Resolving the Paradox of Green Innovation Across Generations in Family Firms: An exploratory analysis of Incumbents and Successors perceptions

Abstract

Purpose

Informed by the dearth of research and insufficient knowledge of green innovation in family firms, this study explores the intersection of green innovation, family firms, and intergenerational succession in resolving the paradox of green innovation across generations.

Design/methodology/approach

This exploratory qualitative study explored the perceptions of incumbents and successors of textile family firms in Italy to highlight the crucial role of firms' entrepreneurial orientation and social-emotional wealth in shaping and fostering green innovation in family firms.

Findings

The results show that a low bureaucratic process, flexibility, and communication strengthen green innovation in family firms. However, the lack of sustainable raw materials, consumer behaviour, insufficient financial capital, stakeholder engagement, and risk aversion affect green innovation in family firms. While family firms are willing to engage in green innovation, the results suggest that family firms are more likely to consider green innovation with superior financial benefits rather than environmental benefits alone. According to the results, incumbents and successors differ in harnessing knowledge to increase their entrepreneurial orientation and protect firms' social-emotional wealth.

Originality/value

Despite many barriers preventing green innovation in small family firms, this study shows that the interaction of internal capabilities, external knowledge, and family

(entrepreneurial) orientation contributes to green innovation and the overall performance of small family firms.

Keywords: Green Innovation, Family Firms, Intra-family Succession, Entrepreneurial Orientation.

Introduction

The ubiquitousness of family firms (FFs) highlights their importance to nations' socioeconomic development, sustainability (Dangelico *et al*., 2019), and innovation (Amato *et al*., 2022). In Italy, for example, FFs represent about 85% of businesses and contribute about 20 million Euros to the Italian economy (Associazione Italiana delle Aziende Familiari (AIDAF), 2024).

With intense competition and globalisation, sustainability has become dominant in achieving a sustainable competitive advantage. The Italian textile and fashion industry (ITFI), considered one of Italy's most polluting sectors (Coppola *et al*., 2023), is not an exception. As the industry is undergoing a transformative change, innovation and sustainability are identified as central to this transformation (International Textile Machinery Association [ITMA], 2022).

Innovation is daunting for small-scale firms, especially FFs, due to resource limitations and entrepreneurial (orientation) behaviour (Diaz-Moriana *et al*., 2020; Leppäaho and Ritala, 2022). This is also the case with green innovation (GI), an intersection between innovation and sustainability and a key mechanism for firms, including FFs, to address climate emergencies and achieve superior performance. Understanding the GI process in FFs and how it is transferred across generations is crucial for firms' sustainability and competitiveness. Managing FFs, with their unique blend of family and business dynamics, presents myriad paradoxes and impedes entrepreneurship, innovation, sustainability, and succession (Barrett and Moore, 2020).

While research has focused on innovation more broadly, GI is nascent in family business research (Rovelli *et al*., 2022), and little is known about its barriers, including whether experience/knowledge of innovation provides a basis for learning and firms' GI capabilities (Stucki, 2019). According to Rovelli *et al*.'s (2022) review of 1381 family business studies published over three decades in the top mainstream family business journals (*Family Business Review, Journal of Family Business Strategy, and Journal of Family Business Management*), shows that GI in FFs, including its intersection with succession, has not been addressed in family business research.

Similarly, studies have generally treated FFs as homogeneous (Huang *et al*., 2016), suggesting that similar factors drive innovation in family and non-family firms. Although studies have generally compared family and non-family firms' innovative capabilities and dimensions (Dangelico *et al.,* 2019), FFs' GI capabilities are unclear (Miroshnychenko *et al*., 2024). The generic knowledge of firm innovation capabilities can be valuable to FFs' innovativeness; however, FFs are characterised by many paradoxes (McAdam *et al*., 2020) that must be addressed to increase their innovation capabilities (Barrett and Moore, 2020).

The dearth of research on GI in FFs (Calabrò *et al*., 2019; Rovelli *et al*., 2022), particularly micro- and small-sized, increases the difficulty in understanding what drives GI in FFs and how knowledge is passed from incumbents/founders to successors. The inability of FFs to manage paradoxes effectively, especially in sensing and seizing opportunities, has been attributed to why many initiatives fail in FFs (McAdam *et al*., 2020).

Despite the potential threats of non-transgenerational knowledge sharing to the family identity and growth of FFs (Amato *et al*., 2022), succession presents a unique opportunity for managing the paradoxes of introducing GI versus continuing with the traditional way of doing things (Dangelico *et al*., 2019). Through succession planning, FFs' concentrated entrepreneurial capabilities and the willingness to sustain socio-emotional wealth (SEW) (Amato *et al*., 2022;

Kotlar and De Massis, 2013) can be harnessed for GI. Compared to nonfamily firms, FFs have concentrated ownership, higher flexibility, and long-term perspectives, enhancing their social capital and innovation capabilities (Dangelico *et al*., 2019; Zellweger *et al*., 2012).

The increasing awareness and ongoing debate around sustainability further underscore the need for FFs to adopt and embed GI in their operations (Miroshnychenko *et al*., 2024). This allows firms to respond to the increasing need for competitiveness and sustainability by introducing new processes, products, and services (Adomako *et al*., 2019; Dangelico *et al*., 2019).

This study responds to the call for more in-depth studies to understand innovation in FFs, especially toward developing long-term perspectives (Diaz-Moriana *et al*., 2020) and entrepreneurial orientation (EO) (Zellweger *et al*., 2012). This study is necessary given that FFs' orientation is mostly risk averse to protect their social capital and safeguard their business longevity (Huang *et al*., 2023).

FFs, especially in ITFI, must embrace environmental sustainability for complete transformation, considering that the industry occupies a unique niche in the global market (ITMA, 2022). With most Italian FFs undergoing a generational change (Campagnolo, 2019), there is a need to understand how FFs can adopt GI for sustainable business practices (Adomako *et al*., 2019; Dangelico *et al*., 2019).

We address this gap by exploring the perspectives of incumbents and successors on GI in FFs to understand the fundamental challenges affecting the adoption of GI and how FFs can manage the paradox of introducing GI versus continuing with a traditional approach. This knowledge is crucial in facilitating and maintaining GI in FFs across generations, allowing FFs to enhance EO, protect SEW, and meet stakeholders' sustainability expectations. To explore GI decision-making and activities in FFs and explain the challenges of GI across generations within ITFI, the following research questions are addressed:

RQ1: How do different generations within FFs perceive and approach GI?

RQ2: How can GI decision-making processes be facilitated in FFs and considered part of succession planning?

RQ3: What are the main drivers and barriers to adopting GI across generations of FFs?

While there are divergent perceptions of innovation (Leppäaho and Ritala, 2022), we define GI as a deliberate application of resources and knowledge that enables FFs to be competitive in the current dynamic and complex global economic climate. GI is of research interest, considering the climate emergencies and the knowledge that FFs have strong capabilities to undertake innovative activities; however, they are not necessarily inclined to introduce innovation (Diaz-Moriana *et al*., 2020).

Consistent with Dangelico *et al*. (2019), we define FFs as businesses whose governance and management structure are dominated by members of the same family or maintain a small number of families across generations. Our focus on the textile industry allows us to examine the complexity of GI in FFs, considering the increasing negative consequences of textile manufacturing operations (Coppola *et al*., 2023).

