS): it serves to obtain the main indicators of entrepreneurial activity and characterizes it. It is analyzed between April and July in all participating nations, regions and cities. In the case of Spain, this task is outsourced to a company called Opinòmetre.
- The survey of experts in the entrepreneurial environment (NES) serves to assess the state of the main variables that influence the entrepreneurial process and that can condition its magnitude and characteristics. Each year, a different representative sample of experts is selected from each country and/or region in the following areas: financing, government policies, public programs, education, R&D transfer, commercial and physical infrastructure, domestic market openness, and social and cultural norms. These experts are surveyed each year between March and July using a comprehensive questionnaire designed by GEM.
- Secondary sources: each year GEM collects information from the most prestigious sources that provide actualized information on economic development, demographics, labor market, innovation, competitiveness and how many variables it considers relevant. The data collection is done from July to September trying to provide the teams with the most updated data along with the necessary time series.

The first two, based on original project tools, are subjected to rigorous quality controls in terms of translation and fieldwork to ensure that the responses obtained in all participating countries are comparable.

### 3.3. DESCRIPTION AND MEASUREMENT OF VARIABLES

#### 3.3.1. The dependent variables

##### EI (Model 1): Entrepreneurship Intention

EI acts as guiding frameworks for entrepreneurs' goal setting, communication, and commitment, ultimately leading to the founding of a firm (Bird, 1988). Factors influencing EI can be systematically characterized using frameworks such as Ajzen's Theory of Planned Behavior. This theory outlines how attitudes, subjective norms, and perceived behavioral control influence one's intentions and subsequent actions (Ajzen, 1991). Liñán and Chen contribute to this understanding by providing empirical evidence that reinforces the relevance of personal attitudes and perceived behavioral control in forming entrepreneurial intentions across diverse cultures (Liñán & Chen, 2009).

In this thesis I will analyze which characteristics of vulnerable populations are crucial in explaining EI, among the next dependent variables.

This data is obtained in the APS data collection after asking individuals whether they have expectations of starting a business in the next 3 years at the moment of the interview. The variable *EI* takes the value of (1) if individuals answer affirmatively the question, i.e., if they have the intention to start a new business in the next 3 years, and (0) if they do not have this intention.

##### TEA (Model 2): Early-stage entrepreneur

It refers to the individuals involved in Total early-stage Entrepreneurial Activity. According to Reynolds et al. (2005), individuals are involved in Total early-stage Entrepreneurial Activity if they, alone or with others, are undertaking concrete actions towards creating a new venture, specifically if they paid wages or salaries till 42 months. This dichotomous variable takes the value of (1) if individuals were involved in early-stage Entrepreneurial Activity in 2023 and (0) if they were not.

MaDiW (Models 3 & 6): “Make a Difference in the Word” motivated entrepreneur

This variable refers to the entrepreneurs’ motivation to initiate their entrepreneurial activity. The entrepreneurs were asked if they started up their business motivated by the statement: “to make a difference in the world”.

The respondents could choose from a Likert scale with the following options: “Fully agree,” “Somewhat agree,” “Neither agree nor disagree,” “Slightly agree,” or “Not at all in agreement.”

This motivation was then transformed into a dichotomous variable. It takes the value of 1 if individuals responded with “Fully agree” or “Somewhat agree” and 0 for any of the other options.

Model 3 calculates this dependent variable using the early-stage entrepreneurs’ database, while Model 6 uses the established entrepreneurs’ database for a robustness check

EarmL (Models 4 & 7): “Earning a living because jobs are scarce” motivated entrepreneur

This variable refers to the entrepreneurs’ motivation to initiate their entrepreneurial activity. The entrepreneurs were asked if they started up their business motivated by the statement: “Earning a living because jobs are scarce (it’s hard to get a job)”.

The respondents could choose from a Likert scale with the following options: “Fully agree,” “Somewhat agree,” “Neither agree nor disagree,” “Slightly agree,” or “Not at all in agreement.”

This motivation was then transformed into a dichotomous variable. It takes the value of 1 if individuals responded with “Fully agree” or “Somewhat agree” and 0 for any of the other options.

Model 4 calculates this dependent variable using the early-stage entrepreneurs’ database, while Model 7 uses the established entrepreneurs’ database for a robustness check.

#### EE (Model 5): Established Entrepreneur

It refers to entrepreneurs that manage and own a business that is older than 42 months. This variable takes the value of (1) if he or she does and (0) if he/she does not.

#### Export (Models 8 & 10): Exporting early-stage entrepreneur

Export-oriented entrepreneurship has been recognized as a significant driver of regional economic growth, contributing to job creation and increased competitiveness in global markets (Aparicio et al., 2016). By focusing on entrepreneurs who export, we can better comprehend the mechanisms by which local economies harness global opportunities. These entrepreneurs often serve as catalysts for knowledge transfer, illustrating how the intersection of innovation and institutional environments influences economic performance (Ács et al., 2018). Understanding the distinct challenges and advantages faced by exporting entrepreneurs allows policymakers to tailor support mechanisms that enhance their productivity and sustainability, ultimately fostering a more resilient economic landscape (Aparicio et al., 2022).

The early-stage entrepreneurs whose exports exceed 10% of their company's turnover are assigned a value of (1), while those who do not meet this threshold are assigned a value of (0).

Model 8 calculates this dependent variable using the early-stage entrepreneurs' database, while Model 10 uses the established entrepreneurs' database for a robustness check.

#### JCE (Models 9 & 11): Job creation expectations

Research indicates that not all forms of entrepreneurship contribute equally to job creation. The heterogeneity in entrepreneurial activities requires a nuanced examination beyond traditional metrics of economic success (Welter et al., 2017).

Understanding the variables and how entrepreneurs leverage them to fulfill resource requirements is essential for fostering job creation.

In this research the variable *job creation expectations* refers to the early-stage entrepreneurs' expectations for the growth of their business, measured by the number of individuals they expect to employ in the next 5 years. This variable takes the value of (0) when the expected job growth is 0 and (1) when it is 1 employee, or more.

Model 9 calculates this dependent variable using the early-stage entrepreneurs' database, while Model 11 uses the established entrepreneurs' database for a robustness check.

SUSprio (Models 12 & 15): Early-stage entrepreneur prioritizing sustainability, i.e., social and environmental impact

Analyzing entrepreneurs who prioritize sustainability, i.e. social and environmental impact, above profitability or growth, is critical due to the transformative potential these ventures have on society and the economy. This transformation is increasingly supported by research indicating that sustainable entrepreneurship is fundamental in fulfilling the United Nations' Sustainable Development Goals and cultivating entrepreneurial ecosystems that respond to contemporary grand challenges (Audretsch, Ghalwash, et al., 2024; Chaudhary et al., 2023; Patzelt & Shepherd, 2011).

The analyzed variable refers to the early-stage entrepreneur. The APS survey asks them if they prioritize the social and/or environmental impact of his/her business above profitability or growth. When he/she agrees or strongly agrees with this statement, this dichotomous variable takes the value of (1) and otherwise it takes the value (0).

Model 12 calculates this dependent variable using the early-stage entrepreneurs' database, while Model 15 uses the established entrepreneurs' database for a robustness check.

SOCprio (Models 13 & 16): Early-stage entrepreneur prioritizing social impact

It refers to the early-stage entrepreneur who prioritizes sustainability, but concretely the social impact of his/her business, above profitability or growth. When he/she agrees or strongly agrees with this statement, this dichotomous variable takes the value of (1) and otherwise it takes the value (0).

Model 13 calculates this dependent variable using the early-stage entrepreneurs' database, while Model 16 uses the established entrepreneurs' database for a robustness check.

ENVprio (Models 14 & 17): Early-stage entrepreneur prioritizing environmental impact

It refers to the early-stage entrepreneur who prioritizes the environmental impact of his/her business above profitability or growth. When he/she agrees or strongly agrees with this statement, this dichotomous variable takes the value of (1) and otherwise it takes the value (0).

Model 14 calculates this dependent variable using the early-stage entrepreneurs' database, while Model 17 uses the established entrepreneurs' database for a robustness check.

### 3.3.2. The explanatory variables

Fem: Female

The variable takes the value (1) when the respondent declares to be female and (0) when he declares as male.

Snr: Senior

This dichotomous variable takes the value (1) if the respondent indicates that he or she is 55 years of age or older, and (0) if not.

Imm: Immigrant

This variable refers to the place of birth of the individual interviewed. If their answer is Spain, the variable will take the value (0) and (1) if their answer is EU, rest of Europe or rest of the world.

Digi: Digitalization

The variable of *digitalization* refers to the level of digitalization of an entrepreneurship. Respondents can choose between the following options: (1) Post, (2) Mail and web, (3) Mail, web and social media, (4) Mail, web, social media and online shop, (5) Mail, web, RRSS, online shop and use of IA.

The dichotomized variable takes the value (1) if the entrepreneur answers option (4) or (5) and (0) if the entrepreneur answers one of the options (1), (2) or (3).

### 3.3.3. The interaction variables

The interaction variables within entrepreneurship studies are often key analytical dimensions to understand the multifaceted nature of entrepreneurial behaviors and outcomes. In this thesis I will analyze the next ones:

Fem&Snr: Female and Senior

This variable is composed of two demographic variables: age and gender. When the respondent claims to be female on the one hand and claims to be over 55 years old on the other hand, the interaction of both will be 1 and therefore, the variable will take the value of (1). Otherwise, the value of the variable will be (0).

The interplay between personal characteristics (such as gender and age) and external economic factors can significantly influence individual self-employability,

shedding light on how various contexts affect entrepreneurship, especially in contexts impacted by economic shocks (Audretsch, Ghalwash, et al., 2024). Scholars confirm the need to consider these demographic factors as interaction variables (Audretsch et al., 2024) and further study them in relation to entrepreneurial intentions, promoting growth and ensuring sustainable impact. The aim of this variable is to detect the existence of the augmented vulnerability.

Fem&Imm: Female and Immigrant

This variable is composed of two demographic variables: gender and immigrant. When the respondent claims to be female on the one hand and claims to be over 55 years old on the other hand, the interaction of both will be 1 and therefore, the variable will take the value of (1). Otherwise, the value of the variable will be (0).

The intersection of female entrepreneurship and immigration reflects a complex landscape of challenges and opportunities that impact both economic and social dimensions. Female entrepreneurs, particularly immigrants, represent a growing demographic within global entrepreneurship, contributing significantly to job creation and innovation (Hechavarria et al., 2018).

Research indicates that immigrant women often encounter compounded barriers to entrepreneurship, arising from both gender-specific and cultural constraints. These barriers include limited access to financial resources, networks, and market knowledge, often exacerbated by societal stereotypes about gender roles (Chen et al., 2021; Brush et al., 2009). For instance, Chen et al. show that women, including immigrants, are less likely to engage in opportunity-driven entrepreneurship, largely mediated by their levels of human and social capital. The absence of networks and support systems further limits their propensity to launch businesses compared to their male counterparts or non-immigrant female entrepreneurs (Chen et al., 2021; Welsh et al., 2016).

Cultural contexts also greatly influence the entrepreneurial journeys of immigrant women. In different societies, cultural perceptions of gender roles can either impede or encourage female entrepreneurial endeavors. Studies reveal significant variations in support and entrepreneurial identity formation, affecting immigrant women differently depending on their country of origin and societal expectations in the host country (Cheraghi et al., 2014; Liñán et al., 2022).

Furthermore, high-growth entrepreneurship among immigrant women often aligns with their unique skills and experiences, allowing them to tap into niche markets not addressed by existing businesses (Hechavarria et al., 2018). This ability to innovate and diversify can lead to considerable economic impacts. Notably, the entrepreneurial activities of immigrant women could promote social mobility within their communities, addressing economic disparities and enhancing their socio-economic standing (Aparicio et al., 2022; C. Brush et al., 2017).

To effectively support this demographic in their entrepreneurial endeavors, policy frameworks must specifically address the unique challenges faced by immigrant women. Such frameworks should emphasize improving access to resources, providing tailored training programs to build social and human capital, and fostering inclusive networks (Eddleston et al., 2016; V. K. Gupta et al., 2019). Establishing supportive ecosystems is crucial for transforming obstacles into pathways for success among female immigrant entrepreneurs.

#### Sen&Imm: Senior and Immigrant

The interaction variable I use in this thesis is composed of two demographic variables: age and the place of birth of the interviewed person. When the respondent claims to be older than 55 and claims to have been born in a country other than Spain, the interaction of the two will be equal to one and the variable will therefore take the value (1). Otherwise, the value of the variable is (0).

Research indicates that older individuals, particularly those who have transitioned from stable employment to self-employment, may encounter increased barriers due to ageism and underemployment (Kenny & Rossiter, 2018; Soto-Simeone & Kautonen, 2020). Furthermore, immigration status can compound these effects, as immigrants may possess limited access to capital, networks, and resources typically crucial for entrepreneurship (Kautonen et al., 2008, 2017). A study focusing on the experiences of seniors transitioning into self-employment highlighted that the complexities of financial stability, societal perceptions, and cultural differences can significantly hinder their entrepreneurial ambitions (Kloosterman, 2010).

Cultural and social factors play a critical role in the entrepreneurial motivations of senior immigrants. Immigrants often carry unique cultural perspectives that shape their business endeavors, which may not align with the dominant entrepreneurial

norms in their new environment (Perenyi et al., 2018; Zhu et al., 2021). Notably, senior immigrants may have increased intrinsic motivations to engage in entrepreneurship as a means of fostering community ties or contributing positively to their new society, navigating these efforts within the sphere of marginalization (Soto-Simeone & Kautonen, 2020; Cardella et al., 2020). Such motivations may not only be driven by economic necessity but also by a desire for self-actualization and meaningful integration into their communities (Soto-Simeone & Kautonen, 2020; Perényi et al., 2017). Nevertheless, despite their potential, senior immigrants often encounter systemic barriers rooted in socio-economic disadvantages that complicate their challenges in establishing viable entrepreneurial ventures (Kautonen et al., 2008, 2017).

The integration of social capital and community support initiatives can play a pivotal role in mitigating these challenges and enhancing the potential for entrepreneurial success among senior immigrants, leading to broader societal benefits (Azoulay et al., 2020; Wu et al., 2019).

Hdigi&Fem: High digitalization and female

The variable I use for this research is composed of two variables: gender and digitalization level. The variable of *digitalization* refers to the level of digitalization of a new venture, i.e. the digitization tools they use. Respondents can choose between the following options: (1) Post, (2) Mail and web, (3) Mail, web and social media, (4) Mail, web, social media and online shop, (5) Mail, web, RRSS, online shop and use of IA. The dichotomized variable, which is the interaction of the two variables, will take the value of (1) if the entrepreneur respondent claims to be female and chooses (5) as the level of digitalization. In other words, the variable takes value (1) if the respondent is a woman who leads a highly digitized start-up. Otherwise, the value of the variable takes value (0).

Women-owned enterprises are characterized by distinct success factors, including support from personal, environmental, and governmental spheres (V. K. Gupta et al., 2019). The digitization process can enhance these entrepreneurial success factors by providing women with increased access to resources, networks, and markets. The integration of technology facilitates opportunity-driven entrepreneurship, allowing women to leverage their human and social capital more

effectively. Research indicates that gaps in opportunity-driven entrepreneurship are partly due to women limited entrepreneurial knowledge and social networks (Chen et al., 2021), signaling an urgent need to empower female entrepreneurs through digital means.

The advent of digital tools creates opportunities to challenge traditional gender roles and perceptions that may hinder female entrepreneurs (Welsh et al., 2016), by offering new avenues for networking and skill acquisition. Encouragingly, digital initiatives focused on women can help mitigate barriers such as gender biases in financing, which often disadvantages female entrepreneurs compared to their male counterparts (Pergelova et al., 2018). Additionally, research emphasizes that policy measures and educational programs aimed at enhancing digital skills can significantly boost women's participation in entrepreneurship and ensure a more equitable economic environment (Eddleston et al., 2016). This highlights the fundamental need to study digitalization's impact as a means to empower women and stimulate their entrepreneurial activities not only for individual growth but also for broader societal benefits (Brush et al., 2017).

The economic contribution of women entrepreneurs is substantial; they represent the fastest-growing segment of the business landscape, thereby playing a crucial role in job creation and economic growth (Cardella et al., 2020). Therefore, investigating the role of digitalization within the context of female entrepreneurship will provide insights into effectively addressing these gaps and driving economic advancement.

Hdigi&Snr: High digitalization and senior

The variable I use for this research is composed of two variables: age and digitalization level. The variable of *digitalization* refers to the level of digitalization of an entrepreneurship, i.e. the digitization tools they use. Respondents can choose between the following options: (1) Post, (2) Mail and web, (3) Mail, web and social media, (4) Mail, web, social media and online shop, (5) Mail, web, RRSS, online shop and use of IA. The dichotomized variable, which is the interaction of the two variables, will take the value of (1) if the entrepreneur respondent claims to be senior and chooses (5) as the level of digitalization. In other words, the variable

takes value (1) if the respondent is a senior who leads a highly digitized start-up. Otherwise, the value of the variable takes value (0).

