# PICCOLA IMPRESA

# SMALL BUSINESS

## RIVISTA INTERNAZIONALE DI STUDI E RICERCHE

## n. 1 - anno 2022

- In memory of Mario Raffa
- SMEs in the current geopolitical turmoil
- Personal branding in entrepreneurship education
- Covid-19 and small wineries
- The role of networks in accessing European funds
- Circular economy practices in innovative SMEs in Covid-19 times
- The influence of family goals on SME's innovation



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#### IN MEMORY OF PROFESSOR MARIO RAFFA

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#### Abstract

In this note, the Editor-in-chief and the Editorial Team of Piccola Impresa/Small Business would like to remind the memory of Professor Mario Raffa, who recently passed away. Mario Raffa served as co-editor of our journal for several years and made a significant contribution to the consolidation of its editorial project and the development of research on entrepreneurship and SMEs. He was a prestigious scholar, a lively mind, a fundamental point of reference for colleagues and students, and a great innovator, capable of looking ahead, devising ever new projects and involving others in facing ever new challenges. We thank him for his generous contribution to the Journal and for the dedication with which he animated the community of entrepreneurship and small business scholars.

In the first issue of the year 2022, the Editor-in-chief and the Editorial team of the journal Piccola Impresa/Small Business wish to remember Professor Mario Raffa, who passed away on March 10th.

Professor Mario Raffa served as Co-editor-in-chief of our Journal for several years, contributing to the consolidation of its editorial project and, more generally, to the development and dissemination of studies and research on entrepreneurship and innovative SMEs. In 2009 he was nominated as a White Wilford Fellow (first Italian since 1977, the year in which the prestigious ICSB - International Council for Small Business - was established) thanks to his scientific, cultural, and political contributions on the issues of entrepreneurship and the birth and development of new businesses. In 2016 he was appointed as an ECSB Fellow (the first Italian to be awarded this position by the European Council for Small Business and Entrepreneurship) for his contributions to entrepreneurship research and teaching.

We would also like to remember that Mario Raffa was truly inquisitive and innovative in his field of research. He also demonstrated great civic commitment both to carrying out academic activities at the University of Naples Federico II and to serving the city of Naples. As an academic, he was a full professor of management engineering at the University of Naples Federico II, where he held, among others, the positions of Chair of the Board of the Graduate Program in Management Engineering (from 1995 to 2002) and Head of DIEG - Department of Economic and Management Engineering (from 2000 to 2005), and scientific director of ODISSEO, Observatory on technological innovation and organization. From 2003 to 2008 he was in charge of the Start Cup Federico II; in 2007 he was Scientific Director of the PNI - National Award for Innovation. In the Prodi Government, he was part of the "Research and Innovation" Working Group of the Presidency of the Council of Ministers. From May 2008 to June 2011 he was also Councilor for Development of the Municipality of Naples, trying to put his skills as a scholar at the service of citizens. In a note by the past Rector of the University of Naples Federico II, Guido Trombetti, it was emphasized that Prof. Raffa "In over fifty years of teaching and research was a fundamental point of reference for colleagues and students, who were able to appreciate his ability to mobilize people and involve them in increasingly relevant challenges, in the conviction that an innovator has a moral obligation never to be satisfied with the results achieved, but must be an engine of initiatives and social aggregation".

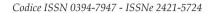
The community of entrepreneurship and small business scholars has lost a lively mind, a prestigious scholar, and a tireless supporter of Piccola Impresa/Small Business. Prof. Mario Raffa started publishing in our Journal in 1992 with the article written in collaboration with Giuseppe Zollo entitled "The relationship between technological innovation and organization in small innovative enterprises" and continued to support the Journal throughout the past few years.

Our fond memory and special thanks go out to him for his generous contribution to our Journal and the whole community of entrepreneurship and small business scholars.



## Rivista Piccola Impresa/Small Business

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#### **EDITORIAL**

# ITALIAN SMES AND NEW SCENARIOS IN THE CURRENT GEOPOLITICAL TURMOIL

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#### Abstract

In this editorial of 1/2022 of Piccola Impresa/Small Business, which from now on will be available in open access by registering on the website, we cannot fail to bring to the attention of our readers the dramatic situation many European and Italian SMEs suffer from, both as a consequence of the health emergency caused by COVID 19 and the enormous turmoil generated by the conflict between Russia and Ukraine. These two shocks have generated negative impacts on the supply markets of raw materials and energy and have caused inevitable inflationary consequences and a slowdown in the economic recovery. Thus the resilience of many production systems is seriously at risk, especially those, like the Italian one, characterized by a very high number of SMEs, due to their resource constraints, lack of financing, and constrained managerial capabilities.

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As already discussed in the 2020 editorial (Pencarelli et al., 2020), the COVID-19 pandemic has triggered the largest public health crisis in living memory, with serious—and still unpredictable—consequences for the global economy. Available data clearly shows that SMEs have particularly suffered from the economic downturn: their inherent weaknesses have amplified and accelerated the effects of the crisis compared to larger firms (Cowling et al., 2020; OECD, 2020). Notably, in Italy, the CONVID-19 outbreak challenged SMEs' survival after a decade of a slow and incomplete recovery (CERVED, 2021). In particular, the pandemic has caused serious economic, financial, and market difficulties for numerous companies operating in the sectors most penalized by the health restrictions (in particular companies operating in the tourism, culture, entertainment, itinerant trade, small-scale retail, and handicraft sectors). However, it has opened up growth opportunities for software houses, Information and Communication Technology consultants, telecommunications companies, digital publishers, e-commerce platforms, and logistics.

The COVID-19 crisis has also generated the opportunity to (re)think the economy and society as a whole (Barbier and Burgess, 2020), accelerating some already ongoing key global trends: innovation, digitalization, sustainability, and flexibility. For SMEs, this means "looking inward" to truly understand what is needed to move forward and activate those changes—in production systems, organizations, and relationships with the markets—that cannot be postponed any longer (Cortez and Johnston, 2020; Modina, 2020; Pencarelli et al. 2021).

For most SMEs, the ability to survive and seize the opportunities that emerged from the health emergency is linked, in addition to public subsidies, to superior strategic awareness, entrepreneurial competence, and speed of action of their leaders. They have been able to innovate the traditional business models, diversify activities, and propose new value proposals to the market, leveraging the new needs of the population and the need to make the most of the digitization of managerial processes, especially those of marketing and sales.

Unfortunately, since last February, following the war in Ukraine and the consequent sanctions that Western countries have imposed on Russia, a further terrible shock for many SMEs occurred. In addition to the discomfort of witnessing the tragedy of the war, which is causing numerous victims and an enormous exodus of the Ukrainian population towards European countries, for many Italian SMEs, the difficulties caused by the conflict are noticeable. Numerous commercial and tourist flows have been abruptly interrupted, forcing companies to rapidly search for new markets, to avoid bankruptcy. Added to this are the uncertainties and risks in supply chain management and the rise in energy costs (Simmons, 2022).

According to Cerved's estimates (2022), the impact of the war on the turnover of Italian companies is likely to be very significant; it could outweigh the economic consequences of the health crisis. For 2022, a growth rate of revenues in real terms is estimated to slow down to 3.2% — almost three percentage points less than the pre-war estimates (5.9%) — which stands at 2.2% for 2023, with a recovery of pre-Covid levels only postponed to the end of the year and of a much smaller entity than forecasted before the conflict. An even more worrying scenario would emerge if the hostilities continue for a long time and the effects of the increases on inflation become structural. In this case, the revenue growth of Italian companies could fall by more than 50%, although limited to sectors for which a more decisive recovery was expected this year (for example, tourism, airports, trade fairs, and conferences).

Under both the most optimistic or the most catastrophic scenarios, concrete measures to support companies in difficulty appear necessary. With this in mind, new non-repayable grants for Italian SMEs to cope with the economic effects of the crisis in Ukraine are contained in the DL Aid 2022, published in the Official Gazette on May 17, 2022. In particular, the support measure is intended for small and medium-sized enterprises that are in the following conditions: they have suffered a drop in turnover; they are required to bear higher costs and have commercial links with the territories affected by the Ukrainian crisis.

More generally, it should be noted that the Economic and Financial Committee of the EU Ecofin has given its approval to the disbursement to Italy of the first amount of the Next generation fund of 21 billion. The goal, recalled by the Governor of the Bank of Italy in his latest report (May 2022), is now to invest these resources in the best possible way (and quickly) to make the country system more efficient and sustainable, despite the geopolitical scenario being so dramatically complicated.

As scholars, we must look to the future to understand what social, economic, and political scenarios SMEs will have to face in the next months and to explore the critical strategic choices and policy measures that together will allow SMEs to revitalize and regain a leading role on the economic arena.

Finally, we hope that the international community will soon find the way to peace, which is the fundamental ingredient that ensures the prosperity and quality of life on the planet so that the huge war expenses can be translated into resources for the establishment and development of small innovative companies capable of enhancing the many entrepreneurial talents animated by the desire to do business to create economic and social value and thus increase the well-being of humanity, a vision that Prof. Mario Raffa recently passed away, certainly would have shared.

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## THE ROLE OF PERSONAL BRANDING IN ENTREPRENEURSHIP EDUCATION

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#### Abstract

Purpose. The increasing need for entrepreneurial skills and the power of entrepreneurship education to nurture personal development is widely recognized. In parallel, personal branding is progressively sparking interest in practitioners and researchers and gaining ground in entrepreneurship studies and practice. For all that, the possibilities emerging from the application of personal branding in entrepreneurship education have not deserved adequate attention. This paper attempts to explore the possibilities that may arise from the incorporation of personal branding into entrepreneurship education, via comparative analysis of the existent literature.

Design/methodology/approach. The methodological approach is integrative (critical) review, embodying elements of narrative approach.

Findings. Comparative analysis and synthesis revealed that both entrepreneurship education and personal branding influence personal development in an entrepreneurial way, thereby fostering the ability to think systemically and see connections between different functional areas, and constituting context to nurture the personal development of students and young professionals. Practical and social implications. As both personal branding and entrepreneurship education offer a context to nurture personal development, they are equally useful for young professionals to enter the labour or business market. Entrepreneurship education improves creative skills and competences needed for success in entrepreneurship but combined with personal branding also in everyday life.

*Originality of the study.* This contribution is an attempt to expand the scope of the personal branding discipline, introducing entrepreneurship as a career alternative to traditional employment. Incorporating the elements of personal branding may enrich the teaching approach, particularly via increasing non-formal education, resounding to modern trends, such as "everyday-everyone" entrepreneurship.

#### 1. Introduction

Tremendous, even increasing importance of entrepreneurship in all economies and societies is commonly accepted. Recently, most attention has focused on high-growth entrepreneurship (gazelles, unicorns and decacorns), causing the realm of entrepreneurship drift away from smaller firms and their employment generation potential (Kuratko & Audretsch, 2021). Also, specific forms, such as social and environmental entrepreneurship, are of growing interest due to their potential to contribute to solving problems in contemporary societies. Great part of small firms in developed and in developing economies are family businesses who should care of preparation of successors to take over and continue running the family businesses (Cesaroni & Sentuti, 2014). Small businesses generate over 50% of employment and GDP (Kuratko & Audretsch, 2021), thus 'discovering' the link in the 1980s actuated massive promotion of entrepreneurship (Baker & Welter, 2020). Even the 'panacea' for un- and underemployment is now disputed and more nuanced, supporting entrepreneurship is still important. Responding to these overall trends, universities started to create entrepreneurship programs and (at-least-nominal) transition from small business to "entrepreneurship" (ibid.).

As the outcomes of education appear in the future, foreseeing the future of entrepreneurship is important. According to van Gelderen et al. (2021), trends include "everyday-everyone" entrepreneurship (seeing and exploiting opportunities become general life principles), as well corporate organizations will become more entrepreneurial. These trends cause increasing the importance of entrepreneurship, as well as interest in appropriate pertinent knowledge, education and training – whereat the essence of entrepreneurship may not change.

Entrepreneurship education should respond to the challenges, yet its effectiveness is still questionable (c.f. Nabi et al., 2017) and thus, finding novel approaches, methods, etc. is even more important. The goal of this paper is to explore possibilities that may emerge from the incorporation of personal branding into entrepreneurship education. This will be done using comparative analysis of the existent literature on entrepreneurship education and personal branding and following synthesis of suggestions and recommendations.

The research question – how to aggregate personal branding into entrepreneurship education – is broad and qualitative. Therefore, the methodical approach is integrative (critical) review, aimed on content analysis of claims, embodying elements (detecting themes, providing historical overview, etc.) of narrative approach (Snyder, 2019). The next sections scrutinize developments in entrepreneurship education and the concept of personal branding. The succeeding (4th) section discusses the potential of entre-

preneurship education in personal development of students, paving the road to exploration of potential of personal branding in entrepreneurship education in the 5<sup>th</sup> section. The last (6<sup>th</sup>) section summarizes the findings, points out limitations and suggests possibilities for further advancement.

#### 2. Developments in entrepreneurship education

Developments in and increasing importance of entrepreneurship caused proliferation of entrepreneurship education (hereinafter EE), and this led to the emergence of a corresponding research stream that has significantly developed as well. For example, Aparicio et al. (2019) noted expansion in EE research and distinguished between two periods: *pre-expansion* (1987–2007) and *expansion* (2008–2017). Importantly (and perhaps expectedly) the expansion period brought along a more qualitative, thematic evolution; during 2008–2017 appeared entrepreneurship learning and intention, also higher education, and provocation (ibid.).

Nabi et al. (2017) scrutinized the 'classical' issue – the impact of EE – and pointed to several imperfections in existent EE research, such as the predominant focus on short-term and subjective outcome measures, and importantly, noted that EE may have both positive and negative outcomes, caused by lack of cross-cultural, gender-specific and pedagogical-comparison research. Even though another 'old' definitive question – 'can entrepreneurship be taught?' – has lost its relevance (Fayolle & Lassas-Clerc, 2006), questions about suitable approaches, methods, etc. are still topical. These issues were raised in the context of university education but nowadays attract interest in more wider contexts (Eesley & Lee, 2021).

A novel topic that emerged in EE during the expansion period, is *provocation*, which (alongside affect and imagination) belongs to transversal competencies. This reflects a trend in EE – shifting from transmission of knowledge to acquisition of competencies (Aparicio et al., 2019). This is the main difference between entrepreneurship and management education and is the basis for the *entrepreneurial entrepreneurship education* (the E³) model (Hjorth, 2011). Also, this relates to the difference between 'to teach' (to impart knowledge or skill) and 'to educate' (to develop capacities, to stimulate mental or moral growth, etc.), as stated by Fayolle & Lassas-Clerc (2006).

The competence-based approach (E³) relates to several recent conceptual developments. Rippa et al. (2020) accentuate educating T-shaped professionals with both disciplinary and trans-disciplinary competences. Tamberg et al. (2021) suggested to include general project management competences into EE. These developments are (more or less) related to the shift from the narrow 'start-up' to the broader 'enterprising' perspective (Hägg & Gabrielsson, 2019). This concerns the content (what) but also

other factors – the target (for whom), the instructors (who), and teaching methods (how). The factors vary across four periods: teacher- (1980s), process- (1990s), context- (2000s), and learner-centred (2010s) (ibid.).

A significant novelty in EE is the incorporation of design thinking. Nielsen and Stovang (2015) delineated EE on the idea of design thinking, subsuming shifting from conventional to design thinking education. Lahn and Erikson (2016) see EE development in three waves: (1) rational planning-based, (2) experience-based, and (3) design-based. Furthermore, Peschl et al. (2020) outlined a novel pedagogical approach to EE – entrepreneurial thinking, proposing a set of essential, teachable skills (ET-7). These developments are related to a trend, characterized as "bring in the arts and get the creativity for free" (Styhre & Eriksson, 2008) that is necessary in contemporary EE.

A dominant idea is the changing role of teachers (instructors) in EE, now often seen as *facilitators* (Hägg & Gabrielsson, 2019; Neck & Corbett, 2018). This changes requirements for the teaching staff – their personalities, including personal brands. Personal branding is emerging in entrepreneurship studies and practice, yet surprisingly, has not deserved adequate attention in EE. This article scrutinizes the existent literature and explores possibilities for integration of personal branding into EE.

### 3. Concept and role of personal branding

Personal branding (hereinafter PB) is an old but nowadays rapidly advancing phenomenon and an important concept in management literature, manifested by progressive growth of academic concern in numbers of publications (Scheidt et al., 2020; Gorbatov et al., 2018).