The remainder of this paper is structured as follows. First, we provided an overview of GI in FFs and introduced the main theories underpinning this study. Next, we discussed the method of inquiry, including the adopted data collection and analysis methods. Following the methods section, we presented the empirical results and discussion. Finally, we discussed the study's theoretical and practical implications.

Literature Review

Studies have highlighted the important roles of FF's unique commitment, governance structure, and resource allocation in introducing GI (Adomako *et al*., 2019; Veiga, 2024). The long-term perspective of FFs contributes to GI capabilities (Adomako *et al*., 2019), with FFs harnessing their SEW for GI (Dangelico *et al*., 2019). While FFs exhibit a long-term perspective and protect their SEW, they are primarily risk-averse and resource-constrained compared to non-

family firms (Dangelico *et al*., 2019; De Massis *et al*., 2016). As a result, FFs are more likely to depend more on internal capabilities and knowledge, limiting their ability to introduce GI compared to non-family firms (Amato *et al*., 2022).

Evidence shows that GI in family firms is still nascent (Dangelico, 2017; Rovelli *et al*., 2022) and has not been sufficiently explored in family business research (Calabrò *et al*., 2019; Miroshnychenko *et al*., 2024). Factors contributing to innovation (Calabrò *et al*., 2019), GI (Dangelico *et al*., 2019), and succession (Combs *et al*., 2023) have been examined in many family business studies; however, findings and conclusions are ambiguous.

Many factors, including economic and non-economic, have been reported to enhance the ability of FFs to innovate (Amato *et al*., 2022; Nieto *et al*., 2015). On the one hand, economic factors, such as market imperfections, have been identified as barriers to GI in FFs (Stucki, 2019) due to their tendency to protect their SEW (Amato *et al*., 2022). On the other hand, non-economic aspects, such as strong family networks, higher flexibility, long-term perspective, risk aversion, and familiness, affect FFs' willingness to innovate (Coffie *et al*., 2024; Dangelico *et al*., 2019). Similarly, firm-specific resources, such as digital capabilities, years of operation, and country location, contribute to the propensity of FFs to engage in GI (Veiga, 2024).

Despite disparate factors contributing to GI in FFs, GI can be achieved by introducing new or improved products/services and production processes (Calabrò *et al*., 2019; De Massis *et al*., 2015). Introducing GI can enhance FFs' operational efficiency with positive environmental impacts compared to competing alternatives. Green administrative innovation, such as new rules, policies, and procedures, can be deployed to guide FFs' operations and environmental management practices to facilitate GI.

These GI dimensions and attributes should be considered part of FFs' governance structure and EO for GI, ensuring intergenerational equity with enhanced environmental and social benefits. This consideration is pertinent, as governance mechanisms, whether rigid or flexible, can

restrict or enable GI efforts (de Groot et *al*., 2022). Also, leadership styles (Coffie *et al*., 2024) and leaders' behaviour (Puspani *et al*., 2025) play a significant role in the succession of FFs.

With GI indicating a range of activities that benefit the environment by reducing resource utilisation and preventing pollution (Zhang *et al*., 2019), it is unclear whether factors contributing to innovation in FFs have the same effects on embracing GI. Although research findings about innovation (Diaz-Moriana *et al*., 2020) and GI (Miroshnychenko *et al*., 2024) in FFs are mixed, the willingness to preserve SEW and sensitivity to environmental issues can inform FFs' decisions on whether to pursue GI (Dangelico *et al*., 2019).

Succession and GI in Family Firms

Although studies have explored innovation in FFs and how it compares to non-family firms, the existing knowledge about the interplay between innovation and succession in FFs is mixed and contradictory (Calabrò *et al*., 2019; Hauck and Prügl, 2015). The general wisdom in the literature suggests that innovation capabilities differ between family and non-family firms and across generations (Diaz-Moriana *et al*., 2020; Hernandez-Perlines *et al*., 2020). Transgenerational innovation capabilities ensure sustainability-oriented innovation over time (Hernandez-Perlines *et al*., 2020); however, leadership commitment and access to external knowledge are crucial (Veiga, 2024). This is consistent with the claim that competency and commitment are crucial psychological traits influencing succession decision-making processes in FFs (Barrett and Moore, 2020; Richards *et al*., 2019).

It should be noted that the increasing ownership dispersion and involvement of multiple family branches following intra-family succession often results in conflicts and a lack of shared vision (de Groot *et al*., 2022; Kellermanns *et al*., 2012), reducing FFs' GI capabilities. The conflicts may be an incongruent question of values versus priorities or competence versus commitment, with family members mostly capturing and exploiting opportunities based on their EO and SEW.

Theoretical Perspective

While studies have shown that firm-specific resources and geographical factors contribute to GI in FFs (Veiga, 2024), the intersection between GI and succession in FFs is yet to be explicitly explored in empirical research (Calabrò *et al*., 2019; Rovelli *et al*., 2022). The literature suggests that dynamic capabilities, including learning and knowledge, provide a basis for firms' ability to adapt to the dynamic business environment and contribute to their innovation capabilities (Coppola *et al*., 2023; Duarte Alonso and Kok, 2021).

With mixed findings in the literature about innovation (Calabrò *et al*., 2019) and GI in FFs (Huang *et al*., 2016; Miroshnychenko *et al*., 2024), EO (Zellweger *et al*., 2012) provides a valuable theoretical framework for understanding GI decision-making in FFs. This orientation refers to processes, practices and decision-making that underpin firms' innovativeness, risk-taking, and proactiveness, leading to their ultimate performance (Huang *et al*., 2023). Given that GI can be resource-intensive, with succession considered critical to sustaining FFs (Richards *et al*., 2019), EO allows for a deeper insight into GI across generations of textile FFs. While EO has been measured at the firm level (Huang *et al*., 2023; Nieto *et al*., 2015), we apply EO to explain the GI perceptions and behaviour of individual family members in Italian textile and fashion FFs. Our application of EO at the individual level makes theoretical sense, given that the characteristics of an entrepreneurial firm, such as risk-taking, proactiveness, and innovativeness, reflect the characteristics and behaviour of individuals, especially decision-makers, in the firm (Huang *et al*., 2023).

While EO may differ across generations due to the decline in entrepreneurship across generations in FFs (Combs *et al*., 2023), SEW is a valuable concept for understanding GI in FFs (Hauck and Prügl, 2015). The concept of SEW explains the FFs' decisions to pursue non-economic goals to maintain family/firm identity and values. Family control and influence, binding social and family ties, and emotional attachment through dynastic succession are

dimensions of SEW that shape FFs' strategic decision-making (Calabrò *et al*., 2019). The dimensions and their contributions to FFs' non-economical goals can be influenced by the interactions of family members' traits/attributes and FFs' contextual factors. Many contextual factors, such as firms' performance, FFs' size, and the behaviour of key customers or suppliers, influence intra-family succession (De Massis *et al*., 2008; Hauck and Prügl, 2015). Changes in these factors and their interactions with family attributes contribute to GI capabilities and how they sustain them across generations of FFs.