The interaction between highly digitalized entrepreneurs and senior entrepreneurs reveals a complex dynamic influenced by various factors related to technology and entrepreneurial motivations. Digital affordances, which are new capabilities enabled by digital technologies, significantly reshape how entrepreneurial activities are conducted, allowing entrepreneurs to connect more effectively with customers and suppliers, which in turn can enhance firm performance (Belitski et al., 2023). For senior entrepreneurs, this digitalization provides both opportunities and challenges. Older entrepreneurs often possess substantial industry experience but may face barriers in adapting to new digital processes. As highlighted by Zhu et al., cultural dimensions significantly shape the way senior entrepreneurs engage with technology, potentially determining their motivations and success rates in the digital landscape (Zhu et al., 2021). Moreover, the potential for enhanced well-being through entrepreneurial ventures emphasizes that the integration of digital tools may align with their intrinsic motivations to seek self-realization and community impact as they pursue entrepreneurial activities (Soto-Simeone & Kautonen, 2020).

The transition to digital entrepreneurship entails a reconsideration of traditional business models and practices, especially for senior individuals who may encounter different motivational drivers compared to their younger counterparts. Research indicates that senior entrepreneurs are often motivated more by opportunity than necessity, which leads to unique entrepreneurial intentions framed by their extensive professional backgrounds (Perényi et al., 2017). This broader perspective allows them to leverage their experiences while benefiting from the affordances provided by digital technologies to explore new avenues for growth. In essence, while the nature of uncertainty in entrepreneurship evolves with digitalization, senior entrepreneurs may utilize their past work experiences to navigate this landscape effectively, leading to innovative outcomes as they embrace digital methodologies (Nambisan, 2017).

Furthermore, the interplay between digitalization and senior entrepreneurship necessitates a focus on tailored support systems that empower older entrepreneurs. It is essential to design training and development programs that address not only technological skills but also cultivate the mindset for adaptation to digital advancements (Kenny & Rossiter, 2018). The unique barriers identified among senior entrepreneurs emphasize the need for contextualized support that

acknowledges the specific challenges they face in a rapidly changing digital economy (Amankwah-Amoah et al., 2021). As the entrepreneurial ecosystem matures, the contributions of senior entrepreneurs, bolstered by their ability to leverage digital technologies, can lead to significant societal benefits, underlining the importance of creating inclusive environments that foster innovation across age groups (Autio, 2018).

#### Hdigi&Imm: High digitalization and immigrant

The variable I use for this research is composed of two variables: immigrant and digitalization level. The variable of *digitalization* refers to the level of digitalization of a new venture. Respondents can choose between the following options: (1) Post, (2) Mail and web, (3) Mail, web and social media, (4) Mail, web, social media and online shop, (5) Mail, web, RRSS, online shop and use of IA. The immigrant variable refers to the place of birth of the individual interviewed. If their answer is Spain, the variable will take the value (0) and (1) if their answer is EU, rest of Europe or rest of the world. The dichotomized variable takes the value (1) when the entrepreneur answers option (5) in the digitalization variable and (1) to the place of birth variable, i.e. confirms the requested is immigrant and leads a highly digitalized star-up. Otherwise, the value of the variable will be (0).

Understanding the role of digitalization is vital, especially in the context of immigrant entrepreneurship, where traditional barriers can often impede access to essential resources and networks (Dabić et al., 2020). Research indicates that the digital landscape allows for the evolution of immigrant businesses by providing them with innovative tools that can enhance visibility, customer engagement, and operational efficiency (George et al., 2020; Kraus et al., 2018). Moreover, immigrant entrepreneurs who effectively harness digital technologies can engage in niche markets, leading to growth and sustainability (Chatterjee et al., 2022; Dabić et al., 2020). This underscores the potential for digitalization not merely as a means of business operation but as a critical enabling of entrepreneurial success for marginalized groups in the economic landscape.

### 3.3.4. The control variables

The control variables are classified into two levels. One level reflects the personal characteristics of the individual, and the other level reflects the characteristics of the new business.

#### 3.3.4.1. Individual level control variables

##### EduL: Education Level

The variable *Education* Level takes the value of (1) when individuals have at least a post-secondary degree and (0) otherwise.

Formal education is a commonly used indicator of abilities as per the Human Capital Theory. The effects of formal education are not uniformly positive across all demographic groups. The context (including socioeconomic factors) plays a crucial moderating role in how education translates into entrepreneurial success, particularly for marginalized or vulnerable populations (Audretsch, Ghalwash, et al., 2024). This consideration suggests that while education is fundamental, it must be contextualized within the broader socio-economic landscape to fully understand its impact on entrepreneurship.

##### FoF: Fear of Failure

The variable is coded as a binary outcome (1 or 0) based on the respondent's answer to the following question: "Would fear of failure prevent you from starting a business?" It takes the value (1) when the respondent answers affirmatively, indicating that the fear of failure is a barrier to their entrepreneurial intentions and (0) when the respondent answers in the negative, indicating that the fear of failure is not a deterrent for them.

The "Fear of Failure" is a critical individual control variable within the context of entrepreneurship, significantly impacting entrepreneurial intentions and behaviours. This construct captures the apprehension individuals experience regarding potential

adverse outcomes associated with entrepreneurial activities. Research indicates that fear of failure can serve as a double-edged sword; while it may deter individuals from pursuing business opportunities due to anxiety over financial loss or social stigma, it can also motivate individuals to prepare more extensively and strategize effectively to mitigate the risks involved in entrepreneurship (Gelderens et al., 2015).

Empirical evidence supports the notion that fear of failure directly inhibits the transition from entrepreneurial intentions to actions. Gelderens et al. identified self-control and action-related doubts, including fear and aversion, as key factors that obstruct the realization of entrepreneurial intentions (Gelderens et al., 2015). This aligns with findings from various studies indicating that fear can adversely affect decision-making processes, often overshadowing individual competencies and essential support networks that could bolster entrepreneurial activities (Esfandiari et al., 2019). Moreover, the perception of failure is culturally nuanced, suggesting that fear can vary based on societal norms and the support structures available to aspiring entrepreneurs. For instance, those in environments with robust entrepreneurial ecosystems may experience reduced fear of failure compared to those in less supportive contexts (Gedajlovic et al., 2013).

#### EntrepT: Entrepreneurial training

Respondents are asked to indicate the level of training they consider they have received during their lifetime in relation to setting up an enterprise or business. The scale variable responses are: (1) none, (2) basic, (3) medium, (4) high, (5) advanced. If the respondent's answer is (4) or (5) this dichotomous variable takes the value of (1) and if he/she answers (1), (2) or (3) it takes the value (0).

Entrepreneurship education plays an important role in shaping entrepreneurial intentions (Souitaris et al., 2007; Van Gelderens et al., 2018), promoting growth and ensuring sustainable impact in both emerging and established ventures. The literature suggests that effective training programs enhance individuals' competencies, which is directly correlated with increased entrepreneurial intentions (Ndofirepi & Steyn, 2023; Wu et al., 2019).

The literature suggests that various dimensions of entrepreneurial training contribute to these outcomes by enhancing entrepreneurs' skills, motivations, and

perceptions of their capabilities. The relationship between entrepreneurial training and firm performance is underscored by the notion that training enhances both individual capabilities and the broader entrepreneurial ecosystem. Factors such as government policies and the socio-economic environment also play an important role in fostering entrepreneurial opportunities, suggesting that training that equips entrepreneurs with practical skills fosters business success and growth, and ultimately supports the development of a robust entrepreneurial culture (Aparicio et al., 2022), particularly in times of financial distress (Audretsch, Ghalwash, et al., 2024). Moreover, a comprehensive training approach that incorporates diverse entrepreneurial motivations can lead to innovative and socially responsible practices, contributing to sustainable development (Welter et al., 2017).

#### FinanT: Finance training

Related to the variable used, APS respondents are asked to indicate the level of finance training they consider they have at the moment of the interview. The respondent's answer is sized by a nominal variable and takes the value of one (1) if it is very low, (2) if it is low, (3) medium, (4) high and (5) very high. But for this study I dichotomize it and consequently the variable takes the value (1) when the respondents answer (3), (4) and (5) and takes value (0) if they answer (1) or (2).

Finance training within entrepreneurship serves as a pivotal variable influencing various crucial entrepreneurial outcomes. By providing entrepreneurs with the necessary financial education, it enables them to make informed decisions about resource allocation, funding options, and investment opportunities. Personal competencies, including financial acumen, significantly affect early-stage entrepreneurial performance, highlighting the essential role of finance training in promoting entrepreneurial intentions and the actual initiation of business ventures (Ndofirepi & Steyn, 2023). Entrepreneurs with robust financial training are better equipped to understand market dynamics and operational costs, which enhances their likelihood of embarking on entrepreneurial pursuits. Moreover, finance training has a demonstrable effect on the growth trajectories of entrepreneurial ventures. Fostering financial understanding enables entrepreneurs to manage cash flow effectively, identify advantageous pricing strategies, and leverage financial instruments to scale their operations. Such financial proficiency not only facilitates immediate business growth but also contributes to long-term sustainability, as

financially trained entrepreneurs are more likely to adopt practices that align with sustainable growth principles.

Furthermore, the sustainable impact of finance training is underscored by its capacity to enhance the overall entrepreneurial ecosystem. Institutional factors, including financial and non-financial assistance, directly affect entrepreneurial growth rates and economic performance (Aparicio et al., 2022). As entrepreneurs become experts in financial management, they contribute more significantly to job creation and wealth distribution, which are critical components of economic development. In this regard, finance training not only equips individual entrepreneurs for success but also cultivates a thriving entrepreneurial environment conducive to sustained economic growth and societal advancement.

#### IncoL: Income Level

This variable identifies the range that best describes the total annual income of all members of the respondent's household, including his/her income, as a combined figure after being recoded into thirds. The variable takes the value (1) if the respondent's answer is in the upper 33%tile and the value (0) if it is lower.

Research has consistently demonstrated that household income serves as a critical determinant of entrepreneurial engagement, particularly through its interaction with economic adversity and resource availability. Higher household income tends to correlate positively with entrepreneurial intentions and actions. Household financial status plays a vital role in shaping an individual's propensity to engage in opportunity-driven entrepreneurship, as individuals with greater resources are more likely to pursue entrepreneurial activities (Chen et al., 2021).

Moreover, household income can affect the signaling of firm characteristics to potential financiers, thereby influencing the overall viability of startup ventures (Eddleston et al., 2016). Entrepreneurs with access to higher levels of financial support from their households can navigate risks more effectively and are more likely to undertake growth-oriented strategies, reinforcing their intentions to scale and succeed.

In contrast, economic challenges such as lower household income can lead to differing entrepreneurial strategies and intentions. Resource position influences

entrepreneurial strategy under economic adversity (Perry–Rivers, 2016). In households experiencing financial constraint, potential entrepreneurs might lean towards less ambitious growth expectations and more conservative business models, limiting innovation and expansion opportunities. The implications are particularly pronounced among underrepresented groups, where economic barriers tend to exacerbate the challenges faced in entrepreneurial ventures (Brush et al., 2009).

Furthermore, entrepreneurial growth potential is also mediated by the socio-economic conditions of the household. For instance, Hechavarria and Ingram emphasize the important role of the entrepreneurial ecosystem, which includes financial resources such as household income, in shaping national-level entrepreneurial activity (Hechavarria & Ingram, 2018). This relationship highlights how families with stable, higher incomes can offer not only capital but also access to networks and support systems that empower entrepreneurs to realize their business ambitions (Brush et al., 2017). As such, the availability and source of financial resources demonstrate a clear link between household income and entrepreneurial success.

MaDiW: Make a difference in the world

GEM's APS survey asks new business owners or managers if they agree with the next motive, as one of some motivations, to be evolved in an entrepreneurial activity: to make a difference in the world. The variable takes the value (1) if the respondent agrees with this statement, and the value (0) if he/she disagrees.

Understanding the motivations behind entrepreneurial ventures is crucial, especially when entrepreneurs claim their primary goal is to make a difference in the world. This perspective of entrepreneurship transcends the traditional focus on profit maximization, as it embraces a broader range of purposes that can drive economic growth and social change. Embracing the diversity of entrepreneurial motivations allows for a rethinking of conventional narratives that equate success solely with financial outcomes (Welter et al., 2017). By analyzing entrepreneurial motivations through a sustainability lens, we uncover how initiatives aimed at social and environmental impact can lead to robust economic structures that prioritize not only wealth generation but also community well-being and ecological sustainability.

The implications of studying the motivations of entrepreneurs who aspire to create positive change are manifold. These motivations can help to delineate the informal and institutional factors that encompass the entrepreneurial landscape, thereby determining how various entrepreneurial activities manifest in different contexts (Aparicio et al., 2022). Furthermore, recognizing the motivations of diverse entrepreneurs, including minority groups, enables a comprehensive understanding of the barriers to entry and growth that these entrepreneurs face (Edelman et al., 2010).

EarnL: Earn a living

GEM's APS survey asks new business owners or managers if they agree with the next motive, as one of some motivations, to evolve in an entrepreneurial activity: to earn a living. The variable takes the value (1) if the respondent agrees with this statement, and the value (0) if he/she disagrees.

This is a crucial variable that reflects economic motivations influencing entrepreneurial behaviors. Entrepreneurs seeking to address financial survival often catalyze their ventures from a background of limited employment prospects, particularly in economically disadvantaged regions (Azoulay et al., 2020; Kenny & Rossiter, 2018; Teixeira et al., 2018). This need has been shown to enhance entrepreneurial intention and activity as individuals strive for financial independence (Liñán et al., 2010; Soto-Simeone & Kautonen, 2020). Moreover, demographic influences such as gender have a significant impact, where women may choose entrepreneurship as a pathway to economic autonomy amid societal constraints (Morris et al., 2020; Strawser et al., 2021). Research has demonstrated that older individuals facing labor market challenges often transition to entrepreneurship, driven by the necessity to secure income (Cardella et al., 2020; Hechavarria et al., 2018).

Thus, the "Earn a living" variable not only encapsulates personal motivations but also provides insight into broader economic and social dynamics affecting entrepreneurial initiatives across various demographics (Aparicio et al., 2022; Kautonen et al., 2010).

#### 3.3.4.2. Firm level control variables

##### TechL: Technology Level

This variable corresponds to the level of the *technology sector* that corresponds to entrepreneurship. If it is considered that it belongs to a medium or a high technology the variable takes the value (1) and (0) in the rest of the cases.

##### LegalF: Legal Form

In this research, the possible answers the entrepreneur could choose were (1) Self-employed, (2) Limited Company, (3) Limited company, (4) Community of property, (5) Cooperative, (6) Not decided, (7) Other. The new dichotomous variable takes the value of (0) when an individual is self-employed and (1) if he/she created a company with any other kind of legal form: (2) Limited Company, (3) Limited company, (4) Community of property, (5) Cooperative, (6) Not decided, (7) Other.

As many researchers indicate, selecting the appropriate legal form is critical for mitigating risks and optimizing resource allocation, particularly for high-growth ventures where entrepreneurial success is linked to strategic structuring (Hechavarria et al., 2018). The choice of legal entity can dictate not only the level of personal liability entrepreneurs face but also the ability to raise capital and attract investors, which is particularly relevant in competitive markets.

Additionally, the legal form adopted can impact access to networks and support systems crucial for entrepreneurship. For instance, research indicates that certain legal structures may facilitate greater access to social capital, which is vital for securing financial resources and nurturing business relationships (Gedajlovic et al., 2013).

From a policy perspective, understanding the implications of different legal forms can inform the design of support systems aimed at promoting entrepreneurship among vulnerable groups, including older adults and women, who often face distinct challenges (Kautonen et al., 2008; Kenny & Rossiter, 2018). Support programs can tailor resources to promote the adoption of suitable legal frameworks, thus

enhancing the potential for success among diverse entrepreneurial populations (Soto-Simeone & Kautonen, 2020).

Therefore, the importance of the legal form in entrepreneurship extends beyond mere compliance with regulations, serving as a strategic lever that can elevate entrepreneurs in their quest for sustainable growth and societal impact (Adams, 2016; Adams & Ferreira, 2009; Shinnar et al., 2012).

#### OwnN: Number of owners

The number of owners in entrepreneurship is a significant determinant shaping the impact, innovation, and growth of new ventures. Entrepreneurial success can be increasingly influenced by the diversity and composition within ownership teams (Hechavarria et al., 2018). The integration of differing experiences and insights from multiple owners can lead to superior strategic decision-making and innovation, which are vital in navigating competitive business landscapes. Additionally, social capital plays a crucial role in entrepreneurial performance, suggesting that ownership diversity can enhance access to networks and resources pivotal for a firm's success (Gedajlovic et al., 2013).

Moreover, the dynamics of ownership also correlate with demographic factors such as age and gender. Azoulay et al. emphasize the role of age in entrepreneurship, noting that more seasoned entrepreneurs—often those who have engaged with diverse ownership groups—are more likely to cultivate successful high-growth ventures (Azoulay et al., 2020). Complementary research by Langowitz and Minniti illustrates the barriers to entrepreneurship faced by women, suggesting that increasing female representation in ownership could mitigate these challenges by fostering environments that encourage diverse entrepreneurial behaviors and practices (Langowitz & Minniti, 2007).

Thus, reflecting on the number of owners within entrepreneurial contexts is crucial not only to enhance performance but also to promote inclusive growth and resilience within the entrepreneurial ecosystem.

In this study, early-stage entrepreneurs are asked about the number of owners of the enterprise in which they have a stake.

