


## RESEARCH ARTICLE

## Sustainability orientation and firm growth as ventures mature

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Campus Mundus**Abstract**

This article revisits the dilemma between sustainability orientation and a firm's growth along the stages of the entrepreneurial process. We draw upon the recent research on sustainable entrepreneurship to determine whether entrepreneurial ventures can pursue sustainability objectives and still grow in terms of turnover and employment. Based on the data of 2 370 firms, we conclude that the relationship between sustainability orientation and a venture's growth is not straightforward. The results show that the stage of the entrepreneurship life cycle matters and that only the introduction of sustainability objectives in the mature stage of the entrepreneurial process (rather than during the early stage) significantly increases the likelihood of such ventures growing. We also find empirical evidence against combining environmental and social dimensions under one umbrella of sustainability, as each of these dimensions demonstrated distinctive behavior in our models. While our results show the importance of innovation for the firm's growth, it is not evident that it exerts any significant moderation effect on the relationship between sustainability orientation and a venture's growth. These findings provide insightful evidence for policymakers about the intrinsic difficulty of reconciling sustainability and economic objectives at the early stages of the process of entrepreneurship and also about the need to differentiate the multiple meanings and forms of sustainability orientation.

**KEYWORDS**

early stage, environmental orientation, growth, innovation, life cycle, mature stage, social orientation, sustainability orientation, sustainable entrepreneurship

**1 | INTRODUCTION**

Our society is currently undergoing a period of sustainability transition that entails significant improvements and balanced integration of economic performance, environmental resilience, and social justice (del Río et al., 2021; Geissdoerfer et al., 2016). Recent evidence suggests that while sustainability issues present challenges to our society, they also provide new business opportunities that can be explored

and exploited by entrepreneurs through innovative business models, products, and services (Adomako et al., 2019; Belz & Binder, 2015). At the beginning of the current century, this idea gave rise to a new research stream on sustainable entrepreneurship. One of the tenets of this field is that entrepreneurship can be seen as a vehicle of change to simultaneously pursue economic, environmental, and social goals (i.e., the so-called triple bottom line) (Belz & Binder, 2015; Lüdeke-Freund, 2020; Schaltegger & Wagner, 2011).

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Being competitive in the marketplace and impactful to society is not an easily achievable dual mission, especially for entrepreneurs (Amankwah-Amoah & Syllias, 2020; Truong & Nagy, 2021). Sustainable entrepreneurs often face the challenge of double externality (Horbach et al., 2012; Mothe et al., 2018; Rennings, 2000) and struggle to capture and appropriate the value from the goods and services they provide. They also carry the burden of the *liability of smallness*, the *liability of newness* in the marketplace (Adomako et al., 2019; Stinchcombe, 2000), and confront multiple institutional obstacles (Amorós et al., 2019; Bernal et al., 2022; Danso et al., 2019; Esposito et al., 2022). As a result, adopting a sustainability orientation in entrepreneurial ventures is considered costly, risky, and taxing on the ability of the firm to survive in the market, reach profitability, and grow (Fernández-López et al., 2022). Therefore, entrepreneurs often hesitate to pursue further social or environmental objectives beyond commercial goals at early stages. This heightened uncertainty prolongs the existence of market and institutional failures and slows the sustainability transition toward a better world (Hoogendoorn et al., 2019; Torugsa et al., 2012).

This study builds on previous research and investigates the relationship between the sustainability orientation (i.e., the pursuit of social or environmental goals beyond commercial objectives) of small entrepreneurial firms and their pattern of growth (Gupta et al., 2013; Klapper et al., 2021). Complementing other recent studies (Danso et al., 2022; Demirel & Danisman, 2019; Fernandes et al., 2021; Lartey et al., 2020), we explore this relationship at different stages of the entrepreneurial process (i.e., early and mature stages), evaluate different growth patterns (i.e., employment and turnover growth and past and expected growth), and differentiate among different types of sustainability orientation (environmental versus social). We also analyze the moderating role of innovation in this relationship since it is considered one of the main determinants of a firm's sustainable and long-term growth (Yu & Yan, 2021).

The purpose of our investigation is to provide a more fine-grained understanding of the relationship between sustainability orientation and firm growth. We expect to contribute to the field of sustainable entrepreneurship in three ways. *First*, we add to previous research on the pursuit of dual sustainability and business growth objectives (i.e., which relies broadly on evidence from large firms) by providing new insights from smaller entrepreneurial firms. Unlike other studies, we analyze the issue through the life cycle perspective on entrepreneurship and distinguish between the early stage of the entrepreneurial process and the mature stage. Contesting recent findings that interpret the challenge of addressing both economic and sustainability objectives by business ventures as a “zero-sum” game (Heras-Saizarbitoria et al., 2022; Soto-Acosta et al., 2016), we show that a feasible “win-win” outcome to achieve the dual mission is possible despite the small size of firms. In fact, we show that sustainability orientation increases the likelihood of ventures' growth but only in the mature stage of the entrepreneurial process (i.e., beyond the fifth year from firm inception).

*Second*, despite the recent tendency in the literature on sustainable entrepreneurship and innovation to treat sustainability as a single

and uniform concept that simultaneously encompasses social, environmental, and economic objectives (Belz & Binder, 2015; Lüdeke-Freund, 2020; Muñoz & Cohen, 2018), we depart from this monolithic perspective and analyze the relationship of different dimensions of sustainability on the growth of the entrepreneurial firms separately. In line with Meek et al. (2010), we find empirical evidence against combining environmental, social, and economic aspects under one umbrella of sustainability, as each of these dimensions demonstrated distinctive behavior in our models. Therefore, we argue that the lack of such distinction in previous research can help explain the diverging and inconclusive results on the relationship between sustainability orientation and the business growth of entrepreneurial ventures (Hockerts & Wüstenhagen, 2010).

Finally, we shed light on the role of innovation (i.e., delivering new products and services to the marketplace) in the growth of entrepreneurial firms. Similar to Demirel and Danisman (2019), our results did not indicate that innovation activities necessarily moderate the relationship between sustainability orientation (both environmental and social) and a firm's growth. As suggested by Nie et al. (2022), both sustainable objectives and innovation activities require resources that entrepreneurial firms simply do not possess due to their size (*liability of smallness*) and time in the market (*liability of newness*). Therefore, the dual goal of being sustainable and innovative may require the redirection of resources from the core business activities, thus jeopardizing the potential for growth. Nevertheless, in our study, innovation proved to increase the likelihood of a firm's growth at mature stages of the entrepreneurial process but not in the early stages. These results suggest that the impact of innovation in small firms varies, again, according to the stage of the entrepreneurial process.

In the next section, we present the theoretical background of this research deepening into the sustainability orientation and the growth of entrepreneurial ventures. The third section describes the data and methodology applied in our empirical tests. The fourth and fifth sections summarize the results and discuss the findings. Finally, we review the limitations and implications of our study and propose avenues for future research.