While FFs operate in a dynamic business environment (Coppola *et al*., 2023), understanding this dynamic can foster FFs' commitment and willingness for GI. The willingness of FFs to preserve SEW and their sensitivity to environmental issues (Dangelico *et al*., 2019) contribute to FFs' GI capabilities and behaviour. This study, therefore, integrated EO and SEW to explain GI in FFs, recognising the importance of learning and knowledge sharing. This allows us to utilise FFs' strategic position as the basis for synergies between exploration and exploitation capabilities in the form of ambidextrous organisations.

Consistent with Diaz-Moriana *et al*. (2020), our conceptual arguments suggest that SEW (i.e., willingness) and EO (i.e., capabilities) influence GI across generations in FFs, contributing to firm performance.

Research Methods

This study adopts interpretivism as a philosophical lens (Creswell, 2014) to understand how incumbents and successors in IFTI construct their GI willingness/behaviour (SEW) and capabilities (EO).

Consistent with interpretivism, the qualitative research method was adopted due to the exploratory nature of this study. Adopting interpretivism was informed by its focus on understanding key informants' perceptions and subjective interpretation of social reality (Braun and Clarke, 2006). This approach is particularly valuable given that family business

research predominantly focuses on technology when explaining innovation (Akram *et al*., 2022; Calabrò *et al*., 2019). Others have examined sustainability more broadly, addressing the contribution of environmental, social and governance (ESG) to FF innovation (Barguilla Sanclaudio et *al*., 2025). The few studies on GI have adopted secondary data using patents and R&D information as a proxy for GI (Zhang *et al*., 2019). While patents demonstrate firms' entrepreneurial capabilities and intentions, they offer no clarity about the actual FFs' subjective perceptions and behaviours and how they inform GI across generations.

This approach allowed us to answer the research questions by exploring the views of incumbents and successors of family-owned textile firms in Italy using semi-structured interviews (Bryman and Bell, 2015). As a result, we adopted semi-structured interviews due to the adaptability and flexibility required to probe interviewees and ask additional questions when unexpected themes emerged from the data (Braun and Clarke, 2006; Creswell, 2014).

To answer the research questions, we focused on FFs within the textile industry in the Northern region of Italy for an in-depth exploration of GI perceptions, types of GI, and GI motivations/barriers, including the impact of succession on firms' GI and performance. The textile industry is of research interest due to the longstanding tradition and economic contribution of the textile industry in the provinces of Brescia and Bergamo (ITMA, 2022). We explored GI across generations of Italian FFs, as about 40% of Italian FFs face intra-family succession over the next 10 years (Campagnolo, 2019).

Data Collection

We recruited participants for the face-to-face semi-structured interviews based on their relevance to the research questions (Bryman and Bell, 2015; Creswell, 2014). We considered three essential attributes to gain in-depth insights into GI and how succession in Italian textile FFs affects the innovation journey. According to Whiting (2008), these attributes include (1) knowledge of the firm's operations and willingness to participate in this research, (2) ability to

reflect and provide experiential information, and (3) willingness to engage in discussion.

We, therefore, recruited participants who: (a) work for FFs with no more than 50 employees to capture the unique features of small FFs (Dangelico *et al*., 2019; Miroshnychenko et *al*., 2024); (b) are either an owner-manager, a successor, or a family member to ensure that the collected data represents the perspectives of the individuals involved in the intra-family succession process (Dangelico *et al*., 2019; Hauck and Prügl, 2015); (c) work within the Province of Brescia and Province of Bergamo, two areas that contribute significantly to the Italian and European economy (McColl, 2023); (d) work in the textile industry.

Consistent with the research questions, we developed an interview protocol to guide the data collection process (Creswell, 2014). While the interview number was not pre-determined, we conducted 12 semi-structured interviews involving four incumbents and eight successors from 12 FFs. With the study focused on FFs in IFTI, this number was considered appropriate for this exploratory study to answer the research questions and achieve the study goal (Hennink and Kaiser, 2022).

Each interview lasted an average of 60 mins, was conducted in Italian, audio-recorded, transcribed, translated to English, and analysed thematically. One of the co-authors, an Italian-speaking national fluent in English, translated the collected data from Italian to English and from English to Italian to avoid biases in interpreting the participants' perceptions. We adopted the back-translation approach to compare the original and translated transcripts for quality control and reliability checks (Klotz et *al*., 2023). The quality check showed no evidence of distortions and meaning shifts.

Data Analysis

The adopted thematic analysis (Figure 1) provides flexibility and ensures rigour while elucidating intricate patterns from the data.

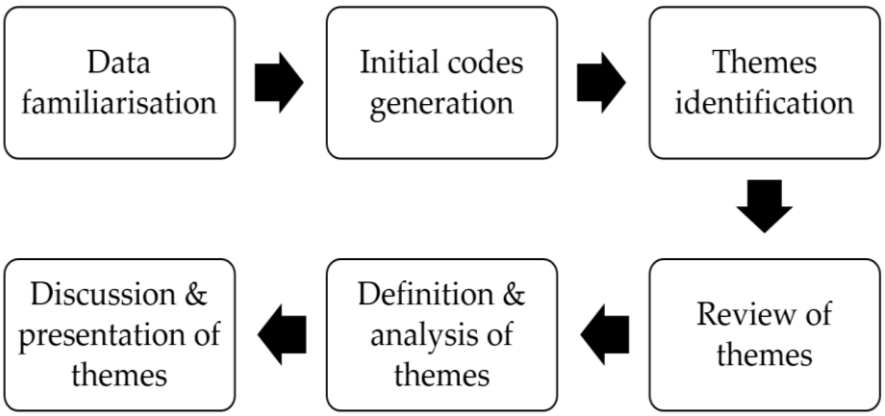

Figure 1. Thematic data analysis process (Source: Created by authors)

Thematic analysis allows for a structured and systematic way of identifying patterns in the data set and interpreting them for their inherent meaning (Braun and Clarke, 2006). This systematic approach enhanced consistency and credibility by identifying themes and codes consistent with the research questions.

Themes were validated through discussions between the authors, allowing for a critical review of the interpretations to ensure alignment with the data and reduce bias (Braun and Clarke, 2006). The coding process was iterative (see Figure 1) to agree on the generated codes' structure and meaning (Gioia *et al*., 2013), providing the building blocks to explain GI in FFs. This approach allowed us to explore, identify, and contrast participants' views, providing the premise for generating relevant themes and answering the research questions (Braun and Clarke, 2006; Creswell, 2014).

Results and Discussion

Consistent with Gioia's methodology, we present the data structure (Figure 2) to explain the dynamic interrelationships between the generated codes (Gioia *et al*., 2013) from incumbents' and successors' perspectives of GI in FFs.