### 3.4. DESCRIPTION OF HYPOTHESIS

As in the previous sections of this chapter, in this section I organize my research hypothesis in three groups, analyzing in each of them the studied three vulnerable groups and the interactions between them: Ei and firm creation, growth and sustainability.

#### 3.4.1. Hypothesis 1: Entrepreneurial Intention and firm creation

The exploration of the EI and firm creation among vulnerable populations is a significant research area due to their unique challenges and opportunities in the entrepreneurship landscape. As mentioned in Chapter 2.1., vulnerable populations have historically faced barriers rooted in societal norms, gender stereotypes, ageism and access to resources, among others, which difficult their access to the labor market and influence their entrepreneurial intentions and outcomes (Pergelova et al., 2018). A gap in the literature exists regarding the distinct entrepreneurial pathways and outcomes for these vulnerable segments compared to their counterparts in more advantageous positions.

In addition, understanding the augmented vulnerability, the vulnerability of those who belong to more than one vulnerable group, becomes pivotal to understanding and formulating targeted interventions and policies that not only foster equitable access to entrepreneurship but also leverage the unique potential of diverse entrepreneurial actors to enhance social and economic development. Such research contributes to a nuanced comprehension of entrepreneurship as a multifaceted process that is deeply influenced by social identity, cultural norms, and systemic barriers, which, if addressed, can promote a more inclusive entrepreneurial ecosystem (Hechavarria et al., 2019; Liñán et al., 2022; Pidduck & Clark, 2021).

In light of the aforementioned points, the following research question will be analyzed:

The most vulnerable segments' individuals (i.e. women, senior and immigrants) are more prone to have entrepreneurial intentions and to pursuit entrepreneurship.

Additionally, the intersectionality' effects between the vulnerable groups on the three independent variables could improve citizens' entrepreneurial intentions and pursuit entrepreneurship.

As not all vulnerable groups are homogeneous, a more precise answer to the previously stated hypothesis can be obtained by delving deeper into each of them and their intersections.

Hypothesis 1A: **Entrepreneurial Intentions (EI)** are more likely to be shown by people who belong to a vulnerable group. This set of hypotheses is linked to the rationale behind propositions P1-A (Section 2.1.1.).

Hypothesis 1.A.1: belonging to the female vulnerable demographic group promotes EI.

Hypothesis 1.A.2: belonging to the senior (+55) vulnerable demographic group promotes EI.

Hypothesis 1.A.3: belonging to the immigrant vulnerable demographic group promotes EI.

Hypothesis 1.A.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior promotes EI.

Hypothesis 1.A.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant promotes EI.

Hypothesis 1.A.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being senior and immigrant promotes EI.

Hypothesis 1B: Individuals from vulnerable demographics engage in **firm creation** to a greater extent than those not categorized within such groups. This set of hypotheses is linked to the rationale behind propositions P1-B (Section 2.1.2.).

Hypothesis 1.B.1: belonging to the female vulnerable demographic group promotes the firm creation.

Hypothesis 1.B.2: belonging to the senior (+55) vulnerable demographic group promotes the firm creation.

Hypothesis 1.B.3: belonging to the immigrant vulnerable demographic group promotes the firm creation.

Hypothesis 1.B.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior promotes the firm creation.

Hypothesis 1.B.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant promotes the firm creation.

Hypothesis 1.B.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being senior and immigrant promotes the firm creation.

### 3.4.2. Hypothesis 2: Growth

Once people belonging to vulnerable groups have created an enterprise, a new stage begins which may go beyond the survival of the enterprise: the growth phase. As explained in Chapter 2.2. research addressing the entrepreneurial potential of individuals from vulnerable segments is crucial due to their increasing likelihood of both engaging in export activities and anticipating growth. This nexus between vulnerability and entrepreneurial dynamism emphasizes the need for better understanding of the underlying mechanisms that drive such behaviors.

Due to their origins, experience or other attributes, it could be assumed that most vulnerable segments (i.e. women, senior and immigrants) are more likely to **export**, considering it as exporting 10% or more of their turnover, **and to expect growth**, considering it as expecting to create a job in the next 5 years. Additionally, the firms' digitalization level, as moderator factor, could improve those growth expectations.

However, the different groups of vulnerable people are not homogeneous among themselves. Therefore, I will delve deeper into the hypotheses, with the aim of finding more specific answers for each of the vulnerable groups analyzed.

To conclude, the intersectionality' effects between the vulnerable groups, i.e. belonging to a more than one vulnerable group, could also improve the proportion of early-stage entrepreneurs who are more likely to export and to expect growth. Taking the aforementioned points into consideration, the following research questions will be analyzed:

Hypothesis 2.A: early-stage entrepreneurs belonging to vulnerable groups are more prone than the rest to **growth** (measuring business growth through internationalization, i.e. by its export rate). This set of hypotheses is linked to the rationale behind propositions P2-A (Section 2.2.1.).

Hypothesis 2.A.1: being part of the vulnerable group of women promotes business growth (measuring business growth through internationalization, i.e. by its export rate).

Hypothesis 2.A.2.: being part of the vulnerable group of seniors promotes business growth (measuring business growth through internationalization, i.e. by its export rate).

Hypothesis 2.A.3.: being part of the vulnerable group of immigrant promotes business growth (measuring business growth through internationalization, i.e. by its export rate).

Hypothesis 2.A.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior, promotes business growth (measuring business growth through internationalization, i.e. by its export rate).

Hypothesis 2.A.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant, promotes business growth (measuring business growth through internationalization, i.e. by its export rate).

Hypothesis 2.A.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being senior and immigrant promotes business growth (measuring business growth through internationalization, i.e. by its export rate).

Hypothesis 2.B: early-stage entrepreneurs belonging to vulnerable groups are more prone **to expect to hire** an employee. This set of hypotheses is linked to the rationale behind propositions P2-B (Section 2.2.2.).

Hypothesis 2.B.1: female early-stage entrepreneurs are more prone than males to expect to hire an employee.

Hypothesis 2.B.2: senior early-stage entrepreneurs are more prone than younger ones to expect to hire an employee.

Hypothesis 2.B.3: immigrant early-stage entrepreneurs are more prone than locals to expect to hire an employee.

Hypothesis 2.B.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior, increases their propensity to expect to hire an employee.

Hypothesis 2.B.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant, increases their propensity to expect to hire an employee.

Hypothesis 2.B.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being senior and immigrant increases their propensity to expect to hire an employee.

Hypothesis 2.C.: digitalization moderates positively the relationship between augmented and venture growth (i.e. increasing their export ratio and hiring expectations). This set of hypotheses is linked to the rationale behind propositions P2-C (Section 2.2.3.).

### 3.4.3. Hypothesis 3: The sustainable impact

The hypothesis positing those individuals in vulnerable segments—specifically women, senior citizens, and immigrants—are more likely to prioritize sustainability, social, or environmental impacts in their early-stage entrepreneurship can be substantiated through various studies analyzing the motivations and challenges faced by these demographics. The context of vulnerability often heightens awareness of social responsibility and environmental preservation, particularly among women entrepreneurs, who are generally observed to initiate ventures linked to social value rather than mere profit maximization. For instance, research has highlighted how women are less engaged in opportunity-driven entrepreneurship partly because of their focus on social rather than financial returns (Chen et al., 2021). This aligns with findings that suggest a strong connection between the entrepreneurial motivations of marginalized groups and their

commitment to addressing social issues, which is effectively bolstered by their unique perspectives and lived experiences as women (Hechavarria et al., 2018). Furthermore, studies indicate that immigrant entrepreneurs often leverage their ventures as vehicles for social integration and community development, thereby prioritizing social impact (Brieger & Gielnik, 2021).

Simultaneously, senior citizens entering entrepreneurship often draw on their extensive life experiences to identify socially responsible enterprises that enhance community welfare. This demographic, having faced barriers such as ageism in traditional job markets, may value the social contribution of their work and thus opt for enterprises that reflect their values and commitment to sustainability (Zhu et al., 2021). Research indicates that senior entrepreneurs often pursue ventures tied closely to their prior roles within their communities, further emphasizing a social impact orientation over purely economic motivations (Soto-Simeone & Kautonen, 2020).

The intersection of these factors suggests that women, seniors, and immigrants share a proclivity towards sustainable and socially impactful entrepreneurship, driven by their marginalized status and the unique challenges they face.

The nuanced motivations of these vulnerable groups not only challenge traditional entrepreneurial narratives that prioritize growth and profitability but also illuminate the significance of social consciousness in contemporary entrepreneurship (Insarauto, 2021; Welter et al., 2017).

As mentioned above, not all vulnerable segments are homogeneous, so I will analyze if each one, individually, (i.e. women, senior and immigrants) is more likely to prioritize the sustainability impact, social impact or environmental impact in their early-stage entrepreneurship. Additionally, I will deep in the analysis of the firms' digitalization level, as moderator factor, and investigate its affection to those vulnerable groups.

To conclude, the intersectionality' effects between two of the three vulnerable groups (women, senior and immigrant) on the three dependent variables could also

improve the proportion of early-stage entrepreneurs who prioritize sustainability, social or environmental impact.

As not all vulnerable groups are homogeneous, a more detailed examination of each of them is now required in order to obtain more specific answers to the general hypothesis described above.

Hypothesis 3.A: Early-stage entrepreneurs, belonging to vulnerable groups, are more prone to prioritizing the sustainable impact in their early-stage entrepreneurship. This set of hypotheses is linked to the rationale behind propositions P2-B (Section 2.3.1.).

Hypothesis 3.A.1: women are more prone than men to prioritize the sustainable impact in their early-stage entrepreneurship.

Hypothesis 3.A.2: seniors (+55) are more prone than young early to prioritize the sustainable impact in their early-stage entrepreneurship.

Hypothesis 3.A.3: immigrants are more prone than locals to prioritize the sustainable impact in their early-stage entrepreneurship.

Hypothesis 3.A.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior, increases their propensity to prioritize sustainable impact in their early-stage entrepreneurship.

Hypothesis 3.A.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant, increases their propensity to prioritize sustainable impact in their early-stage entrepreneurship.

Hypothesis 3.A.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being senior and immigrant, increases their propensity to prioritize sustainable impact in their early-stage entrepreneurship.

Hypothesis 3.B: The moderating effect of digitalization increases the prioritization of the sustainable impact of entrepreneurs belonging to vulnerable segments of the population in the initial stage of entrepreneurship. This set of hypotheses is linked to the rationale behind propositions P2-B (Section 2.3.2.).

Hypothesis 3.B.1: the moderating effect of digitalization increases the female early-stage entrepreneurs' prioritization of the sustainable impact.

Hypothesis 3.B.2: the moderating effect of digitalization increases the seniors' early-stage entrepreneurs' prioritization of the sustainable impact.

Hypothesis 3.B.3: the moderating effect of digitalization increases the immigrants' early-stage entrepreneurs' prioritization of the sustainable impact.

Hypothesis 3.B.4: The moderating effect of digitalization increases the prioritization of the sustainable impact of entrepreneurs belonging to augmented vulnerable segments of the population in the initial stage of entrepreneurship.

### 3.5. DESCRIPTION OF THE METHODOLOGY

Following the positivist paradigm, I adopted a quantitative approach to address our research questions.

As all the dependent variables are dichotomous (i.e. the dependent variable can take the value 1 or 0, whereas the independent or predictor variables can take any form) a logistic binomial regression was applied to the GEM Spanish database to conduct the empirical study.

The binomial logistic regression estimates the probability of an event occurring. This statistical approach allows us to model binary outcome variables, such as whether an individual becomes an entrepreneur or not, by examining the influence of several explanatory factors simultaneously.

In the study, this event represents our dependent variables:

- Model 1: if the responded person has or not an Entrepreneurship Intention (EI),
- Model 2: if he/she is or not an Early-stage Entrepreneur,
- Model 3: if he/she pursues an entrepreneurship to make a difference in the world or to earn a living,
- Model 4: if the respondent Early-stage Entrepreneur exports or not more than 10% of his/her company's turnover,
- Model 5: if the early-stage entrepreneurs have or do not have the expectation to grow, sized in the number of individuals they expect to hire in the next 5 years and,
- Model 6: if a responded early-stage entrepreneur is or is not prioritizing social, or sustainable impact.

Additionally, a Chi square test was applied to find whether the dependent variables were significantly associated with the independent variables included in the models. The Chi square test evaluates the independence of categorical variables by comparing the observed frequencies in each category to the expected frequencies under the null hypothesis of no association. A significant Chi square result indicates that there is a statistically significant relationship between the dependent variable and at least one of the independent variables, thereby suggesting that changes in the independent variables are related to variations in the dependent variable.

Logistic regression stands out as a valuable tool in entrepreneurship research for its ability to facilitate complex decision-making insights based on empirical data. Many researchers used it to obtain valuable insight to identify entrepreneurial knowledge and skills, fear of failure, and social status as significant determinants of early-stage entrepreneurial activity, indicating that these factors could be analyzed through logistic regression models to identify specific probabilities associated with them (Ndofirepi & Steyn, 2023). Moreover, Audretsch et al. employ multilevel binary logistic regression to explore the dynamics of self-employability among different demographics, revealing that women and seniors exhibit varying propensities toward self-employment, which supports the utility of logistic regression techniques to capture these nuances (Audretsch, Rocha, et al., 2024). Additionally, binomial logistic regression can enhance the understanding of demographic and perceptual variables influencing entrepreneurial decisions, as highlighted by Arenius and

Minniti's research on factors correlated with nascent entrepreneurship (Arenius & Minniti, 2005). Their exploration into perceptual variables such as opportunity alertness and fear of failure illustrates that a binary logistic regression could effectively quantify these relationships, offering greater clarity on how such perceptions affect entrepreneurial intention. Furthermore, Gedajlovic et al. emphasize the importance of social capital in entrepreneurship, suggesting that logistic regression could assist in measuring how varying levels of social capital predict entrepreneurial success (Gedajlovic et al., 2013).

The relationship between the predictor and response variables in a binomial logistic regression are not a linear function: instead, logistic regression generates the coefficients (and its standard errors and significance levels) of a formula to predict a logic transformation of the probability of an event happening:

$$\text{logit}(p) = \beta + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_k X_k$$

The logit transformation is defined as the logged odds:

$$\text{Ln } P / (1 - P_i) = \beta X_i$$

where  $P_i$  is the probability of taking the value one (1), the probability of an event happening, for our dependent variables. These events are held to be linearly affected by a vector of covariates  $X_i$ , with coefficient vector  $\beta$ . The covariates include explanatory, control and interaction variables above mentioned.

I run nine sets of binomial logistic regression to analyze each of the nine dependent variables. The same number of models were run with an additional database to confirm the results obtained in the Robustness check. For this aim I selected, on the additional database, only the established entrepreneurs, those who have been operating their businesses for at least 42 months, that confirm the rightness or not of the results obtained.

### 3.6. CORRELATION ANALYSES

Before running the regressions, Pearson correlation analyses were performed. These analyses aim to determine whether there are problems of multicollinearity

between the independent variables included in each model. The correlation analysis performed for each set of empirical tests is presented separately in the following pages.

**Table 1: Descriptive Statistics and total sample excluding established business.**

	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10
<b>1 TEA</b>	0,064	0,245	1									
<b>2 EI</b>	0,094	0,291	0.1724*	1								
<b>3 Fem</b>	0,504	0,500	-0.0232*	-0.0168*	1							
<b>4 Snr</b>	0,222	0,415	-0.0472*	-0.1195*	0,0102	1						
<b>5 Imm</b>	0,072	0,259	0.0670*	0.1509*	0.0370*	-0.0629*	1					
<b>6 Educl</b>	0,485	0,500	0.0361*	0.0271*	0.0300*	-0.1099*	-0.0352*	1				
<b>7 FoF</b>	0,509	0,500	-0.0919*	-0.0467*	0.0411*	-0,001	-0.0431*	0,0005	1			
<b>8 EntrepT</b>	0,425	0,494	0.1425*	0.1191*	-0.0566*	-0.0567*	0.0353*	0.0857*	-0.0751*	1		
<b>9 Finant</b>	0,525	0,499	0.1057*	0.0922*	-0.0836*	-0,0101	0.0179*	0.1002*	-0.0597*	0.3987*	1	
<b>10 Incol</b>	0,309	0,462	0.0259*	0,0072	-0.0816*	-0.0152*	-0.0627*	0.2033*	0.0126*	0.0633*	0.1077*	1
<b>11 Legalf</b>	0,741	0,438	0.0942*	0.0287*	-0.0817*	-0.1937*	-0,0031	0.1893*	0,0096	0.0693*	0.0779*	0.1713*

\* Correlation is significant at 0.01 level. \*\* Correlation is significant at 0.05 level.