## 2 | THEORETICAL BACKGROUND

### 2.1 | Sustainability orientation and growth in entrepreneurial ventures

Growth is one of the crucial indicators of a firm's business performance and success in the market (Gupta et al., 2013; Klapper et al., 2021). Consequently, the determinants and models of a firm's growth are considered the cornerstones of most economic and management theories (Coad & Hözl, 2012). In the entrepreneurship literature, the study of business growth has a long history, dating back to the early 1980s (Davidsson et al., 2006). Research suggests that venture growth is a complex phenomenon that can be measured in a variety of ways (i.e., the growth in sales, turnover, number of employees, or assets) and that it is impacted by a wide range of economic, social,

and cultural factors (Audretsch et al., 2014; Gupta et al., 2013). The question of a firm's growth is particularly sensitive for sustainability-oriented ventures that intend to simultaneously achieve environmental, social, and economic objectives (the so-called triple bottom line) (Belz & Binder, 2015; Lüdeke-Freund, 2020; Schaltegger & Wagner, 2011). For entrepreneurs, growth represents not only their ability to survive in the market but also a means to expand their reach and enable further sustainable impact (Acebo et al., 2021; Demirel & Danisman, 2019). Alternatively, the lack of growth can lead to stagnation, reduced market share, and diminished resources for innovation and positive societal impact (Brush et al., 2009).

Balancing the often-competing demands of economic performance, environmental sustainability, and social responsibility is not an easy task (Hoogendoorn et al., 2019). *First*, sustainable business practices may increase operational costs, which can limit a company's economic profitability in the short term (Wilkinson et al., 2001). *Second*, sustainability objectives usually require the redirection of scarce resources (i.e., time, capital, and human resources) from the core activities, thus jeopardizing venture growth and the firm's survival (Bassetti et al., 2021; Fernandes et al., 2021). *Third*, sustainable entrepreneurs often face the challenge of double externality, which refers to the difficulty of capturing and appropriating the value from the provided goods and services due to their public rather than personal nature (Horbach et al., 2012; Mothe et al., 2018; Rennings, 2000). *Fourth*, they also carry the burden of the *liability of smallness*, the *liability of newness* in the marketplace (Adomako et al., 2019; Stinchcombe, 2000), as well as face numerous institutional obstacles, such as governmental and stakeholder pressure, lack of proper financing schemes, cultural barriers, and bureaucratic inertia, among others (Amorós et al., 2019; Bernal et al., 2022; Danso et al., 2019; Esposito et al., 2022). Finally, the rise of degrowth theories, which question the feasibility of unlimited economic growth in a finite world, may discourage entrepreneurs from pursuing growth and scalability (Edwards, 2021; Kallis, 2011).

Challenging the traditional view that environmental and social considerations are at odds with economic success, recent studies suggest that sustainability orientation can actually enhance the growth, profitability, and general competitiveness of entrepreneurial ventures (Belz & Binder, 2015; Lüdeke-Freund, 2020; Schaltegger & Wagner, 2011). Sustainability orientation may entail the integration of sustainability-related values into the corporate culture, a deliberate pursuit of sustainability goals (i.e., environmental, social, and economic), and the introduction of changes into the production and delivery of goods and services (Khizar et al., 2021; Kuckertz & Wagner, 2010). As a result, entrepreneurial ventures develop crucial capabilities such as stakeholder integration, market sensing, and organizational learning, which are essential for long-term success (Grewatsch & Kleindienst, 2017). Furthermore, by adopting sustainable practices, they can develop or acquire valuable and hard-to-imitate resources, which can foster a long-term competitive advantage (Lei et al., 2019). Additionally, a sustainability orientation can enhance a new venture's reputation and legitimacy, leading to an increase in market share and revenue (Truong & Nagy, 2021). These benefits

make a sustainability orientation a key driver for entrepreneurial ventures looking to grow and establish a long-term competitive advantage.

Despite the theoretically deduced potential benefits of sustainability orientation for the venture's growth, there exists a significant lack of empirical studies that test this relationship. The existing evidence shows, on the one hand, a win-win stance by which sustainability orientation can be reconciled with business performance and growth (Soto-Acosta et al., 2016) and, on the other hand, a zero-sum game perspective whereby they are the "two ends of a continuum" (Linder et al., 2014; Stevens et al., 2015), meaning that sustainability objectives can hurt performance indicators of the firm (López et al., 2007). Some authors suggest that sustainability orientation in entrepreneurial ventures can persist only if it does not conflict with their business interests (Kautonen et al., 2020). Alternatively, other scholars claim that searching for this connection is futile and should be abandoned (Margolis & Walsh, 2001). This inconsistency in findings indicates that there may be contextual factors that moderate the relationship between sustainability orientation and venture growth that have not been fully explored in the literature.

## 2.2 | Sustainable entrepreneurship and growth as ventures mature

A notable limitation of the existing literature on sustainable entrepreneurship and growth is the failure to consider a firm's life cycle perspective (Santa-Maria et al., 2022). A number of recent studies propose that the relationship between sustainability orientation and business growth may fluctuate depending on the stage of the entrepreneurial process (Di Vaio et al., 2022; Kuckertz & Wagner, 2010).

In the early stages, entrepreneurial ventures might struggle with the development of proper business models that could simultaneously pursue the triple-bottom line (Kanda et al., 2021). A strong sustainability orientation may also require significant investments of resources (i.e., time, money, and personnel), which young businesses may simply not have, forcing them to divert resources from other critical areas of the business, such as product development, marketing, and customer acquisition (Bassetti et al., 2021; Fernandes et al., 2021). However, other studies suggest that sustainability-oriented ventures at the early stage of their development are more likely to identify market opportunities, build customer loyalty, and create a strong corporate culture (Atif et al., 2022; Kiefer et al., 2019; St-Jean & Labelle, 2018). As a result, the existing empirical evidence provides mixed signals on the issue. According to Renko (2013), sustainability orientation negatively impacts the likelihood of the young venture's survival in the first 4 years of its existence. Paradoxically, Hörisch (2018) discovered that entrepreneurial ventures at earlier stages tend to be more environmentally oriented. However, this changes with time since the experience in the market inevitably present them with the dilemma of whether to contribute to the public good (as initially intended) or focus on individual and business goals (Santos, 2012).

Uhrenholt et al. (2022) explain that the simultaneous achievement of sustainability and business objectives may result from the accumulation of experience, knowledge, and capabilities that happens in the more advanced stages of a firm's development. As a result, mature, sustainable ventures are likely to have more resilient business models, as they are less dependent on a single product or service and can adapt to changes in market conditions (Howard et al., 2022; Santa-Maria et al., 2022). They tend to be more agile and have a better understanding of the social and environmental impact of their activities. This learning allows them to anticipate and respond to changes in customer preferences, regulations, and other factors that affect their business (Gharai et al., 2021). In addition, as ventures grow and expand, they may also have a greater ability to negotiate better prices with suppliers and reduce costs (Elsayed & Paton, 2009; Strebler & Posch, 2004), as well as influence the market and shape the conversation around sustainability (Leipold et al., 2022). They may be able to leverage their reputation and customer base to push for more sustainable practices in the industry (Orlitzky et al., 2003). This can help to create a more sustainable marketplace and generate additional growth opportunities for the firm. Consequently, in the early stages of business development, entrepreneurs may delay the pursuit of sustainability objectives until they accomplish the goal of reaching profitability (i.e., once they surmount the so-called *liability of smallness* and *newness*).