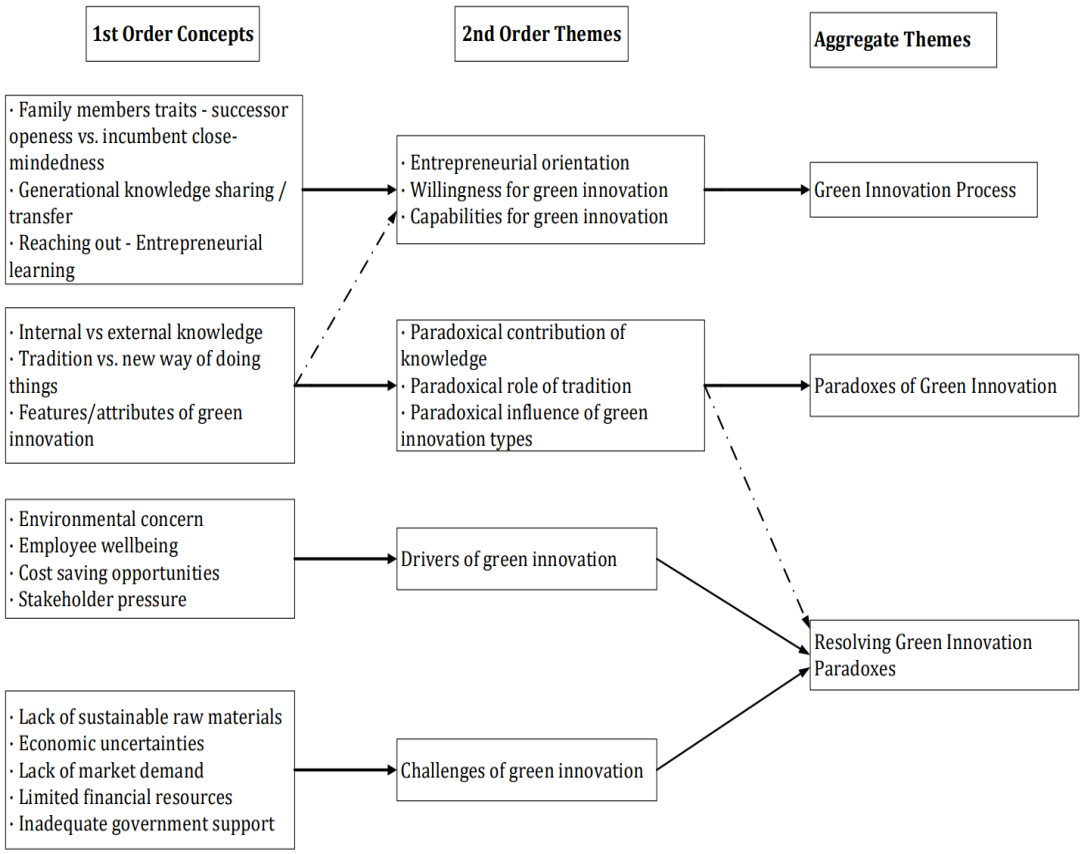

Figure 2. The data structure (Source: Created by authors)

The following sections explicitly explain the results (Figure 2), allowing us to answer the research questions and achieve the study goal.

Green innovation process in family firms

The results show divergent GI perceptions; however, the knowledge of GI in FFs is limited. Many factors contribute to insufficient knowledge, preventing meaningful GI activities in FFs. For example, we observed that successors are more open to external knowledge, enhancing their EO; however, incumbents are not open-minded despite their limited understanding of GI. The lack of willingness to seek external opinions/knowledge suggests that GI in FFs is restricted by incumbents' experience and lack of exposure to modern GI trends. For instance,

> "*The company does not consider involving outside experts. We still rely on our experience, and that's it.*" [Incumbent 01]
>
> "*I think that we could do more if we had a better knowledge of trends in green innovation."* [Incumbent 10].

The knowledge deficit and inability to seek external knowledge could result from incumbents' desire to preserve SEW (Diaz-Moriana *et al*., 2020) coupled with their strong desire to maintain traditional values, reputations, and identities across generations (Zellweger *et al*., 2010). In response to Richards *et al*.'s (2019) concern regarding the dilemma of willingness and capabilities facing FFs, our results show that incumbents must address their knowledge deficit to address the GI willingness-capabilities paradox.

Paradoxical contribution of knowledge: Internal versus external knowledge

While incumbents rely primarily on their experience, successors are open-minded to mentoring and learning to enhance their EO for GI, especially through external stakeholder engagement and further education. Open-mindedness contributes to successors' capabilities to coordinate the firm's operations, allowing them to assess the GI's utility to firm performance and competitiveness. The results further show that incumbents inspire self-confidence in successors through knowledge sharing while requesting successors evaluate GI's feasibility and relevance before implementation. For example,

> *"I share my ideas with successors to develop their innovative and managerial skills and to ensure that they continue on the path taken by the founders."* [Incumbent 2]
>
> *"I would like to reach a goal, then it's up to you* [referring to successors] *to go ahead. Also, because if you* [referring to successors] *can get there, then you* [referring to successors] *can carry on the company's legacy and activities."* [Incumbent 6].

This interactive approach between incumbents and successors allows incumbents to assess successors' ability and readiness for leadership. It preserves distinctive firm identity by building familiness through internal capabilities and resources rather than external influence (Zellweger *et al*., 2010). This communication is vital given that the lack of effective communication weakens family bonds and instigates mistrust between family members, preventing FFs from sustaining SEW, EO, and entrepreneurial legacy across generations (Combs *et al*., 2023; de Groot *et al*., 2022).

Our study shows that successors are open to internal and external knowledge to develop

EO and managerial capabilities to coordinate GI. This form of learning plays a pivotal role in resolving the paradoxical tension between willingness and ability for GI. It allows successors to seek advice from incumbents and external stakeholders, demonstrating the importance of the interplay between EO, SEW, and internal resources for GI in FFs. As one of the successors aptly put it:

> *"Undoubtedly, incumbents have years of experience and knowledge; they know how to act in different circumstances […] for these reasons they can help us"* [Successor 04]
>
> *"When buying new equipment, you go and talk to those who were there before you* [referring to incumbents] *because they* [referring to incumbents] *have the experience* […] *So, the experience of who comes first is essential."* [Successor 12].

Intergenerational knowledge sharing generates a broader knowledge base, benefitting incumbents and successors, whereby value and innovative ideas are generated by exploiting firms' experience and traditions regarding their GI capabilities (Woodfield and Husted, 2017). The danger is that incumbents' rigidity and strong ties to existing assets and relationships could be instilled in individuals/successors within FFs, lowering their flexibility and ability to learn from external sources. Accordingly, GI in Italian textile firms can be hindered by incumbents' desire to exert authority, willingness to protect and preserve family traditions, and inability to overcome inertia. Consistent with previous studies (Ingram *et al*., 2016; Kotlar and De Massis, 2013), our results show that successors can resolve this tension through renewed insights and perspectives due to the diversity of objectives and ability to challenge the status quo as they develop EO. We argue that FFs can resolve the paradox of willingness versus ability and control versus growth by integrating external and internal knowledge. This enhanced EO provides the basis for successors to introduce and implement relevant GI consistent with firms' SEW.

Paradoxical role of tradition in Green Innovation

The receptiveness of successors to incumbents' experience is synonymous with the concept of "innovation through tradition" (De Massis *et al*., 2016), indicating the opportunity to create new forms of value through interiorisation and reinterpretation of long-held organisational

identity, capabilities, and resources. Our results show that this tradition is sustained through delegation and knowledge transfer/sharing. For example, incumbents often encourage successors to undertake formal education to prepare successors for future roles and enhance the successors' EO for GI.

> *"I remember a few years ago, I talked to my daughter about which university she could enroll in and I did this to prepare her to take on my role and acquire more skills."* [Incumbent 2]

> *"I have had exposure to green innovation during my university studies, and we have talked about environmental sustainability and how it is increasingly important for today's companies."* [Successor 11].