**Table 2: Correlation matrix for potential entrepreneurs.**

	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	SUSprio	0,432	0,496	1															
2	SOCprio	0,607	0,488	0,4354*	1														
3	ENVprio	0,592	0,492	0,5531*	0,5232*	1													
4	TEA	0,170	0,375	0,001	0,019	-0,0361	1												
5	JCE	0,348	0,476	0,1147*	0,1363*	0,1388*	0,0826*	1											
6	Fem	0,454	0,498	0,0264	0,0564*	0,0662*	-0,0408	-0,0581*	1										
7	Snr	0,148	0,355	0,0669*	0,0079	0,0761*	-0,0626*	-0,0552*	-0,0352	1									
8	Imm	0,137	0,344	0,0044	0,0372	-0,0343	0,0781*	0,001	0,0098	-0,0557*	1								
9	Educl.	0,558	0,497	-0,0106	0,0232	0,0222	0,0575*	0,0384	0,0107	-0,0579*	-0,032	1							
10	EntrepT	0,694	0,461	0,0414	0,0385	-0,0033	0,0888*	0,0342	-0,022	0,0295	0,0276	0,0725*	1						
11	FinanT	0,729	0,445	0,0488*	0,017	0,0035	0,0726*	0,0491*	-0,0971*	0,0251	0,0218	0,0857*	0,4218*	1					
12	IncoL	0,360	0,480	0,005	0,0183	0,0213	0,0464*	0,0784*	-0,1015*	0,0199	-0,0713*	0,1890*	0,0413	0,0948*	1				
13	MaDIW	0,363	0,481	0,2099*	0,2452*	0,2066*	0,0697*	0,0820*	0,0141	-0,0547*	0,0436	0,035	0,0709*	0,0571*	-0,0465	1			
14	DigiL	0,092	0,288	0,0343	0,0203	0,0394	0,0854*	0,0661*	0,014	-0,0742*	0,0578*	0,0254	0,0468*	0,0468*	0,0415	0,0415	1		
15	TechL	0,094	0,292	0,0015	-0,0254	-0,0075	0,0359	-0,0266	-0,0686*	-0,0251	-0,0216	0,1378*	0,0062	0,0574*	0,0006	0,0127	0,0127	1	
16	LegalF	0,712	0,453	0,0123	-0,0088	-0,002	0,0182	-0,0372	-0,0713*	0,0736*	-0,0088	-0,0001	0,0182	0,0613*	-0,0618*	-0,1155*	0,0343	0,0343	1
17	OwNn	2,859	31,980	-0,0295	-0,0413	-0,0407	-0,011	-0,0207	-0,0341	-0,0135	-0,0124	-0,0011	0,0237	-0,0201	-0,0245	-0,0095	-0,0095	-0,0095	0,0245

\* Correlation is significant at 0.01 level. \*\* Correlation is significant at 0.05 level.

**Table 3: Correlation matrix for established business entrepreneurs.**

	Mean	Std.Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1 SUSprio	0,489	0,500	1																
2 SOCprio	0,622	0,485	0,4396*	1															
3 ENVprio	0,657	0,475	0,5228*	0,5280*	1														
4 EE	0,126	0,332	0,0165	0,0126	-0,0021	1													
5 JCE	0,166	0,372	0,0241	0,0920*	0,0551*	0,0534*	1												
6 Fem	0,438	0,496	0,0024	0,0056	0,0568*	0,0334	-0,0649*	1											
7 Snr	0,359	0,480	0,0862*	0,0663*	0,1146*	-0,0655*	-0,0922*	-0,0087	1										
8 Imm	0,073	0,259	-0,0416	-0,0373	-0,0588*	0,1528*	0,0472*	0,0391	-0,0175	1									
9 EducL	0,514	0,500	-0,0745*	-0,0540*	-0,0695*	0,0665*	0,0565*	0,0433	-0,1148*	0,0453*	1								
10 EntrepT	0,651	0,477	0,0758*	0,0279	0,0439	0,0254	0,0309	0,0036	-0,0242	0,037	0,1325*	1							
11 FinanT	0,728	0,445	0,0385	0,0490*	0,0268	0,0565*	0,0189	-0,0379	0,0224	0,0049	0,1492*	0,3614*	1						
12 Incol	0,381	0,486	0,004	0,0154	-0,0177	0,0401	0,1123*	-0,1136*	0,0077	-0,0301	0,2606*	0,0343	0,1293*	1					
13 MaDIW	0,249	0,432	0,1762*	0,2214*	0,1657*	0,1066*	0,0529*	0,0286	-0,0178	0,0239	0,0156	0,1267*	0,0823*	0,0153	1				
14 DigiL	0,082	0,274	0,003	0,038	0,0008	0,0690*	0,0498*	0,0108	-0,0183	-0,0106	0,0222	0,0202	0,0169	0,0811*	0,0075	1			
15 TechL	0,110	0,313	-0,0517*	-0,0540*	-0,0533*	0,0615*	-0,0185	-0,0862*	-0,0242	0,0231	0,1829*	-0,035	0,0286	0,0828*	-0,0143	0,016	1		
16 LegalF	0,390	0,488	-0,0296	0,0127	-0,0531*	0,1031*	0,1290*	-0,0657*	-0,0708*	0,0671*	0,0863*	0,0191	0,0593*	0,0749*	-0,0424	0,0517*	0,0112	1	
17 OwnN	4,313	50,785	0,0323	0,0409	0,0372	0,0152	-0,0184	0,0164	-0,0187	-0,0137	0,0111	0,0168	0,0085	0,0480*	0,0191	0,0246	-0,0191	0,0534*	

\* Correlation is significant at 0.01 level. \*\* Correlation is significant at 0.05 level.

### 3.7. ROBUSTNESS CHECK

It is essential to perform a robustness check to validate the reliability and credibility of the findings obtained in the analysis. A robustness check entails testing the stability of results under various assumptions or modifications in the analytical approach. This practice is crucial, particularly when studies utilize complex datasets, as the one I am analysing it. By incorporating robustness checks, I can confirm that the conclusions related to variables do not change significantly under alternative model specifications or sample subsets. This mitigates the risk of drawing erroneous conclusions based on a single analytical methodology, thereby enhancing the overall integrity of the findings.



## **CHAPTER 4: RESULTS**

In this chapter, the results of the analysis of the hypotheses formulated for the three blocks, entrepreneurial intention and firm creation, growth and sustainability (Section 3.4.) are presented.

#### 4.1. Results for the analysis of the Entrepreneurial Intention and firm creation of vulnerable population segments

**(RQ1) Are most vulnerable segments more likely to pursue entrepreneurship?**

The models presented in Table 4 and 5 provide a comprehensive analysis of the population, belonging to the most vulnerable segments, about the factors influencing their entrepreneurial intention (Model 1), firm creation (Model 2) and motivations of their entrepreneurship (Models 3-4), elucidating the effect of intersections, i.e. of belonging to a more than one vulnerable group.

Multiple regression analyses were employed across four models presented in Table 4 to reveal the nuanced relationships between demographic variables (female, senior, and immigrant status) the interactions for augmented vulnerability and the outcome of EI and the establishment of an early-stage entrepreneurship.

I also added, as described in section 3.6., robustness checks in Table 5 to confirm or disprove the validity of the results obtained by comparing them with indicators of already established entrepreneurs, these entrepreneurs that have already paid salaries to their employees for more than 42 months continuously. Models 5, 6, and 7 correspond to the robustness checks for Models 2 (firm creation), 3 (entrepreneur who created a firm motivated by making a change in the world), and 4 (entrepreneur who created a firm motivated by earning a living), respectively.

The statistical results presented are generally acceptable for academic purposes, as evidenced by the key metrics. The explanatory power of the models falls between 7,7% and 10% in the Logit models (M1-M4) and 11,5% and 12,1% in the robustness checks' models (M5-M7). The large sample sizes (N), ranging from 25.792 to 27.660 individuals across the models, indicate a high degree of statistical power, which enhances the reliability and generalizability of the findings.

Table 4: Results for the analysis of the Entrepreneurial Intention and firm creation

Logit models				
	Model 1 EI	Model 2 TEA	Model 3 MaDiW_TEA	Model 4 EarnL_TEA
<b>Vulnerable groups</b>				
Fem	0.993 (0.0527)	0.999 (0.0587)	1.010 (0.0974)	1.135* (0.0864)
Snr	0.214*** (0.0288)	0.809** (0.0772)	0.578*** (0.105)	1.006 (0.119)
Imm	4.308*** (0.404)	2.094*** (0.230)	2.175*** (0.370)	1.420** (0.234)
<b>Interactions</b>				
Fem&Snr	0.810 (0.152)	0.837 (0.118)	1.041 (0.263)	0.732* (0.128)
Fem&Imm	0.738** (0.0929)	0.830 (0.127)	0.849 (0.200)	1.082 (0.229)
Snr&Imm	2.555*** (0.579)	1.286 (0.313)	2.432*** (0.838)	1.520 (0.468)
<b>Control variables</b>				
Educl	1.050 (0.0511)	1.055 (0.0551)	1.148 (0.1000)	0.985 (0.0665)
FoF	0.824*** (0.0388)	0.495*** (0.0262)	0.474*** (0.0423)	0.547*** (0.0372)
EntreprT	1.673*** (0.0859)	2.474*** (0.144)	2.993*** (0.306)	2.668*** (0.204)
FinanT	1.421*** (0.0754)	1.584*** (0.0957)	1.899*** (0.202)	1.650*** (0.130)
IncoL	0.962 (0.0508)	1.034 (0.0560)	0.903 (0.0820)	0.880* (0.0632)
LegalF	0.955 (0.0545)	2.857*** (0.235)	3.411*** (0.513)	3.203*** (0.354)
Adjusted R <sup>2</sup>	0,0803	0,0889	0,1006	0,0776
ll	-6688.0	-5997.1	-2589.0	-3946.3
chi2	1167.9	1170.6	579.1	663.7
N	25792	27566	26396	26856

Exponentiated coefficients; Standard errors in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

The specific results related to the entrepreneurial intention and firm creation obtained in Models 1-4 reveal distinct dynamics amongst these demographics, suggesting different underlying motivations and barriers for each augmented vulnerable subgroups to have EI or to kick off an entrepreneurial project.

In summary, the results confirm previous findings that although people belonging to vulnerable groups face many of the same difficulties and encounter the same barriers, not all of them exhibit the same entrepreneurial intentions and behaviors. It has been demonstrated that certain vulnerable demographics, such as immigrants, exhibit a higher propensity to exhibit entrepreneurial intentions and to pursue entrepreneurial endeavors. This phenomenon stands in contrast to the entrepreneurial behavior exhibited by the elderly population.

It is noteworthy that the research findings indicate a significant degree of heterogeneity in the intersections of the augmented vulnerability. To illustrate this, consider the immigrant condition. Belonging to an immigrant demographic group is considered a priori as a determining factor in predicting positive entrepreneurial intention and firm creation ( $p = 4.308$  and  $2.094$ ). However, when combined with the condition of being a woman, the probability is negative ( $p = 0.738$ ). Conversely, an examination of the intersection of senior and immigrant populations reveals a contrasting phenomenon. The senior population is hypothesized to exhibit a priori a tendency towards both dependent variables being negative ( $p = 0.214$  and  $0.809$ ). However, a more exhaustive analysis combining the variable of being a senior and immigrant shows a reversal of the probability, resulting in a positive result in the entrepreneurial intention ( $p = 2.555$ ).

Consequently, the results demonstrate an urgent need to examine in detail the multiple interactions between individuals belonging to different vulnerable populations, including analyzing the interaction of more than two groups, in order to deepen our understanding of the entrepreneurial behaviors exhibited by these groups.

In the other hand, it should be added that some of the control variables included in the models demonstrate expected and significant effects on entrepreneurial outcomes:

- ✓ Fear of Failure (FoF) indicates that individuals with a higher fear of failure are significantly less likely to have entrepreneurial intentions, engage in new business creation, or start a firm for specific motivations.
- ✓ EntreprT (Entrepreneurial Training): the results show a positive and highly significant effect, confirming that training is a powerful predictor of entrepreneurial intention and likelihood of engaging in both firm creation, and both analyzed purpose-driven entrepreneurship, make a difference in the world and earn a living).
- ✓ FinanT (Financial Training): similarly to entrepreneurial training, the results of this variable also demonstrate a positive and significant effect on entrepreneurial intention and firm creation. This underscores the importance of financial literacy as a driver of entrepreneurship-
- ✓ LegalF: Nascent entrepreneurs show a clear and significant preference for registering as self-employed professionals, suggesting they favor a simpler legal structure.

**Table 5: Results for the robustness test of the analysis of the Entrepreneurial Intention and firm creation**

<b>Robustness checks</b>			
	<b>Model 5</b>	<b>Model 6</b>	<b>Model 7</b>
	<b>EE</b>	<b>MaDiW_EE</b>	<b>EarnL_EE</b>
<b>Vulnerable groups</b>			
Fem	0.934 (0.0590)	0.965 (0.116)	0.980 (0.0725)
Snr	2.539*** (0.182)	2.095*** (0.298)	2.732*** (0.226)
Imm	0.899 (0.138)	1.046 (0.281)	0.696* (0.139)
<b>Interactions</b>			
Fem&Snr	0.990 (0.105)	1.327 (0.266)	0.902 (0.110)
Fem&Imm	1.035 (0.204)	0.940 (0.326)	1.084 (0.266)
Snr&Imm	1.823*** (0.396)	2.206** (0.810)	2.255*** (0.582)
<b>Control variables</b>			
Educl	0.867*** (0.0443)	0.895 (0.0871)	0.784*** (0.0468)
FoF	0.661*** (0.0332)	0.625*** (0.0607)	0.731*** (0.0427)
EntreprT	2.129*** (0.117)	3.414*** (0.396)	2.054*** (0.131)
FinanT	1.732*** (0.102)	2.091*** (0.256)	1.713*** (0.117)
IncoL	1.043 (0.0548)	1.067 (0.106)	0.927 (0.0576)
LegalF	16.44*** -2.466	13.24*** -3.632	22.17*** -4.433
Adjusted R <sup>2</sup>	0,121	0,1196	0,1154
ll	-6010.6	-2075.7	-4671.8
chi2	1654.6	564.1	1218.7
N	27660	26321	27138

Exponentiated coefficients; Standard errors in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

The obtained findings are validated in Table 5, by the robustness checks of models 5, 6 and 7, which were performed, as above explained, using the established entrepreneurs' database.

Unlike the trends observed among nascent entrepreneurs, our results indicate that being a senior is associated, as expected, with a higher probability of being an established entrepreneur. Furthermore, all three robustness checks consistently validate the findings concerning the interaction between being a senior and an immigrant within the vulnerable subgroups. With respect to the significant control variables, the robustness tests consistently confirm the significant results previously analyzed in the initial section of this chapter.

In summary, the robustness checks confirm that the results obtained make sense and constitute valuable information that must be considered.

Next, I will go deeper into the analysis of the segments studied of vulnerable population groups and answer the hypothesis raised in section 3.4.1.

Hypothesis 1.A (Model 1): Entrepreneurial Intentions (EI) are more likely to be shown by people who belong to a vulnerable group.

Hypothesis 1.A.1: belonging to the female vulnerable demographic group promotes EI.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 1.A.2: belonging to the senior vulnerable demographic group promotes EI.

The hypothesis is rejected. It is estimated that a senior is 78,76% less likely ( $p = 0.214$ ) than a young person to have entrepreneurial intentions.

Hypothesis 1.A.3: belonging to the immigrant vulnerable demographic group promotes EI.

The hypothesis is accepted. The probability is significantly higher for immigrants than for the local population, with a ratio exceeding fourfold ( $p = 4.308$ ).

Hypothesis 1.A.4: belonging to an **augmented vulnerability demographic**, or the intersectionality of belonging to a more than a vulnerable group, promotes EI.

Hypothesis 1.A.4a: belonging to an **augmented vulnerability demographic subgroup**, specifically being **female and senior** promotes EI.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 1.A.4b: belonging to an **augmented vulnerability demographic subgroup**, specifically being **female and immigrant** promotes EI.

The hypothesis is rejected. The result confirms that the positive effect of being an immigrant is significantly attenuated if, in addition to being an immigrant, the individual is also a woman. In summary, while immigrants

generally exhibit a higher propensity to pursue entrepreneurship, this tendency is inversely observed among female immigrants ( $p= 0.738$ ).

Hypothesis 1.A.4c: belonging to an **augmented vulnerability demographic subgroup**, specifically being **senior and immigrant** promotes EI.

The hypothesis is accepted. A highly significant interaction is observed between the status of being a senior and that of being an immigrant. The adverse impact of seniority on entrepreneurial intention is counterbalanced by the presence of immigration status among the senior population. In essence, while the status of senior is associated with a decline in entrepreneurial intention, this relationship is not consistent across all senior immigrants. Indeed, senior immigrants exhibit a marked propensity to exhibit entrepreneurial intention, a propensity that is notably more pronounced than that observed among senior non-immigrants. Specifically, the probability of entrepreneurship for a person who is both a senior and an immigrant is 2,555 times higher than what would be expected if the effects were simply additive. This finding suggests that immigrant status may be a significant predictor of entrepreneurship among senior individuals.

Hypothesis 1.B (Model 2): Individuals from vulnerable demographics engage in firm creation to a greater extent than those not categorized within such groups.

Hypothesis 1.B.1: belonging to the female vulnerable demographic group promotes the firm creation.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 1.B.2: belonging to the senior vulnerable demographic group promotes the firm creation.

The hypothesis is rejected. It is estimated that a senior is 19,10% less likely ( $p = 0.809$ ) than a young person to pursue entrepreneurship.

Hypothesis 1.B.3: belonging to the immigrant vulnerable demographic group promotes the firm creation.

The hypothesis is accepted. The probability to create a company is the double for immigrants than for the local population ( $p = 2.094$ ).