In essence, PB is a highly individual practice (Dumont & Ots, 2020) that can be seen as a process where people are marketed as brands in a similar way like products, services, and companies (Blaer et al., 2020). In PB people use marketing principles for promoting themselves while they create and manage their personal brands. Referring to a conscious process where people use PB tools and methodology to be seen and known for a wider audience. (Pagis & Ailon, 2017)

It is commonly acknowledged that everyone has a personal brand of some kind inherently (Jacobson, 2020; Peters, 1997; Rangarajan et al, 2017), but some are aware of their brand and others' brands evolve randomly over time. Some people have control over their personal brand development and others do not, because they may not understand the existence of their brand and how to acknowledge, embrace or manage it (Jacobson, 2020).

A personal brand, made of individual "biography, experience, skills, behaviours, appearance and the person's name" (Gander, 2014: 99) can be

positive, negative or neutral (ibid.). In other words, a personal brand is a complex of personal qualities, past experience and development, and communication with others (Rangarajan et al, 2017).

More than 20 years ago Peters (1997) said "we are CEOs of our own companies: Me Inc. To be in business today, our most important job is to be head marketer for the brand called You" (Peters, 1997). This suggests that everyone is individually branded (Jacobson, 2020). People have to manage their personal brands by themselves or else they give away the power and ability to have control over their brand and let someone else manage it for them (Gander, 2014).

PB refers to the process where people are developing and marketing themselves to others (Jacobson, 2020, Kucharska & Mikołajczak, 2018). Personal brands are rather often developed unconsciously and randomly, some people do not understand that they are marketing themselves with every picture, story, or other activity on their social media accounts. But the challenge of PB is to have a strategy for managing one's personal brand (Rangarajan et al., 2017). The reason for unconscious self-marketing lies in the peculiarities of the present era. This is an age of "instant publicity" (Murthy, 2012) which means that all the content that people are posting on social media is like an advertisement of themselves.

Nowadays it is important to acknowledge that communication in social media affords people the opportunity to create and present a more positive image of themselves than is possible with direct (face-to-face) communication (Jacobson, 2020). The most significant aspect of developing and managing a personal brand is being one's authentic self. Projecting a sustainable and cogent self would be complicated if it were not real (Kushal & Nargundkar, 2021). Nevertheless, we can see numerous fake and overprocessed images online when people try to create and manage their digital persona the way they like to be seen, although it might not actually reflect their real authentic selves. Social media and visual processing give everyone easily and quite quickly achievable opportunities for that (Liu & Suh, 2017).

An important part of PB is value proposition. It is often expressed through a person's strengths and uniqueness (Labrecque et al., 2011). Like a service or product brand, a personal brand requires a vision of the desired image that is built on a particular person's unique values (Kucharska & Mikołajczak, 2018) with the main purpose of differentiation and identification (Kushal & Nargundkar, 2021). Jacobson (2020) stated that PB is providing a comprehensive vision of person's identity for audience to easily understand, often through social media. Identity is expressed through a person's individual and unique values, having a strong influence on personal brand recognition (Kucharska & Mikołajczak, 2018). Gorbatov et al. (2021) also conceptualised and developed measurement of personal brand

equity covering three dimensions – appeal, differentiation, and recognition –but in this paper we leave this aspect aside.

The wide-ranging growth of social media has a major influence on the PB concept and its expansion to every human being. Social media is a cost-effective and relatively easy way for everyone to market their personal brands (Shepherd, 2005) through developing and spreading a particular image of themselves (Duffy & Hund, 2015) and creating a public persona (Labrecque et al., 2011). Social media has become a new platform for identity creation, performance and management (Jacobson, 2020).

Jacobson (2020) noticed that "the concept of self is created in interactions with others and identity is related to the creation of who a person thinks he/she is and the subsequent presentation of the self to others." Students who has developed their personal brands have better understanding about themselves (Allison et al., 2020). The concept of PB has developed over time through a growing need to generate an impact by being yourself (Kushal & Nargundkar, 2021). Although PB seems an easy and affordable way to be seen or recognised, it is also an uncertain process, because even with hard work with PB strategies, success is not guaranteed (Ledbetter & Meisner, 2021) and depends on external influences.

However, it has to be noticed that brands are not developed in isolation (Michel, 2017) and the process is influenced by the external environment, culture, childhood interactions and later relationships, education, etc. Dumont and Ots (2020) discussed the influence of social dynamics and stakeholder relationships on PB. They found that stakeholders' relationships are central factor of PB process, when stakeholders hold and provide important resources to individuals for developing their personal brands. Building connections with audience is one of the key factors for the success of a personal brand, because creating personal connections with audience (i.e., different stakeholders) provides loyalty to the brand (Ledbetter & Meisner, 2021).

According to recent reviews (Scheidt et al., 2020; Gorbatov et al., 2018), PB is a marketing-born discipline, also integrating sociology, communication, psychology, and organizational behavior, and even accounting. So, PB is truly interdisciplinary, but still lacks universally valid frameworks or theories.

Interdisciplinary nature of PB can be seen as a strength but also a weakness, what is characteristic for interdisciplinarity in general (c.f. Margherita & Secundo, 2009). To conclude here is important to note that PB can be a conscious process, but a personal brand can develop over time unconsciously even when people fail to understand or acknowledge the concept of PB. Nowadays social media has great influence on personal brand of every human being. People self-market themselves through social media and/or through other channels with every action, creating the brand of themselves. The problem is that the created brand may not be authentic and will show false identity of them.

#### 4. Entrepreneurship education and students' personal development

EE is growing worldwide, and it is mainly offered at the university level, but more and more it is integrated in primary and secondary school programmes (Fayolle, 2013). EE is an important part of regional economic (Diegoli et al., 2018) and societal development, and therefore, universities have a central role in economic systems (Hahn et al., 2017). In students' point of view, EE also creates an alternative career path in entrepreneurship (Diegoli et al., 2018). Through the process and outcomes of EE the social and economic needs of all stakeholders involved should be solved (Fayolle, 2013).

The academic perspective of EE stands in the analyses of two main topics: the teaching process and context. In addition, there has been interest in and discussions of indicators of success to assess the impact of EE in business creation, entrepreneurial learning, entrepreneurial intention, entrepreneurial skills, and personal traits. (Aparicio et al., 2019) But it is also important to distinguish between the main orientations like EE and entrepreneurial intentions.

EE is education for entrepreneurial attitudes and skills, whereas entrepreneurial intentions refer to desires of owning or starting a business (Bae et al., 2014), also a person's readiness to perform a given behaviour and it is the result of three conceptual determinants: the attitude toward the behaviour, subjective norms, and perceived behavioural control (Fayolle et al., 2006). Entrepreneurial intention is the catalyst for entrepreneurship studies during which students learn entrepreneurial attitudes and skills. EE influences students' attitudes and behaviour in general, but also their viewpoints towards entrepreneurial behaviour and entrepreneurial intention (Moro et al., 2004). Fayolle (2013) noticed that commitment could be the missing link between intention and behaviour.

Well-designed EE motivates and inspires students, after studies they may have greater ideas, plans and desires than before. EE cultivates students' attitudes, intentions, and the desire to start a new business all at the same time (Liñán, 2004). Traditionally, EE has focused on encouraging students to create new ventures, but lately, there has been a shift in focus on a broader perspective where entrepreneurship is a way of thinking and behaving (Hahn et al., 2017). Also, entrepreneurship is increasingly perceived as network-creation, rather than organization-creation (Sydow et al., 2015).

The aforementioned trends are reflected in developments in EE. So, one focus of EE is on entrepreneurship and soft competences, like relational, conceptual, organizing and commitment competences (Fayolle, 2013). Moreover, parallel trends are observed in learning in general, where collective and connected network-forming process is gaining importance (Corbett & Spinello, 2020). Thus, if the ultimate result of EE is starting a

business (an organization), the traditional logic (attitude, then intention, etc.) is reasonable. If the ultimate result of EE is creating an entrepreneurial network, attitudes and behaviors can and should be developed rather simultaneously, as suggested by Liñán (2004). Furthermore, as stated by Lopez-Carril et al. (2020), developing a strong personal brand is important in building networks. This aspect will be scrutinized in following sections of this paper.

It should be noted that although EE is expected to positively affect students, its effectiveness is questioned (Rideout & Gray, 2013).

Teachers are an important link between education and the student. Consequently, the quality of EE depends on teachers significantly and is influenced by more factors than teachers' entrepreneurial experiences. For example, teachers educate with different ways of teaching, and they prefer one discipline to another while navigating through different entrepreneurship disciplines, which explores entrepreneurship from different perspectives (Penaluna et al., 2015).

The orientations and behaviours of students are influenced by the social context, including personal and environmental factors (Lüthje & Franke, 2003). For example, students whose parents have been or are entrepreneurs tend to be more positively influenced by EE (Hahn et al., 2017). These students have grown up in entrepreneurial environment and their parents are like role models to them.

Hahn et al. (2020) found that both university and family together are the two main influencers in developing entrepreneurial skills among young individuals. There are external influences for students and their learning process, but it has been suggested that learning specific entrepreneurial skills and competences is strongly related to participation in studies. Active students gain more EE outputs, and they have to be interested in entrepreneurship to get benefits from EE (Mueller & Anderson, 2014). In addition, students' emotions play an important role in EE and the learning process they experience (Jones & Underwood, 2017).

EE increases ability to deal with difficult and complex decisions in entrepreneurship and prepares students to be able to manage risks and make better decisions (Jones & Underwood, 2017). EE develops students into independent thinkers, also encourages attitudinal changes (Jones & Underwood, 2017; Pittaway & Cope, 2007). In addition, EE improves students' creative skills and competences, such as research, design, development and evaluation, which are needed for success in entrepreneurship (Ekere, 2019).

Yet, after entrepreneurship studies students may have difficulties with navigating in competitive situations where they must find ways to be seen in the crowd. Students need to be attractive in the market and use the knowledge they learned during their entrepreneurship studies.

The nature of entry level jobs is changing (Buchmann, 2002) and the job market is becoming more competitive globally (Dutton, 2017). Employers have ever higher expectations for entry-level employees (Schlee & Harich, 2010). In this intense and constantly changing environment it is critical to offer EE that prepares students for these situations. Educating students on marketing startegies such as PB will be one of the key elements for students to be successful in labor market (Allison et al., 2020).

Educators can provide value and solution to be visible through teaching PB, including pertinet strategies. It is found that PB has the potential to provide direction and advantages to students navigating in competitive situations when applying for jobs or managing an enterprise. (Allison et al., 2020)

Identifying skills necessary for PB (Manai & Holmlund, 2015) and understanding the process of PB may provide important support to students (Gorbatov et al., 2018). EE can assist students in their personal branding throught coursework, assignments (Allison et al., 2020) and network-creation (Sydow et al., 2015).

Hence, there is increasing need for proper and thoughtful PB by students. Teachers as role models should show how to use different social networking tools in coursework as well as in personal branding and foster community building in the classroom. Students already have numerous assignments and other activities what can help them develop their personal brand online and improve their PB skills. (Allison et al., 2020) For example, students create their personal brand in professional social networking site (like LinkedIn) and with blogging (Johnson, 2017; Zhao, 2020).

Being visible as one's authentic self in online networks is complicated. Online networking tools allow to create image quite easily, but also it is easy to influence one's personal brand identity (Labrecque et al., 2011) in different ways. Not all the information, content and comments on online networks are under the control of person (Allison et al., 2020; Gander, 2014; Jacobson, 2020).

Although, it is important to avoid the competition to gain positive attention in crowded environment (Labrecque et al., 2011; Shepherd, 2005), because it may affect person's differentiating uniqueness (Allison et al., 2020; Gorbatov et al., 2018). But even it's complicated to be authentic, it is important to make effort for being true and authentic to convince employers, clients and other stakeholders (Allison et al., 2020; Gorbatov et al., 2018; Kushal & Nargundkar, 2021; Morhart et al., 2015).

This discussion led us to the same conclusion as Peters (1997) but at different points of view. Peters (1997) discussed the topic through the PB paradigm and said that we are CEOs of our own businesses: *Me Inc.* After EE the students have to enter the market and operate there in competitive situations when applying for jobs or managing an enterprise. EE should

provide students with knowledges and tools for effective personal brand management (Allison et al., 2020).

Students understand the importance of personal branding oftenly too late – while graduating of immediately thereafter (Allison et al., 2020). It means that they have less time to makes preparations and create network and authentic personal brand. The result may be disadvantage while applying for job offer (Allison et al., 2020) or starting the business.

Hence, entrepreneurship students should have the toolkit with all the needed competencies to self-market themselves successfully as a business, but quite often the reality is the opposite. We suggest that PB is the key element to relieve this problem. Further in this paper we analyse the role and placement of PB in EE to find ways for supporting students to be visible and successful in crowded communication and today's fast-paced world.

## 5. Using the potential of personal branding in entrepreneurship education

Presented before overview revealed several significant properties of personal branding (PB) and entrepreneurship education (EE). This section will juxtapose the main findings and enlighten possibilities for linking the two approaches. The main attributes of compared fields of studies are summarized in Table 1.

Table 1: Comparison of personal branding (PB) and entrepreneurship education (EE)

Attributes (in this context)	Personal branding (PB)	Entrepreneurship education (EE)
Main purpose: to prepare for:	entering the labour market and further professional career	entering the entrepreneurship and further success
Main competences to acquire and develop	communication channels: find, choose, and use right channels	attitudes, behaviour, thinking and acting in an entrepreneurial way
Main target group(s)	young individuals / students as prospective employees	students / young individuals mainly as prospective entrepreneurs
Main intention	personal development of young individuals (students)	personal development of students (young individuals)

Notably, both PB and EE are important in personal development of students or/and young individuals. Altering emphasis may be just different wordings but may be also substantial – not all young people are students and not all students are young.

Another reason for differentiating between young individuals and students might be that (as student is a formal status) EE is provided chiefly via formal and PB via non-formal and/or informal education. Yet, such assumption may be disputable. According to a recent study (Debarliev et al.,

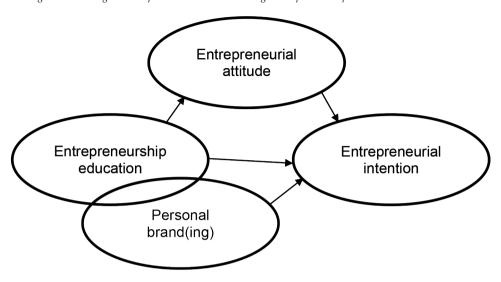
2020), non-formal EE has proven its important role, particularly in developing human capital assets. Here is important to note that non-formal and informal education differ substantially. Non-formal education is institutionalized, structured, and planned, serving as an addition (or alternative) to formal education. Informal education is almost an antipode of formal, so non-formal can be seen as hybrid form of education (c.f. Eshach, 2007). In this light, Debarliev et al. (2020) recommended complementing formal EE with non-formal and enriching study programs with non-cognitive, constructive methods.

Both PB and EE prepare for market entering but the markets are different – PB is targeting on labour market and EE on the market of product or/and services. As generally expected, entering the labour market will lead to successful professional career and entering the market with a new business will lead to entrepreneurial success. The two paths have been seen as exclusive alternatives (Diegoli et al., 2018) but nowadays are increasingly used in a serial or parallel, or mixed way. Despite of expectations, both professional career and entrepreneurship might be not successful, sometimes people 'burn out' or just get annoyed. It means that people may have a need to change their career paths; and every path has a natural end – at some time people will exit the labour market or entrepreneurship.

The following corollary is that PB and EE have nearly overlapped intentions and purposes, and thus, can support and enrich mutually. Yet, a significant difference is in competences. An ultimate task for EE is fostering entrepreneurial intention – desire of students owning or starting business. EE tends to influence attitudes, behaviour, and way of thinking of students as prospective or (as put by Liñán, 2004) existing entrepreneurs, who start their businesses during the studies.

Entrepreneurial thinking and acting are obviously necessary for entrepreneurs – people who own and manage businesses. However, shifting from the 'start-up' paradigm to wider 'enterprising' outlook is changing the state – nowadays entrepreneurial qualities and skills are increasingly demanded for normally employed professionals (for one, project managers – Tamberg et al., 2021). This means that the target groups of EE and PB will be more overlapping.