Consistent with Diaz-Moriana *et al*. (2020), successors' innovative capabilities are developed to advance founders/incumbents' legacies, allowing successors to exert control and ensuring a high-performing intergenerational succession. Although not all FFs generate entrepreneurial legacy through entrepreneurial narratives and knowledge-sharing to inspire EO (Combs *et al*., 2023), formal qualifications allow FFs to improve their internal capabilities and ability to sustain green ideas.

Since incumbents are not open to external knowledge and involvement, knowledge sharing demonstrates their commitment to SEW and intergenerational succession. This contributes to successors' motivations, EO, and technical capabilities for GI and firm performance.

Paradoxical influence of green innovation Types

Exploring types of innovation previously considered, currently adopted, or will be adopted by FFs provides a better understanding of their GI willingness and ability, including motivations and barriers. According to the findings (Table 1), the most common types of GI in Italian textile FFs are solar PV, waste reduction/prevention, and materials recycling.

Table 1: Green innovation in family firms

Green Innovation	**Number of family firms**
Waste (plastic, paper, toner) reduction	Nine
Solar and photovoltaic panels	Eight
Waste and materials recycling	Seven
Efficient lighting and heating systems	Seven

New products with sustainable materials	Seven
Biodegradable packaging	Six
Energy-efficient machinery	Two
Replacement of fleet with electric vehicles	Two
Carbon offsetting	One
Green building	One
Source: Created by authors	

Although energy technology and waste management are the prominent GIs in FFs, the results show that structural improvement and carbon offsetting ideas are also implemented. For example,

> *"An idea we had recently* […] *is to move production from this plant to two that we have nearby, after having done considerable structural work that considers environmental sustainability"* [Incumbent 7].
>
> *"We have also changed the packaging of our products over the years, passing from polyethene bags to cardboard boxes or bags made with our leftover products."* [Successor 9].

The results suggest that GI, which provides superior financial benefits rather than environmental benefits alone, is more likely to be considered/adopted by textile FFs. This behavioural pattern indicates that environmental altruism is insufficient to drive GI in FFs, especially in the textile industry.

The results further show that FFs prioritise green process innovation, such as certifications and energy efficiency, over green product innovation. To achieve sustainability, FFs in ITFI must develop capabilities for green process and product innovation. While green process innovation allows FFs to understand the environmental impacts of their decisions, policies, procedures, and strategies, this may result in capabilities for green product development.

Resolving the paradoxes

Drivers of green innovation

While empirical studies have generally examined motivations for innovation in FFs, we observed that GI in FFs is motivated by a combination of financial and non-financial factors. These factors include environmental protection, employee well-being, operational costs, and

stakeholders, particularly regulatory bodies. The results show that external pressure contributes to GI in FFs, although we further observed that FFs are also motivated internally through family networks, resources/capabilities, experience, and education.

Environmental concern

Environmental concerns are critical to greening FFs by introducing and implementing GI to protect the natural environment. This greening approach is primarily process-oriented, contributing to the operations of FFs by reducing waste and pollution associated with textile manufacturing. According to the study participants, for example:

> *"Green innovation means developing and innovating all the processes of an organisation to make it eco-friendly and to help reduce global pollution, reduce waste, and optimise resources."* [Incumbent 2]
>
> *"Today, there is a need to consider how our actions affect the environment, and we take actions to reduce our footprint."* [Successor 4].

The results show that FFs engage in GI to demonstrate their desire to safeguard the environment while reducing the firms' carbon footprint; however, the focus is more on efforts that can enhance their operations process and product acceptance, such as certifications. This is consistent with previous studies that managers' primary environmental concern and commitment contribute positively to GI (Adomako *et al*., 2019; Huang *et al*., 2016). Also, it reflects the influence of external pressure, such as regulatory bodies and certification standards, on FFs' willingness and attitudes (i.e., orientation) toward GI. FFs' awareness of environmental issues and willingness to comply with regulatory requirements can provide the foundation to resolve the paradox of willingness versus ability. This allows FFs to preserve socioemotional wealth and address social issues through processes/activities that benefit the environment (Combs *et al*., 2023).

Employee wellbeing

Another important motivating factor for GI that emerged from the data is the desire to promote and ensure employees' well-being, which could indirectly benefit the FF. Although an FF is

involved and controlled mostly by family members, the desire to encourage employees' well-being demonstrates the recognition of employees as a vital resource, increasing the firm's productivity and performance. According to the study participants, for example:

> *"Important goals can be achieved, such as an improvement in the working environment that indirectly benefits the company"* [Incumbent 1]
>
> *"New window fixtures and a modern heat pump have reduced heat losses and have improved the well-being of employees during the winter period when they can enjoy a stable internal temperature"* [Successor 4].

Our results align with many studies (such as Carrillo-Labella *et al*., 2020; Leenders and Chandra, 2013) that reported firms' desire to improve employees' well-being. Such GI is internally driven by concerns from and for internal stakeholders (Leenders and Chandra, 2013), which could explain family members' loyalty and commitment to the firm. Although green certifications could be instigated by customers' demand, Carrillo-Labella *et al*. (2020) observed that GI, such as green certifications, enhances employees' productivity and job satisfaction. Our study participants did not mention the type of GI that could increase employees' well-being; however, the general perceptions indicate that quality of life at work through GI creates self-identity, value and benefits for FFs and their employees. The willingness to enhance employees' well-being is cultural and should be embedded in FFs' operations and processes from generation to generation.

Cost saving opportunities

While environmental protection and employees' well-being emerged as essential drivers for GI in textile FFs, the opportunity to reduce operational costs is another important driving force for them to engage in GI. According to the participants, many activities, such as installing solar PV and high-tech energy-efficient equipment, are introduced to save costs. These cost-saving activities indirectly address other issues related to energy conservation, resource use, and waste management. For instance,

> *"We have a considerable energy consumption; it is one of the higher annual expenses* [...] *our idea was to introduce photovoltaic panels to reduce energy consumption"* [Incumbent 5]
>
> *"If we did not recycle the material, we would have to pay for the disposal and disposing of it as*

> *unsorted waste would cost us much more"* [Incumbent 8].
>
> *"We have installed computer devices on our equipment that allow us to be more precise when producing, reducing scraps and waste"* [Successor 9].

Introducing these forms of innovation to save costs could allow FFs to address sustainability issues and improve their employees' well-being and satisfaction. The results demonstrate that GI enhances the environment's health and employees' well-being and allows textile FFs to reduce costs by promoting efficient resource use and waste prevention. The results support Leenders and Chandra's (2013) observations that GI is prompted by the willingness to achieve cost efficiencies and waste reduction. Managerial experience, technical backgrounds, and educational attainment contribute to FFs' GI willingness and capabilities. The increasing financial, social, and environmental costs of waste disposal in Italy can incentivise FFs to adopt GI, which may have positive spillover effects on waste generation and resource consumption. This may motivate textile FFs to embrace relevant GI and reduce the paradoxical tension of tradition versus change and willingness versus ability across generations.

Stakeholder pressure

Internal and external stakeholders are critical components of FFs and integral to their performance and ability to add value. The needs and expectations of stakeholders inform decision-making about sustainability and innovation in FFs. According to the participants, some environmental ideas in FFs, such as recycling, were influenced by incumbents' experience and attributed to firms' internal environmental orientation and legislative requirements. The pressure from incumbents contributes to FFs' disposition and decisions to prevent waste and install recycling facilities consistent with government policies and laws. For example,

> "*We started from recycling, for which [incumbent name] was a promoter since the beginning*." [Successor 3].