We extend an understanding of the matter by analyzing how sustainability orientation (both environmental and social) affects the firm's growth depending on the stage of its life cycle. In line with Renko (2013) and Uhrenholt et al. (2022), we expect the young firms to face a zero-sum game (i.e., a trade-off between sustainability and business goals) as they learn how to be competitive in the marketplace before impacting society. Once new firms acquire distinctive competencies and the ability to survive and grow in the market, they reach an improved position to achieve a "win-win" stage (by reconciling sustainability and profit objectives). In other words, entrepreneurial businesses are more likely to succeed in reconciling sustainability orientation with business growth as they mature in their respective industry sectors and locations. Hence, we propose the following hypothesis:

**H1a.** Sustainability orientation increases the likelihood of venture growth but only at a mature stage of a firm's life cycle.

### 2.3 | Environmental versus social orientation

The traditionally accepted metaphor of the triple bottom line implies that sustainable entrepreneurs simultaneously pursue social, environmental, and economic objectives (Elkington, 1998). Therefore, recent literature examines sustainability as a uniform and monolithic concept that encompasses all three goals (Belz & Binder, 2015; Klewitz & Hansen, 2014). The common justification for such generalization is that social and environmental entrepreneurs identify and seize

opportunities that arise from major societal challenges, and often those goals are complementary; hence, they share common challenges and opportunities (Schaltegger & Wagner, 2011).

Nevertheless, historically, these concepts have been examined separately (Thananusak, 2019). Furthermore, there exists some evidence that environmentally oriented ventures might be better positioned to achieve commercial success than social ventures. One reason is that green ventures often address a very specific need in the market (i.e., sustainable agriculture and plastic recycling) (Souto & Rodriguez, 2015). This allows a more straightforward estimation of the potential environmental impact and financial returns and makes such projects much more "understandable" for impact investors and venture capitalists (Tenner & Hörisch, 2021). However, due to the breadth and complexity of goals, social ventures may struggle to demonstrate the measurable social and financial impact of their activities (Praszkier & Nowak, 2011) and therefore secure the necessary private or public funding (Weerawardena & Mort, 2006). Another reason is that green ventures tend to benefit from favorable government policies and regulations (i.e., subsidies or tax incentives) (Jové-Llopis & Segarra-Blasco, 2018). Indeed, the environmental goals that relate to the efficient use of materials, energy, and other resources have a simultaneous positive effect on both environmental and economic performance (Carrillo-Hermosilla et al., 2009). Consequently, environmental orientation has a direct and "rapid" effect on the costs and profitability of such firms (Nguyen et al., 2020). In contrast, social ventures are deeply rooted in the non-profit and public sectors, where the creation of social benefits prevails over other business objectives (Hoogendoorn et al., 2019). As a result, such firms often target marginalized communities and low-income populations that may not have the purchasing power to support the ventures' products or services (Alvord et al., 2004). This may directly affect their economic bottom line and their ability to grow in terms of turnover (Costanzo et al., 2014).

Finally, some evidence also suggests that environmental orientation may have a positive effect on a venture's growth, particularly at more mature stages of a firm's development, since it often requires a learning process, the development of specialized capabilities and technical knowledge to decrease the firm's environmental impact (Sáez-Martínez et al., 2016). Such capabilities take time to develop but in the long run provide firms with a distinct competitive advantage by enabling them to create innovative and environmentally sustainable products, meet regulatory requirements, and reduce energy consumption and waste (De Marchi et al., 2013; Kiefer et al., 2019; Knoppen & Knight, 2022). The shift towards a more mature stage with an environmental orientation can lead to a significant increase in sales, lower costs, and, therefore, revenue growth (Fernández-López et al., 2022). In contrast, due to the inherent characteristics, social firms tend to have less ambition to grow than most companies (Bacq et al., 2013). Social-oriented firms face pressure from charity programs and stakeholders who often prioritize the accomplishment of a measurable social impact over maximizing financial returns (Ramirez & Ramirez, 2013). Consequently, most social organizations rely heavily on public funding to remain in business. In other words, the ambition

to grow weakens as maximizing economic goals is no longer the main target of socially oriented firms (Ashta, 2020) regardless of the stage of the life course of the firm. Therefore, we expect that:

**H1b.** Environmental orientation and a venture's growth are positively associated at a mature stage, but this relationship does not hold between social orientation and growth.

## 2.4 | Innovation, sustainability, and growth as ventures mature

Entrepreneurs are widely regarded as innovators since they capitalize on market failures and offer novel solutions to their customers (Wang, 2022). Innovation has long been considered a key driver of a firm's growth (Audretsch et al., 2014; Gupta et al., 2013). Today, it is also seen as a critical element in addressing pressing social and environmental challenges of our time and driving sustainability transition (Arekrans et al., 2022; Klewitz & Hansen, 2014; Schaltegger & Wagner, 2011). Despite the perceived straightforward relationship between sustainability orientation, innovation, and growth, entrepreneurs struggle to navigate those competing priorities effectively. Undoubtedly, further research is needed to understand these complex dynamics (Demirel & Danisman, 2019; Klewitz & Hansen, 2014).

Studies show that innovation in sustainability-oriented ventures allows them to differentiate themselves from competitors, improve their cost structures, enhance their reputations with consumers and other stakeholders, and secure their competitive advantage in the long run (Allal-Chérif et al., 2023; Aragón-Correa & Sharma, 2003; Hart, 1997; Weng et al., 2015). Despite resource constraints and the lack of formalized planning, entrepreneurial firms often possess unique characteristics to develop radical innovations and compete in niche markets (i.e., the market of sustainable products) (Arekrans et al., 2022; Schaltegger & Wagner, 2011). Thus, innovation is an essential ingredient to overcome the tensions that inevitably arise when companies aim to reconcile environmental, social, and financial goals (Matzembacher et al., 2020; Souto, 2022). The existing empirical evidence supports this notion and indicates that innovation has a positive moderation and mediation effect on business growth when firms pursue environmental objectives (Ben Amara & Chen, 2020; Wang et al., 2021) as well as social objectives (Guerrero-Villegas et al., 2018; Hull & Rothenberg, 2008; Wang, 2022). Therefore, we anticipate that in our study, innovation positively affects the relationship between environmental and social orientation and ventures' growth.