Figure 1. Forming the entrepreneurial intention through entrepreneurship education



Source: Yousaf et al., 2021; enhanced adding "Personal brand(ing)"

Prevalent opinion (see Figure 1) suggests that EE can encourage entrepreneurial attitude towards starting a new business, and this will ultimately strengthen entrepreneurial intention (Yousaf et al, 2020). Entrepreneurial intention shows student's enterprising character and will constitute a strong base to realize the role of PB in the future. The orientations and behaviours of students are influenced by the social context, including personal and environmental factors (Lüthje & Franke, 2003). Those personal factors are understood as a personal brand. Rangarajan et al (2017) concluded that personal brand is a complex of personal qualities, past experience and development, and communication with others. EE and building a PB have common methods, mainly in marketing (Manai & Holmlund, 2015) and both together will make a definition of student's personal identity what is base for entrepreneurial intention.

PB is made of experience, behaviour, appearance, competences, etc., what together form an authentic self of person. Building a PB needs applying various methods and acquiring new skills. Current global and highly competitive job markets expect more than a degree and good qualification (Manai & Holmlund, 2015). So, PB is relevant for everyone, as finding one's competitive advantage is necessary. Students have to focus on their core skills and improve these in order to achieve a consistent personal brand (Kushal & Nargundkar, 2021) and stand out from crowd in order to be seen. Every personal brand needs strategic marketing just like businesses. Self-marketing ability may provide students with useful competitive skills

and tools what are useful for applying for employment, throughout career changes and developing business (Manai & Holmlund, 2015). Business marketing and self-marketing have common parts and EE will give students an advantage for marketing themselves by knowing basics of marketing in general. In entrepreneurship, competition is normal but networking is gaining importance (Sydow et al., 2015). Success in business implies adapting modern opportunities arising from application of PB (Kucharska & Mikołajczak, 2018). Entrepreneurial intention of students shows their enterprising character (Hahn et al., 2020) and constitutes better base to apply the process of PB while looking themselves as a business.

PB relates to the entrepreneurial mindset (Dumont & Ots, 2020), chiefly through the marketing perspective, as the concept of PB has emerged in parallel with self-marketing (Manai & Holmlund, 2015). Developing and managing a successful PB assumes entrepreneurial competences, including marketing. It means that PB and EE should be tightly connected.

Social media has become a new location for identity creation and management (Jacobson, 2020), and a platform for self-marketing. Online presence is quite common to younger generations, but there are increasing concerns regarding threats of social media. Digital footprints of millennials are growing due to excessive self-expression and creating online identities, causing problems in privacy, balance of actual and fake identity components, errors in communication, misunderstandings etc. Thus, it is increasingly important to maintain consistency in verbal, written and virtual communication (Kushal & Nargundkar, 2021). The students have different dedications, and this causes different choices of communication channels and the ways of using these channels in interacting (Manai & Holmlund, 2015).

Students can develop their personal brands effectively improving specific skills that support their natural talents and abilities (Kushal & Nargundkar, 2021). Students with entrepreneurial intention, who are developing their entrepreneurial competences, will probably obtain better capabilities for management and self-empowerment (Ekere, 2019), as well as relational, conceptual, organizing and commitment competencies (Fayolle, 2013). EE students are more enterprising people by their nature and as brands, they will be characterized as independent thinkers (Jones & Underwood, 2017).

As it unfolded, both EE and PB target on personal development of students or young individuals. Thus, as depicted in Figure 1, EE and PB have an overlap and could support each other. As the research question is aggregating PB into EE, the possible support offered by PB to EE is considered; the opposite influence is omitted.

Carried out juxtaposing of PB and EE revealed two main possible ways how PB could support EE. First (and foremost), including PB into academic EE programs helps to develop relational capabilities in EE students, what (in turn) supports forming their entrepreneurial attitude. Second, several personal factors that constitute elements of PB and influence EE, could be delivered conjointly.

#### 6. Conclusion

To sum up is possible to claim that both EE and PB are influencing personal development of students and forming their personalities in an entrepreneurial way. EE and PB together develop abilities to think systemically, see the 'big picture' and connections between different functional areas. Both PB and EE will offer the context to nurture personal development and are useful for young professionals to enter the labour or business market. EE improves students' creative skills and competences, needed for success in entrepreneurship (Ekere, 2019) but combined with PB, also more in everyday life and professional perspectives as a clear and authentic brand.

Some recent reviews (Scheidt et al., 2020; Gorbatov et al., 2018) claim that PB is still in its infancy, but on the other hand, could be a nidus for new academic impulses. This contribution is an attempt to expand the scope of PB discipline, bringing in entrepreneurship as a career alternative in contrast to the traditional employment approach.

On the other hand, this contribution may enrich the EE discipline, as bringing in PB may support achieving the traditional goals of EE. Moreover, introducing the elements of PB may enrich the methods and overall teaching approach via increasing non-formal education. This will respond to some modern trends like "everyday-everyone" entrepreneurship (van Gelderen et al., 2021) what is (similarly to PB) more a general life principle than business.

Want it or not, everyone has a personal brand (Jacobson, 2020), thus it is important to understand its importance and benefits as early as possible. At some time, all students will enter a competitive (labour or business) market where they must find their ways "to be seen in the crowd". Consciously improving one's personal brand will give a competitive advantage, and self-marketing ability may provide useful competitive skills and tools (Manai & Holmlund, 2015). Students have to focus on their core skills and improve these in order to have stronger personal brand (Kushal & Nargundkar, 2021).

Herewith, EE students should focus on building a strong personal brand to themselves in parallel with EE studies, because all students are unconsciously developing their personal brands even when they don't realise that. Yet, there is a remaining concern: as not all students have (elective or obligatory) EE, some students will miss useful skills provided by PB. A possible solution is including the basics of PB into more general subject(s),

like general social studies. In turn, this may grow interest in EE and create some basis for this.

This study has several limitations. Foremost, as EE is a capacious discipline and PB still lagging but rapidly developing, some relevant aspects might be omitted. This might happen because of difficulties determining their relevance, as well as space limits of one paper. Yet hopefully this early attempt of linking EE and PB will be followed by multitude of conceptual, and certainly also empirical contributions. The principal limitation of this work is lack of empirical material. This is because apposite cases are absent or are not published. Hence, this contribution could be taken as a call to experiment – incorporate PB into EE – and to study and publish emerging experience. This study revealed two main ways how PB could support EE, but there may be more. Another prospective research question could be the (hopefully existent and positive) incluence of EE on PB.

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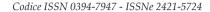
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# COVID-19 AND SMALL WINERIES: NEW CHALLENGES IN DISTRIBUTION CHANNEL MANAGEMENT

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#### Abstract

*Purpose.* The present article aims to shed light on the major challenges in distribution channel management that small wineries are called to face after the COVID-19 pandemic.

Design/methodology/approach. The study is explorative by adopting a qualitative methodology to analyse the case of a small Italian winery and how it managed distribution activities during COVID-19 pandemic. The study collected data through interviews and secondary data. Results have been abductively developed.

Findings. The study delves into the challenges related to managing distribution channels during crises and highlights how the omnichannel approach can support small wineries and help them overcome future crises. Practical and Social implications. The study supports small wineries in understanding how to cope major worldwide crises such as the COVID-19 through the adoption of the omnichannel approach.

Originality of the study. The study provides a novel perspective on wine marketing and omnichannel approach management and how the omnichannel approach might be of support to small winery in overcoming crises such as COVID-19. This work contributes to the extant literature on small winery and distribution channel management literature by providing a novel perspective as it empirically investigates the ongoing phenomenon of the COVID-19 crisis.

### 1. Introduction

The COVID-19 pandemic brought an unprecedented and sudden disruption to businesses as policymakers limited the flows of people and goods worldwide. The uncertainties caused by the pandemic led to risks for the future of many firms, especially for those of smaller dimensions, such as SMEs. Notably, the wine industry as a whole, and especially small wineries, face new emerging complexities and challenges (Dana et al., 2013; Sanchez-Recante, 2020; Obniavko, 2021). The main threats brought by the pandemic are also linked to changes in wine consumption (Pencarelli et al., 2020; Solanelles et al., 2021). In Italy, small wineries were heavily impacted by the closure of the Ho.Re.Ca. (Hotel, Restaurants and Catering) channel, the cessation of international travel, and the impossibility of direct sales in wine shops for over three months. The Ho.Re.Ca, channel registered a 41% decrease in wine sales volume in 2020 (Federvini, 2020; Fondazione Merloni, 2020; Del Rey & Piccoli, 2020). As Del Rey and Piccoli (2020) highlight, over 90% of wineries use Ho.Re.Ca. as their primary distribution channel, while 11% of them use it as their only distribution channel. Typically, small wineries suffer from a lack of resources to develop their business in a short time (Pencarelli et al., 2020). Therefore, a quick shift to alternative distribution channels was difficult, and venturing into retail channels might not have been a viable option for small firms. Nevertheless, these occurrences require firms to identify new distribution channels to reach B2B and B2C customers.

The present study aims to provide a new perspective within the wine marketing literature. To the best of our knowledge, there are no previous studies that explore wine distribution challenges during pandemics which brought several disruptions to distribution channels; also, this study aims to delve into how small wineries are innovating their approach to distribution channel management. It endeavours to understand how small wineries dealt with the breakdown of their traditional distribution channel(s) due to COVID-19 and explores the kind of countermeasures these small wineries have developed in order to continue selling and reach B2B actors and consumers.

The study adopts a single case study methodology of a small Italian winery with the objective of shedding light on and providing a new understanding of the pandemic's effects on managing wine distribution channels. The data collection consisted of in-depth interviews with key informants such as the winery entrepreneur/owner, the employees, and partners; secondary sources included industry reports. The data was analysed abductively as the study unfolded to obtain new insights and lastly, it was triangulated to ensure reliability and correctness (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 2014).

The remainder of the paper is organised as follows: the next section provides the literature background on wine distribution and its new challenges; the third section describes the methodology and the data collection process; the fourth and fifth sections provide an overview of the case company findings and discussion; lastly, the sixth section offers concluding remarks as well as limitations of the study and further avenues of research.

# 2. Literature background

### 2.1 Wine distribution

The wine distribution context is characterised by a plurality of actors present (Pomarici et al., 2012). Although small wineries are increasingly moving toward developing self-owned distribution channels, the role of external partners remains paramount in managing the distribution of wine (Kung, 2007; Escobar & Gil, 2016; Pomarici et al., 2021).

A first-level classification of the actors is *market makers* and *matchmakers* (Baritaux et al., 2006; Hall & Mitchell, 2008). The difference lies in the way goods ownership flows in the intermediation process and how each actor is compensated. The actors belonging to the market makers category are wholesalers, distributors, importers, or exporters who participate in the ownership flow and whose rewards come from the bid-ask spread. Instead, the actors who constitute the matchmaker's category are agents and brokers whose reward comes from a commission resulting from buyer and seller matching; moreover, matchmakers do not participate in the ownership flow. Matchmakers and market makers are essential for small wineries, especially in developing international trade (Mora & Akhter, 2012; Fraboni, 2019). The complexity of the wine distribution arena ensues from the significant difference between market makers and matchmakers, as well as from the presence of numerous large companies and many minor or niche actors (Gaeta & Pomarici, 2001; Hall & Mitchell, 2008).

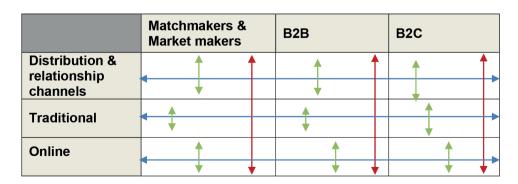
A further level of key actors' classification entails B2B actors and the peculiarities of which the present study also considers within the context of the wine distribution (See Figure 1). B2B actors are identified by *on-trade* and *off-trade* consumption. Among on-trade channels, Ho.Re.Ca. (Hotel, Restaurants and Catering) represents the most critical distribution channel for small wineries (Del Rey & Piccoli, 2020) because, through it, these small businesses see the possibility of improving their brand image and perception thanks to the direct relationship between wine and food (Hall & Mitchell, 2008; Velikova et al., 2019; Sabatini et al., 2021.). By contrast, off-trade consumption passes through supermarkets and grocery stores, retail stores, and specialised stores (bottle stores, vintners, and wine cellars).

Retailers are known for their aggressive buying strategies (PTV, 2012) and the enormous sales volumes required. Therefore, the larger retailers tend to exclude small wineries as suppliers because of their size limitations (Pomarici et al., 2012).

To strengthen their relationships with B2B actors, wineries provide training on the products and the winery's heritage, as well as support to the distributors' sales staff (Thach & Olsen, 2006). Indeed, these efforts motivate the distribution channel to sell more effectively (Rosenbloom, 1978).

Moreover, selling directly to consumers has become increasingly more common among small wineries as an alternative to traditional distribution channels (Gurau & Duquesnois, 2008; Rossi et al., 2012; Fiore, 2016; Gregori et al., 2013; Pencarelli et al., 2020;). In this respect, small wineries rely on tourism and local wine lovers who are looking for new experiences (Pomarici et al., 2012; Mancino & Lo Presti, 2012; Del Rey & Piccoli, 2020). Small wineries also develop direct and indirect online distribution channels (through owned or third-party e-commerce platforms) to reach buyers and consumers and to increase brand awareness (Louvieris et al., 2003; Bonn et al., 2016; Saghiri et al., 2017; Fernàndez et al., 2019; Del Rey & Piccoli, 2020, Kumar & Ayedee, 2021). Despite online sales increasingly becoming a viable solution, this strategy requires commitment and a proactive attitude (Laroche et al., 2013; Mozas et al., 2016). Small wineries continue to have concerns about managing the last mile when delivering their products to customers (Obniavko, 2021). Nevertheless, as Sellitto's (2004) findings show, online channels are a viable solution for small wineries that struggle to reach large distributors.

It is worth noting that, in the agri-food sector, there is a positive correlation between internationalisation and ICT (Moral et al., 2015; Fernàndez et al., 2019). Social media and online channels are a means for improving customer loyalty (Szolnoki et al., 2014) and a successful strategy for attracting younger customers (Fuentes Fernàndez et al., 2017; Effendi et al., 2020).



*Figure 1 – Small winery distribution channels and contexts (Source: our extrapolation)* 

### 2.2 Overview of new challenges in wine distribution

The literature on wine distribution management highlights how small wineries are now at a turning point (Pencarelli et al., 2020). Within this context, the present study considers some of the more significant challenges facing small wineries, specifically concerning distribution channels. This stream of literature developed as the effects of the pandemic disruption on small wineries became apparent and addressed the strategies adopted by those that did manage to survive.

Many changes have occurred in the behaviour of customers whose want to interact with a company at any stage in the purchasing process, especially in digital channels (Saghiri et al., 2017). Wineries have had to deal with consumer buying attitudes that are now more oriented towards sustainability and healthier agri-food products (Giacomarra et al., 2016; Sabatini et al., 2021) as well. Also, the COVID-19 pandemic caused customers' purchasing habits to change (Solanelles et al., 2021). Nowadays, wineries are challenged to be more oriented toward innovation to meet consumers' and stakeholders' needs and to adopt new distribution approaches (Presenza et al., 2017; Canavati et al., 2020).

# 2.2.1 Dealing with COVID-19

The wine distribution scenario worsened with the economic crisis that resulted from the COVID-19 outbreak. Suddenly, the Ho.Re.Ca. channel shut down. This meant that small wineries' main distribution channel, which absorbs significant percentages of their total sales flows (Del Rey & Piccoli, 2020), was blocked. Unfortunately, online sales and home deliveries only partially compensated for the "wiping out" of Ho.Re.Ca. (Del Rey & Piccoli, 2020). Many small wineries were not ready to pivot toward new digital distribution channels and had to try to catch up during the pandemic (Coyne, 2020; Sabatini, 2021).

Moreover, wineries felt the tremendous negative impact of COVID-19 on tourism. After the lockdowns, only a pre-existing base of domestic tourists continued to buy from wineries while international visitors had not yet returned (Wine Tourism, 2020). Even worse, many small wineries found themselves unprepared to manage distribution during a crisis. According to Barcaccia et al. (2020), the general uncertainty resulting from the national lockdown brought people to rethink their daily needs and prioritise healthier products. Therefore, wineries needed to intercept consumers at every touchpoint along the distribution channel to overcome the crisis by integrating multiple channels (Saghiri et al., 2017).

# 2.2.2 Achieving a multichannel distribution strategy

Adopting a multichannel strategy relies on integrating and coordinating new distribution channels with pre-existing ones (Sharma & Mehrota, 2007; Herhausen et al., 2015; Verhoef et al., 2015). According to Gurau and Duquesnois (2008), one of the challenges for winemakers is to understand both the advantages and the risks of implementing a multichannel strategy (See Figure 1). A multichannel distribution system implies using multiple offline and online channels to reach the market (Ailawadi & Farris, 2017). Multichannel adoption also offers advantages like enhancing customer loyalty (Herhausen et al., 2015), achieving higher revenues (Kushwaha & Shankar, 2013), and balancing channel dependence (Rosenbloom, 2007).