Hypothesis 1.B.4: the **augmented vulnerability**, or the intersectionality of belonging to a more than a vulnerable group, promotes the firm creation.

Hypothesis 1.B.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior promotes the firm creation.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 1.B.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant promotes the firm creation.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 1.B.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant promotes the firm creation.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

#### 4.2. Results of growth expectations among early-stage entrepreneurs from vulnerable groups

**Compared to conventional entrepreneurs, entrepreneurs from the most vulnerable groups are more likely to export and have growth expectations.**

The obtained results in Table 6 provide insights into the effects of entrepreneurs who belong to vulnerable groups (female, senior, and immigrant individuals) on entrepreneurial growth, specifically, in the exporting outcomes (Model 8) and job hiring expectations (Model 9), supporting a comparative analysis of how these variables influence economic performance indicators across different contexts. Models 10 and 11, in Table 7, serve as robustness checks. These models use the established entrepreneurs' database, instead of the one corresponding to the nascent ones, to validate the results obtained for early-stage entrepreneurs in Models 8 and 9, respectively.

The statistical results presented in the four analyses are acceptable for academic use, as supported by the key indicators of the model's quality. While the explanatory power of the models is slightly low, as indicated by the R-squared values (3,8% and 2,3% for Logit models M8 and M9, and 7,7% and 5,2% for the robustness checks in models M10 and M11), the large sample sizes (N) are a major strength. With N ranging from 1.753 nascent to 1.920 established entrepreneurs, the models possess a high degree of statistical power, which significantly enhances the reliability and generalizability of the findings.

**Table 6: Results for the analysis of the growth**

<b>Logit models</b>		
	<b>Mod 8</b>	<b>Mod 9</b>
	<b>Export_TEA</b>	<b>JCE_TEA</b>
<b>Vulnerable groups</b>		
Fem	0,837 (0,136)	0,828 (0,103)
Snr	0,738 (0,199)	0.694* (0,142)
Imm	1.807** (0,433)	0,908 (0,191)
<b>Interactions</b>		
Fem&Snr	0,638 (0,290)	0,971 (0,303)
Fem&Imm	1,005 (0,347)	1,264 (0,380)
Snr&Imm	0,841 (0,521)	1,071 (0,545)
<b>Digitalization interactions</b>		
Hdigi&Fem	1,220 (0,487)	0.458** (0,164)
Hdigi&Snr	1,492 (1,136)	1,664 (1,222)
Hdigi&Imm	0,691 (0,337)	1,012 (0,448)
<b>Control variables</b>		
Educl	1,198 (0,166)	1,067 (0,113)
EntreprT	1.563*** (0,263)	1,086 (0,136)
FinanT	1,15 (0,201)	1,145 (0,150)
IncoL	1,232 (0,171)	1.388*** (0,149)
MaDiW	1.383** (0,184)	1.403*** (0,149)
DigiL	1.677* (0,499)	1.972*** (0,513)
TechL	1,245 (0,270)	0,79 (0,144)
LegalF	1.294* (0,197)	0,879 (0,100)
OwnN	0.998* (0,001)	0.997*** (0,001)
Adjusted R <sup>2</sup>	0,038	0,023
ll	-765,92	-1109,34
chi2	64,45	59,74
N	1753	1753

Exponentiated coefficients; Standard errors in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

The obtained results in Table 6 show a positive association between being immigrant and the export propensity (Model 8). In contrast, the results, for female and senior vulnerable groups do not represent statistical significance, indicating that gender and age, on their own, might not be as strong a predictor of this specific outcome.

The coefficients for vulnerable groups regarding the hiring expectation demonstrate that the variables representing female and immigrant groups do not demonstrate statistical significance. Conversely, the data substantiates the hypothesis that senior nascent early-stage entrepreneurs hold negative hiring expectations.

Interactions between vulnerable groups, such as between females and seniors or females and immigrants, did not demonstrate statistically significant interactions in either model. This implies that while the individual contributions of being part to a vulnerable group could be significant, their combined effects may not provide additional value in terms of exports or hiring expectations.

The interaction between high digitalization and vulnerable groups only show that female nascent entrepreneurs of highly digitalized companies have a significantly lower probability of expecting to create new jobs compared to other entrepreneurs. This is a notable finding that could suggest that, although these firms are technologically advanced, their business model focuses on efficiency and automation, which reduces the need for hiring personnel.

There are several control variables that contribute significantly and positively to both exports rate and expectations of job hiring:

- ✓ DigiL: the level of digitalization,
- ✓ MaDiW: whether the company was created with the intention of making a difference in the world, and
- ✓ OwnN: the number of business owners.

About the entrepreneurial training variable (EntreprT), results show that it affects positively and significantly the exports rate, as the legal form (LegalF) does. Not so, with hiring expectations. Consistent with the existing literature, the results show a higher likelihood of exporting for firms with more advanced legal structures-such as a Limited Company or a Public Limited Company, compared to less formalized business types as an autonomous self- employed.

Finally, the results also reveal that the total annual income of all members of the respondent's household (IncoL) also plays a significant role, but only in the hiring expectations dependent variable, as a higher rate influences positively in having positive hiring expectations.

**Table 7: Robustness check for the results obtained in the analysis of the growth**

<b>Robustness checks</b>		
	<b>Mod 10</b>	<b>Mod 11</b>
	<b>Export_EE</b>	<b>JCE_EE</b>
<b>Vulnerable groups</b>		
Fem	1.471** (0,276)	0,799 (0,132)
Snr	0.635* (0,160)	0.672** (0,126)
Imm	2.669*** (0,944)	2.111** (0,667)
<b>Interactions</b>		
Fem&Snr	0,909 (0,298)	0,773 (0,227)
Fem&Imm	0,875 (0,375)	0,566 (0,263)
Snr&Imm	2.558** (1,164)	0,777 (0,381)
<b>Digitalization interactions</b>		
Hdigi&Fem	0.405* (0,187)	1,226 (0,526)
Hdigi&Snr	0,744 (0,400)	1,215 (0,566)
Hdigi&Imm	1,023 (0,752)	0,779 (0,594)
<b>Control variables</b>		
Educl	1,16 (0,184)	1,118 (0,149)
EntreprT	0,905 (0,149)	1,117 (0,167)
FinanT	1,351 (0,254)	0,92 (0,146)
IncoL	1,12 (0,173)	1.679*** (0,222)
MaDiW	2.023*** (0,308)	1.378** (0,197)
DigiL	2.873*** (0,977)	1,209 (0,412)
TechL	1.671** (0,340)	0,741 (0,153)
LegalF	1.748*** (0,254)	1.811*** (0,233)
OwnN	1 (0,001)	0.997*** (0,001)
Adjusted R <sup>2</sup>	0,077	0,052
ll	-673,30	-818,30
chi2	108,44	108,21
N	1920	1920

Exponentiated coefficients; Standard errors in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

The obtained findings are validated in Table 7, by the robustness checks of models 8 and 9, which were performed, as above explained, using the established entrepreneurs' database.

All the aforementioned results are validated in the robustness checks. Both the variables related to vulnerable population groups, and the fact or result of the interactions did not yield significant results.

All control variables were validated, except for the entrepreneurial training variable.

In summary, the robustness tests confirm that the results obtained are consistent and constitute valuable information that should be considered.

Next, I will go deeper into the analysis of the segments studied of vulnerable population groups and answer the hypothesis raised in section 3.4.2.

Hypothesis 2.A (Model 8): early-stage entrepreneurs belonging to vulnerable groups are more prone than the rest to export.

Hypothesis 2.A.1: female early-stage entrepreneurs are more prone than males to export.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.A.2: senior early-stage entrepreneurs are more prone than males to export.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.A.3.: immigrant early-stage entrepreneurs are more prone than locals to export.

The hypothesis is accepted. The probability to export being an immigrant early-stage entrepreneur is almost the double than being local ( $p = 1.807$ ).

Hypothesis 2.A.4: the augmented vulnerability, or the intersectionality of belonging to a more than one vulnerable group, increases their propensity to export.

Hypothesis 2.A.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior, increases their propensity to export.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.A.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant, increases their propensity to export.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.A.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being senior and immigrant increases their propensity to export.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.B (Model 9): early-stage entrepreneurs belonging to vulnerable groups are more prone to expect to hire an employee.

Hypothesis 2.B.1: female early-stage entrepreneurs are more prone than males to expect to hire an employee.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.B.2: senior early-stage entrepreneurs are more prone than younger ones to expect to hire an employee.

The hypothesis is rejected. It is estimated that a senior is 30,6% less likely ( $p = 0.694$ ) than a younger than a 55 years old person to expect to hire an employee.

Hypothesis 2.B.3: immigrant early-stage entrepreneurs are more prone than locals to expect to hire an employee.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.B.4: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group increases their propensity to expect to hire an employee.

Hypothesis 2.B.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior, increases their propensity to expect to hire an employee.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.B.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant, increases their propensity to expect to hire an employee.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.B.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being senior and immigrant increases their propensity to expect to hire an employee.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.C (Model 9): the moderating effect of digitalization increases the growth expectations, increasing their export ratio, of entrepreneurs belonging to vulnerable segments of the population in the initial stage of entrepreneurship.

Hypothesis 2.C.1: the moderating effect of digitalization increases the female early-stage entrepreneurs' expectations to growth, measured by the export ratio.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.C.2: the moderating effect of digitalization increases senior early-stage entrepreneurs' expectations to growth, measured by the export ratio.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.C.3: the moderating effect of digitalization increases immigrant early-stage entrepreneurs' expectations to growth, measured by the export ratio.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.D (Model 9): the moderating effect of digitalization increases the growth expectations, increasing their export ratio, of entrepreneurs belonging to vulnerable segments of the population in the initial stage of entrepreneurship.

Hypothesis 2.D.1: the moderating effect of digitalization increases the female early-stage entrepreneurs' expectations to growth, measured by the hiring expectations.

The hypothesis is rejected. It is estimated that a female who has a high digitalized early-stage entrepreneurship is 54,2% less likely to expect to hire an employee.

Hypothesis 2.D.2: the moderating effect of digitalization increases senior early-stage entrepreneurs' expectations to growth, measured by the hiring expectations.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 2.D.3: the moderating effect of digitalization increases immigrant early-stage entrepreneurs' expectations to growth, measured by the hiring expectations.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

#### 4.3. Results for the vulnerable early-stage entrepreneurs for prioritizing the sustainable impact

**(RQ3) Are unconventional entrepreneurs more likely to pursue sustainable goals compared to conventional entrepreneurs?**

The results from Models 12-14 in Table 8 provides insights into how gender, age, and immigrant status affect the likelihood of nascent entrepreneurs prioritizing sustainability, social contribution, or environmental care, above profit and financial return.

Table 8: Results for the analysis of the prioritization of the sustainability impact

Logit models			
	Mod 12	Mod 13	Mod 14
	SUSprio_TEA	SOCprio_TEA	ENVprio_TEA
<b>Vulnerable groups</b>			
Fem	1.188 (0.149)	1.347** (0.170)	1.355** (0.169)
Snr	2.074*** (0.405)	1.336 (0.271)	1.667** (0.334)
Imm	1.097 (0.235)	1.256 (0.272)	0.731 (0.153)
<b>Interactions</b>			
Fem&Snr	0.639 (0.183)	0.729 (0.218)	1.023 (0.314)
Fem&Imm	1.085 (0.328)	1.241 (0.394)	1.342 (0.408)
Snr&Imm	0.721 (0.339)	0.655 (0.334)	1.104 (0.570)
<b>Digitalization interactions</b>			
Hdigi&Fem	0.911 (0.334)	0.509* (0.193)	0.431** (0.164)
Hdigi&Snr	0.591 (0.415)	1.166 (0.871)	1.274 -1.080
Hdigi&Imm	0.381** (0.187)	0.498 (0.229)	0.451* (0.205)
<b>Control variables</b>			
Educl	0.910 (0.0978)	1.020 (0.111)	1.068 (0.115)
EntreprT	1.154 (0.134)	1.116 (0.132)	1.055 (0.124)
FinanT	1.007 (0.133)	1.052 (0.143)	0.874 (0.117)
IncoL	1.053 (0.115)	1.201* (0.133)	1.166 (0.128)
MaDiW	2.450*** (0.261)	3.074*** (0.354)	2.606*** (0.292)
DigiL	1.600* (0.433)	1.702* (0.486)	2.364*** (0.694)
TechL	0.973 (0.172)	0.805 (0.144)	0.889 (0.158)
LegalF	1.137 (0.131)	1.022 (0.119)	1.039 (0.120)
OwnN	0.983 (0.0308)	0.992 (0.0219)	0.980 (0.0305)
Adjusted R <sup>2</sup>	0.044	0.056	0.051
ll	-1093.5	-1070.4	-1091.8
chi2	99.36	128.5	117.7
N	1668	1702	1705

Exponentiated coefficients; Standard errors in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Women entrepreneurs show a consistent tendency to prioritize non-economic goals, in the social and environmental sphere (Models 13 and 14). This suggests that women are significantly more oriented than men to emphasize with societal and environmental objectives when creating a venture.

Senior status shows strong and statistically significant preferences for the obtention of sustainable goals, they are more than twice as likely as younger counterparts to prioritize sustainability. But if we go deeper in the analysis, the data show differences between groups and different sustainable goal prioritization, no significant results are shown related to the social objectives prioritization, in contrast to the environmental ones, that are significantly and positively related.

The immigrant status results are statistically insignificant.

The prioritization of the obtention of sustainable goals can be significantly influenced by the moderating effect of digitalization. The outcomes associated with female entrepreneurs suggest that digitalization may have a negative effect on the prioritization of social and environmental impact. This finding is supported by some researchers who highlight the mediating role of digital innovation in connecting entrepreneurship with sustainable development.

Furthermore, examination of the data reveals that while high digitalization positively contributes to female and immigrant entrepreneurs, the significant interactions present both positive and negative effects across different sustainability aspects (social versus environmental impacts). This suggests that the moderating role of digitalization is context-dependent, corroborating findings by Herman that underscore the importance of country-level digitalization in shaping entrepreneurial outcomes toward sustainable development goals (SDGs) (Herman, 2022).

Finally, analyzing the control variables, results show that as expected, the “MaDiW” variable, whether the company was created with the intention of making a difference in the world, is highly correlated with the three dependent variables. The remaining control variables do not yield significant results.

**Table 9: Robustness checks for the results of the analysis of the prioritization of the sustainability impact**

<b>Robustness checks</b>			
	<b>Mod 15</b>	<b>Mod 16</b>	<b>Mod 17</b>
	<b>SUSprio_EE</b>	<b>SOCprio_EE</b>	<b>ENVprio_EE</b>
<b>Vulnerable groups</b>			
Fem	0,963	1,091	1,207
	-0,121	-0,142	-0,157
Snr	1.473***	1.386**	1.662***
	-0,201	-0,198	-0,243
Imm	0.498**	0,776	0.506**
	-0,154	-0,232	-0,151
<b>Interactions</b>			
Fem&Snr	0,842	0,863	1,032
	-0,167	-0,18	-0,225
Fem&Imm	1,174	0,69	0,893
	-0,455	-0,268	-0,348
Snr&Imm	2.308**	1,549	2.199*
	-0,936	-0,648	-0,954
<b>Digitalization interactions</b>			
Hdigi&Fem	2.425**	1,165	1,324
	-0,867	-0,441	-0,496
Hdigi&Snr	0,934	1,079	0.503*
	-0,351	-0,438	-0,195
Hdigi&Imm	1,175	0,835	1,338
	-0,888	-0,615	-0,981
<b>Control variables</b>			
Educl	0.735***	0.771**	0.784**
	-0,076	-0,083	-0,086
EntreprT	1.235*	1,08	0,919
	-0,136	-0,123	-0,106
FinanT	0,888	1,058	1,218
	-0,112	-0,139	-0,163
IncoL	1,071	1,084	0,951
	-0,11	-0,116	-0,103
MaDiW	2.277***	3.327***	2.439***
	-0,26	-0,44	-0,318
DigiL	0,69	1,217	1,092
	-0,198	-0,355	-0,314
TechL	0,799	0,781	0,848
	-0,125	-0,123	-0,134
LegalF	0,956	1,096	0,849
	-0,094	-0,117	-0,092
OwnN	1,001	1,033	1,033
	-0,001	-0,035	-0,034
Adjusted R <sup>2</sup>	0.043	0.055	0.049
ll	-1276	-1205	-1172
chi2	109	138	121
N	1920	1920	1920

Exponentiated coefficients; Standard errors in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

The obtained findings are validated in Table 9, by the robustness checks of Models 15, 16 and 17, corresponding to Logit Models 12, 13 and 14 respectively, which were performed, as above explained, using the established entrepreneurs' database.

The robustness tests corroborate the results for the vulnerable segment of seniors, but not the women's one.

Furthermore, it is significant to see that educational level is negatively and significantly correlated with the prioritization of sustainable goals when considering only the database of established entrepreneurs.

The "MaDiW" control variable, whether the company was created with the intention of making a difference in the world, is validated, as expected, with the robustness test in all three models.

Next, I will go deeper into the analysis of the segments studied of vulnerable population groups and answer the hypothesis raised in section 3.4.3.

Hypothesis 3.A (Model 12): early-stage entrepreneurs, belonging to vulnerable groups, are more likely to prioritize the sustainable impact in their entrepreneurship.