However, prior research also suggests that the firm's age and the stage in its entrepreneurial process might influence the venture's innovation and sustainability orientation (Leoncini et al., 2019; Yin et al., 2022). It is believed that older firms might already have their entrepreneurial activities and strategies in place and can refocus from survival in the market to expansion and positive contribution to society (Anderson & Eshima, 2013; Di Vaio et al., 2022; Kilenthong et al., 2016). More mature firms also possess the essential prior

knowledge and experience (both positive and negative) to develop innovations and a broader legitimacy to establish critical external partnerships to access the expertise and resources needed for R&D activities (Di Vaio et al., 2022; Withers et al., 2011). Thus, we posit the following hypotheses:

**H2a.** Innovation activities positively moderate the relationship between environmental orientation and a venture's growth at a mature stage of a firm's life cycle.

**H2b.** Innovation activities positively moderate the relationship between social orientation and venture growth at the mature stage of a firm's life cycle.

To conclude Section 2, we summarize the hypotheses for our study in Figure 1.

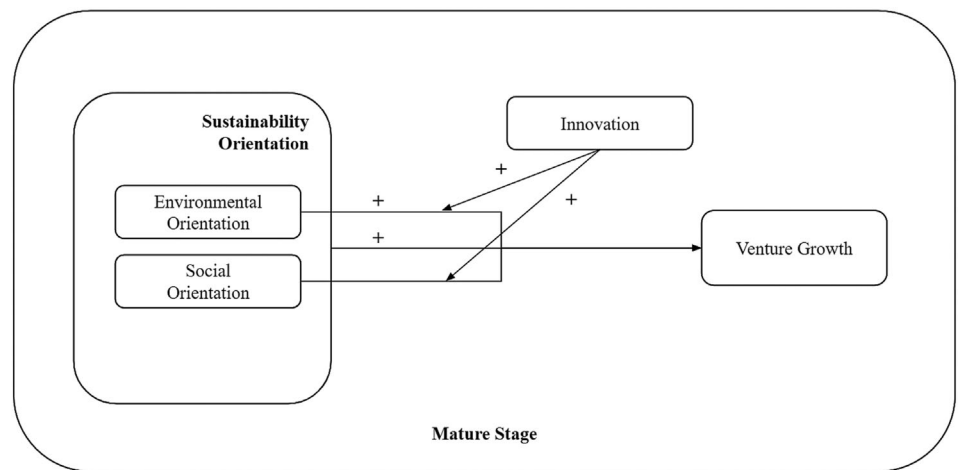
## 3 | METHODOLOGY

### 3.1 | Sample data

The Global Entrepreneurship Monitor (i.e., GEM) is one of the few international projects designed to study the process of entrepreneurship, and it is particularly helpful to analyze how entrepreneurial ventures evolve during and after the critical early stage of new ventures (Pinzón et al., 2021). Interestingly, the GEM data have been previously used to investigate the environmental orientation of new ventures (Hörisch et al., 2019), the determinants of social entrepreneurship (Canestrino et al., 2020; Leković et al., 2021), and the performance of green entrepreneurship (Yin et al., 2022). To the best of our knowledge, the 2019–2020 GEM dataset from Spain is the last dataset of the GEM consortium (i.e., before the COVID-19 pandemic shock) that provides information on whether a firm has a “sustainability orientation” and on the pursued type of “sustainability orientation” (i.e., “environmental-oriented” or “social-oriented” sustainability). This GEM dataset also allows the categorization between “early” or “mature” stages of business ventures by considering their year of firm inception. Most importantly, the dataset provides unique information regarding the recent growth of these firms (i.e., turnover and employment growth during the last 3 years). For all the abovementioned reasons, we consider the GEM-Spain 2019 dataset a suitable source to conduct our empirical work and to test our study propositions.

Since we investigate the relationship between sustainability orientation, innovation, and venture growth from a life cycle perspective, the unit of analysis of our sample is an entrepreneurial firm that remains active either in an “early stage” or a “mature stage” of the entrepreneurial process. In particular, we define a commonly accepted threshold of 5 years from inception to classify companies that are operating in an “early stage” (i.e., up to 5 years of existence) versus a “mature stage” of the firm life cycle (i.e., more than 5 years of existence). This pragmatical criterion has been widely used in the management and economics literature (Muda et al., 2020; Peña, 2004), as

**FIGURE 1** Summary of hypotheses. Source: Authors' elaboration.



well as in reports from numerous international organizations like the OECD and European Commission. Our sample consists of 2254 entrepreneurial firms, of which about one-third are in the “early stage” category and the rest in the “mature stage” category.

## 3.2 | Measurement of variables

### 3.2.1 | Dependent variables

The dependent variable of our study is “past growth.” We are aware that there is no single indicator to measure firm growth. Rather, business expansion can be measured in multiple ways (i.e., by assessing the evolution of different indicators such as the growth of sales revenues, employment, equity, and profits). The GEM project asks the interviewees about the most recent expansion experienced by their venture in terms of growth in employment and turnover (i.e., interestingly, the latter is available only in the case of the dataset of GEM-Spain). The measurement of firm growth is more accurate if, instead of using a separate indicator of growth for every single variable, an alternative indicator of *simultaneous* growth of two variables is applied (Fernández-López et al., 2022). In this study, we consider that a firm grows when both employment growth and turnover growth occur together. Thus, we create a dichotomic variable, *Past Growth*, to describe whether a venture grew simultaneously in these two growth indicators during the last 3 years before the survey was carried out. This dependent variable takes the value of one (1) if a firm experienced both turnover and employment growth over the previous 3 years and zero (0) otherwise.

### 3.2.2 | Independent variables

The primary explanatory variable represents the “sustainability orientation” of entrepreneurial ventures, which allows us to test whether sustainability objectives complement or conflict with business growth in both the “early” and “mature” stages of the entrepreneurial

process. Sustainability orientation is a notion commonly applied to represent the firm's stance to conduct operations in a sustainable manner (Adomako et al., 2019; Haldar, 2019). Due to the differences in the definition of sustainability orientation, there also exist differences in how researchers approach its measurement Hörisch (2018). On this regard, Calic and Mosakowski (2016) and Testa et al. (2020) proposed a simplified measurement, which considered a venture to have a sustainable orientation if it somehow benefited people or the natural environment. In line with this approach, the GEM 2019 survey asks entrepreneurs if they aim to solve environmental or social problems in addition to pursuing an economic goal. Following the literature and relying on the data available from GEM, we create a variable, *Sustainability Orientation*, that takes the value of one (1) if the organization aims to achieve sustainability objectives and the value of (0) if the firm focuses *exclusively* on economic objectives.

To distinguish the two types of *sustainability orientation* examined in our study (i.e., environmental-oriented and social-oriented sustainability), we rely on the limited GEM data available to explore this issue. In the survey, entrepreneurs are asked if they pursue environmental or social goals in addition to economic objectives. Thus, we create a variable *Environmental goal* that takes the value of one (1) if the venture is driven by environmental goals beyond an economic goal and zero (0) if it aims to achieve an economic return *exclusively*. Likewise, the variable *Social goal* takes the value of one (1) if the venture pursues a social purpose beyond an economic goal and zero (0) when it seeks an economic return *exclusively*.