Adopting a multichannel strategy entails facing multiple challenges (Calderòn et al., 2019) that can have a significant impact on pre-existing channels and business relationships (Neslin et al., 2006); examples include data integration across channels, understanding customer behaviour, channel evaluation, allocation of resources, and strategy coordination (Neslin et al., 2006). Moreover, managing the relationship between channels is of paramount importance, as conflicts and cannibalisation may arise when channels compete for the same group of customers (See Figure 1, *red arrows*) (Herhausen et al., 2015; Verhoef et al., 2015).

# 2.2.3 Omnichannel: is this the future of wine distribution?

In line with Verhoef et al. (2015), the omnichannel approach leads to the synergistic management of available channels and customer touchpoints to optimise customers' experience across channels. Adopting the omnichannel approach implies that online and offline channels provide customers with a seamless shopping experience where technology blurs the distinction between physical and online channels (Chen et al., 2018; Melacini et al., 2018; Banerjee, 2019; Mishra, 2020). However, implementing omnichannel distribution is a challenging task that requires high resources and commitment (Picot-Coupey et al., 2016), supportive organisational culture (Jocevski et al., 2019), functional area restructuring (Cook, 2014), and finally, investments in technology, human resources, cross-channel integration and logistics (Lapoule & Colla, 2016; Cao & Li, 2018; Kembro et al., 2018). It becomes evident, then, that implementing omnichannel management would be extremely difficult for small wineries, compared to large ones, due to their scarcity of personal and financial resources (Pencarelli et al., 2020). In the academic literature, interest in omnichannel management appears to have broadened somewhat; however, the challenge remains to fully understand the process for a successful transition from multichannel to omnichannel distribution (Casali et al., 2018; Banerjee, 2019).

# 3. Methodology

The present study calls for a qualitative approach to exploring the ongoing impact of COVID-19, a phenomenon that has not yet reached its conclusion. Thus, the scenario in which firms have been operating was and is still changing, even while the study was being conducted (Voss et al., 2002). A single case study methodology (Eisenhardt, 1989; Yin, 2014) was adopted to shed light on how small wineries have been navigating the new challenges in distribution channel management during the COVID-19 pandemic.

The study considers the perspective of small wineries and looks at how these firms managed their distribution channels during the crisis. The objective of the study is to offer new insights on small winery distribution channel management. Although the potential of the omnichannel approach has been already conceptualised, there is no evidence on how this new approach might support small wineries in overcoming crises. The research questions our study aims to answer are the following:

RQ1: How have small wineries' distribution channels been challenged during COVID-19?

RQ2: How can the omnichannel approach support small wineries' distribution channel management during times of crisis?

The Alpha (a fictitious name) case was selected for its revelatory potential (Siggelkow, 2007) as it allowed the researchers to observe the ongoing phenomenon and gather information directly from key actors involved. Data collection was also facilitated by the researchers' proximity to and the pre-existing relationship with the winery (Yin, 2014). Moreover, Alpha is in the Marche Region, one of the most renowned Italian regions for wines such as Verdicchio, Lacrima di Morro d'Alba, Rosso Conero, and Rosso Piceno (4% of total Italian production). In this territory, there are over 500 wineries, although only 22 have a turnover of more than one million euros. The high number of small wineries makes them important for the regional economy (Fondazione Merloni, 2020; Del Rey & Piccoli, 2020).

At Alpha, ten interviews and longer meetings with the owner, his partner and their broker for global markets have been conducted so far. Participating in longer meetings was required to obtain marketing and sales reports about the pandemic's effects on business relationships and distribution channels worldwide. In addition, the researchers maintained frequent contacts with the winery owner by phone when specific information was needed. Thus far, more than two years' worth of observations and 22 hours of interviews have been collected, analysed, and coded (Table 1).

Table 1 - Data collection process overview

No.	DATA	KEY INFORMANT	LENGTH	SUPPORT
1	22 Jan 2019	Winery owner	1 hr.	Audio + Verbatim
2	03 Apr 2020	Winery owner and partner	3 hrs.	Notes
3	28 Jul 2020	Winery owner and partner	3 hrs.	Notes
4	04 Nov 2020	Winery owner and partner	3 hrs.	Notes
5	17 Feb 2021	Winery owner and partner	3.5 hrs	Notes
6	24 Mar. 2021	Winery owner	1 hr	Audio + Verbatim
7	19 Apr. 2021	Winery owner and partner	1 hr	Notes
8	25 May 2021	Winery owner and partner	4 hrs	Notes
9	14 Jul. 2021	Winery global market broker	1 hr	Audio + Verbatim
10	21 Jul. 2021	Winery owner and partner	2 hrs	Notes

Semi-structured interviews were helpful to grasp details and to ask the informants specific questions (Kvale, 1997). Furthermore, to ensure the validity and reliability (Yin, 2014) of the data gathered from the key informants, the researchers also collected a considerable amount of secondary data through multiple sources online, which consisted mainly of reports and insights on wine global sales dynamics and post-pandemic forecasts. Triangulation between the different data sources ensured the validation of the data collection and the completeness of key informants' perspectives (Yin, 2014).

The findings of the study were developed abductively through manual coding and constant comparison between the case findings and the theoretical background of the research (Corbin & Strauss, 2014; Dubois & Gadde, 2002). The analysis was developed by three researchers and then discussed and merged to develop literature and managerial contribution from the use of the case.

# 4. Case company Alpha

Alpha is a small Italian winery established at the beginning of the 2000s after the owner inherited the land from his grandfather. Since its inception, Alpha has been very focused on building relationships with business partners, both local and global. It sells approximately fifty thousand bottles yearly, for a turnover of around 400,000 euros.

Alpha has developed a strong aptitude for managing several agents and distributors to support its sales globally. Indeed, foreign sales accounted for nearly 50% of the winery's total sales. In addition, Alpha has also developed its direct sales channels; customers can buy directly in the winery

shop or via online contacts through the website and social media. Most of the customers that use direct sales channels are foreign tourists coming mainly from Europe.

Before the COVID-19 outbreak, the winery was keen to boost its growth through several investments such as new wine shops and new types of wine to meet the high standards of consumers' tastes. With the sudden outbreak of COVID-19, policymakers imposed national lockdowns that led to the closure of the Ho.Re.Ca. industry and significant limitations on direct sales in the winery shops. In fact, during the pandemic lockdown, the winery's sales dropped dramatically, and the winery is still struggling to achieve its previous sales figures. The only distribution channels that continued to do business during lockdown were retail and online, but these channels experienced a decrease in consumption and turnover (Del Rey & Piccoli, 2020). Since then, the winery has experienced partial recovery from COVID-19 restrictions and perceived good signals coming from business customers and consumers. Alpha's initial concerns have been alleviated by the firm's agents and distributors worldwide.

Thanks to the pre-existing business relationships developed in the previous years with agents and distributors worldwide, Alpha's sales maintained a steady course and, in some cases, increased. In fact, Alpha established new online channels to maintain relationships with its global partners, and the attention devoted to these partners is indicative of Alpha's owner's attitude and outlook; he has always participated in international trades and business trips abroad. The owner's willingness to maintain these relationships with agents and distributors has allowed the firm to rely on multiple actors to support product distribution, which was only partially threatened by the COVID-19 crisis. The Alpha online channel was developed following the winery's American online distributor's request to strengthen its digital presence. The Alpha Winery owner stated:

"The pandemic has revealed that international markets are more ready with online sales. The Italian market has proven to be more conservative and tied to physical presence. In this moment of difficulty, foreign countries have continued to do business while everything went into shut down."

The owner suggested that small wineries could adopt two approaches to reaching final consumers through online sales: creating an owned channel or developing a business relationship with an online retailer. The Winery Owner created an owned online channel to communicate and broaden information about the winery; he chose the second option to develop Alpha's online sales. Indeed, developing an online sales channel implies a great effort for small wineries to manage the complexity derived from logistics, customers' needs, and channel integration requirements.

Alpha's ability to manage different distribution channels allowed the firm to achieve significant sales levels during the pandemic (See Figure 2). Alpha has shown that it is not dependent on just one or only a few distribution channels, but on the contrary, it has built a strong global presence with several actors. Alpha has been able to exploit the peculiarities of its distribution channels and use one or another channel according to the unexpected changes taking place. As the owner suggests, the relationships with global partners, especially distributors, have not changed during the pandemic. It is only the proportion of digital channels used to interact with these actors that have registered an increase.

However, not every international distributor was ready with their digital channels. The winery has had to face the additional challenge of dealing with actors' preparedness to face the distribution crisis. The winery owner described several situations in which distribution actors were still leading online sales and others in which the distributor chose to stop the activities due to Ho.Re.Ca. closures. As a result, in some cases, Alpha is still struggling to find a proper structure for efficient operation. On this point, in particular, the key informants brought up several issues associated with combining digital tools and physical distribution.

The winery owner posits that all small wineries should create a more capillarity distribution and seek better proximity to the end consumers in order to cope with such complex events. Establishing multiple relationships and distribution channels simultaneously was crucial for the winery's survival during those difficult times (See Figure 2).

	Market Maker & Matchmaker	B2B	B2C	
Traditional	<ul><li>Fairs</li><li>Meetings</li><li>Tastings</li><li>Samples</li></ul>	• Agents/Distributors/ Brokers • Tastings • Meetings • Training in field	• Wine shop • Wine tourism	el approach
Digital & Online	<ul> <li>Conference call</li> <li>Digital presentation</li> <li>Email</li> <li>Videos</li> <li>Website &amp; social media</li> </ul>	Email     Website & social media     Digital tastings     Online training	Owned online shop Social media Website Third-party online shop Marketplace	Omnichannel

Figure 2 - Overview of the case findings (Source: our compilation)

### 5. Discussion

The present study makes several contributions to the extant literature (See Table 2 for the summary) through its Alpha case study findings. Despite the scenario resulting from the outbreak of COVID-19, Alpha has continued to develop its global sales. However, while developing its global presence, the winery's local sales dropped precipitously following the first lockdown imposed by policymakers in March of 2020. Small wineries suddenly found themselves facing the closure of the Ho.Re.Ca. channel and the substantial reduction of wine shop direct sales. The latter was also impacted by the significant decrease in international tourists, resulting in missed revenues for wineries. A significant percentage of Alpha's direct sales depended on consumers who bought from the winery shop; most were foreign tourists (Mancino & Lo Presti, 2012). However, thanks to the previous years' efforts in developing business relationships with several partners worldwide, Alpha was not dependent on just a few distribution channels; but it was prepared and able to face the crisis that followed the outbreak (Del Rey & Piccoli, 2020), albeit not without some struggles. For wineries in general, the only physical channel that could generate positive results during the pandemic were the large retail ones, which remained open during the lockdown because of their role in providing necessity goods. Unfortunately, Alpha had not developed relationships with retailers due to their purchasing logic (PTV, 2012; Pomarici et al., 2012). The owner explained:

"The large retailers channel is not used because it has economic-financial logics that are considerably distant from the company."

Thus, small wineries like Alpha had to continue to do business during the COVID-19 pandemic without their most important distribution channel, Ho.Re.Ca. They attempted to replace it by relying on home deliveries and online channels. These only partially compensated for the wiping out of the Ho.Re.Ca. channel (Del Rey & Piccoli, 2020) but allowed them to survive during the pandemic. As demonstrated in the case, the multiple relationships with global distributors supported firms pivoting towards alternative distribution channels and helped to ensure business continuity. It bears noting that developing and implementing online channels, especially building an owned online sales platform, is not a simple task for small wineries. As underscored by Mozas et al. (2016), a company website demands a solid commitment and resources to achieve the desired results. An online channel requires high investments in time, human, and financial resources geared toward innovation (Laroche et al., 2013) and significant coordination efforts with several external partners. However, small winer-

ies that faced the first lockdown without an online channel in place were unprepared and they struggled to fill the distribution gap. As emphasised by the Alpha Winery owner:

"There is a need for a strong evolution towards online sales, which allows a direct channel with consumers in any future moment of crisis. Even abroad, it is recorded that those who already worked with e-commerce were ready for new challenges and continued to grow. These companies already had lean management models that allowed them to manage everything in the best possible way, even during times of greatest emergency. Just think that these actors are already asking for new vintages and are continuing to place orders without stopping."

As underscored by numerous scholars, online channels are viable options used to maintain and develop business relationships with distributors and customers and to increase awareness and loyalty among those (Louvieris et al., 2003; Bonn et al., 2016; Fernàndez et al., 2019; Saghiri et al., 2017; Szolnoki et al., 2014). In fact, the present study suggests that online channels were vital during COVID-19 to support small wineries' business continuity and allow them to grasp new opportunities. As the Alpha Winery owner noted:

"Online and social channels are additional tools, they allow you to interact and communicate what you are doing with the younger generations, you can educate the consumers of tomorrow, it is especially valid for SMEs."

Aside from the COVID-19 crisis, online distribution and sales channels are seen as tools that are helpful in coping with new challenges (Fernàndez et al., 2019). COVID-19 has provided new impetus to small wineries – often reluctant and laggard – to move towards implementing structural changes to match the ongoing evolution of the wine distribution system (Sanchez-Recante et al., 2020). Therefore, in this perspective, it is probably the last call for small wineries to become digitalised and keep up with the rapidly evolving business context.

However, the good performance registered by Alpha during the pandemic did not depend only on online sales but also on the use of the online channel to maintain business relationships with international agents, distributors, and customers (Effendi et al., 2020). Online channels integrate and complement but do not substitute traditional offline channels. To manage complex situations, such as the COVID-19 pandemic, integration is key.

Alpha's implementation of online channels was the fruit of the owner's determination and vision and the special request of international distributors, particularly the American one (Pencarelli et al., 2020). In this respect, the study brought to light a further challenge toward implementing an on-

line channel for small wineries: propensity for innovation. Small wineries that are able to understand and even predict market trends are related to the propensity to adopt innovations in terms of distribution channels. On the contrary, unsuccessful wine firms present a sort of inability or unwillingness to adopt proper strategic marketing processes at the right time, failing to balance tradition and innovation (Rossi et al., 2012; Fiore, 2016; Casali et al., 2018). Moreover, in adopting innovative practices for distribution, the study pinpoints that small wineries and their partners might support each other in finding and developing new technologies. Thus, the Alpha case study shows that COVID-19 pushed all small wineries to embrace new distribution and communication means to overcome the crisis.

By developing new channels for distribution, Alpha winery's sales rose sharply. However, these results are also the outcome of the previous efforts made to build a well-established network of partners, particularly agents and distributors, with a robust, pre-crisis offline and online presence. Alpha continued to do business successfully, thanks to the diversity of its partners. As confirmed by a global market wine broker:

"I think it is necessary to diversify the commercial partners in order not to rely on a few national partners, but to work more and more on interacting with many actors around the world. [One must] Be leaner and make sure that if a channel doesn't work the business isn't totally dried up. Greater flexibility must also develop towards implementing alternative distribution strategies, such as online and temporary shops, to regain capillarity and the ability to reach the final consumer."

To sum up, Alpha's strong collaboration with multiple partners allowed the firm to grow its business even abroad, during COVID-19, by taking advantage of the different policies adopted by various countries. Alpha has been able to exploit its relationship with agents, which, according to the literature, represent strategic partners helping small wineries to overcome the typical issues affecting SMEs in terms of lack of human, financial, and informational resources (Mora & Akhter, 2012). Alpha's partnership with agents has allowed the firm to access foreign markets, thus following the basic recipe for success in the long run (Escobar & Gil, 2016; Kung, 2007). In the words of a global market wine broker:

"For the business, agents have a fundamental value because they have allowed the company to enter markets that are difficult to manage."

Managing the integration and combination of different distribution channels was the fundamental point that made the difference for Alpha. Every channel is integrated and coordinated to avoid cannibalisation, cross-channel conflicts, and useless overlapping (Sharma & Mehrota, 2007; Neslin et al., 2006).

Nevertheless, although the firm increased online activity through owned and third-party platforms (mainly websites and social media), the shift to an omnichannel approach does not appear to have been fully achieved by Alpha (Effendi et al., 2020). Our study underscores the complexities of implementing an omnichannel approach (Chen et al., 2018; Melacini et al., 2018; Mishra, 2020), pointing to lack of control over the considerable number of actors and partners that are participating in the whole distribution activity, in both traditional and online channels. Moreover, the uncertain times and the lack of human and technical resources (Pencarelli et al., 2020) seem to make it more feasible for small wineries to adopt a multichannel approach to managing their distribution strategy, which will then pave the way to an omnichannel approach and increase their proximity to final customers.