This result does not necessarily mean that incumbents are environmentally conscious. Instead, it could be attributed to the prospect of preventing waste and reducing firms' financial burdens

with the opportunity to adhere to regulations and stakeholders' expectations. In other words, pressure from incumbents may be influenced by external pressure, including regulatory requirements and customers' demands. The pressure is also financially motivated, particularly regarding the social costs of waste disposal in Italy. Participants' accounts show that FFs were tasked by city councils to reduce waste disposal, leading to many schemes to prevent waste generation. For instance,

> *"Everything started a few years ago when we were approached by the city hall that was reviewing the quantities of waste disposed of by private individuals and local firms* […] *since then, we moved from 22,000 Kg of waste to 16,000-18,000 Kg per year."* [Incumbent 12].

The results show that incumbents understand the contribution of external pressure to FFs' competitiveness, allowing the firm to develop internal capabilities for GI across generations in responding to stakeholders' demands. Our results are consistent with many studies (such as Huang *et al*., 2009; Woodfield and Husted, 2017) that reported a positive effect of internal stakeholders on GI in FFs. While internal stakeholders are essential for GI in FFs (Dangelico *et al*., 2019), our results further suggest that external stakeholder pressure promotes GI across generations of FFs.

Challenges of green innovation

While many motivations facilitate GI in FFs, many barriers prevent them from undertaking GI, thus reducing their willingness to implement GI and their tendency to develop intergenerational innovative capabilities. According to the participants, these barriers include the lack of sustainable raw materials, uncertainty over the economic climate, lack of market demand, inadequate government support, limited financial resources, limited availability of space, and lack of knowledge. These barriers should be strategically addressed to reduce the paradoxical tensions inherent in FFs.

Lack of sustainable raw materials

The prominent barrier affecting FFs when seeking GI is the lack of requisite raw materials

for green products, which could explain the focus on process rather than product innovation. According to the study participants, it is difficult for FFs to procure sustainable alternatives that provide the same value in terms of quality and cost as conventional raw materials. For example,

> *"Nets produced with sustainable materials would not obtain the necessary regulatory certifications that guarantee quality and resistance."* [Incumbent 2]
>
> *"Natural fibres are less impactful on the environment, but they do not have the same quality that is required in our sector."* [Successor *4*].

The inability of FFs to utilise sustainable raw materials due to their higher cost, quality issues, and availability is concerning and might pose severe threats to GI in FFs, especially when considering the impacts of fast fashion. This is exacerbated by the prolonged financial crises in Italy and the consequences of COVID-19, which paralysed global economic and social activities, including the SC.

Economic uncertainty

The global economic climate is another significant challenge facing FFs. Although it is unclear whether disruptions, especially COVID-19, contribute to the economic difficulty experienced by FFs, the economic uncertainty, especially in Italy, affects the allocation of capital for small FFs to support GI. The general perception is that FFs face economic uncertainties induced by financial crises and socio-political instability in Italy and Europe. According to the study participants, for example:

> *"In a period of insecurity, like the one we are currently facing, we tend to put this topic aside"* [Incumbent 1]
>
> *After the 2008 financial crisis, everything froze; however, interest has grown over the past 5 years"* [Incumbent 7].

Lack of market demand

Despite the pressure from stakeholders, mainly external, for FFs to adopt GI, our results show a stark lack of demand for green products in the textile industry. Several factors, including price, may be responsible for the lack of demand; however, it is a significant barrier to FFs' efforts towards GI. According to the participants, customers are unwilling to purchase green

products, especially if they are priced higher than conventional textile products. Willingness to pay a premium for sustainable products is an essential factor preventing FFs from promoting and adopting green product innovation in the textile industry. Although willingness to accept green products and disposal income affects willingness to pay (Stucki, 2019), adopting marketing strategies to nudge customers toward green textiles remains the most formidable challenge for small FFs. For example,

> *"I have had in my catalogue, for years, a sustainable rope made with a yarn that does not derive from oil but from corn, but the business is below zero."* [Incumbent 6]
>
> "*The most important challenge is to change the customers' view; this is because some of these products will cost more than what we currently offer."* [Incumbent 7].

While studies have reported a significant relationship between market demand and green product innovation, contributing to firms' overall performance (Huang *et al*., 2016), costs are a dominant factor influencing consumer behaviour. The presence of cheaper alternatives suggests that textile products from sustainable sources may not appeal to customers. This challenge is partly influenced by the rise of fast fashion and its cheap manufacturing operations costs, making sustainable textile products pricy for consumers, especially the younger generations. With the inexpensive production and labour costs, conventional textile products are produced at scale, suggesting that focusing on green textile products may not be economically sustainable for small FFs. When available, sustainable alternatives and raw materials are more expensive and of lower quality than conventional products (Dangelico *et al*., 2019), suggesting that green product innovation may result in lower financial performance for small FFs. Therefore, FFs may not introduce green product innovation without any financial benefits or significant economies of scale.

Limited financial resources

The available financial resources are an essential factor limiting innovation, particularly GI, of small FFs in the Italian textile industry. Although financial resources prevent innovative activities in FFs, the general perception is that considerable investment is required to drive GI

innovation activities. For example:

> *"We are constrained in how much we can invest by our limited financial resources. Large investments to innovate production processes are not something that we can often do."* [Incumbent 2].

The limited financial resources constrain FFs from expanding their infrastructure and assets, which could have enhanced their product and process innovation. While the available space is perceived as too small to accommodate green energy and technology for their operations, it is equally challenging for small FFs to modify their production layout and lines for green products due to the limited space and inadequate financial resources. According to the participants, for example:

> *"I cannot reorganise our production department until I know that there is a demand. What we have is employed to meet demand for products that are already on sale."* [Incumbent 1]

> *"Even using all the space we have, we would not produce all the energy we consume."* [Incumbent 5].

Inadequate government support

Another barrier to GI is the perception that government support is inadequate for any meaningful innovation, affecting how FFs access the available resources and support. The results show that many FFs often fail to apply for government incentives for GI due to their short-term nature, including the lack of clarity about the type or aspect of GI being incentivised. For example,

> *"Are photovoltaic panels the future for us? It is not up to me to say but to those who govern us."* [Incumbent 6]

> *"We need clear direction from the government, rather than short-lived incentives, that identifies what green innovations benefit us and guides us on where and how to invest our resources"* [Successor 10].

While providing financial incentives could mitigate other cost barriers, relevant institutions, including the government, must support FFs in adopting GI initiatives relevant to their operations. The support will reduce the knowledge deficit about the existing GI, including their contributions to FFs' operations and competitiveness. The view that more knowledge is necessary to undertake GI suggests that small FFs should address their inability to seek experts'

knowledge or external help on GI.

Discussion

This study shows that GI knowledge is crucial in resolving many inherent paradoxes in FFs, contributing to successors' willingness and ability for GI (Figure 2). The results show that the lack of effective communication and self-induced competition in the parent-child relationships might erode successors' willingness and ability for GI. This might prevent the flow of ideas such that old wisdom (i.e., entrepreneurial legacy) is not passed from incumbents to successors (Combs *et al*., 2023; De Massis *et al*., 2008). Knowledge-sharing capabilities (Amato *et al*., 2022), which can spur a firm's innovative behaviour, are enhanced by familiness through binding social networks and family relationships before, during, and after intra-family succession (Calabrò *et al*., 2019). The Italian textile firms' long-term orientation and disposition for innovation (Coppola *et al*., 2023; ITMA, 2022) can contribute to successors' ability to introduce and implement relevant GI.