### 3.2.3 | Moderator

The resources needed to innovate and reach sustainable goals often conflict with the means needed to satisfy profit goals (Nie et al., 2022). To investigate these counterbalancing forces, we create a variable, *Innovation*, to understand how the “innovative orientation” of entrepreneurial ventures influences the relationship between “sustainability orientation” and “business growth.” The respondents are asked whether their business delivers products and services that are

new for either local, national, or foreign customers. Indeed, the GEM dataset gathers limited information about the newness and innovative behavior as the data neither does differentiate the several levels of innovation (i.e., incremental or radical innovation) nor the type of innovation (i.e., product innovation, process innovation, and managerial innovation). Instead, the GEM survey asks, in a simplified way, whether the product/service is new in the local, national, or global market. Thus, this variable takes the value of one (1) when a venture delivers a product or service that is new in the local, national, or world market and zero (0) otherwise. For the purpose of this study, a dichotomic variable suffices to capture any effort made by entrepreneurs to be innovative (i.e., we note here that innovation per se is not the main focus of our investigation). Similar proxies have been used in previous research to reflect the innovative orientation of entrepreneurial firms (Criado-Gomis et al., 2018; Renko, 2013).

### 3.2.4 | Control variables

We include multiple control variables that are associated with ventures' growth. At an individual level, we added both demographic and human capital variables to control for the personal profile of entrepreneurs (Hechavarría & Welter, 2015; Muñoz-Bullón et al., 2015). The demographic variables include *Gender* (i.e., the variable takes value 1 for Females and 0 otherwise) and *Age* (i.e., years of the respondent). The human capital variables represent *College Education* (with a value of 1 if the business owner completed the college degree and 0 otherwise), *Entrepreneurship Training* (with a value of 1 if a business owner participated in any kind of entrepreneurship training programs and 0 otherwise), *Entrepreneurship Experience* (with value 1 if a business owner sold, shut down, or quit the business in the past 12 months and 0 otherwise), *Investment Experience* (with value 1 if a business owner provided funds for a new business in the past 3 years and 0 otherwise), or *Entrepreneurial Network* (with value 1 if a respondent knows personally other entrepreneurs who started their own business and 0 otherwise). At the firm level, we added variables describing the size of the firms measured by the number of employees (*Firm\_size*), the industry sector in which they operate (*Manufacturing\_Sector*, with value 1 if the firm operates in the manufacturing sector and 0 otherwise), and their international orientation (*Export-driven*, with value 1 if the firm operates in global markets and 0 otherwise). Several studies have found that such organizational variables affect the growth of entrepreneurial ventures (González-Pernía & Peña-Legazkue, 2015; Renko, 2013).

### 3.2.5 | Robustness test

Applying the theory of planned behavior (TPB), the expectation of “future growth” is determined by the opportunities and potential for business expansion that entrepreneurs perceive at the present moment (Lortie & Castogiovanni, 2015). To test our models for robustness and consistency, we introduce an additional dichotomic

variable *Future Growth* that captures the potential growth of a venture by considering the expectation of the owner to create new jobs in the next 5 years from the date of the survey. Unfortunately, GEM does not provide information on the expected growth in terms of turnover, but it does in terms of the generation of new jobs. In the absence of other proxies, the expected growth in employment reflects an extended view of the life cycle of a firm and also its disposition to hire more people as the company expands. Thus, we create a dichotomic variable, *Future Growth*, to describe whether a firm will pursue (or not) organic growth through the company's own resources. This variable takes the value of one (1) if the entrepreneur expects to create new jobs in the next 5 years and zero (0) otherwise.

## 3.3 | Statistical method

A binomial logistic regression method is used to test our hypotheses, which estimates the probability of an event happening. In our study, this event represents our dichotomic dependent variable *Past Growth* (i.e., the turnover and employment simultaneous growth experienced by a firm in the last 3 years). The predicted proportion follows the logistic model of  $\ln P/(1 - P) = \beta X_i$ , where  $P_i$  is the probability of taking the value one (1) when the venture grows and (0) otherwise (Hosmer & Lemeshow, 2004).

The logarithmic odds of this event are held to be linearly affected by a vector of covariates  $X_i$ , with coefficient vector  $\beta$ . The covariates include the main independent variables (i.e., *Sustainability orientation*, *Environmental goal*, and *Social goal*), the moderating variable (*Innovation*), and the rest of the control variables. Maximum likelihood estimations are used to calculate the logistic coefficients, which denote changes in the log-odds of the dependent variable *Past Growth* (Greene, 2003). We assess the goodness of fit of the models using Nagelkerke's *R*-square indicator. To analyze the structural validity of our models, we perform robustness checks using the dependent variable *Future Growth*.

## 4 | RESULTS

We examine the characteristics of the data and the variables used in our models before running our models. The descriptive statistics and correlation coefficients of the variables are included in Table 1. The companies in our sample, on average, do not exceed three employees in size, only 7% are in the manufacturing sector, and approximately 1 out of 4 firms sell their products and services abroad. This might indicate that most businesses are small, operate in the service sector, and trade mainly in the local market. Almost one-third of business ventures are less than 5 years old (i.e., “early stage”), near to 40% have recently grown simultaneously in employment and turnover, and approximately 1 out of 10 firms pursue a “sustainability-oriented” mission (see Descriptive statistics and correlation matrix in Table 1). A positive correlation exists between “early-stage” firms and growth, but a negative correlation exists between “early-stage” firms and

**TABLE 1** Descriptive statistics and correlation matrix.

	Mean	1	2	3	4	5	6	7	8
1	0.31								
2	0.69	-1.000**							
3	0.12	-0.087**	.087**						
4	0.08	-0.076**	.076*	.818**					
5	0.04	-0.038	.038	.524**	-.061**				
6	0.88	.099**	-.099**	-.842**	-.689**	-.441**			
7	0.41	.295**	-.295*	.041	.054*	-.010	-.016		
8	0.30	.173**	-.173**	.042	.056*	-.011	-.010	.213**	
9	0.24	.087**	-.087**	.047*	.037	.025	-.037	.108**	.175**
10	0.47	.030	-.030	-.013	-.021	.009	-.014	-.049*	-.043
11	47.78	-.320**	.320**	.009	.005	.007	-.037	-.184**	-.221**
12	2397.24	-.309**	.309**	.011	.008	.008	-.039	-.181**	-.224**
13	0.25	.059**	-.059**	.043*	-.014	.095**	-.006	.078**	.064**
14	0.51	.020	-.020	.099**	.108**	.013	-.083**	.097**	.060*
15	0.02	-.035	.035	.012	.032	-.027	.004	-.009	.003
16	0.05	-.073**	.073**	-.005	-.027	.031	.001	-.003	.000
17	0.3817	-.010	.010	-.017	-.030	.015	.042*	.044*	.063**
18	0.24	.021	-.021	-.008	-.009	-.001	.001	.089**	.101**
19	0.07	-.031	.031	-.030	-.006	-.044*	.047*	.000	.043
20	2.31	-.005	.005	.074**	.080**	.010	-.075**	.092**	.171**

Note: N = 2254 observations.