Table 2 - Market makers and matchmakers literature contribution summary (Source: our elaboration)

Topic	Actors involved	Related literature background	Literature Contribution
Business relation- ship with market makers and matchmakers	Market makers & Matchmakers	Rosenbloom, 1978; Baritaux et al., 2006; Thach & Olsen, 2006; Mora & Akhter, 2012; Pomarici et al., 2012; Escobar & Gil, 2016; Moral et al., 2015; Fernàndez et al., 2019; Coyne, 2020; Kumar & Ayedee, 2021	Robust business relationships allow to overcome the crisis and have paramount importance for small resilience. Online channels provided new impetus to manage and develop business relationships during the pandemic.
Small winery Innovation pushed by match- makers and mar- ket makers	Market makers & Matchmakers	Presenza et al., 2017; Casali et al., 2018; Canavati et al., 2020; Pomarici, 2021	Matchmakers and market makers guide small wineries to innovate and embrace new distributive practices.
Innovation pro- pensity of match- makers and mar- ket makers	Market makers & Matchmakers	Baritaux et al., 2006; Thach & Olsen, 2006; Presenza et al., 2017; Casali et al., 2018;	Innovative distribution partners supported small wineries to overcome the COVID-19 crisis. Partners supported small wineries in adopting a multichannel and omnichannel approach.
The adoption of a multichannel approach in crisis time	Market makers & Matchmakers	Rosenbloom, 2007; Sharma & Mehrota, 2007; Laupole & Colla, 2016; Neslin et al., 2006; Calderòn et al., 2019.	The multichannel approach reduces the risk of single distribution channel dependency. Different channels need to be integrated and coordinated to exploit their potential.

The adoption of an omnichannel approach in crisis time.	Market makers & Matchmakers	Cook, 2014; Verhoef et al., 2015; Picot-Coupey et al., 2016; Saghiri et al., 2017; Cao & Lin, 2018; Chen et al., 2018; Jocevski et al., 2019; Mishra, 2020; Solanelles et al., 2021; Ailawady & Farris, 2017;	The omnichannel approach supports small wineries being resilient during crisis times. The omnichannel approach reduces efforts and distance to engage with new buyers and consumers and open new pathways.
Innovation propensity of the winery to develop the omnichannel approach	Market makers & Matchmakers	Rossi et al., 2012; Presenza et al., 2017; Casali et al., 2018; Kumar & Ayedee, 2020; Canavati et al., 2020;	Wine firms should push their partners to adopt an omnichannel approach, paramount in crisis time.
Small wine firms and GDO: opportunities in crisis time?	B2B wine distri- bution channels	Pomarici et al., 2012; PTV, 2012.	Small wineries production does not meet GDO purchasing logic even in adverse scenarios.
The irreplaceability of the Ho.Re. Ca. channel for small wineries	B2B wine distri- bution channels	Hall & Mitchell, 2008; Velikova et al., 2019; Canavati et al., 2020; Del Rey & Piccoli 2020.	The Ho.Re.Ca. channel is still the primary outlet for small wineries. Online channels and home deliveries could only partially replace this channel during crisis time.

# 5.1 Managerial implications

The case study also presents relevant practical implications (See Table 3). The COVID-19 crisis challenged small wineries to recognise and manage new distribution channels and implement strategies to reach their final consumers.

The study highlights the since ever central role of business relationships with all the distribution channels' actors. Small wineries are now, more than ever, called to design distribution strategies to support the business's continuity even in a worst-case scenario, such as the COVID-19 outbreak. Such exogenous shocks could become recurring ones, and from now onwards, firms must be ready with different backup plans in terms of distribution channel management (McKinsey, 2020). Thus, establishing robust relationships is the means to navigate through those hard times. The present study also emphasises that the strategies mentioned should be developed with the consumers in mind. Differences between urban and rural areas as well as between online and offline channels are noteworthy, as they are also related to market makers and matchmakers' selection and engagement. When engaging with new partners for distribution, the small winery should integrate the new potential partners with those from pre-existing relationships and channels.

Firms are also called to engage with new partners to manage their online presence, which entails both communication and distribution channel development. The online presence, and the partners engaged, should work side-by-side with pre-existing partners operating in the traditional distribution channels. To realise the omnichannel approach, the firm needs to integrate traditional and digital distribution channels by fostering multi-actor teamwork, which would involve all the different stakeholders, for example. The present study's authors maintain that managing the integration between traditional and digital distribution channels is paramount, allowing wineries to do business in adverse conditions and even providing further competitive advantages in the long haul to develop a consistent global presence.

COVID-19 highlighted the importance of online channels. Small wineries, which usually lag behind innovation, are called to embrace online channels in terms of distribution. For these reasons, the innovative propensity of small wineries and all the actors of the different distribution channels should be combined and with reciprocal influence to support the adoption of new means to reach final consumers. However, the nature of the product also calls to develop a tangible distribution channel strategy. Indeed, when making distribution management decisions, small wineries should consider an omnichannel approach, given the flexibility it offers. The nature of the product also calls for a tangible distribution channel strategy.

Also, according to consumers, adopting an omnichannel approach means that the same customer segment might be reached through different channels. Potentially, conflicts and cannibalisation could take place; therefore, firms are thus urged to strategise to minimise those conflicts and manage cross-channel integration to create value for all the stakeholders involved.

Proximity as last-mile delivery should be increasingly considered when developing omnichannel strategies. As mentioned above, the tangible nature of the product requires small wineries to manage new distribution channels to reach final consumers. Different set-ups should be developed according to the area involved (e.g. urban versus rural) to be effective and convenient.

In terms of physical distribution channels, the study provides enough evidence in line with previous studies to confirm that large retail chains (GDO) still are a non-viable distribution channel for a small winery. Small wineries should develop strategies that do not consider this important yet demanding actor for the reasons mentioned in the research, such as their negotiating power and the volume needed. At the same time, however, the Ho.Re.Ca. channel should not be the only distribution channel small wineries rely on for their distribution. The study suggests that the small winery should develop new channels and business relationships to create alternative viable distribution means to reach final consumers worldwide.

In the development of new distribution channels, the role of digital technologies is increasing and becoming popular both for the engagement with B2B and consumers.

Table 3 – Managerial implications of small winery distribution channels during crises (Source: our elaboration)

Topic	Actors involved	Recommendation
The business relationship with market makers and matchmakers	Market makers & Matchmakers	The study highlights the since ever central role of business relationships with all the distribution channels' actors.
Small winery Innovation pushed by matchmakers and market makers; Innovation propensity of match- makers and market makers; Innovation propensity of the win- ery to develop the omnichannel approach during crises	Market makers & Matchmakers	The innovative propensity of small wineries and all the actors of the different distribution channels should be reciprocally influenced to embrace new means to reach final consumers.
The adoption of a multichannel approach in a crisis scenario	Market makers & Matchmakers	When engaging with new partners for distribution, the small winery should merge and integrate the new potential partners with preexisting relationships and channels.
The adoption of an omnichannel approach in crisis time.	Market makers & Matchmakers	Small wineries are now more than ever called to design distribution strategies to support the business's continuity even in the worst cases, such as the COVID-19 outbreak.
Small wine firms and GDO: opportunities in crisis time?	B2B wine distribution channels	Small wineries have to focus on developing alternative channels instead of GDO until they reach a minimum level of negotiating power to deal with larger distribution channels alone.
The irreplaceability of the Ho.Re. Ca. channel for small wineries	B2B wine distri- bution channels	The Ho.Re.Ca. small wineries should not consider channel as the only viable distribution channel. The risks of being dependent only on one channel are the most critical for small wineries.

### 6. Conclusion

The Covid-19 pandemic caused a breakthrough of traditional distribution channels. Since the end of 2020, the economy has been in recovery, although it has not reached pre-Covid levels yet. One of the most impacted sectors of the economy was wineries due to the lockdown and the closure of the Ho.Re. Ca. distribution channel following policymakers' regulations. Covid-19 provoked an unprecedented and unforeseen disruption in small wineries.

The present paper contributes to wine marketing and distribution channel management literature by addressing the two research questions outlined above. The findings support the value-added contributions of this study, as summarised below.

To answer the first research question, *How have small wineries' distribution channels been challenged during COVID-19?*, having different distribution channels has required the development of several business relationships. Accordingly, market makers and matchmakers have become increasingly strategic to build a strong presence within distribution channels. In terms of distribution channel management, while large retailers are still out of sight for small wineries, the study confirms that Ho.Re.Ca. is still the most valuable distribution channel. However, the study also shed light on the fragility and potential risks of relying on this channel alone. COVID-19 and the ensuing lockdowns created painful consequences for all the small wineries that had entrusted their distribution only to the Ho.Re.Ca. channel. Diversification of distribution channels has become increasingly vital in order for SMEs like small wineries to avoid the pitfalls of depending on too few players, which could have dramatic consequences during crises.

In answer to the second research question, *How can the omnichannel ap*proach support small wineries' distribution channel management during times of crisis?, our study shed light on the benefits of developing an omnichannel approach. Small wineries are urged to identify a new range of partners, and not only among market makers and matchmakers, to support their omnichannel expansion. The authors argue that the omnichannel approach has become increasingly crucial, helping to develop partnerships with market makers and matchmakers to reach B2B and B2C buyers. In fact, during the pandemic when the whole world was in lockdown, maintaining business relationships with pre-existing and creating new ones with new partners was possible thanks to the adoption of online tools, such as those highlighted in the Alpha case analysed in the study: video conferences, online tastings, websites, emails, e-commerce platforms, and social media. Our study underscores that the adoption – full or partial – of an omnichannel approach helps the firm increase its resilience to crises. In particular, it develops the firm's capacity to manage its distribution channels and support the integration between the traditional and digital distribution channels. Resilience is built and achieved when the firm overcomes difficulties and continues to engage with customers during crises, such as COVID-19 lockdowns. However, such an integration of different distribution channels could have several drawbacks, such as the potential for cross-channel conflicts and cross-channel customer cannibalisation. Specifically, in the case of small Italian wineries, findings of the study undertaken show that adopting an omnichannel approach is still linked to the owner's innovation propensity. As demonstrated in the Alpha case, small wineries

are aware of the potential opportunities of pursuing an omnichannel approach, but they have not yet managed to achieve implementation. Even though these firms have been encouraged by their partners to innovate, they are still lagging behind in digitalising their distribution channels and adopting an omnichannel approach.

The authors of this study hold that online marketing activities are now mandatory for small wineries. Online activities support small wineries in creating and developing relationships with local and global business partners and reaching the final consumers worldwide. To reach the final consumers through online channels, the study suggests that small wineries should adopt two approaches: creating and developing a proprietary channel or creating a business relationship with one or more online retailers that will be in charge of promoting, selling, and delivering the product to the final consumers. These two approaches might also be launched concurrently if their integration is managed and the small winery is aware that potential conflicts are just around the corner. The study also points out that rural areas are still difficult to reach via online distribution channels; thus, small wineries located in those contexts should develop alternative means to overcome these barriers.

# 6.2 Limitations and further studies

We acknowledge that the study is not without limitations. Firstly, the study is explorative in nature, as it adopts a qualitative single case and context methodology (Yin, 2014). Furthermore, the study is circumscribed to a specific region of Italy and a specific industrial context.

Future research avenues might be developed to understand how the pandemic-related challenges of wine distribution are unfolding in different countries. Moreover, further studies should be conducted when the pandemic is over to understand how firms have changed their distribution strategies and managed those changes. In addition, multiple case methodology should be considered to compare different cases from different countries or compare small versus large wineries to highlight potential differences and similarities. In addition, further research could deepen understanding of the role played by sustainability in the wine sector, particularly during crises. Finally, a quantitative analysis of the pandemic phenomenon might provide a comprehensive view of how small wineries manage and survive such difficult times.

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### Empirical evidence and secondary data

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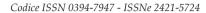
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# THE ROLE OF NETWORKS IN ACCESSING EUROPEAN FUNDS AIMED AT THE INTERNATIONAL DEVELOPMENT OF INVS: AN ANALYSIS OF CASES

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### Abstract

Purpose. This study contributes to the literature on network theory by interpreting and investigating the two-phase internationalisation process (exploration and exploitation), from the point of view of the INVs' entrepreneurs. The ability to attract funds and internationalise are among the main challenges for SMEs, and this is even more evident for the International New Ventures (INVs). In the literature, one of the main mechanisms by which INVs try to deal with the lack of resources is the use of networks. This exploratory study try to fill a gap in the literature about the scarcity of studies on European funding instruments as resources for internationalisation.

Design/methodology/approach. To pursue these objectives, a qualitative study with exploratory value was developed using the multiple case study methodology, carried out through semi-structured interviews with five entrepreneurs of Italian INVs who in recent years have benefited from funding for internationalisation. Findings. The results show that INVs use personal networks during the exploration, business networks in the exploitation and European funding via personal networks, thanks to knowledge gained in academia in both phases for counteracting the liability of foreignness, the liability of smallness, and the liability of newness.

**Practical and Social implications.** This study may provide managers with awareness of the use they can make of networks and the role of social mechanisms in fostering resource transfer. In this sense, understanding the logic through which networks operate for practitioners is also useful for approaching UE financing instruments.

*Originality of the study.* This study integrates in the resource exchange panorama within networks the European financing (or co-financing) instruments as resources for internationalization.

### 1. Introduction

This study integrates two themes that represent a significant challenge for small and medium-sized enterprises in the European panorama: the contributions offered by the various European institutions for the development of SMEs and the so-called 'early' internationalisation processes (Cavusgil and Knight, 2015).

On the one hand, in fact, the various European institutions offer opportunities for access to various Community funds to support SMEs; just think that in the 'Single Market Programme' managed by the EASME agency (Executive Agency for SMEs), more than 4 billion euros are available, which are also aimed at increasing the same programme of companies that Horizon2020 provided for specific tools of innovation according to previous definitions of 'Tools for SMEs'. Today, the potential sources made available by Next Gerenarion EU are added to support public and private investments aimed at making the industrial and technological presence in all strategic sectors stronger and more competitive (European Commission, 2020). The different opportunities cover different areas, including financing for innovation, internalisation, acquisition of new technologies and the construction of strategic partnerships.

A recurring theme for efficient access to the various opportunities made available to the 'community' is, in addition to the knowledge of the specific tools, the need to have national or international networks for the design and construction of partnerships of companies and public and private institutions; in this sense, various tools operate according to an open innovation model, tending to conduct innovation activities with a network logic (Chesbrough et al., 2006) or entering into strategic partnerships with other companies (Segers, 2013) to develop and absorb new knowledge and technologies in order to commercialise them through innovative products, giving rise to networks between companies and institutions, on a large scale.

On the other hand, there is a need in many small and medium-sized companies in Italy, but also in other member countries, to activate internationalisation processes 'early'. In fact, if in the traditional view of growth processes abroad and, also in much literature, the internationalisation process begins following a development in the national context, many companies, especially in sectors with a high impact of technology, feel the need to overcome the prospective offer of the national market since their inception or in their first years of activity, to the extent that it is defined as International New Ventures (INVs) (McDougall et al., 1994; Oviatt and McDougall, 1994, 1997). These types of companies can be considered a subgroup of international SMEs (Gabrielsson et al., 2008) for which the European Union provides various support tools; they are also associated with high-tech sectors (Oviatt and McDougall, 2005).

Although in the literature there are several studies concerning the role of networks in internationalisation (Ciravegna et al., 2018), few refer to European funding except from a socio-political or macroeconomic point of view (Gouveia et al., 2021). It is possible, in fact, to point out that there are numerous studies on the role that European institutions have played in the development of the territories, however, acquiring a more economic perspective than a managerial one.

Therefore, the purpose of this work is to investigate the role that networks assume in the internationalisation process and how and why INVs approach European funding. This work seeks to provide support for the growth of knowledge on the topic of networks in internationalisation processes, focusing on one of the possible categorisations of networks, namely, 'social/business' network interpreting and investigating the two-phase internationalisation process (exploration and exploitation). We referred to the above categorisation as one of the possible categorisations emerging in the literature, such as 'primary/secondary' networks given by Mort and Weerawardena (2006), who defined primary networks as the relationships already established by the entrepreneur and by the founders of born globals and which, when the company is founded, are inherited and used by it to identify and exploit the opportunities present in foreign markets. Secondary networks, by contrast, are built by the entrepreneur and by managers at a later stage and are used in the phase of opportunity exploitation to face competition on foreign markets; they are characterised by networks of 'strong/weak ties' according with Granovetter (1973) and Sharma and Blomstermo (2003), for whom strong or weak ties can be formed between the actors of the network.