This study shows that textile FFs have capabilities, such as faster decision-making and flexible structure, to promote innovative activities; however, they often lack the willingness and capabilities to engage in GI activities. The results suggest that the lack of GI willingness and capabilities is due to specific barriers, such as insufficient knowledge, lack of sustainable raw materials, economic uncertainty, lack of demand for sustainable materials/products, inadequate external support, and limited financial resources. With leadership styles (Coffie *et al*., 2024) and leaders' behaviour (Puspani *et al*., 2025) contributing to succession, there is a need for incumbents to be receptive to external knowledge and provide the necessary leadership to enhance GI willingness and capabilities in Italian FFs.

For FFs to embrace GI, they must decide on the type of GI by evaluating its contributions to their performance, including its motivations and barriers. Understanding the value-adding capabilities of GI and seeking means of eliminating barriers to GI could allow FFs to resolve

the paradox of tradition versus change and family liquidity versus firm growth. This study shows that FFs have positive intentions and orientation for GI. However, the intention may not necessarily translate to GI initiatives or behaviour without addressing the paradox of change (i.e., innovation) versus tradition by eliminating barriers and activating GI motivations and capabilities.

Although our results show that FFs are more likely to adopt green process innovation than green product innovation, we argue that FFs must consider both forms of innovation to achieve sustainability, address climate emergencies, and enhance their productivity/performance. Insufficient market demand for green products and the difficulties in sourcing sustainable raw materials could explain why FFs focus more on green process innovation, such as certifications, to enhance performance. This suggests the need for textile FFs to engage more with relevant stakeholders, especially customers, through marketing to understand their perceptions/needs and the latest trends regarding green product innovation.

Despite substantial social capital, such as environmental concern, and the opportunity to leverage expert knowledge and support, especially government support and financial resources for GI, the focus of many FFs is more on internal relationships. Although the approach allows the FF to retain SEW, including family identity, ownership, and family legacy/tradition across generations, it inhibits the diffusion and adoption of GI, primarily through new product development. We argue that the extent to which external stakeholders and family-owned firms co-create value contributes to their operational effectiveness.

The capability to collaborate with external stakeholders, especially experts in GI and regulators, is an important area that small FFs should consider for firm performance. Consistent with previous studies (Coppola *et al*., 2023; Duarte Alonso and Kok, 2021), this will allow knowledge sharing, allowing FFs to learn about GIs and how to embed them into their operations. This approach allows small FFs to resolve paradoxical tensions, create value for

their customers, and assess their EO (i.e., internal capabilities and resources) to meet customers' expectations.

While the inability of incumbents of FFs to leverage external collaboration is a legitimate argument for the lack of innovation capabilities, our findings corroborate many studies (Amato *et al*., 2022; Stucki, 2019) that FFs are constrained by material and financial resources. Considering the current global economic climate with FFs seeking cost-saving opportunities, there is a tendency for FFs, especially incumbents, to disregard external collaboration and the stakeholders' requests for GI. Consistent with Diaz-Moriana *et al*. (2020), certain FFs attributes, such as structural and infrastructuraldecision-making processes, including investment decisions, limit small textile FFs' GI capabilities and behaviour. Family-owned firms, especially in the textile industry, should design/adopt innovative business models capturing internal capabilities and external opportunities, including customers' requirements to implement GI.

Our study shows that GI capabilities and commitment/willingness can be reduced by the lack of knowledge (implicit and explicit), including the lack ofinteraction between incumbents and successors, limiting FFs' ability to sustain entrepreneurial legacy across generations. Understanding various types of GI, including their motivations and barriers in FFs, is essential for the continuity of FFs, particularly in this turbulent and dynamic business environment.

Establishing and sustaining links between generations depends on whether an FF is orientated toward long-term perspectives (de Groot *et al*., 2022) and consequently influences the firm's innovative activities. The long-term perspectives are critical, considering that familiness in FFs can erode quickly as the firm evolves through generations, weakening the internal social capital and threatening the performance and survival of FFs.

Theoretical and practical implications

Our study contributes to the existing body of knowledge by addressing the intersection between family business, GI, and succession, establishing how FFs in the textile industry can resolve paradoxical tensions and transfer innovation capabilities across generations. Scholars have generally investigated innovation in FFs (Calabrò *et al*., 2019); our study provides further insights into GI and the decision-making process in FFs. These insights are fundamental to FFs' GI willingness and capabilities, as GI is complex and insufficiently explored in FFs and/or innovation research (Rovelli *et al*., 2022).

We extend the existing knowledge by explicitly exploring GI activities and succession in FFs, providing a holistic understanding of FFs' GI willingness and capabilities (Diaz-Moriana *et al*., 2020; Zellweger *et al*., 2012). Therefore, this study identifies factors influencing GI decision-making and adoption across generations, focusing on SEW and EO of incumbents and successors. Understanding GI activities in FFs is essential for their resilience, particularly in this turbulent and dynamic business environment.

The results show that FFs are internally oriented, indicating the desire to stick to tradition rather than embrace change, which limits the ability of FFs to leverage external knowledge to improve GI capabilities. The FFs lack openness to external support and expertise due to their long-term orientations and the quest to maintain family values and identities (Diaz-Moriana *et al*., 2020; Zellweger *et al*., 2010), which may prevent FFs from resolving the paradox of change (i.e., innovation) versus tradition and willingness versus ability.

For FFs, especially in the textile industry, to address the many paradoxes and dilemmas they face, firms must balance EO with SEW. While incumbents and successors differ on how they access and utilise knowledge, successors must be introduced to FFs' operations early in succession planning to enhance knowledge-sharing across generations and reduce the tension between GI willingness and ability (see Figure 3).