\*p < .05. \*\*p < .01 pairwise correlations.

**TABLE 1** (Continued)

	9	10	11	12	13	14	15	16	17	18	19
1											
2											
3											
4											
5											
6											
7											
8											
9											



TABLE 1 (Continued)

	9	10	11	12	13	14	15	16	17	18	19
10	-.029										
11	-.116**	-.054**									
12	-.116**	-.064**	.991**								
13	.079**	.005	-.055**	-.061**							
14	.050*	-.006	-.113**	-.113**	.065**						
15	.023	-.038	.047*	.048*	.006	.017					
16	-.009	-.009	.044*	.053*	.009	.008	.066**				
17	.038	-.059**	-.063**	-.061**	.035	.051*	.079**	.089**			
18	.108**	-.016	-.031	-.034	.056**	.038	-.004	.001	.050*		
19	.052*	-.043*	.001	.005	-.064**	-.005	.015	-.019	-.022	-.008	
20	.052*	-.034	-.003	-.002	.017	.050*	.051*	.040	.057**	.124**	.066**

Note: N = 2254 observations.

\* $p < .05$ . \*\* $p < .01$  pairwise correlations.

sustainability orientation. In contrast, there is a negative correlation between “mature-stage” firms and growth but a positive correlation between “mature-stage” firms and sustainability orientation. In view of this preliminary examination, the initial outcomes imply the existence of different goal priorities depending upon the stage of the business lifecycle in which a firm stands.

Overall, the estimated coefficients of the correlation analysis of our representative sample show no risk for multicollinearity among the explanatory variables. We examined the variance inflation factors, and they fell within an acceptable range (i.e., under 5.0), indicating that multicollinearity is not an issue in interpreting our results.

Table 2 reports the effect of sustainability orientation on firm growth for both “early-stage” and “mature-stage” firms. The results of Model 1 indicate a positive and significant effect of the variable *Sustainability Orientation* on the growth of firms at a “mature stage” (i.e.,  $\beta = .384$ ,  $p < .05$ ). This outcome suggests that entrepreneurial ventures, once established in the marketplace (i.e., when they face a “mature stage”), are better able to reconcile the dual objective of sustainability and firm growth. These results confirm our Hypothesis 1a.

Next, we split the *Sustainability Orientation* variable into the achievement of two distinct types of sustainable goals: *environmental* goals and *social* goals. While pursuing an environmental goal increases the likelihood of experiencing firm growth for “mature-stage” firms (i.e.,  $\beta = .642$ ,  $p < .05$ ), pursuing a social goal has the opposite effect (i.e., but this effect is not statistically significant). Therefore, we find broad empirical support for Hypothesis 1b.

The results from Models 3 and 4 (see Table 3) (in line with the results from Models 1 and 2) show that *environmental goals* are positively associated with firm growth (i.e.,  $\beta = .538$ ,  $p < .05$ ) only in a “mature stage.” Once again, *social goals* do not show any statistically significant results. The variable *Innovation* has a positive and significant effect only on the growth of mature firms both in Model 3 ( $\beta = .324$ ,  $p < .05$ ) and Model 4 (i.e.,  $\beta = .412$ ,  $p < .05$ ). No significant result was found for the moderating effect of the variable *Innovation* on the relationship between environmental and social orientation and past growth. Thus, Hypotheses 2a and 2b cannot be confirmed.

We run robustness tests to confirm the effect of our main variables (i.e., sustainability orientation and innovation) on the “expected” growth trend (i.e., rather than “past” growth tendency) and, therefore, to understand this phenomenon from a broader life cycle perspective. For that purpose, we use the variable *Future Growth*, or the expectations of growth of the business owners, for the next 5 years (i.e., see Tables 4 and 5). Complementing our previous outcomes, we find a positive and significant relationship between sustainability orientation and “expected” firm growth in the “early stage” (i.e.,  $\beta = .849$ ,  $p < .05$ ). The same relationship is replicated between the pursuit of *environmental* goals and the “expected” firm’s growth in “early-stage” ventures (i.e.,  $\beta = 1.646$ ,  $p < .05$ ).

The robustness tests confirm our previous outcomes on the effect of *Innovation*. For instance, the effect of innovation on future growth is positive and significant for both “early-stage” and “mature-stage” firms seeking either an environmental goal (i.e.,  $\beta = .467$ ,  $p < .05$  and  $\beta = .689$ ,  $p < .01$ , respectively) or a social

**TABLE 2** Results for sustainability orientation and firm growth.

	Model 1 (past growth)		Model 2 (past growth)	
	Early-stage firms $\beta$	Mature-stage firms $\beta$	Early-stage firms $\beta$	Mature-stage firms $\beta$
Explanatory variables				
Sustainability orientation	.215	.384**	-	-
Environmental goal	-	-	.593	.642**
Social goal	-	-	-.509	-.288
Control variables				
Gender	-.292	-.204	-.295	-.206
Age	-.006	.007	-.011	.010
Age-square	.000	.000	.000	.000
College education	.067	.208	.059	.250*
Entrepreneurship training	.217	.492***	.201	.481***
Entrepreneurship experience	.031	-.201	-.105	-.249
Investment experience	-.160	.404	-.193	.444*
Entrepreneurial network	.044	.111	.070	.114
Export-driven	.099	.495	.090	.499**
Manufacturing_Sector	.079	.111	.063	.104
Firm_size	.063**	.034**	.064**	.034**
Constant	1.708	-.907	1.829	-.985
Nagelkerke's $R^2$	8.5%	6.9%	9%	7.6%
Number of observations	623	1361	623	1361

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

goal (i.e.,  $\beta = .541$ ,  $p < .05$  and  $\beta = .783$ ,  $p < .01$ , respectively), indicating the vital role of innovation for the successful growth of any type of company. Interestingly, the moderating effect of *Innovation* is positive and significant for ventures in a “mature stage” aiming at accomplishing *environmental* goals (i.e.,  $\beta = .878$ ,  $p < .1$ ).

The control variables behave as expected. The firm size and the exporting orientation of mall firms are positively related to business expansion, especially in firms at “mature stages” (i.e., see Models 1–4). Regarding the profile of the ventures' owners, we find a positive effect of several human capital variables (i.e., college education, entrepreneurship training, angel investment experience, and entrepreneurial network) on firm growth. However, women entrepreneurs are less likely to experience firm growth, and as owners get older beyond a threshold age, the probability of business expansion declines (i.e., an inverse U-shape curvilinear effect). These results support previous findings on the positive influence of some individual-level and firm-level variables on business growth (Dimov, 2010; Muñoz-Bullón et al., 2015).

In sum, our results underline the importance of the life cycle perspective to capture more accurately the relationship between sustainability orientation and firm growth by looking at different stages of the entrepreneurship process (i.e., early and mature stages), different growth patterns (i.e., employment and turnover growth and past and expected growth), and different types of sustainable orientation

(i.e., the pursuit of environmental versus social goals). By highlighting all the nuances of these blurred notions, our novel findings are expected to provide a more fine-grained understanding of the striving relationship between sustainability orientation and firm growth.