Since the focus of our work lies more in the exchanged resource than on the actors involved and not even in the measurement of the strength of the tie, the differentiation based on the context of the relationship (social/business) appeared more interesting for our purpose.

To pursue these objectives, a qualitative study with exploratory value was developed using the multiple case study methodology, carried out through semi-structured interviews with five entrepreneurs of Italian INVs who in recent years have benefited from funding for internationalisation.

In the following paragraphs the theoretical framework of reference is described, the methodology used in the study will also be presented, or the results obtained will be presented, finally presenting the managerial and theoretical implications of the study, the limitations, and some ideas for future research.

### 2. Theoretical background

# 2.1 European funding for international development

The European Union provides a wide range of funding concentrated in various sectors, from small and medium-sized enterprises (SMEs) to research, from energy to agriculture, from the environment to industry 4.0, to cooperation and development.

An area in which the European institutions have always shown a strong sensitivity is that relating to the development of SMEs, from their incubation period (Geipele et al., 2016) to their expansion (Bužavaitė and Korsakienė, 2018) in the domestic and new markets. In fact, the Commission has identified the main obstacles to the internationalisation process, as highlighted by the study 'Support for the internationalisation of SMEs - Selection of good practices' (European Commission, 2008); the lack of sufficient financial resources and difficulties in accessing credit (financial resources); the scarcity of information available to identify target markets; and the lack of qualified personnel due to the small size of the staff (human resources).

Four pillars of the assistance system are dedicated to supporting SMEs: structural funds, thematic financing opportunities, financial instruments and support for internationalisation.

The most used instrument by SMEs are the Structural Funds, aimed to reduce disparities in the development of the regions and to promote economic and social cohesion within the European Union as well as through cofinancing by the Member States. Among these, the European Regional Development Fund (ERDF) co-finances activities aimed at entrepreneurship and innovation, mitigating the impact of the crisis (Becker et al., 2018). Structural Fund beneficiaries receive, in this case, a contribution to finance their projects, but like many other EU funding sources, ERDF programmes are managed by national and regional authorities and not directly by the Commission, as opposed to thematic funding opportunities that are instead implemented by the various departments of the European Commission, and the main forms of direct funding can be identified in the CREA, H2020 programmes (with the axis dedicated to SMEs: SME Instrument) and COSME.

From an analysis of the Italian beneficiaries of funds, carried out on the Financial Transparency System of the European Commission, it emerges, however, that out of the total beneficiaries, only a small part is made up of companies, against a large presence of higher education institutions and centres of research. Access to finance, on the other hand, would be of fundamental importance for companies in fostering their growth, innovation, internationalisation (Bonifazi and Giannetti, 2014) and in developing their

aptitude for building international networks such as for access to some funding programmes, for which the establishment of an international partnership is often required.

## 2.2. The role of networks in the INVS internationalisation process

Internationalisation is generally an intense and dynamic phenomenon that requires significant resources to trigger (Oviatt and McDougall, 1994; Hitt et al., 2006), and this is all the more evident for INVs than for companies with gradual internationalisation, due to the so-called liability of smallness, newness and liability of foreignness (Knight and Cavusgil, 2004; Phelan et al., 2006; Cavusgil and Knight, 2015; Morse et al., 2007). In fact, INVs are more disadvantaged in the internationalisation process due to the limited availability of resources, such as human (Knight and Cavusgil, 2004) and financial (Weerawardena, et al. 2007) capital.

According to the literature, the main mechanism through which INVs try to address the lack of these resources is the use of networks (Oviatt and McDougall, 1994; Coviello 2006) and strategic alliances (Kale et al., 2009). According to the definition of Axelsson and Jan (1992), by network we mean a series of two or more interconnected relations of exchange; according to Brass et al. (2004) it is the set of nodes and bonds that represent a relationship, or lack of relationship, between the nodes.

Among the reasons why companies use networks to ensure rapid internationalisation, Coviello and Cox (2006) reveal that companies use networks to exchange physical and financial resources during the establishment phase of the company, in a way that, in particular, the exchange of financial resources is more frequent in the early developmental phases of the company rather than in subsequent years, due to the desire to maintain a more independent status as the company progresses. As with physical and financial resources, in the same way, companies use the intangible resources of the networks to which they belong to start the internationalisation process; to compensate for the lack of experience on international markets and to be able, in turn, to develop export capacity (O'Gorman and Evers, 2011). How long it takes for the results of this knowledge exchange to be recognisable on foreign sales, however, depends on the type of knowledge exchanged (Yu et al., 2011).

Regarding access to information, several empirical studies identify how personal contacts are the best mechanism for identifying opportunities in foreign markets (Mort and Weerawardena, 2006; Vasilchenko and Morrish, 2011). In this sense, social networks are understood as links 'developed by personal relationships' (Vasilchenko and Morrish, 2011, p. 90) in which the actors are informally connected to each other on a personal level (O'Donnell et al., 2001). By business network, on the other hand, we

mean 'a set of two or more connected commercial relationships, in which each exchange relationship is between companies that are conceptualised as collective actors' such as competitors, suppliers, customers, administrations, government bodies and business partners (Anderson et al., 1994, p. 2; Kontinen and Ojala, 2011). Moreover, in the context of IE, a recent study revealed that institutional network actors as institutional agencies have a positive effect on the internationalisation process, providing knowledge and favoring information and access to grants and funding opportunities (Oparaocha, 2015).

For the purposes of this analysis, the above definitions of social and business networks are taken up and will be carried out according to a process-oriented logic, distinguishing the exploration and exploitation phase, following the recommendations already emerged in the review by Hoang and Antoncic (2003) and in the study by Slotte-Kock and Coviello (2010).

The concepts of exploration and exploitation of opportunities arise in the organisational context (March, 1991) in reference to opportunities and the exploitation of entrepreneurial opportunities and are taken up in the context of international entrepreneurship in subsequent research (Busenitz et al., 2003; Corbett, 2005; Eckhardt and Shane, 2003; Santos-Álvarez and García-Merino, 2010). The exploration phase is characterised by the entrepreneurial effort aimed at the research, discovery, and experimentation of the internationalisation project, while the exploitation phase concerns the implementation and efficiency of the project itself.

From this arose the first two research propositions (RP), namely, 'RP1: social networks are mostly used in the initial stages of the internationalisation process (exploration)', and 'RP2: business networks are mostly used in the later stages of the internationalisation process (exploitation)', which is related to our first Research question (RQ), 'RQ1, what is the role that networks assume in the SMEs internationalisation process?'

From the considerations of the previous paragraph sprang the other RP, id est RP3: 'European funds are accessed by SMEs through networks'. RP4: 'European funds are used by SMEs as financial resources for their exploration phase', related to our second research question, 'RQ2, how and why Italian INVs approach European funding?'

# 3. Methodology

To respond to the research objectives, a qualitative approach was used and the multiple case study method, which is particularly useful in the investigation aimed at answering questions such as 'how' and 'why' (Yin, 2003a, pp. 13-14). With respect to the choice of conducting a single or multiple case study, the considerations of Yin (2003a, pp. 40-42) and Eisenhardt (1989) were taken into account. As the use of multiple case studies guarantees replicability and greater methodological rigor, opting for a multiple-type approach in the combination of within case and cross case analysis leads to greater reliability of the results. This is due to the detailed development of the theoretical concepts and the relationships that are established. (Miles and Huberman, 1994; Eisenhardt, 1989; Miles et al., 2014; Patton, 2002).

### 3.1 Case selection and data collection

As regards the selection criterion of the sample, reasoned sampling was used according to the 'by criterion' strategy, which consists of the identification and selection of 'all cases that satisfy certain predetermined criteria of importance' (Patton, 2002, p. 238).

The sample was selected from the databases of the European Commission, i.e., using the Database of EU funding the EIC Accelerator Hub and the FTS Financial Transparency System. However, as this does not provide information on funding from the EU budget implemented by both the Commission and the States or implemented indirectly by other international organisations or third countries, the databases of the Managing Authorities were also used. The following criteria were applied: the company must be registered with an office in Italy; the company must be complying with the definition of an early internationaliser, i.e. oriented to foreign markets, and must not have reached a stage of maturity and must be no more than eight years old (Morse et al., 2007); it must be an early internationaliser who has benefited from direct or indirect European funding for business internationalisation. Before proceeding with the data collection, it was considered appropriate to draw up the research protocol, as a summary document of the previous phases and programmatic for the future phases; the tool chosen to collect information is the semi-structured interview, one of the techniques mainly used in qualitative studies (Alvesson, 2003; Corbetta, 2003; Kvale and Brinkmann, 2009; McCracken, 1988; Qu and Dumay, 2011). The questions, addressed to the entrepreneur, were developed on the basis of the studies that emerged from the literature, particularly those focused on the access and exchange of resources within networks and previously

identified in the systematic literature review: Coviello and Munro (1995), Coviello and Cox (2006), Mort and Weerawardena (2006), Tolstoy (2010), Ellis (2011), O'Gorman and Evers (2011), (Vasilchenko and Morrish) 2011, Yu et al. (2011), Nowiński and Rialp (2016), Ryan et al. (2019), and adapted to the survey.

The definitive number of cases to be selected was defined according to the principle of theoretical saturation (Fusch and Ness, 2015), during the conduct of the interviews themselves. The main contacts of the companies in the selected sample were contacted personally through LinkedIn and by e-mail, requesting the availability to carry out an interview. Five of the entrepreneurs contacted responded positively to the request and were interviewed. The interviews were conducted by one of the authors via telephone and lasted an average of 40 minutes. The interview outline was divided into four macro-themes:

- general information about the company and the interviewee;
- information on the internationalisation process;
- the role of networks in the internationalisation process;
- the approach to European funding from a temporal and relational point of view.

The interviews were recorded and subsequently transcribed verbatim to facilitate analysis of the contents. Moreover, regarding the validity of this phase and its ethical challenges (Goodman, 2001), each participant was guaranteed anonymity and non-disclosure of the recorded material to third parties. Regarding the research bias, a peer debriefing concerning the drafting of the interviews' outline, with the co-author and another colleague, provided suggestions for improvement. Moreover, the triangulation of the data reduced the threat both for research and respondent bias (Robson, 2002) and contributed to giving greater validity to the case study (Yin, 2003b).

The following Table 1 summarises the main characteristics of the interviews carried out.

Tab.1 Main characteristics of the interviews

Company	General features	Sector	Role of the interviewee	Educational qualification of the interviewee
Case A	Location: Marche Region Year of establishment: 2017 Dimension: small business	Footwear	Founding partner and CEO	PhD
Case B	Location: Marche Region Year of establishment: 2012 Dimension: medium business	Defense and space	Founding partner	Master's degree
Case C	Location: Marche Region Year of establishment: 2015 Dimension: small business (start-up)	IT	Founding partner and CEO	PhD
Case D	Location: Marche Region Year of establishment: 2012 Dimension: small business	Wind energy	Founding partner and member of the board	Master's degree
Case E	Location: Marche Region Year of establishment: 2014 Dimension: small business	Maritime engineering	Founding partner	PhD

Fonte: our elaboration

# 3.2 Data analysis

The data were analysed and classified through the use of software for qualitative data analysis (hereinafter QDAS: Qualitative Data Analysis Software), namely nVivo12. The software used is proposed as a tool to support the researcher, through whose use it is not intended to supplant the traditional method, but to improve it in terms of effectiveness.

The transcripts of the interviews were uploaded to nVivo12 as single text sources and therefore categorised in cases A-E, and categorising the quotes, or text segments (Jackson and Bazeley, 2019) in the following nodes:

- a. internationalisation process
  - a1. exploration
  - a2. exploitation
- b. networks
  - b1. social
  - b2. business
- c. European funding
  - c1. approaching method
  - c2. benefits

Once these preliminary operations have been carried out on the data, we proceeded with the analysis of the same and their interpretation through the implementation of two different phases (Miles et al., 2014): 'within case analysis', that is, the description of each case in its entirety, presenting in a narrative way the answers provided by the interviewees on the topics dealt with, allowing identification of the most important statements and becoming familiar with the single case study (Eisenhardt, 1989); 'Crosscase analysis', or the subsequent comparison of cases, aimed at comparing individual cases (Miles and Huberman, 1994; Eisenhardt, 1989; Miles et al., 2014; Patton, 2002).

The combination of within and cross analysis allowed an intuitive and critical reflection (Ayres et al. 2003), linking the significant statements to the interviews, to answer the research questions.

### 4. Results

In this paragraph, the individual business cases will be described in a narrative manner, and the main quotes will be reported.

4.1 Analysis within cases

### 4.1.1 Case A

Case A is a company established in 2017, having as its objective the development, production and marketing of innovative products or services with high technological value, aimed at tailor-made customisation of footwear. The business idea, as stated by the interviewee, 'was born with the aim of innovating the traditional sector of Made in Italy footwear', networking the small artisans of the area to overcome the difficulties they encountered in exporting.

The corporate internationalisation process is defined as 'Worldwide from birth'. During the first phase of the internationalisation process, i.e., during the exploration of opportunities (exploration), the company made use of the personal contacts of the founders (social networks), who contributed to 'an initial validation of the business model also offline'; business relational networks contributed to the expansion process into foreign markets at a later time (exploitation).

The search for financing and co-financing opportunities began at the same time as the internationalisation process, drawing on personal networks. Funding for internationalisation, of various kinds, obtained by the company, served at first to find economic and relational resources and subsequently to extend the customer base.

'I believe that in general all the contribution tools must be used to finance real projects that the company is implementing and not vice versa when building a corporate project [...] with the implementation of the investment project of course I may acquire new customers, new names'.

#### 4.1.2 Case B

Case B is a high-tech company, established in 2012, which carries out the study, production and marketing of sensors and navigation systems for the industrial and defense market.

The corporate internationalisation process was born at the same time as the business project, as stated by the entrepreneur interviewed. 'We were born international [...] initially we put together a pool of co-founders and investors that basically covered four continents'. In the first years of its life, the company achieved 100% of its turnover abroad. During the exploration phase of international opportunities, the company made use of the social networks of the founders and investors residing abroad.

'By creating a company from scratch, it is clear that the first relationships are personal, of partners, founders and investors, and then gradually a credibility is created which then forms the basis for the type of future relationships'.

Participation in the Horizon2020 call is part of the exploitation phase of internationalisation opportunities; the same call was brought to the attention of the company by a contact belonging to a business-type network, who benefited from the same funding as a subcontractor. The award of the tender had a positive impact on the company not only in financial terms but even on building relationships and on the brand reputation.

'It is difficult to be selected by the European Community, so it was certainly an excellent reference'.

### 4.1.3 Case C

Case C is a university spin-off, established in 2015, having as its objective the design of hardware and/or firmware devices with high technological value; during the first year of life, it focused its activity on research, filing a patent for industrial invention; currently it has not yet commercialised the product and is in the phase of exploring international opportunities.

The relational network, which he used in the very first phase of exploration, was defined by the interviewee as 'personal', and later supported by an incubator. 'Since ours is a niche market [...] our search for an international market is based above all on market analysis, so we have explored the size of the various markets in the different countries, focusing particularly on the Europe area'.

The company is the beneficiary of directly managed European funding, and the search for financing tools to support the internationalisation and

innovation of the product began at the same time as the birth of the business project.

'We became aware of the European funding we have benefited from, namely an SME Instrument Phase 1, so we are talking about the SME Instruments sector, alone, or with our research of the various European funds and loans for innovative startups, in this is the case of small and medium-sized enterprises'.

The search for funding opportunities was carried out independently by the CEOs and founding members, mostly from the academic world. An interesting theme that emerges from the interview is the financial objective, first, but also of the consequent positive externalities encountered.

'Mainly we approached the SME Instrument for financial reasons [...] but I can then say that [...] during the development of the project, we also obtained important business and network links which were perhaps more important than the funding itself'.

'With the funding we had, we were able first of all to deepen our market research, then by exploring international cases that we had not previously considered too much or had not evaluated, so as part of the financed project we had the opportunity to study the market and we are even having come to know people or other companies in the same sector and therefore also with a more direct comparison with other experts in the sector; in short, by expanding our network within the project we were able to redirect our plans on the market. [...] Credibility derives precisely from being able to appear at some investment tables or other tenders with a certification that comes from obtaining European funding'.