Hypothesis 3.A.1: women are more prone than men to prioritize the sustainable impact in their early-stage entrepreneurship.

There is insufficient evidence to support the prioritization of women entrepreneurs for sustainability as a whole, as the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

However, it is worth mentioning that, upon further analysis, the data does show a higher probability of prioritizing social ( $p = 1.347$ ) and/or environmental impact ( $p = 1.355$ ).

Hypothesis 3.A.2: senior entrepreneurs are more prone than younger entrepreneurs to prioritize the sustainable impact in their early-stage entrepreneurship.

The hypothesis is accepted. The probability of prioritizing the sustainable impact being a senior early-stage entrepreneur is more than double than being younger than 55 years old entrepreneur ( $p = 2.096$ ).

Hypothesis 3.A.3: immigrants are more prone than men to prioritize the sustainable impact in their early-stage entrepreneurship.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 3.A.4a: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and senior, increases their propensity to prioritize sustainable impact in their early-stage entrepreneurship.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 3.A.4b: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being female and immigrant, increases their propensity to prioritize sustainable impact in their early-stage entrepreneurship.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 3.A.4c: the augmented vulnerability, or the intersectionality of belonging to a more than a vulnerable group, more specifically being senior and immigrant, increases their propensity to prioritize sustainable impact in their early-stage entrepreneurship.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 3.B (Model 12): The moderating effect of digitalization increases the prioritization of the sustainable impact of entrepreneurs belonging to vulnerable segments of the population in the initial stage of entrepreneurship.

Hypothesis 3.B.1: the moderating effect of digitalization increases the female early-stage entrepreneurs' prioritization of the sustainable impact.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 3.B.2: the moderating effect of digitalization increases the seniors' early-stage entrepreneurs' prioritization of the sustainable impact.

There is not sufficient evidence to support any conclusion, since the variable in question does not show statistical significance. The hypothesis cannot be confirmed.

Hypothesis 3.B.3: the moderating effect of digitalization increases the immigrants' early-stage entrepreneurs' prioritization of the sustainable impact.

The hypothesis is rejected. It is estimated that an immigrant who has a high digitalized early-stage entrepreneurship is 62,1% less likely to expect to hire an employee.

**CHAPTER 5: DISCUSSION,  
LIMITATIONS OF THE STUDY AND  
SUGGESTIONS FOR FUTURE RESEARCH**

The growing entrepreneurial endeavors of vulnerable demographic population are increasingly captivating the scholarly interest of researchers, the strategic considerations of policymakers and the investment analyses of financial institutions. This heightened engagement can be attributed to the escalating prevalence and enhanced prominence of enterprises founded and operated by foreign nationals within urban agglomerations globally. It is also due to the rapid and significant demographic expansion that some of these vulnerable groups are experiencing. In Spain, some studied vulnerable population groups as seniors and immigrants increased 17,38% and 3,1% respectively during the last 10 years. This phenomenon is particularly evident in specific districts of mayor cities, such as Madrid and Barcelona.

The present dissertation sought to analyze augmented vulnerability of these segments at various stages of entrepreneurial activity in Spain, and the following three research questions were investigated:

**RQ1:** Are the individuals belonging to the most vulnerable population more likely to **create new firms**? In other words, to what extent does membership in the most vulnerable population strata influence the likelihood of pursuing new businesses?

**RQ2:** Are early-stage entrepreneurs within the most vulnerable segments more inclined to pursue **growth**? Specifically, what is the relationship between the socioeconomic vulnerability of nascent entrepreneurs and their orientation towards firm growth?

**RQ3:** Are early-stage entrepreneurs, belonging to vulnerable demographic segments, more likely to prioritize **sustainable impact** in their businesses?

In this chapter the key findings of the study are discussed, the debate on the concepts of vulnerable groups' entrepreneurial activity is resumed, and brief comments are made on the efficiency of entrepreneurship as a means of social integration. Finally, the limitations of the study are presented.

## 5.1. Introduction

This study's novelty stems from its comprehensive analysis of the profile and performance of early-stage entrepreneurs across the distinct phases of entrepreneurship: entrepreneurial intention, firm creation and growth, and the prioritization of the sustainable impact in these recently created firms. Prior research has predominantly focused on individual vulnerable demographic segments (e.g., women, seniors, immigrants), and in most cases, has limited its scope to variables influencing firm creation, largely neglecting subsequent entrepreneurial phases. Furthermore, existing studies often overlook the inherent heterogeneity within these groups, a factor that may be particularly pronounced in augmented vulnerable segments where individuals belong to multiple vulnerable categories.

Against this backdrop, this thesis suggests the critical necessity of an intersectional approach in the study of early-stage entrepreneurs from vulnerable demographic populations. Moving beyond isolated analyses of distinct segments—such as women, seniors, and immigrants—the findings reveal that the compounded effects of belonging to multiple vulnerable groups, or augmented vulnerability, are a more specific predictor of entrepreneurial activity. This influence extends beyond nascent entrepreneurs' initial entrepreneurial intention and firm creation to affect business growth and even the prioritization of sustainable impact. This underscores the imperative to transcend singular demographic analyses and embrace the complex interplay of intersecting identities and their profound influence on entrepreneurial outcomes.

## 5.2. Understanding the entrepreneurial intentions and firm creation of individuals belonging to vulnerable groups

### 5.2.1. Augmented vulnerability in Entrepreneurial Intentions

The analysis of entrepreneurial intentions among vulnerable groups underscores the critical importance of intersectionality in shaping entrepreneurial endeavors, as evidenced by my empirical findings. A primary novel insight of this thesis derived from the impact of these intersecting identities. Specifically, the interplay between immigrant status and gender influences entrepreneurial aspirations. While existing research often indicates heightened entrepreneurial intent among immigrant individuals, frequently driven by necessity or a desire for socio-economic improvement (Dabić et al., 2020), our results demonstrate that this trend does not extend to immigrant women. Instead, the interactions between these two vulnerable groups reveal that their entrepreneurial aspirations may decline. This observed reduction is largely attributable to the compounded vulnerabilities immigrant women face, including societal expectations, cultural barriers, and systemic inequities, which collectively deter their entrepreneurial engagement (Brieger & Gielnik, 2021; Cardella et al., 2020; Liñán et al., 2010). The augmented vulnerability experienced by immigrant women appears to counteract the positive entrepreneurial intentions observed in the broader immigrant cohort, resulting in a negative inclination towards entrepreneurship within this specific intersectional group.

A contrary pattern emerges regarding the intersection of immigrant and senior demographics. Our data indicate that while individuals over 55 years of age, when analyzed independently, generally demonstrate a considerably lower propensity for entrepreneurial intention, this probability significantly increases when combined with immigrant status. This finding highlights a complex dynamic where immigrant status appears to mitigate some of the age-related decline in entrepreneurial intent, yet the combined effect still presents unique challenges.

The preceding discussion on entrepreneurial intentions among vulnerable groups is deeply rooted in several key theoretical frameworks, notably Intersectionality Theory and elements of TPB (Ajzen, 1991). Intersectionality provides the crucial lens through which we analyze how various social and political identities, such as gender, immigrant status, and age, combine to create unique modes of

discrimination and privilege. This approach moves beyond single-axis analyses to reveal the complex, synergistic disadvantages faced by immigrant women and senior immigrants in their entrepreneurial pursuits. The results demonstrate how intersecting vulnerabilities can severely undermine self-efficacy and constrain perceived entrepreneurial opportunities, even for individuals with high innate potential.

My contribution to this academic debate is multi-faceted. Firstly, I empirically highlight the compounding effect of intersectional identities on entrepreneurial intentions within vulnerable populations. While existing literature often examines the entrepreneurial activities of immigrants, women, or seniors in isolation, my work specifically unpacks the nuanced dynamics that emerge when these identities intersect or overlap. I demonstrate that the entrepreneurial motivations and challenges of, for example, immigrant women are not merely additive but rather represent a distinct set of experiences shaped by the interplay of gendered societal norms, cultural barriers, and systemic discrimination. This provides a more granular understanding than what a sole focus on one demographic variable might offer, addressing a significant gap in the extant literature.

Secondly, I extend the theoretical application of intersectionality to the field of entrepreneurship, particularly in the context of senior immigrants. My analysis yields a critical finding: the general tendency for older populations to exhibit lower entrepreneurial intent (Kautonen et al., 2010), is not straightforwardly applicable to senior immigrants; instead, this trend appears to be reversed or, at minimum, significantly more nuanced for this specific demographic. This suggests a compelling interplay between the desire for continued economic activity post-retirement and the heightened risks associated with ageism and immigrant discrimination. By analyzing how ageism intersects with immigrant discrimination, I reveal how these combined forces create unique barriers that further constrain entrepreneurial opportunities for this specific demographic. This extends the applicability of intersectionality beyond its more traditional focus on gender and race/ethnicity, pushing the boundaries of its theoretical utility in entrepreneurship research.

Finally, this discussion advocates for a more inclusive and intersectional approach to entrepreneurial policymaking. By demonstrating the distinct challenges faced by female and senior immigrants, I move beyond generic policy recommendations and argue for tailored interventions that acknowledge their multifaceted vulnerabilities.

This contributes to the broader scholarly discourse on fostering equitable entrepreneurial ecosystems by emphasizing that effective policy must address the specific structural inequalities and biases faced by marginalized groups. My work, therefore, not only enriches the empirical understanding of entrepreneurial intentions but also provides a robust theoretical foundation for developing more targeted and effective support mechanisms for diverse entrepreneurial actors, aligning with the call for a broader understanding of entrepreneurial motivations beyond limited economic metrics. This nuanced perspective on entrepreneurial agencies and structural constraints represents a significant advancement in academic conversation.

### 5.2.2. Augmented vulnerability in firm creation

As detailed in Chapter 4.1, my empirical findings reveal differential impacts of vulnerability on entrepreneurial outcomes, specifically in the firm creation phase, across distinct demographic groups. The results provide nuanced evidence regarding the probabilities of firm creation for two of the individually analyzed vulnerable groups: seniors and immigrants. Specifically, belonging to the senior demographic is consistently associated with a reduced probability of firm creation. Conversely, immigrant status is associated with a significantly higher likelihood of firm creation (Dabić et al., 2020; Irastorza & Peña, 2014).

These individual findings largely align with established theoretical perspectives. The heightened propensity for firm creation among immigrants often correlates with necessity entrepreneurship theories, where individuals are compelled to create their own opportunities due to limited access in traditional labor markets (Dabić et al., 2020). Immigrants may face systemic barriers or seek greater autonomy, driving them towards self-employment as a strategic means of adapting to new environments and securing financial stability. On the other hand, the reduced probability of firm creation among seniors, when considered in isolation, can be attributed to factors such as perceived higher risk aversion, greater constraints on access to capital later in life, or prevailing societal expectations that may negatively influence self-efficacy and outcome expectations for new ventures (Perenyi et al., 2018; Zhu et al., 2021). It's important to note the intriguing contrast here: while

seniors have demonstrably increased their participation in the general labor force, the specific barriers to starting a business appear distinct and more challenging than those to remain employed. This highlights the complexities inherent in entrepreneurial pursuits among aging demographics (Zhu et al., 2021).

However, the analysis of interactive effects between these groups, particularly concerning augmented vulnerability in the context of business creation, yielded no statistically significant evidence. Consequently, and crucially, unlike the findings related to entrepreneurial intention (as discussed in Chapter 3), our results do not confirm nor reject that augmented vulnerability significantly impacts concrete firm creation outcomes when multiple vulnerabilities intersect. This divergence between intention and action critically emphasizes the intention-behavior gap prevalent in entrepreneurship literature, where heightened intentions do not always translate into actual firm formation (Kautonen et al., 2010; Van Gelderen et al., 2015). While earlier models showed that intersectional vulnerability significantly affects entrepreneurial intentions, the transition from intention to the actual act of firm creation appears to be mediated by different, potentially structural or resource-based, barriers. These barriers may not be compounded by intersecting vulnerabilities in the same statistically significant manner, suggesting that the critical hurdles to firm formation might be more uniformly distributed or influenced by distinct moderating factors once individuals move beyond the initial ideation and motivational stages (Van Gelderen et al., 2018).

Nonetheless, the interaction between seniority and immigration status appears to be an especially fertile ground for entrepreneurial activity among established entrepreneurs, as demonstrated by our robustness checks in more advanced stages of the cycle. This nuance is highly significant: while the initial obstacles to firm creation may not be statistically compounded by this specific intersection, individuals who successfully navigate these challenges and establish a business could leverage unique advantages. This success likely stems from accumulated human capital (e.g., extensive experience, diverse skills) and social capital (e.g., robust networking derived from both immigrant and senior communities). Such resources might provide a distinct competitive edge in sustaining their entrepreneurial ventures, suggesting a potential shift in the impact of intersectional identities from hindering initial actions to promoting resilience and sophisticated resource leveraging in later stages of the entrepreneurial process (Dabić et al., 2020).

The observation of inconsistent findings concerning female firm creation engagement underscores the pressing need for more rigorous investigation. This variability highlights a significant gap in a comprehensive understanding of the factors influencing women's business creation, particularly when analyzed through an intersectional lens (Chen et al., 2021; Strawser et al., 2021). The unclear patterns for female firm creation in my model point towards the complexities of gendered entrepreneurial pathways not being fully accounted for within broad frameworks or the available data. This necessitates a refinement of theoretical models to integrate the diverse experiences of women in entrepreneurship, potentially exploring mediating variables such as varying access to financial capital, industry-specific barriers, or the nuances of social support networks that disproportionately affect women's ability to actualize entrepreneurial intent into firm creation (Strawser et al., 2021).

My thesis offers several essential contributions to the academic discourse surrounding entrepreneurship within vulnerable populations. Firstly, by rigorously analyzing both individual and interactive effects, I demonstrate a critical distinction between the impact of intersectionality on entrepreneurial intention versus firm creation. While first models' findings suggest that compounded vulnerabilities significantly determine entrepreneurial aspirations, the second models' results indicate that translating these intentions into tangible business creation might be ruled by different sets of factors, or that the statistical power to discern such interactions on action is limited. This challenges the prevailing assumption that the effects of intersectionality are uniformly experienced throughout the entire entrepreneurial process and its different phases and instead advocates for a nuanced understanding of the intention-behavior gap, across varied and complex contexts.

Secondly, my research advances the application of Intersectionality Theory by identifying specific contexts where its explanatory power fluctuates over the entrepreneurial lifecycle. The intriguing finding that the intersection of senior and immigrant identities holds a particular promise for established entrepreneurs—despite initial insignificant effects on firm creation—signals a dynamic influence of overlapping identities. This suggests that while augmented vulnerabilities may obstruct initial entry into entrepreneurship, they can concurrently cultivate a unique combination of resilience, accumulated experience, and differentiated motivation that strongly supports venture sustainability once a business is established (Dabić

et al., 2020; Zhu et al., 2021). This finding enriches intersectionality by illustrating how its impact can evolve from a barrier to a potential facilitator depending on the entrepreneurial stage, emphasizing the longitudinal perspective.

Finally, the inconsistencies related to female firm creation offer a compelling catalyst for theoretical and methodological enhancement within female entrepreneurship studies. Rather than merely reaffirming existing challenges, my findings underscore the need for sophisticated models that explicitly consider the heterogeneity within the "female" entrepreneurial demographic, especially when combined with other intersectional identities. This empirical observation encourages researchers to move beyond generalized gender analyses and delve into the specific mechanisms and contextual factors that influence firm creation among diverse groups of women. By doing so, this thesis contributes to enriching theoretical frameworks and fostering truly equitable entrepreneurial ecosystems, moving beyond blanket policy recommendations to targeted interventions that address specific, compounded vulnerabilities.

### 5.3. Understanding growth aspirations among early-stage entrepreneurs in augmented vulnerability groups

In this research, the subsequent phase of entrepreneurship, growth, was investigated in Table 5.

In summary, the results from Table 5, focusing on entrepreneurial growth indicators, specifically export rate and hiring expectations, present a contrasting set of insights when compared to the prior chapter's findings on entrepreneurial intention and new firm creation. Both models illustrate that the confluence of various vulnerability factors (age, immigrant status, gender), alongside the level of digitalization in companies led by these entrepreneurs, does not yield a statistically significant effect in the context of early-stage entrepreneurial growth. This apparent contradiction suggests a necessary inquiry into how different sets of conditions—such as specific demographic characteristics and the nuances of technology adoption—affect distinct stages of entrepreneurial engagement among vulnerable groups. It underscores that the drivers and barriers influencing intent or initial firm creation may differ significantly from those impacting early-stage growth and job creation.

The analysis encompassed the export rate and hiring expectations, with the findings subsequently being checked and compared to the related robustness check.

### 5.3.1. The Impact of Augmented Vulnerability on Export Performance

Beyond the findings on firm creation, the result that immigrant entrepreneurs exhibit a greater propensity for engaging in exporting activities than their local counterparts constitutes a significant finding within the broader discourse surrounding entrepreneurship among vulnerable groups.