## 5 | DISCUSSION OF FINDINGS

In this study, we investigate the relationship between sustainability orientation and a firm's growth in entrepreneurial ventures at different stages of their life cycle, with a possible moderation effect of innovation. We discuss our findings in the following section.

First, our literature review showed the lack of empirical research that tests the relationship between sustainability orientation and growth in business ventures. Most studies focus on the theoretical benefits of why sustainability orientation should have a positive influence on various aspects of the business. But only a few of them test empirically. Also, the scarce existing evidence is mostly inconclusive and controversial. Compared to similar studies (Danso et al., 2022; Demirel & Danisman, 2019; Fernandes et al., 2021; Lartey et al., 2020), we analyzed this complex relationship at different stages of the entrepreneurial process (i.e., early and mature stages), evaluated different representations of firm's growth (i.e., employment and turnover growth and past and expected growth), differentiated among

**TABLE 3** Results for sustainability orientation, innovation, and firm growth.

	Model 3 ( <i>past growth</i> ) Environmental goal		Model 4 ( <i>past growth</i> ) Social goal	
	Early-stage firms	Mature-stage firms	Early-stage firms	Mature-stage firms
	$\beta$	$\beta$	$\beta$	$\beta$
Explanatory variables				
<i>Sustainability orientation (SO)</i>	.658	.538**	-.952	-.318
<i>Innovation</i>	.116	.324**	.096	.412**
<i>SO</i> × <i>innovation</i>	-.156	.310	1.381	-.268
Control variables				
Gender	-.288*	-.194	-.305*	-.198
Age	-.006	.014	-.018	.008
Age-square	.000	.000	.000	.000
College education	.035	.241	.054	.260*
Entrepreneurship training	.204	.475***	.217	.510***
Entrepreneurship experience	-.071	-.334	.106	-.307
Investment experience	-.170	.437*	-.178	.399
Entrepreneurial network	.064	.116	.058	.105
Export-driven	.073	.484**	.059	.455**
Manufacturing_Sector	.041	.117	.034	.089
Firm_size	.062**	.032**	.063**	.034**
Constant	1.681	-1.177	1.980	-.957
Nagelkerke's $R^2$	8.9%	8.2%	8.9%	7.3%
Number of observations	623	1361	623	1361

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

different types of sustainability orientation (environmental versus social), and tested the possible moderation role of innovation. Our results support the methodological concerns expressed by Margolis and Walsh (2001) that the research into the relationship between sustainability orientation and business growth is inconclusive because it lacks common standards to measure the constructs, fails to account for possible moderation and mediation effects of other factors, and uses the data that represents contexts and firms with distinct characteristics and backgrounds. We agree that due to the methodological and conceptual differences, finding a stable and common pattern between sustainability orientation and business growth across all types of firms might be challenging.

Second, the manifest limitation of corporate social responsibility (CSR) and sustainability studies has been their predominant bias toward the context of large corporations (Castka et al., 2004; Leonidou et al., 2017). However, recent studies suggest that small firms also have the potential to generate economic and social value, exploring and exploiting the market failures related to the *Grand Challenges* of the modern world (Cohen & Winn, 2007; Dean & McMullen, 2007). In line with Soto-Acosta et al. (2016), our findings show that accomplishing the dual sustainability-growth objective is feasible but especially challenging for ventures in the early stage of their operations. We must bear in mind that

approximately 1 in 10 ventures' owners in our sample had a sound intention to pursue sustainability objectives, and the rest are *exclusively* profit-oriented commercial firms (i.e., with no sustainability purpose). These results coincide with the previous notion that only a tiny proportion of business ventures pursue sustainability goals (Cohen & Winn, 2007).

A plausible explanation for the lack of sustainability-oriented business ventures is that they struggle to remain profitable in the marketplace, and adding an impactful purpose to the firm can jeopardize its growth. That is, the sustainability orientation in entrepreneurial firms (at least, in the early stage of their life cycle) can be counterproductive, as it brings more complexity to business processes, a redirection of resources (both human and financial) to noncore activities, and requires new capabilities (Klewitz & Hansen, 2014; Rennings, 2000; Stevens et al., 2015). Nevertheless, the *liability of smallness* should not prevent them from being essential actors and drivers of sustainability transition (Drayton, 2002; González-Pernía et al., 2015). While entrepreneurs are often uncertain about the feasibility of pursuing sustainability and commercial objectives simultaneously, in reality, sustainability orientation can go along and even enhance the ability of the firm to remain profitable and stay competitive in the marketplace (Soto-Acosta et al., 2016), but according to our results, this only holds in the long run after firm inception.

**TABLE 4** Robustness test for sustainability orientation and expected firm growth.

	Model 5 ( <i>future growth</i> )		Model 6 ( <i>future growth</i> )	
	Early-stage firms	Mature-stage firms	Early-stage firms	Mature-stage firms
	$\beta$	$\beta$	$\beta$	$\beta$
Explanatory variables				
<i>Sustainability orientation</i>	.849**	.168	-	-
<i>Environment goal</i>	-	-	1.646**	.139
<i>Social goal</i>	-	-	-.812	.236
Control variables				
Gender	-.197	-.271*	-.205	-.271*
Age	-.117	.016	.096	.016
Age-square	-.002**	-.001	-.002*	-.001
College education	.247	.167	.220	.162
Entrepreneurship training	.194	-.045	.162	-.044
Entrepreneurship experience	.166	.530	.101	.536
Investment experience	.345	.156	.262	.152
Entrepreneurial network	.131	.295*	.194	.294
Export-driven	.276	.463**	.243	.463**
Manufacturing_Sector	.840*	.211	.826*	.212
Firm_size	.187***	.053***	.190***	.053***
Constant	-2.488*	-.330	-2.037	-.324
Nagelkerke's R <sup>2</sup>	19.6%	10.2%	21.5%	10.2%
Number of observations	623	1361	623	1361

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

Third, an important finding of this study is the confirmation of our initial conjecture that the stage of the life cycle where a firm stands also plays a vital role in understanding the relationship between sustainability orientation (particularly environmental) and a firm's growth. A reconciliation of sustainability and commercial objectives seems to be feasible when ventures accumulate the necessary knowledge and capabilities (Uhrenholt et al., 2022) and when profits allow them to add sustainability purposes, which generally happens as ventures mature. The firm life cycle perspective may also partially explain why the conclusions in the literature on the sustainability orientation and firm's growth relationship have not been consistent.