#### 4.1.4 Case D

Case D is a company operating in the wind sector, established in 2012, and having as its objective the design, development and production of innovative wind turbines, and re-blading programmes.

The exploration phase, as emerged from the statements of the founding partner interviewed, began at the same time as the development of the international project. 'When the [...] day before starting the company started, in the sense that this prospect of producing blades could not be destined solely for the Italian market [...] we started with Italian customers, but above all in Spain, in Germany, England, etc., therefore (the company) was born international by constitution, by DNA'.

With reference to the networks through which the company has approached foreign markets, those of a personal and academic nature were fundamental. 'We used direct channels, that is, our personal knowledge of the wind sector and the protagonists of the wind sector, to go and talk to potential customers'. 'The academic network has allowed us to enter another type of market [...] we have also managed to enter the theme of the certifying designer, who accredited us even more to the turbine manufacturer'.

The company began looking for financing opportunities through participation in direct and indirect management tenders already at the start of its business, mainly to find financial resources. 'Certainly, at the beginning we immediately thought about looking for financing because in any case the investment intensity was high'. Although the attempt to answer calls had begun when the company was set up, it only benefited from it in the exploitation phase. Also in this case, personal and academic contacts were fundamental. 'In this case the network was exactly personal'.

The company considered the loans useful for finding financial, technological, and reputational resources. '(The funds) make up for the lack of venture capital finance which unfortunately is scarcely available [...] certainly (they serve) to accelerate startups that deserve it and certainly to accelerate innovation'. 'Presenting yourself at a European level conference [...] and applying as a speaker saying Hello, I have won Horizon 2020, I have accessed the SME Instrument is an element of prestige'.

### 4.1.5 Case E

Case E is a start-up founded in 2014, and which operates on the market as a system integrator dealing with the development of hardware and software solutions in the construction industry, shipbuilding, energy, and agriculture.

The internationalisation process 'was there even before the start-up started'; one of the partners worked in Germany and the company was born thanks to a grant, for a technological innovation project, by the Chamber of Commerce of Ancona and of a German Chamber of Commerce.

In the exploration phase, the company made use of social networks, gained during previous work experience in business and academia; these contacts later evolved into informal relationships. The search for funding opportunities deriving from directly or indirectly managed instruments began 'already at birth' and in a few years 'on the 20 calls we participated in, 17 were successful'.

The financing opportunities were identified by the entrepreneur himself. 'I had interfaced with German national tenders [...] for research funding within the (university) department where I worked'. Participation in the financing and co-financing calls 'was in a certain sense a need' and was interpreted as an alternative source of financing. 'I do not feel keen on resorting to banks or an external investor'.

Although the main purpose for which the financing had been approached was of a financial nature, it gave the company 'the opportunity to develop a new product or new versions of the product that were not in the initial intentions of the project', but also to 'rethink the company objectives'. They have been defined as a source of 'new knowledge' and in some contexts they have

contributed to improving the corporate reputation. 'The moment I sit down at a table with an interlocutor, be it Italian or foreign, and they ask us what we do, how we did it, what we are doing naturally, it is a matter of course'.

The following Table 2 describes the main data that emerged from the five cases analysed, providing some additional information.

Tab.2 Main evidence from the cases.

Company features	Phase of the internationalisation process	Social Network role	Business Network role	EU funding approach	EU funding role
Established: 2017 Sector: footwear Company size: small business	Exploitation	They contributed to an initial validation of the business model on foreign markets.	They have contributed to the expansion process on foreign markets.	Thanks to the previous experience of one of the founding members gained in the academic field. In the exploration phase: beneficiaries of indirectly managed funds. In the exploitation phase: beneficiaries of directly managed funds.	Financial resources, Relational resources: extension of the clientelist network
Established: 2012 Sector: defense and space Company size: medium enter- prise	Exploitation	They have allowed the direct explo- ration of op- portunities in foreign markets.	They have contributed to the expansion process and to give the company credibility in foreign markets.	Participation in the call to- gether with a subcontractor with previous experience In the exploi- tation phase: beneficiaries of directly mana- ged European funding.	Financial resources, Relational resources: credibility with customers.
Established: 2015 Sector: IT Company size: small business	Exploration	They al- lowed the company to start market research.	Not present	Thanks to the previous experience of the CEOs and founding mem- bers gained in the academic field.	Financial resources, Human resources, Technological resources, Relational resources.

Established: 2012 Sector: wind energy Company size: small business	Exploitation	They made it possible to approach potential customers in target foreign markets and be accredited with certification bodies.	They have contributed to the expansion process and to give the company credibility in foreign markets. Personal contacts have turned into business contacts.	Thanks to the previous experience of employees gained in the academic field.  In the exploration phase: unsuccessful financing attempts.  In the exploitation phase: beneficiaries of directly managed financing.	Financial resources, Technological resources, Relational resources.
Established: 2014 Sector: Navalmeccanica Size: small bu- siness	Exploitation	They allowed the direct exploration of the opportunity in foreign markets.	sion process in foreign markets. Personal	Thanks to the entrepreneur's previous experience gained in the academic field. In the exploration phase: beneficiaries of directly and indirectly managed funds. In the exploitation phase: beneficiaries of directly and indirectly and indirectly managed funds.	Financial resources, Technological resources, Relational resources.

Source: our elaboration

## 4.2 Cross case analysis

In this paragraph we will try to highlight the common and differentiating elements relating to the role and type of networks in the corporate internationalisation process, the role and methods of approaching European funding with respect to the phase of the internationalisation process and with respect to resources and type of network used.

## 4.2.1 Role of networks in the internationalisation process

The first common element that emerged from the analysis of the cases concerns the phase of the internationalisation process in which the respondent companies find themselves: all INVs except one (Case C) are in the exploitation phase. All have begun the phase of exploration of internationalisations.

nal opportunities, at the same time or before the establishment of the company itself. 'We were born international' (Case A), 'The day before starting the company' (Case D). In line with previous studies (Vasilchenko and Morrish, 2011) during the exploration phase of international opportunities, entrepreneurs used personal networks, and, on many occasions, this seemed obvious, so much so that entrepreneurs used expressions such as 'is it is clear that the first relationships are personal' (Case B), 'typically when these initiatives are made, the first contacts are personal' (Case D). It emerged that, in the first phase of the internationalisation process (exploration), some companies had included in their corporate structure residing abroad: 'Initially we put together a pool of co-founders and investors that essentially covered four continents' (Case B); 'I was already living abroad' (Case E).

The second element in common with INVs concerns the contribution that personal networks have had in the initial phase of the process of internationalisation of opportunities, that is, they have influenced the choices to enter the markets (Case A, B, D, E). Regarding this element, it should be noted that Case C has not yet marketed the product. Furthermore, these types of networks were used to validate the potential of the products: 'We had to check if the business model was interesting or not, so we started where we had some contacts' (Case A); and to be accredited with the certification bodies (Case D).

Overall, personal networks seem to significantly influence the selection of markets to enter and serve as a trigger for the initiation of internationalisation in certain markets. With reference to business networks, in several cases, defined by companies as 'indirect channels', and explained by the interviewees themselves as networks consisting of 'partners, then other companies typically always in the renewable wind sector, therefore engineering companies, service companies, companies that had other technologies parallel to ours [...]; trade associations to which we brought our idea and explained that it could be a relevant topic for the sector [...]; the managers of various specific, technological conferences' (Case D); or company networks, specifying 'they were perhaps already suppliers' (Case A); these seem to become sources of knowledge and resources that allow companies to exploit the opportunities previously explored. Unlike social networks, which are based on informal relationships, business networks are recognised as formal relationships for the mutual exchange of resources in which the actors make collective efforts to achieve a common goal (O'Donnell et al., 2001; Ojala, 2009). In particular, except for Case C (it should be noted that this company is still exploring the opportunities for internationalisation, and has not yet commercialised the product), the business-type networks have been exploited to improve the credibility of the company in foreign markets and extend its commercial network. Where we did not reach the potential customer directly, either because we did not know him personally, or because it was not possible to get there because

maybe he was in a place where we could not even physically arrive, then we used non-direct channels [...]' (Case D). In some cases (Case A, D and E), personal networks have led to the establishment of subsequent formal business relationships in which old and new contacts have become significant partners in the exploitation phase.

From the cross-case analysis, the main differences emerge with reference to Case C: this company, unlike the other cases, is still exploring internationalisation opportunities and has not yet marketed the product.

## 4.2.2 European funding approach and benefits

The first element in common that emerged from the analysis concerns the perception of the benefits deriving from financing and co-financing instruments in support of entrepreneurial internationalisation, whether directly or indirectly: the entrepreneurs of the INVs believe that they are a financial and relational resource (Case A, B, C, D, E). In particular, the search for tenders suited to the needs of the company begins with the aim of covering, at least in part, the company's financing needs to carry out internationalisation and innovation projects. 'We immediately thought about looking for funding because in any case the investment intensity was high' (Case D); '(The financing instruments) allow us to carry out our prerogatives' (Case E).

European financing or co-financing, deriving from direct or indirect management tenders, seems to be perceived by the entrepreneur as an alternative financing tool to bank credit and crowdfunding. 'Considering that I do not feel similar to resorting to banks or an external investor, there were not many other solutions left' (Case E). 'We should think of making a connection with the efficiency of the banking system [...] the problem is in the credit system that has stopped making the credit system (Case D).

Although at first the entrepreneurs give a purely financial role to European funding programmes, subsequently, during the implementation phase of the financed project, the instrument is recognised as a relational resource (Cases A, B, C, D, E). In particular, the relational resource was understood by the interviewees above all, but not only, in terms of extension of the clientelist network, and the acquisition of greater credibility. 'I can say that also thanks to the network proposed in the development of the SME Instrument, therefore by the European Commission during the development of the project, we have also obtained important business connections, which were perhaps more important than the financing itself' (Case C). 'It served precisely to support the creation of the product and then also to create networks' (Case B).

Furthermore, in some cases European funding has helped INVs to improve their credibility in foreign markets. Among the other benefits deriving from the award of the tender, the entrepreneurs described the financing instrument as a source of technological resources (Case C, D, E).

'Afterwards, the financing became useful above all for a fact of acceleration of development' (Case D). Only in one case was the award of the call for funding useful for finding human resources (Case C); in this regard, it should be remembered that the company in question is still in a phase of exploring international opportunities and has not yet marketed the product.

A second element in common concerns the ways in which companies have approached European funding: all but one (Case B) have figures with previous experience in the sector gained in the academic field. In this regard, it is important to underline the presence in the corporate structure of personnel holding a PhD (Case A, Case C). As for the scouting of funding and co-financing calls made available by the European Community, the INVs seem to start immediately. 'Certainly, at the beginning we immediately thought about looking for funding' (Case D) and one of the companies was born thanks to a double funding from the Italian and German chambers of commerce. Although the research phase begins 'already at birth' (Case E),

A difference concerns the approach to European funding, it can be said that in all cases participation in European tenders took place in the exploration phase, however, only some companies have managed to win the calls for funding at this stage. This finding is in line with the overall success rate of the directly managed instruments that finance internationalisation and innovation – which, according to the latest data observed by the Agency for the Promotion of European Research, is on average 20% - which is why the first attempts to participate fail and the INVs benefit from them only in the exploitation phase (Case A, B and D).

#### 5. Conclusions

This study seeks to contribute to the literature on network theory in internationalisation, focusing on one of the possible categorisations of networks - social and business networks - by interpreting and investigating the two-phase internationalisation process (exploration and exploitation), from the point of view of the entrepreneur of the International New Ventures.

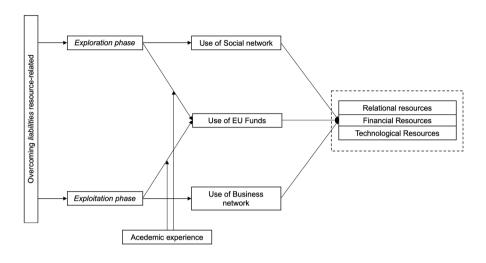
The results show an active role of social networks in the exploration process. Overall, the entrepreneurs interviewed believed that personal contacts in foreign markets made it possible, or at least easier and faster, to access these markets. In this context, the personal knowledge of at least one of the founding members, in some cases residing abroad, proved to be fundamental. From the survey conducted, it emerged that social networks in this phase influence the choices of entry into foreign markets, so much so that the first foreign orders are made in the countries where the founding members have informal relationships. During the exploitation phase, informal relationships strengthen the presence in foreign markets in terms

of credibility. In some cases (Cases A, D and E), personal networks lead to the establishment of subsequent formal business relationships in which old and new contacts become significant partners in the exploitation phase of internationalisation opportunities. The results are in line with previous studies on SMEs and INVs (Coviello and Munro, 1995; Kemper et al., 2013, Lu et al., 2010; Slotte-Kock and Coviello, 2010; Vasilchenko and Morrish 2011; Zain and Ng, 2006; Zhou et al., 2007), suggesting that networks, in the process of exploring opportunities, constitute a source of resources for internationalisation.

At the same time, this study seeks to fill a gap in the past literature, namely, the scarcity of studies on European funding and the lack of studies on such financing instruments (or co-financing) as a resource for internationalisation. The results show how the call search process that meets the needs of the company, whether they are directly or indirectly managed calls, begins at the birth of the entrepreneurial project; although in some cases the chances of success seem to be higher in the exploitation phase, when the company has already gained credibility in foreign markets. The entrepreneurs have considered that the financing and co-financing instruments for internationalisation constitute, for the company, financial resources to support the initial investment, but also relational and technological resources, allowing the creation of new relationships, acquisition of greater credibility and acceleration of development. With reference to the role of networks in approaching European funding, it emerged that only in one case, a business-type network allowed the International New Venture to become aware of the tool (Case B) and to respond to the call; in all other cases, knowledge of the tool, acquired by the founding member, or by the employee, in previous academic experiences was found to be fundamental.

It can be said that the INVs interviewed made use of personal networks during the exploration phase, business networks in the exploitation phase and European funding in both phases of the internationalisation process to combat the liability of foreignness (Knight and Cavusgil, 2004), the liability of smallness, (Phelan et al., 2006) and the liability of newness (Cavusgil and Knight, 2015; Morse et al., 2007), as shown in the following Fig.1.

Fig.1 Conceptualisation of the model



Source: our elaboration

This work contributes to the existing literature by following some recommendations that emerged in previous studies, and, in particular, reference is made to the literature review by Bembom and Schwens (2016): 'given the initial need for Born Globals for financial capital as they internationalise, we recommend further research on these dynamic developments' (Bembom and Schwens, 2016). The second recommendation appeared in a review prior to that of Bembom and Schwens (2016), in 2003, in the review by Hoang and Antoncic (2003), according to which a more in-depth analysis was needed in a process-oriented perspective; this statement is subsequently confirmed also in the study by Slotte-Kock and Coviello (2010).

Finally, the current study may provide managers with awareness of the use they can make of networks, and it is particularly evident from the results concerning the role of social mechanisms in fostering resource transfer between network partners. European institutions, in particular, offer opportunities for access to various Community funds for supporting SMEs. A recurring theme for efficient access to the various opportunities made available to the EU Opportunities is, in addition to the knowledge of the specific tools, the need to have national or international networks for the design and construction of partnerships of companies, and public or private institutions conducting innovation activities with a network logic (Chesbrough et al., 2006). In this sense, understanding the logic through

which networks operate for practitioners is also useful for approaching UE financing instruments.

The results of this research must also be interpreted in the light of some limitations: the use of the multiple case study, compared to the single case, does not allow one to reach the same level of depth of analysis. Furthermore, although there is not a correct number of cases to be used for developing a theory, as the number generally considered appropriate falls between four and ten cases (Eisenhardt, 1989, p. 545), it is considered correct to recognise that a greater number of cases could lead to a deeper knowledge of the phenomenon. It is also emphasised that, despite the fact that several INVs meeting the sampling criteria were contacted in order to conduct the semi-structured interviews, the companies that responded positively to the request all have their registered office in the Marche Region.

For the future, we can hypothesise the development of a qualitative analysis by expanding sampling on the national and/or European territory, and of a quantitative analysis by which to develop a model for assessing the impact of the financing instruments made available by the European Community on the performance of companies.