This elevated propensity is likely grounded in the unique advantages inherent to immigrant entrepreneurs, such as access to expansive global networks, diverse linguistic capabilities, and varied cultural perspectives (Dabić et al., 2020; Lassalle & Shaw, 2021). These assets collectively enhance their capacity to identify and penetrate international markets. Prior literature extensively demonstrates that immigrant entrepreneurs effectively leverage transnational ties, granting them a notable advantage in capitalizing on global trade opportunities. Immigrant entrepreneurs can navigate and exploit diverse market dynamics that typically elude domestic counterparts due to a lack of similar global connections. Moreover, this pronounced exporting propensity suggests that immigrant entrepreneurship is not merely a survival or necessity-driven strategy but can indeed serve as a substantial mechanism for economic integration and a significant contributor to economic development in host countries (Dabić et al., 2020).

However, while the initial models illuminate these potential benefits of immigrant entrepreneurship, my deeper analytics on interactions among various vulnerable groups produced no statistically significant findings regarding their synergetic effects on overall entrepreneurial outcomes (beyond the initial firm creation discussed previously). This absence of statistically significant results raises critical questions regarding the compounded impact of multiple vulnerability factors, particularly in the context of export propensity. It may suggest that these complex interactions either do not produce the anticipated outcomes (e.g., further amplification or reduction of export likelihood) or that the selected variables and their operationalization inadequately capture the full complexities of entrepreneurship among these intersecting groups. It cannot be concluded that less

vulnerable entrepreneurs are more likely to pursue international expansion and firm growth.

Furthermore, similar non-significant results emerged regarding the interplay between high digitalization and vulnerable statuses, where neither an amplification nor a reduction of export likelihood was observed due to their interaction. This finding casts doubt on the prevailing assumption within some entrepreneurial research that advanced digital capabilities, when intertwined with vulnerability, can inherently enhance entrepreneurial outcomes, particularly in internationalization (Belitski et al., 2023; Jafari-Sadeghi et al., 2021; Quintillán & Peña-Legazkue, 2019). It suggests that while digitalization may offer tools, its benefit is not automatically leveraged to overcome structural or intersectional barriers for vulnerable entrepreneurs in the context of export propensity. This implies that the traditional theoretical frameworks constructed to understand entrepreneurial intentions and their translation into internationalization behaviors may not adequately capture the multifaceted realities faced by vulnerable populations in a rapidly digitalizing global economy (Kautonen et al., 2010).

Therefore, the current discussion strongly emphasizes the necessity to rethink our theoretical models and methodological approaches. It mandates a more robust and nuanced exploration of intersectionality in entrepreneurship growth, advocating for frameworks that more accurately represent the intricate layers of advantages and disadvantages inherent to vulnerable entrepreneurs. This includes acknowledging that positive individual effects (like immigrant exporting) may not simply accumulate or diminish when combined with other vulnerabilities, and that technological access alone may not mitigate complex socio-economic barriers.

In summary, the contributions of this research extend the existing literature by not only confirming the previously documented advantages of immigrant entrepreneurship in internationalization but also, critically, by questioning the assumed linear or additive nature of vulnerabilities when examining their interactive effects on entrepreneurial behaviors and performance. Specifically, our finding regarding the non-significant interaction effects, particularly concerning digitalization and multiple vulnerabilities, highlights a critical gap in current theoretical models. This gap necessitates the development of updated theoretical frameworks incorporating richer intersectional perspectives and the deployment of longitudinal studies that could unravel the nuanced realities of entrepreneurship within the complex context of multiple vulnerabilities. Such future research should explore

mediating factors and conditional relationships, moving beyond simple additive models to understand the dynamic interplay of resources, barriers, and agency that truly shape entrepreneurial trajectories for vulnerable populations.

### 5.3.2. Hiring Expectations Among Individuals from Vulnerable Backgrounds

The findings from Table 5 provide valuable insights into the hiring expectations of older entrepreneurs, revealing a reduced likelihood for this demographic to anticipate hiring new employees.

This observation aligns with existing research indicating that older entrepreneurs often face distinct barriers in accessing crucial resources, which consequently diminishes their capacity or propensity for job creation (Kautonen et al., 2008, 2010). Furthermore, previous studies suggest a correlation between age and entrepreneurial success, with success rates often peaking in middle age (Azoulay et al., 2020). This implies a potential relationship between age, accumulated human and social capital, and the capacity for venture growth that extends to hiring propensity. This finding represents a fundamental contribution to the discourse surrounding aging in entrepreneurship, as extant literature frequently overlooks how such age-related dynamics specifically contribute to hiring expectations and, by extension, overall entrepreneurial output and economic impact.

Moreover, the results unveil a notable divergence concerning established immigrant entrepreneurs. These individuals report over twice the likelihood of having hiring expectations compared to their local counterparts. This significant discrepancy necessitates a thorough examination of underlying factors that may disproportionately favor immigrant entrepreneurs in terms of hiring potential. Such factors could include differential access to specific social networks, varied socio-economic drivers (e.g., strong community ties leading to hiring within ethnic clauses), different types of business with more personnel needs, differing risk appetites, or unique resourcefulness in navigating market opportunities. The emphasis on immigrant entrepreneurship serves as a critical perspective through which the complex interaction of multiple vulnerability factors, including age and immigrant status, can be assessed. This comparative analysis proposes a more nuanced understanding of entrepreneurial growth dynamics that have previously

been absent in literature predominantly focused on other entrepreneur segments in isolation.

What is added to this ongoing discussion is a differentiated perspective that synthesizes age, gender and migration status, within entrepreneurial trajectories, particularly concerning growth aspirations. This highlights that while certain intersections of vulnerability might impact on the decision to start a business, they do not necessarily (or not always) translate into a compounded effect on growth expectations in the early stages. This observation opens crucial avenues for further research, particularly within the framework of Transitional Entrepreneurship (TE). TE explicitly recognizes the unique assets and persistent challenges faced by marginalized entrepreneurial actors and aims to enhance their integration and success in the broader economic landscape (Pidduck & Clark, 2021). My findings, by distinguishing between various stages of entrepreneurial activity, suggest that supportive policies and interventions need to be tailored not just to specific vulnerable groups, but also to the specific entrepreneurial phase they are in, acknowledging that the hurdles for starting may differ from those for growing a venture.

#### 5.4. Prioritizing Sustainable Impact: Insights from Vulnerable Early-Stage Entrepreneurs

In the concluding section of the discussion chapter, related to the third research objective of this thesis, I focused on the interplay between belonging to a vulnerable group and the prioritization of sustainable impact. Table 6 specifically examined overall sustainable impact.

A primary finding reveals a statistically significant propensity among senior entrepreneurs to prioritize sustainable impact broadly, and, more specifically, environmental impact in isolation from social considerations. These findings were further corroborated by robustness checks. These findings align with the existing literature that suggests this demographic group seeks not merely economic viability but also a purpose-driven approach to entrepreneurship, aligning their ventures with sustainability goals that enhance both personal well-being and social accountability (Zhu et al., 2021). Furthermore, seniors frequently leverage their extensive life

experiences and accumulated knowledge to identify and address sustainability challenges from a distinct vantage point. This inclination motivates the creation of businesses that not only generate income but also meticulously consider their environmental footprint, a factor perceived as integral to their personal and professional identity (Soto-Simeone & Kautonen, 2020).

Building on this, the results specifically indicate that senior entrepreneurs exhibit a particular preference for prioritizing environmental sustainability. This often stems from a desire to contribute meaningfully to addressing climate change and to leave a positive legacy. This imperative frequently translates into the types of businesses they establish, which are more inclined to adopt eco-friendly practices and contribute positively to the environment, rather than solely fulfilling social or community-oriented objectives. Research also demonstrates that seniors' entrepreneurial activities often feature a strong value proposition centered on environmental stewardship (Hechavarria et al., 2018). This consistent trend within senior entrepreneurship underscores a clear prioritization of sustainable impact, with a notable emphasis on environmental sustainability independent of concomitant social dynamics.

Conversely, while the results do not indicate a significant preference among early-stage female entrepreneurs for prioritizing sustainability overall, they do show an individual preference for prioritizing social or environmental impact independently. As the existing literature confirms, studies observe complexities in gendered entrepreneurial motivations, noting that women entrepreneurs, often exhibit a pronounced desire to establish ventures that contribute positively to their communities, thereby aligning with broader sustainability ideals (Chen et al., 2021). This suggests that while a collective "sustainability" might not be a top-level priority for all female entrepreneurs, specific dimensions of sustainability (social or environmental) are indeed important, perhaps reflecting a more nuanced approach or a focus on issues directly related to their immediate communities or personal values. This finding suggests that separating sustainable impact into several categories (i.e. social, environmental, economic) is a more rigorous approach than analyzing it as a single black box, as is common in literature.

Furthermore, a significant and concerning finding is the negative correlation between high levels of digitalization and the prioritization of general sustainability, and specifically environmental impact, within early-stage female and immigrant entrepreneurs. This suggests that increased digitalization does not inherently

translate to enhanced sustainability practices for these vulnerable groups, who may face significant resource and institutional support deficits. Some researchers emphasize that the mere availability of digital tools does not guarantee environmentally sustainable practices, especially among certain vulnerable demographic groups, due to potential socio-economic barriers (Gelderen et al., 2017). Weakened social networks within immigrant communities, for example, can also limit their capacity to adopt sustainability initiatives, as these often rely on collective action and shared resources (Dabić et al., 2020; Gedajlovic et al., 2013). Consequently, a negative correlation emerges between elevated digitalization and sustainability commitment among these studied vulnerable populations, who may experience exclusion from conventional socio-economic frameworks or whose digital engagement is primarily driven by immediate economic imperatives rather than long-term sustainable development goals.

Furthermore, digitalization's environmental implications can disproportionately affect vulnerable demographic communities, particularly if their engagement with digital tools is not accompanied by adequate support for sustainable practices. Socio-economic inequalities, manifested through varied socialization processes and structural disadvantages, can relegate vulnerable populations to lower-priority economic roles, exacerbating challenges in addressing sustainability. Thus, as digitalization expands, the emphasis on immediate economic gains, often necessitated by precarious economic positions, can overshadow long-term sustainability goals, potentially leading to detrimental environmental impacts for these specific entrepreneurial segments. This highlights a critical need for policies that integrate digital inclusion with targeted sustainability support for vulnerable entrepreneurial groups.

My thesis offers several essential contributions to the academic discourse surrounding entrepreneurship within vulnerable populations, notably refining our understanding of how intersecting identities influence both entrepreneurial intentions and concrete actions, and the complex relationship between digitalization and sustainability.

The central, most pivotal insight of this research is that the impact of intersectional vulnerability is not uniformly experienced across the entrepreneurial process; its influence on initial entrepreneurial intention differs significantly from its effect on the actualization of firm creation, and its interplay with emerging trends like digitalization presents unexpected challenges for specific vulnerable groups. This finding

fundamentally challenges simplistic, additive models of vulnerability in entrepreneurship, urging a more dynamic and stage-sensitive theoretical approach.

Finally, and uniquely, this thesis contributes to the nascent debate on digitalization and sustainable entrepreneurship by revealing a negative correlation between high levels of digitalization and sustainability prioritization among early-stage female and immigrant entrepreneurs. This finding provides a crucial counterpoint to the generally optimistic narratives surrounding digitalization as a universal enabler of sustainable business (Gelderen et al., 2017). Our research positions itself within a critical perspective that recognizes how structural inequalities and resource disparities can transform digital tools from accelerators into potential liabilities or, at best, neutral factors regarding sustainability for vulnerable groups. This highlights the urgent need for context-specific policies that ensure digital inclusion genuinely supports, rather than inadvertently hinders, sustainable practices for all entrepreneurs, particularly those operating with compounded vulnerabilities.

## 5.5. Limitations of the study

In conducting this study, several limitations have been identified that could impact on the validity and applicability of the findings.

The first limitation stems from the demographic constraints of the sample population. While the sample size is significant, it is restricted to the Spanish population, meaning the insights derived may not necessarily extrapolate to other countries, particularly those with distinct socio-economic and demographic contexts. Research has consistently indicated that cultural and contextual factors play crucial roles in shaping entrepreneurial intentions and behaviors, arguing that entrepreneurial intentions vary across different cultural backgrounds, emphasizing the influence of localized social norms and economic conditions on entrepreneurial activities (León et al., 2011). Thus, the focus on a single country's population in this study raises questions regarding the generalizability of the outcomes to broader contexts, especially in a comparative sense with countries exhibiting varied economic states or cultural dimensions.

A further methodological limitation pertains to the nature of the data collected. The research is reliant on self-reported perceptions from participants, which may introduce biases associated with subjective reporting. Such reliance could lead to inaccuracies in quantitative variables, potentially skewing the findings and lowering the credibility of the conclusions drawn. Additionally, since the data collection method relies heavily on personal insights, it raises concerns about possible self-selection bias, wherein individuals with more favorable perceptions might be over-represented in the sample (Pergelova et al., 2018).

Moreover, the cross-sectional design employed in this study signifies that the data reflects insights from a single timeframe, specifically the year 2023. Such a design is less robust compared to longitudinal studies that would allow for the observation of changes over time, thus providing a deeper understanding of causal relationships and trends. Research literature suggests that longitudinal studies offer richer insights by capturing the evolution of behaviors and perceptions (Liñán & Fayolle, 2015). In the context of entrepreneurship, capturing dynamics over multiple periods can illuminate the trajectories of intent and the entrepreneurship lifecycle, revealing shifts that a cross-sectional snapshot might obscure (Esfandiar et al., 2019). The absence of a longitudinal perspective limits the ability to assess the stability or variability of the findings across different temporal contexts.

To continue, it should also be noted that there are two types of methodological limitations. On the one hand, for this study I have dichotomized certain continuous variables (or ordinal categorical variables with multiple levels), such as age or digitalization level. Although this transformation was performed with the aim of simplifying the execution and the interpretation of the results, it is important to recognize that this procedure entails an inherent loss of information and variability in the original data. This simplification may have reduced the statistical power of our analyses and potentially obscured more complex or non-linear relationships that may exist between the variables. Furthermore, the selection of cut-off points for dichotomization was a methodological decision that, although justified, could influence the specificity of the results obtained. Future research could benefit from using these variables in their continuous format to explore the granularity of their effects in greater depth.

On the other hand, new variables were created for this study based on the combination or interaction of two variables, such as those related to the interactions of vulnerable population groups to explain the augmented vulnerability or those

related to the interaction between the high digitization level and vulnerable population groups to explore the influence of these interactions on the dependent variables studied in the logistic model. While this approach allows for a more nuanced understanding of the relationships between variables, by capturing how the effect of one variable may depend on the level of another, it introduces certain methodological limitations that must be recognized.

The inclusion of interaction terms, although enriching, increases the complexity of the model and may hinder the direct interpretation of the main effects, which must now be understood in the context of the interaction. Finally, the increased complexity of the model could, in certain contexts, reduce the generalizability of the findings to other populations or settings, especially if the interactions are highly specific to the sample analyzed. Future research could explore the robustness of these interactions by using larger datasets or diverse modelling methodologies.

## 5.6. Policy implication

The entrepreneurial landscape for vulnerable population groups, specifically women, seniors, and immigrants, presents unique challenges that necessitate a nuanced policy response. The findings of this study emphasize the critical importance of adopting an intersectional approach to understand the entrepreneurial intent and venture initiation of individuals experiencing augmented vulnerability, i.e. belonging to multiple vulnerable demographics.

The finding, as stated previously, highlights a complex dynamic where immigrant status appears to mitigate some of the age-related decline in entrepreneurial intent, yet the combined effect still presents unique challenges. These dynamics are particularly salient in the Spanish context, where both senior and immigrant populations are experiencing substantial growth.

The senior age group (particularly those aged 55 or 65 and over) has seen a very significant increase in their labor force participation in Spain over the last decade. This trend is largely attributable to demographic aging, coupled with changes in retirement legislation and an increased active life expectancy. Data from the National Institute of Statistics (INE) indicate that the active population over 55 has

grown by 63% in the last decade (up to 2024), exceeding 5 million people in Spain for the first time. This group demonstrates one of the most notable growths in terms of activity and employment, reflecting a clear tendency to postpone retirement and remain in the labor market longer.

Similarly, the immigrant population, specifically the foreign-national labor force, has also exhibited substantial growth, serving as a key driver behind the overall increase in Spain's active population in recent years. Between 2019 and 2024, the number of employed individuals not born in Spain rose significantly, accounting for nearly three out of four new jobs created during that period (71.4% of the total). Their share of total employment also increased by 4.8 percentage points, from 15.9% to 20.7%. INE data underscore the fundamental role of both these groups in understanding the dynamics of the Spanish labor market over the last decade, as their absolute numbers and relative weight within the Spanish labor force have both increased considerably. Given the significant increase, in both absolute and relative terms, of both these populations in Spain, it is therefore essential to thoroughly analyze the opportunities and challenges that may arise from the interaction of these two variables—immigration and senior status. This analysis should directly inform the application of policies capable of fostering entrepreneurial intentions within this specific segment, which is projected to grow substantially.

Rather than isolating the vulnerable groups into singular categories, the compounded effects of interconnected vulnerabilities necessitate a broader analytical framework that can reveal the unique interplay of identities that significantly impact entrepreneurial outcomes. This intersectional framework supports the need for policies that are tailored to the specific challenges faced by these populations, ultimately resulting in more effective support mechanisms for their entrepreneurial initiatives (Cardella et al., 2020; Liñán & Jaén, 2020).