Fourth, our results also indicate that the undergoing convergence of environmental and social dimensions under one umbrella term of sustainability (Klewitz & Hansen, 2014) and treating them equally may lead to errors in the results and a general understanding of sustainable entrepreneurship and innovation. In our study, *environmentally oriented* firms were more likely to grow, while *social* orientation was negatively related to growth. This dynamic follows the previous suggestions that environmental objectives complement better financial goals and can bring tangible returns to the venture in the short term by avoiding fines, decreasing the costs for energy and materials used in production, and waste disposal (York, 2009). However, social orientation is commonly rooted in the non-profit sector and prioritizes public benefit over business objectives in general (Hoogendoorn

et al., 2019). In addition, social issues typically exist in a particular context and require close cooperation with various stakeholders. Consequently, social business models are hard to scale and require a different mindset, more ambition, effort, resources, and time to also bring tangible economic benefits to organizations. Due to the underlying difference in the nature of both concepts, we believe that combining social and environmental orientations under one term of sustainability orientation may lead to confusion and oversimplification of the issues at hand. It also may lead to such possible paradoxes when sustainability-oriented firms prioritize environmental goals over social goals, such as choosing to use renewable energy sources that are more expensive than fossil fuels but may cause displacement of local communities and the drastic rise of prices for basic needs (Martin & Islar, 2021).

Finally, contrary to our expectations, we did not find any significant evidence that innovation has any moderation effect on the sustainability-growth relationship. This also goes against the commonly accepted notion that sustainable entrepreneurs tend to rely more on innovation to find novel solutions to *Grand Challenges* and new business models that could reconcile sustainability and economic purposes (Dangelico, 2016). The probable explanation may be that the combination of both sustainability and innovation increases the complexity of business processes that require certain established routines and capabilities (Ketata et al., 2015). With an average of three

**TABLE 5** Robustness tests for sustainability orientation, innovation, and expected firm growth.

	Model 7 (future growth) Environmental purpose		Model 8 (future growth) Social purpose	
	Early-stage firms	Mature-stage firms	Early-stage firms	Mature-stage firms
	$\beta$	$\beta$	$\beta$	$\beta$
Explanatory variables				
Sustainability orientation (SO)	1.575**	-.282	-.581	.084
Innovation	.467**	.689***	.541**	.783***
SO $\times$ innovation	.093	.878 *	-1.313	.126
Control variables				
Gender	-.198	-.240	-.219	-.245
Age	.106	.006	.104	.009
Age-square	-.002*	-.001	-.002*	-.001
College education	.115	.190	.131	.182
Entrepreneurship training	.160	-.034	.206	-.054
Entrepreneurship experience	.274	.330	.333	.397
Investment experience	.324	.139	.342	.129
Entrepreneurial network	.194	.273*	.156	.275*
Export-driven	.159	.442**	.148	.432**
Manufacturing_Sector	.717	.217	.615	.226
Firm_size	.185***	.050***	.198***	.051**
Constant	-2.396	-.284	-2.359	-.368
Nagelkerke's R <sup>2</sup>	22.2%	13.3%	20.1%	12.9%
Number of observations	623	1361	623	1361

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

employees, the entrepreneurial ventures in our sample seem not to have the organizational capacity to align and simultaneously handle sustainability and innovation processes.

## 6 | LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Our study has several limitations that can be addressed in future research. First, our results represent a “snapshot” of active entrepreneurial businesses in Spain in 2019. This is a static perspective that does not show their evolution over time. Since the results of our research are incipient about the impact of the stage of the firm's life cycle on the relationship between sustainability orientation and business growth, a longitudinal study (i.e., based on panel data like from the project *Panel Study of Entrepreneurial Dynamics*) may be helpful. The second limitation comes from the context of our sample. According to institutional theory, entrepreneurs face a wide range of obstacles (i.e., financial, administrative, and informational barriers) that might be present in the Spanish context but not in the context of other countries. A particularly interesting question might be to uncover the sustainability-orientation-venture growth dynamic in the context of economic or social crises (i.e., the global COVID-19

pandemic or the new global context due to the war conflict in Ukraine). The third limitation is related to the ways we choose to measure the variables. For instance, evidence suggests that it is possible to measure the strength of sustainability orientation (Santos et al., 2013) as well as the radicalness of innovation (Kiefer et al., 2017). Introducing such distinctions in future research may help to understand better the relationship between sustainability orientation and a firm's growth.

Despite the limitations, this study provides several practical and policy implications. First, it intends to reassure entrepreneurs of their decision to pursue sustainability objectives. We do not claim to have found a definitive answer for the dilemma between sustainability orientation and business growth but wanted to show that, at least in a specific context, those two objectives may coexist and enhance each other. We hope it will encourage entrepreneurs not to give up on their dream “to do good” when the “going gets tough.” Second, entrepreneurs and small businesses are the backbones of any economy, and our study also provides evidence that they have the potential to become a backbone of the sustainability transition. However, due to additional dimensions and complexity of sustainability orientation, such ventures require extra attention, support, and investments, particularly in the early stages of their development, to propose innovative solutions for the *Grand Challenges* of our society and

survive in the market. Policymakers may design programs encouraging entrepreneurs to pursue sustainable goals since achieving this dual mission benefits both business owners and the community. Our results suggest that this outcome is feasible but depends on the maturity of firms and their stage in the entrepreneurial process. Raising awareness and shifting resources to support impactful and competitive sustainability-oriented ventures will facilitate the transition toward a more sustainable society.

## 7 | CONCLUSION

In this study, we analyze the dilemma between sustainability orientation and business growth faced by entrepreneurial ventures and how they handle it across different stages of their life cycle. There is no doubt that the introduction of sustainability objectives is a challenging process for entrepreneurial ventures (Gupta et al., 2013; Stevens et al., 2015), but in light of the new evidence from our study, it becomes clear that with perseverance, the benefits of sustainable products, services, and business models in the context of entrepreneurship may outweigh the expenses and difficulties of their production and delivery to the market. Sustainability orientation creates added value to society on top of the market value of the product or service that entrepreneurs capture through innovative business models (Ndubisi & Nair, 2009; Shepherd & Patzelt, 2011). The novelty of these results, compared to those of earlier research, may indicate that our society is indeed transitioning towards a more sustainable future and that due to stricter government regulations, stakeholder pressure, general awareness about environmental and social issues, and increasing demand from consumers for sustainable products and services, sustainability-driven firms become more profitable and competitive in the market (Ndubisi & Nair, 2009; Shepherd & Patzelt, 2011).

We also encourage future studies on sustainable entrepreneurship and innovation to keep in mind the life cycle perspective on the entrepreneurship process. Conventional wisdom suggests that approximately half of the new ventures shut down sometime during their five initial years. The early stage of a new firm is a critical period where entrepreneurs must discover and develop the ability to be competitive and profitable. Launching and building a profitable business follows a complicated process. Adding to it, the pursuit of a sustainability purpose makes this challenging test a more complex task. Our results show that sustainability and business objectives may not be continuously and simultaneously satisfied together. Although sustainability orientation may drive business growth, this rationale may not hold across all phases of the life course of an organization. Our findings suggest that it seems more feasible to reconcile commercial and at least environmental objectives in the later stages of a firm's life cycle.

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## CONFLICT OF INTEREST STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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