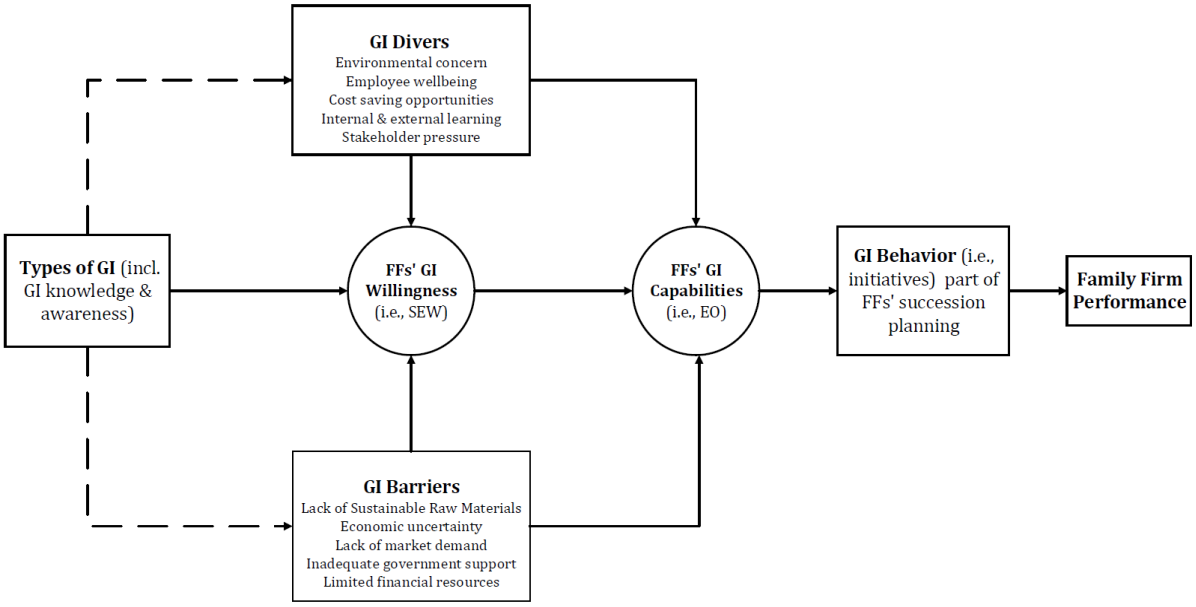

Figure 3. Conceptual framework of green innovation in family firms (Source: Created by authors)

From a theoretical perspective, we propose a conceptual model (Figure 3) to resolve the paradox of GI in FFs, explaining how successors can develop GI intention through FF-specific features and characteristics (i.e., socioemotional wealth) contributing to their self-efficacy (i.e., GI willingness) and EO (i.e., GI capabilities). This is particularly important due to successors' enhanced cognitive capabilities to leverage information and knowledge from disparate sources to strengthen their EO (i.e., GI capabilities) and GI willingness. The ability to develop links between generations before succession determines whether an FF is orientated toward a longer-term approach, which contributes to the firm's GI activities.

FFs' inability to simultaneously leverage internal resources and external knowledge could limit their drive towards GI. However, it is imperative to remove barriers to GI, especially green product innovation, through collaboration with all stakeholders in the textile value chain. The lack of decentralised authority and decision-making process may prevent FFs from resolving many paradoxical tensions and limit their GI adoption. While FFs have capabilities, such as faster decision-making and flexible structure, for innovation activities, they often lack the motivation and disposition to engage in innovation activities, mainly if the innovation provides no cost-saving opportunities. Understanding the benefits or value-adding capabilities of GI is

crucial in resolving paradoxes in FFs, and this understanding is critical to fostering a culture of innovation across generations in family firms.

From a practical point of view, the study's findings will guide FF succession planning, helping incumbents and successors achieve a smoother transition while navigating the paradoxes of GI (see Figure 2). For FFs to embrace GI, there is a need to engage the broader industry networks, including internal and external collaboration to share knowledge, resources, and best practices in GI.

While FFs may lack the resources and capabilities for GI, they must adopt small and incremental changes towards GI rather than focusing on large and disruptive GIs, whether process or product GI. Focusing on incremental changes will allow FFs to manage the financial implications and risks of GI while protecting their SEW across generations.

Our study, therefore, provides actionable insights on enhancing GI across generations by maintaining family values and improving long-term entrepreneurial capabilities. This study allows policymakers to consider GI barriers in FFs, leading to more effective policy- and market-based instruments to incentivise GI behaviour and initiatives. As a result, policymakers need to empower SMEs and make it easier for FFs to adopt GI by engaging FFs to create/improve GI awareness, develop GI capabilities, and provide financial incentives for implementing GI.

Consistent with Figure 3, policymakers' commitment and support will allow FFs to consider GI and improve their performance and competitiveness by extending to a new market or consolidating the existing ones. This can be achieved by assessing different GI types, allowing FFs to prioritise GI that aligns with their operations and long-term orientation, and providing the basis to embed GI in succession planning. This contributes to FFs' performance by changing their GI behaviour, which is considered part of succession, through enhanced GI willingness and entrepreneurial capabilities.

Conclusion and Limitations

Studies have established differences between family and non-family firms regarding how innovation is approached and sustained. Drawing upon family business research and family EO, this study shows that family orientations and capabilities contribute to GI across generations in small FFs. Although our study shows that GI capabilities and orientations differ between incumbents and successors, process innovation rather than product innovation is more pronounced in FFs.

These orientations influence the extent to which incumbents and successors are receptive to GI through engagement with external stakeholders to facilitate process or product innovation. The priority of incumbents to maintain family identity and successors' goals to protect the family's SEW might prevent FFs from achieving simultaneous explorative and exploitative GI opportunities. Incumbents must convey their firms' entrepreneurial legacy, especially GI and proactiveness, to successors and across generations so that GI culture and capabilities are rooted in FFs. This is crucial for the Italian textile and fashion industry as the industry transforms.

Consistent with Dangelico *et al*. (2019), the lack of market demand and difficulties in sourcing raw materials from sustainable sources could be explained by the lack of focus on green product innovation compared to green process innovation in FFs. FFs are more likely to embrace a process-based GI with an extended payback period but long-term value creation, such as PV solar, energy-efficient equipment, and green buildings.

However, successors develop GI capabilities by learning from incumbents and through formal education, including their interaction with the business environment. Our results demonstrate that incumbents are influenced by the willingness to sustain family traditions, restricting their ability to seek external knowledge (see Figure 2). Successors could benefit from the skills and expertise of incumbents, allowing them to sense and seize opportunities for radical and product

innovation in alignment with the firm's strategic goals and enhance FFs' SEW. This provides the mechanism for successors to create value for stakeholders by taking advantage of the interiorisation and reinterpretation of long-held organisational capabilities, which is synonymous with De Massis *et al*.'s (2016) innovation through tradition.

We argue that small FFs are more likely undertake green process innovation than green product innovation due to many factors, including reduced demand for green textiles and lack of financial resources. Despite many barriers preventing GI in small FFs, this study shows that internal capabilities and family (entrepreneurial) orientation contribute to GI and the overall performance of small FFs (Figure 3). There is a need for knowledge-sharing between incumbents and successors to enhance successors' capabilities and EO, minimising the effects of De Massis *et al*.'s (2008) barriers to intra-family succession in FFs. Consistent with Zellweger *et al*. (2012), we argue that the predisposition for GI in FFs is influenced by the "succession trap", limiting the tendency of FFs to remove barriers to GI and create sustainable value across generations. This provides opportunities for future research in GI and succession planning, encouraging family business scholars to explore further FFs' unique role in driving sustainability in businesses, especially SMEs.

While this exploratory study has provided valuable insights and the empirical foundation for future studies, focusing on a single industry using a qualitative method is the study's main limitation. Future studies can assess multiple industries and operationalise the proposed framework (Figure 3) to establish how GI behaviour contributes to firm performance. Future studies can embrace quantitative methods with a larger sample size, allowing for more objective measures of GI in FFs across different industries.

We acknowledged that studies have compared innovation in FFs and non-FFs (Dangelico *et al*., 2019; De Massis *et al*., 2015); future studies can utilise our proposed framework (Figure 3) to explore further how FFs and non-FFs differ in their GI willingness and capabilities.

Similarly, exploring the views and perceptions of incumbents and successors is another limitation, and future studies may consider other stakeholders, including non-family employees and external stakeholders, for a holistic understanding of GI in FFs.

Declaration of conflicting interest

The author(s) declared no potential conflicts of interest.

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