The implications of fostering a more robust and equitable entrepreneurial ecosystem cannot be overstated. Policies need to prioritize access to resources and networks that enable the advancement of augmented vulnerable entrepreneurs, but further research is needed to specify to which one in each entrepreneurial phase. The needs could be very different in each of the augmented vulnerable groups of early-stage entrepreneurs belonging to a more than one vulnerable group.

To conclude, it's crucial to emphasize that entrepreneurship is often perceived by vulnerable populations, and indeed by the general populace, as a secondary option when other professional avenues are unavailable. This perception has a detrimental consequence: entrepreneurship loses out on highly capable professionals who could otherwise establish thriving businesses.

Therefore, a key recommendation is to actively promote entrepreneurship as a desirable primary career path—a professional "Plan A"—rather than merely a fallback option. The following sections will analyze strategies for fostering entrepreneurship among these augmented vulnerability groups across the various phases of early-stage venture development.

#### 5.6.1. Entrepreneurial intentions and firm creation

The data reveal the critical importance of enhancing the visibility of immigrant entrepreneurship. In a population with a growing proportion of individuals belonging to this vulnerable group, it is essential to provide the necessary resources to facilitate the transition from entrepreneurial intention to the materialization of firm creation for immigrants. Immigrants frequently contribute diverse skills and perspectives that can significantly foster economic growth, yet they often encounter barriers related to social and institutional contexts that impede their entrepreneurial potential, as noted by various scholars (Brieger & Gielnik, 2021; Dabić et al., 2020).

To improve entrepreneurial intentions and facilitate firm creation within the immigrant population, particularly among female immigrants, it is essential to cultivate an ecosystem that supports these entrepreneurs through targeted policies and resources. Policymakers should consider initiatives that promote the integration of immigrants into the business landscape. Such initiatives could include facilitating access to information, financial resources, and legal support, as well as fostering inclusive communities that celebrate diverse entrepreneurial endeavors.

On the other hand, given the significant expected increase in the elderly population over the coming decades, alongside the increase in life expectancy and consequently the extension of working age, it will be necessary to implement

policies that encourage entrepreneurship among the elderly, reversing the negative data seen in this population segment.

Within community inclusion efforts, training programs focused on entrepreneurial skills could be established, creating immersive groups comprising these vulnerable groups. This approach aims to leverage the potential synergies that such intergroup relationships might generate. Furthermore, policies that eliminate the perceived barriers resulting from the augmented vulnerability experienced by those citizens should be encouraged. The study's findings suggest that this sub-group of augmented vulnerability may offer significant potential for improvement in terms of both entrepreneurial intention and the creation of businesses. Therefore, policymakers should focus on creating a conducive environment that includes specific mentorship programs and financial incentives aimed at encouraging those citizens, belonging to augmented vulnerable demographic segments, to launch and sustain their businesses.

Implementing targeted entrepreneurship education programs could increase knowledge about market opportunities and address misconceptions regarding the local business climate. These educational interventions could foster individuals' self-efficacy and perceived feasibility of starting a business, which are crucial for entrepreneurial intentions (Esfandiar et al., 2019; Liñán et al., 2010). Research has demonstrated that targeting entrepreneurship courses towards immigrant communities can improve their understanding of business settings and enhance self-confidence, thus motivating them to engage in entrepreneurial activities (Dabić et al., 2020; Esfandiar et al., 2019).

Furthermore, social networks are crucial to the entrepreneurial success of immigrants as they facilitate access to resources and opportunities. Trust and networking structures within ethnic communities can significantly influence financing decisions for immigrant-led ventures, as these networks often provide vital advice and funding sources (Dabić et al., 2020). Strengthening these networks through community engagement initiatives and fostering connections between immigrant entrepreneurs and local business leaders can create a supportive environment for firm creation. Policymakers should focus on promoting mutual networking events and collaborative ventures between immigrant and native entrepreneurs, which can help break barriers and foster a sense of inclusion in the local business ecosystem (Brieger & Gielnik, 2021).

Finally, addressing gaps in policy support and institutional factors is crucial for promoting immigrant entrepreneurship. Inclusive policies that provide access to microfinancing, grants, and mentorship can empower immigrant founders, thereby increasing their chances of business success (Aparicio et al., 2022; Edelman et al., 2010). Institutions should also focus on creating an enabling environment by simplifying bureaucratic processes for business registration and providing legal support (Edelman et al., 2010). By focusing on these multifaceted approaches—education, networking, and supportive policy frameworks—stakeholders can significantly enhance entrepreneurial intentions and the establishment of businesses within immigrant communities.

### 5.6.2. Growth

The significance of exporting for company growth is well-established in research, which consistently highlights its role in fostering competitive advantage and driving economic development. Exporting allows firms to access markets beyond domestic borders, thereby increasing sales, production, and overall growth opportunities (Teixeira et al., 2018). Specifically, high-growth firms, often termed "gazelles," demonstrate that internationalization through export strategies leads to substantial economic impact and innovation within their respective industries (Hechavarria et al., 2019; Pergelova et al., 2018). Moreover, firms engaged in exporting not only benefit from expanded market reach but also tend to enhance their competencies and capabilities, positioning themselves more favorably in the global competitive landscape (Liñán et al., 2010). Furthermore, entrepreneurial activity, particularly in exporting, facilitates job creation and fosters innovation, both critical for sustained economic progress (Edelman et al., 2010; Teixeira et al., 2018). Consequently, the capacity to export serves as a crucial mechanism for companies aspiring to achieve growth, profitability, and long-term success in an increasingly interconnected global economy.

The data yielded significant results exclusively for the immigrant population segment. Consequently, future research should prioritize investigating models that can illuminate the dynamics of other vulnerable groups. Additionally, efforts to

further enhance the degree of internationalization within the immigrant entrepreneur segment are recommended.

To enhance internationalization among immigrant entrepreneurs, it is crucial to deepen their embeddedness within the host country's economic and institutional frameworks. Such integration can facilitate access to vital resources, robust support networks, and expanded market opportunities essential for successful international ventures. Some scholars suggest that entrepreneurial success for immigrants often depends on their ability to navigate and adapt to the socio-economic structures of their new environment (Brieger & Gielnik, 2021). This highlights the importance of tailored support mechanisms that assess and bridge existing resource gaps for these entrepreneurs. Furthermore, Dabić et al. (2020) emphasize the contextual nature of immigrant entrepreneurship, proposing that targeted policies can foster business expansion both domestically and internationally. These policies may encompass government initiatives offering education on international business, financial support for startups, and mentorship programs designed to connect immigrant entrepreneurs with established networks (Dabić et al., 2020).

Beyond institutional support, addressing the specific barriers affecting the internationalization of immigrant-owned businesses is critical. Research indicates that gender roles significantly shape entrepreneurial opportunities; thus, promoting inclusive practices that encourage both male and female immigrant entrepreneurs can foster more comprehensive business growth (Chen et al., 2021; Pergelova et al., 2018). Moreover, strategies that impart knowledge of international markets and cultural intelligence can empower these entrepreneurs to effectively pursue global opportunities. Programs enhancing their understanding of market dynamics, coupled with initiatives fostering intercultural communication skills, are vital for successful expansion into diverse markets (Cheraghi et al., 2019; Pidduck & Clark, 2021). By strengthening their knowledge base and facilitating networking opportunities, stakeholders can help immigrant entrepreneurs overcome unique challenges, enabling them to thrive internationally and contribute positively to both their home and host economies.

Hiring expectations represent a critical strategic component for new firms, fundamentally linked to their growth, scalability, and sustainability. Investing in human capital provides access to diverse skills, fostering innovation and boosting productivity. Moreover, a growing workforce facilitates market expansion and penetration; as early-stage firms develop, the increasing need for specialized roles

enhances service delivery and customer satisfaction. In essence, workforce growth is a foundational strategic decision that profoundly shapes a start-up's trajectory, impacting operational efficiency, market competitiveness, team creativity, and investor relations—all vital for sustainable development. This is why the expectations of senior early-stage entrepreneurs are negative and need to be reversed.

Azoulay et al. demonstrate that successful entrepreneurship is often linked to maturity and accumulated experience rather than youthful vigor, with many high-growth firms being founded by individuals aged 45 and older (Azoulay et al., 2020). Therefore, when entrepreneurs over 50 adopt optimistic hiring expectations, they are likely to leverage their rich professional networks and experience in recruiting competent staff, which can lead to better performance and potentially result in high-impact ventures.

Senior entrepreneurs, like all founders, require access to capital, mentorship, and robust networks. However, their advanced age may also influence their necessity of having effectively resolved their business succession. The propensity to initiate ventures in "survival mode," potentially driven by a fear of failure, may correlate with lower hiring intentions and, consequently, constrained growth.

Succession planning is crucial in fostering a culture of innovation and resilience within an organization. Senior early-stage entrepreneurs, like the established ones, who are often defined by their long-term relationships and networks established throughout their careers, play a pivotal role in mentoring the next generation of leaders. Furthermore, as senior entrepreneurs consider transitioning from operational roles, having a well-defined succession plan not only assures stakeholders but can also enhance the firm's valuation and appeal to potential buyers or successors (Azoulay et al., 2020). Therefore, one of the most compelling recommendations is to actively foster synergies between senior and younger entrepreneurs. This approach aims to secure and even enhance the senior entrepreneur's retirement prospects by ensuring the successful continuity of their business through its adoption by younger entrepreneurs.

To conclude, it is also remarkable that results show negative hiring expectation odds between high digitized companies and female early-stage entrepreneurs. Incorporating a gender perspective into entrepreneurship policies is vital to fostering an inclusive entrepreneurial ecosystem. Despite efforts towards diversity, some

highly digitalized sectors still grapple with gender imbalances and unconscious biases. Female entrepreneurs might perceive, or directly experience, difficulties in building a large team if they feel the talent pool or the industry culture is not conducive to attracting a diverse workforce, leading to cautious hiring outlooks. The aforementioned result could have multiple potential explanations. One of the most important ones could be the difficulties of accessing networks and funding. If female early-stage entrepreneurs in highly digitalized sectors face barriers in accessing relevant professional networks or venture capital, which is a documented issue for women in tech, it could impact their confidence in scaling through hiring. Without robust networks for recruitment or sufficient funding to attract top talent, their hiring expectations might naturally be lower. Hechavarria et al. argue for the necessity of recognizing high-growth women's entrepreneurship as a driving force behind economic advancement (Hechavarria et al., 2018). This lens should be applied in policy formulation to ensure that women entrepreneurs receive adequate support in scaling their businesses.

Furthermore, inclusive policy development must consider intersectional variables, such as age, background, and socio-economic status, as explored by Brieger and Gielnik in their study of immigrant women entrepreneurs (Brieger & Gielnik, 2021). By focusing on these systemic factors and tailoring interventions that address both individual and environmental conditions, policymakers can significantly enhance the sustainable impact of female early-stage entrepreneurs in society.

### 5.6.3. Sustainability impact

The most significant finding is the higher propensity of senior entrepreneurs to prioritize sustainability. This result is further corroborated by the robustness checks, holding true for the prioritization of both social and environmental impact when considered in isolation, as well as for their combined emphasis on overall sustainability. This data suggests that with increasing age, there is greater consideration for, or concern about, the impact generated by entrepreneurial projects, extending beyond or even superseding their economic returns.

The sustainability impact of early-stage entrepreneurs is significantly influenced by policy implications that foster entrepreneurial intentions and actionable strategies.

Understanding the integration of intentions, opportunities, and implementation frameworks of other vulnerable segments, as young or female early-stage entrepreneurs could guide policymakers in enhancing educational programs that nurture entrepreneurial aspirations among students, thereby driving sustainable entrepreneurship.

## 5.7. Suggestions for future research

The results of this thesis offer valuable insights into the entrepreneurial landscape among vulnerable groups. The implications of fostering a more robust and equitable entrepreneurial ecosystem are substantial. While policies must prioritize access to resources and networks that enable the advancement of vulnerable entrepreneurs, further research is critically needed to specify the precise resource and network requirements at each entrepreneurial phase.

This is particularly important because the needs can vary significantly, not only across different vulnerable groups but also for early-stage entrepreneurs belonging to multiple vulnerable categories. Deeper investigation into these nuanced demands will allow for the development of highly targeted and effective support mechanisms.

### 5.7.1. Disentangling the Nuances of Augmented Vulnerability

While the models highlight the importance of individual vulnerable groups (seniors and immigrants), the inconsistent significance of intersectional terms (e.g., "Female and senior" or "Female and immigrant") warrants further exploration

Future research should incorporate qualitative methodologies (e.g., in-depth interviews, focus groups) to understand how intersecting identities specifically shape entrepreneurial intentions, motivations, and progression through different phases. This could uncover the lived experiences that quantitative models might not fully capture, explaining why "Female and immigrant" shows significance in EI but less so in other stages.

Moreover, specific contextual factors (e.g., regional policies, social support networks, cultural norms) might mediate or moderate the effects of augmented vulnerability. More research is needed to understand if the impact of intersectionality is highly context-dependent or not, and in positive cases how it influences it.

#### 5.7.2. Deeper Dive into Entrepreneurial Phases

The models show varying significance depending on the entrepreneurial stages, the entrepreneurial Intention, firm creation and growth and in the prioritization of the sustainability in these recently created firms, as well as on the motivation that induces the population belonging to these demographic segments to become entrepreneurs: making a difference in the world and/or earning a living). Therefore, in order to obtain more specific and meaningful data, it would be advisable to conduct longitudinal studies. The objective of such studies would be to conduct longitudinal research to track individuals from entrepreneurial intent, through early-stage activity, and consolidation in the marketplace. This would provide a clearer picture of how vulnerabilities and their intersections evolve in their impact along the entrepreneurial journey.

#### 5.7.3. Exploring the Impact of Advanced Digitalization on Female Early-stage Entrepreneurs' Growth and Sustainability Prioritization

The results indicate a negative trend in growth expectations and a lower prioritization of social and environmental impact objectives among female entrepreneurs leading highly digitalized firms. These findings necessitate further in-depth investigation, as a more comprehensive understanding and the adoption of effective policies could significantly improve these metrics. Such improvements could, in turn, translate into enhanced growth and better performance for companies led by women entrepreneurs.

#### 5.7.4. Refining Control Variables and Model Specification

While the control variables generally align with theoretical expectations (e.g., entrepreneurial training, fear of failure), there is room for refinement. Some of the proposals could be the following:

- ✓ More detailed measures on some variables: explore more detailed measures on for example, entrepreneurial or finance training. This would involve differentiating between formal education, structured mentorship or tutoring, and practical experience gained through previous ventures or roles.
- ✓ Investigate the possibility of adding more variables that could improve the significance of the models, including more granular and real measures of business growth, such as revenue or employee real growth (not the expected one). This would allow for a more comprehensive understanding of how vulnerability affects long-term success and social/environmental contributions.
- ✓ Socioeconomic context: Incorporate more detailed socioeconomic control variables (e.g., access to specific types of capital, social network density, previous work experience in specific sectors) that may mediate the observed effects.
- ✓ Reverse causality: Investigate potential reverse causality, especially in relation to “Fear of failure” or “Income level”. Does fear of failure hinder entrepreneurship or does lack of entrepreneurial success increase fear of failure?

#### 5.7.5. Cross-national comparative analysis

Given that this study utilized GEM data from Spain, future research could extend this analysis or conduct comparative studies using GEM data from other countries with similar socioeconomic or demographic characteristics. Such comparisons would allow for the identification of common patterns and unique contextual factors influencing entrepreneurship among vulnerable populations across different national settings, enhancing the generalizability and theoretical robustness of the findings.

## **CHAPTER 6: CONCLUSSION**

This study aimed to meticulously unravel the intricate relationship between belonging to one or more vulnerable population groups and their engagement across the entire entrepreneurial lifecycle: from intention and nascent activity to firm creation, sustained growth, and the pursuit of long-term sustainability.

While extant literature has extensively explored specific vulnerable segments in isolation—most notably in the burgeoning fields of female entrepreneurship and, more recently, senior entrepreneurship—a critical research void persisted. Prior investigations largely overlooked the compounded disadvantages and unique dynamics associated with augmented vulnerability, where individuals simultaneously navigate the challenges inherent in multiple marginalized categories.

Our empirical findings unequivocally underscore the profound significance of this intersectionality. The results not only confirm that vulnerability profoundly shapes entrepreneurial trajectories but, crucially, they reveal that belonging to multiple vulnerable groups introduces distinct and often amplified barriers, alongside previously unacknowledged enabling factors. This nuanced understanding is paramount. It demonstrates the critical necessity for a more granular and sophisticated approach to policy design and entrepreneurial support. Generic interventions, while broadly beneficial, demonstrably fall short in addressing the specific, interconnected hurdles faced by these multi-vulnerable sub-segments.

Therefore, this research calls for a paradigm shift in how public policies and support ecosystems are conceived and implemented. To effectively foster and enhance entrepreneurial activity within these particularly disadvantaged groups, it is imperative to move beyond broad categorizations. Future policy frameworks must be specifically tailored to acknowledge and mitigate the unique challenges—be they financial, social, educational, or psychological—arising from augmented vulnerability. By doing so, we can unlock the latent entrepreneurial potential within these communities, thereby promoting not only greater economic inclusion and self-sufficiency but also contributing to a more resilient, equitable, and innovative societal fabric.





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