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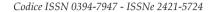
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## DETERMINANTS OF CIRCULAR ECONOMY PRACTICES IN INNOVATIVE SMES IN COVID-19 TIMES: THE ROLE OF POLICY INCENTIVES

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#### Abstract

Purpose: Specific interventions enabling innovative small and medium enterprises (SMEs) to access finance during a time of crisis are essential for their survival. In Europe, the recovery plan prioritises specific funds to support SMEs' sustainability transition. This creates an opportunity for SMEs to innovate and survive during the pandemic. However, the role of public policies in supporting SMEs' sustainability in-novation during the COVID-19 crisis has not been explored. Based on the Italian context, the present study aims to analyse how COVID-19 related incentives for innovative SMEs, issued by the Italian government, have supported circular economy (CE) practices, as well as the development of consistent competences and resources during the pandemic period. Methodology: The population of Italian innovative manufacturing SMEs was surveyed. Firms were required to indicate the extent to which they adopted CE practices in the Take, Make, Distribute, Use, and Recover fields of action, the consistent competences and resources they developed, and what incentives they accessed. The association between such incentives and CE practices, competences, and resources was tested using one-way analysis of variance.

Findings: COVID-19 related incentives were granted to

Findings: COVID-19 related incentives were granted to 43.43% of the innovative SMEs. Firms that accessed incentives had higher levels of CE practices, competences, and resources, with slight differences considering the type of incentives.

Practical and social implications: This study argues that governmental COVID-19 related incentives may have played a role in enhancing CE practices of innovative SMEs. Public support allows firms to invest in the development of internal assets that are needed to capture new business opportunities. This study provides managers with resource and competence knowledge that allows for the adoption of CE practices in a time of crisis. Originality: The study sheds light on the relevance of dedicated incentives to include innovative SMEs in perspective policies' decisional processes, which contribute to their sustainability transition.

#### 1. Introduction

In most OECD countries (OECD, 2020), the vast majority of companies contributing to growth and employment are small and medium enterprises (SMEs) that represent their economies' competitive core.

As a result of their size, ownership structure, and limited technical and financial resources, SMEs are more vulnerable to external shocks than large companies (Juergensen et al., 2020). This pattern has been exacerbated by the outbreak of the COVID-19 pandemic, which emphasises the weaknesses of SMEs (Juergensen et al., 2020).

Innovative and growth-oriented SMEs are likely to be highly impacted by the pandemic as their traditional finance sources, such as equity (i.e. venture capital), tend to decrease in times of recession, and credit access is difficult because of their risky structure, which is characterised by unstable cash flow and limited intellectual property (Lee and Brown, 2017; Brown, 2020). In such a context, policy interventions can play a role, helping SMEs mitigate the negative effects of the crisis (Brow, 2020). Governments' incentives have generally focused on grants, deferral of tax and debt payments, and the extension or simplification of the provision of loan guarantees to enable SMEs to access credit (OECD, 2020). Nevertheless, specific interventions that enable innovative SMEs to access finance during crises should be pursued while considering the peculiarities of such knowledge-based businesses. (Brown, 2020). Policy responses to the crisis at the European level were routed towards the establishment of a recovery plan for the years 2021–2027. These responses include both the European Union Next Generation program aimed at mobilising €750 billion raised from the financial markets and a reinforced long-term budget of the European Union of about €1,100 billion. The transition to a green, climate-neutral economy is prioritised as part of the strategies that will be implemented by Next Generation EU-specific funds. The European Green Deal has also posed new sustainability transition guidelines through circular economy (CE) challenges and aims to increase the competitiveness of the European socio-economic system. Italy will undertake these major challenges following the Recovery Plan, which will implement the Next Generation EU Program through concrete interventions dedicated to enhancing SMEs' sustainability (Deloitte, 2020).

The transition of SMEs toward sustainability innovation has been widely recommended by European institutions (Bontoux and Bengtsson, 2015). However, the COVID-19 pandemic can also represent an opportunity for SMEs to innovate their strategy by introducing innovations such as CE to survive the financial crisis (Pencarelli et al., 2020; Ibn-Mohammed et al., 2021; Prieto-Sandoval et al., 2021). CE has been defined as an 'industrial system that is restorative or regenerative by intention and design.

It replaces the "end-of-life" concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models' (Ellen McArthur Foundation, 2012; p. 7). In this regard, CE innovations may contribute to the transition toward sustainability, although potential tradeoffs have been identified between CE implementation and the achievement of the United Nations Sustainable Development Goals 2030 that need to be addressed through further empirical research (Shroeder et al., 2018). For instance, waste management and recycling targets related to CE practices can potentially hinder the health of recycling workers if not accompanied by measures to improve working conditions (Shroeder et al., 2018). In addition, the social aspects of sustainability, as well as environmental aspects other than waste, resource use, and CO2 emissions have been poorly covered by CE research (Schöggl et al., 2020). Nevertheless, public interventions to support the socio-economic system, including SMEs, to overcome the crisis and develop new business opportunities linked to digitalisation and sustainability have been considered fundamental. The role of public policies oriented to financially support CE practices during the COVID-19 crisis has not been properly investigated, especially when focusing on innovative SMEs and those operating in the manufacturing field. In the Italian context, dedicated interventions aimed at supporting innovative SMEs during the pandemic were issued in May 2020 by the so called 'Relaunch Decree' (Italian Parliament, 2020). Based on this premise, which our study aims to analyse, we investigate how COVID-19 related incentives for innovative manufacturing SMEs can make a difference in supporting CE innovations that contribute to the transition toward sustainability.

# 2. COVID-19's effect on SMEs and the need for public funding to overcome the crisis

The effect of COVID-19 on Italian SMEs has been severe (Deloitte, 2020): Of 6 100 Italian SMEs, 60% saw a decrease in productive activities with a consequent reduction in business turnover, and 70% ended in financial trouble, with liquidity problems due to a partially rigid fixed cost structure and reduced or delayed revenue streams. These firms were characterised by a) a consequent inability to cover current expenses, b) a need for financial support to rebalance the circulating capital, and c) a need to support post-lock-down activities in uncertain times. These firms' characteristics can make recovery easy or difficult depending on how they enact strategies and mobilise resources to react to the crisis. Indeed, SMEs are deemed to suffer from the liability of smallness, meaning that the smaller the size,

the less resources the firm controls, which makes it more vulnerable to crises (Palazzi et al., 2018) such as the one led by the global COVID-19 pandemic (Eggers et al., 2020). The liability of smallness in the time of COVID-19 threatens to weaken the ability of SMEs to overcome the negative effects of the crisis that impacted market demand, liquidity, and profitability (Pencarelli et al., 2020). Nevertheless, the small size can provide closeness to customers and stakeholders, making SMEs more flexible and ready to capture new business opportunities and shift their business models to new value propositions (Eggers et al., 2020). Firms developing innovativeness and proactive postures as elements of entrepreneurial and market orientation have been found to have a higher probability of overcoming the crisis (Eggers et al., 2020). During COVID-19, SMEs investing in digital technologies and e-commerce have found ways to face a decline in demand and satisfy new customers' needs (Pencarelli et al., 2020) and in general, more of these firms dedicated specific investments to the conversion of their plants, or to new marketing campaigns and internationalisation strategies, thereby supporting the expansion of their business (Deloitte, 2020).

Innovativeness of SMEs requires financial resource availability to reorient strategies to satisfy unexpressed market needs (Eggers et al., 2020). In this context, the transition toward sustainability and digitalisation has been regarded as an opportunity for SMEs to overcome the pandemic crisis. In times of disruptive shocks, the set of material and immaterial infrastructures is fundamental to allow the socio-economic system to persist (Bellandi et al., 2020). This implies a higher level of business sector investments compared to those sustained for the simple strategy of restoration and bearing uncertainty in financial returns. The latter does indeed increase in consequence to meet the need to coordinate private strategies with public goods. Consequently, public policies can reduce the uncertainty caused by the crisis, partly funding business investments and public goods (Bellandi et al., 2020). In this sense, public incentives help firms preserve critical assets that allow them to overcome a crisis (Lim et al., 2020). In fact, a firm can be considered as a bundle of strategic, physical, financial, human, and organizational resources, which are interconnected and co-evolve, allowing the firm to grow (Lim et al., 2020 based on Penrose, 1959). In the pandemic period, SME entrepreneurs are required to assess the state of their bundle, determine which resources need an intervention, and pursue a new balance between them to limit the crisis' negative effects and identify new business opportunities. The role of financial resources, in terms of public support through incentives and growth platforms, is therefore essential to allow SMEs not only to survive but also to recover as a result of investments oriented to support the bundle's other resources (Lim et al., 2020). Thus, in a time of crisis, financial incentives can help SMEs to better preserve their physical and organizational resources and

competences compared to SMEs that do not benefit from support. Le et al. (2020) showed that, among others, tax support policies and capital support packages from the government positively affected SMEs' development during the COVID-19 pandemic.

Regarding CE as a sustainability-based innovation, it has been considered an opportunity to rethink the current unsustainable economic and business models amidst the COVID-19 pandemic. Indeed, CE can alleviate the negative effects of the COVID-19 pandemic in several ways, such as the transition from polluting and energy-intensive manufacturing systems to a CE based on renewables, smart materials, remanufacturing, and digital technologies (Ibn-Mohammed et al., 2021).

## 3. A resource-based view to advance SMEs' CE practices

A resource-based view (RBV) of the firm theory (Barney, 1991) and its advancements (Hart, 1995; Chan, 2005) have been used to explain firms' engagement in environmental practices, and more recently in CE (Garcés-Ayerbe et al., 2019). Firm-specific resources can facilitate the development of organizational capabilities as competencies that are conducive to environmental practices (Chan, 2005), such as CE practices, to enhance firms' competitiveness. Scholars claim that the lack of support from public institutions, resources, and technical expertise, along with the cost of meeting regulations and complexity of administrative procedures, are the main barriers for SMEs to shift towards CE practices (Rizos et al., 2016; Ormazabal et al., 2018; García-Quevedo et al., 2020; Mura et al., 2020). Further, barriers related to entrepreneurs' commitment and employees' skills in CE implementation as well as concerning the use of information systems to support CE and sustainability have been discussed in recent studies (Ormazabal et al., 2018) When referring to the use of information systems, studies have also underlined how strategic performance measurement tools that support environmental monitoring often lack to consider the peculiarities of SMEs (Johnson and Shaltegger, 2016). Finally, the role competences and resource play in implementing CE practices have recently been investigated, with a focus on the role of financial resources and government incentives (Section 3.1) and CE practices, competences, and resources (Section 3.2).

## 3.1 Role of financial support and government incentives

Policies to promote sustainability and provide access to financial resources in the form of tax credits, financing, and subsidies are key to SMEs' CE engagement (Mura et al., 2020). When SMEs can access public financial support, the literature shows that it bolsters environmental innovations,

eco-innovation, and ultimately, CE practices. For instance, Scarpellini et al. (2018) reported that public incentives promote eco-innovation, which reduces the risk associated with those investments and improves their profitability. Cecere et al. (2020) examined the role of private and public funding in promoting SMEs' eco-innovation, where private funding sources generally include bank loans, business angels' capital, venture capital, corporate venturing, and crowd funding, while public funding sources consist of public loans and guarantees, publicly owned equity, and subsidies (prizes, tax credits, grants, etc.) (Cecere et al., 2020 based on Myers and Majluf, 1984; Hall, 2002; OECD 2012; Olmos et al., 2012). The availability of public funding and access to fiscal incentives are levers of eco-innovation, especially for small businesses that suffer from a lack of external private fund sources, and public funding is effective when it is complemented by private sector funding (Cecere et al., 2020). In addition, self-financing, followed by public funding and ultimately debt financing, are CE business model enablers. The availability of alternative funding forms, such as venture capital, business angels, and peer-to-peer lending, does not support CE and tends to 'crowds-up the resort to CE', supporting more linear-risk activities (Ghisetti and Montresor, 2020, p. 559). Aranda-Usón et al. (2019) also found that the adoption level of CE practices depends on the level of investments made; more specifically, the public incentives' source and subsidies were shown to increase the CE practice adoption level, along with the quality (presence of guarantees required to finance CE activities) and availability of funds.

## 3.2 CE practices, competences, and resources

Dey et al. (2020) and Prieto-Sandoval et al. (2019) adopted mixed-method approaches to explore how SMEs can advance CE. They identified practices, competences and resources for the following five fields of action, related to the CE's 'reduce, reuse, and recycle' principles: (i) 'Take' refers to the raw material supply needed for the production process; (ii) 'Make' relates to the production process itself and conversion of raw materials into products; (iii) 'Distribute' concerns the distribution processes to users; (iv) 'Use' implies that consumers benefit by using the products; and (v) 'Recover' attains to reuse and recycle practices that extend products' lifecycle (Dey et al., 2020). These fields of action have previously been investigated by Kalmykova et al. (2018), who reviewed CE practice literature characterising the value chain of production processes. The authors identified 'Use' and 'Recover' as the value chain parts that have been firms' main CE practice objectives, while emphasising the need to further explore CE applications in the 'Make' and 'Distribute' fields.

Together, these studies provide a comprehensive framework for the investigation of CE practices, competences, and resources in each field of action. Table 1 presents an overview based on Dey et al. (2020), Prieto-Sandoval et al. (2019), and Kalmykova et al. (2018).

Table 1: Fields of action, CE practices, competences, resources

Field of action	Practices	Competences	Resources
Take	<ul> <li>Recovery of energy from waste</li> <li>Purchase of raw materials with lower environmental impact</li> <li>Use of renewable materials</li> <li>Use of methods to quantify emissions and resources consumed and the related impact on the environment and health</li> </ul>	Select suppliers on the basis of their environmental impact     Information exchange with suppliers to increase the use of circular raw materials     Define the circular characteristics of raw materials     Share circular economy values with suppliers	Biodegradable raw materials     Regenerated raw materials     Recyclable raw materials     Competent suppliers in the field of circular economy
Make	Production of tailor-made products  Manufacture of products considering the need to disassemble them for repair, refurbishment or recycling  Production separating the organic parts from the inorganic ones  Design of the product based on its life cycle  The design and production take place with a view to reducing the use of raw materials and of harmful substances  Use of resources or materials that last more than a single life cycle	<ul> <li>Eco-design</li> <li>Ability to design products with an extended life cycle</li> <li>Ability to design a production process that optimize the use of resources</li> <li>Project management to develop new CE products</li> </ul>	Standard production processes     Qualified personnel     Technologies to monitor energy consumption     Technologies to monitor resource consumption     Technologies to reduce energy and resource consumption

Distribute	Use of packaging that reduces transport costs  Use of packaging with low environmental impact  Use of distribution channels that limit road transport  Provide customers with information on the nature and disposal of packaging	<ul> <li>Commitment to reduce logistics' environmental and economic impact</li> <li>Warehouse management expertise</li> <li>Logistics expertise</li> <li>Packaging design with low environmental impact</li> </ul>	Traceability system of raw materials and processes for customers  Availability of qualified third-party logistic services providers  Cooperation with packaging manufacturers  Cooperation with distributors
Use	Product as a services Pay per use Offering products with sustainability related certifications Offering products where part of their components can be disassembled and reused Take back programs to favour the reuse/ regeneration of components	Ability to involve customers in the design of circular products and services     Ability to use communication channels to create long-term relationships with customers     Ability to involve customers in recycling activities/take backprograms     After-sales service's ability to encourage the repair/reuse of products	<ul> <li>Market analysis techniques</li> <li>Business intelligence platforms</li> <li>After-sale service</li> <li>Communication channels</li> </ul>
Recover	<ul> <li>Use of production processes' waste as raw material for the manufacturing of new products</li> <li>Refurbishing</li> <li>Remanufacturing</li> <li>Industrial symbiosis</li> </ul>	Commitment to production waste reduction through the philosophy of reduce, reuse, and recycle     Reverse-logistic capabilities	Management attentive to reducing, reusing, and recycling     Personnel attentive to reducing, reusing, and recycling     Standardised processes     Customer relationships     Availability of third-party logistic services providers who recover materials

As can be seen from the above-cited literature, the resources, competences, and practices required to implement CE innovation have been the subject of many recent studies. In addition, the role of financial government support in promoting the development of the bundle of resources needed to adopt CE practices is currently under investigation. Therefore, we propose the following hypotheses:

H1: SMEs receiving pandemic-related government financial support report greater CE practices compared to those that do not receive dedicated financial support.

H2: SMEs receiving pandemic-related government financial support report greater CE competences compared to those that do not receive dedicated financial support.

H3: SMEs receiving pandemic-related government financial support report having greater CE resources compared to those that do not receive dedicated financial support.

#### 4. Innovative SMEs and COVID-19 incentives in the Italian context

Innovative SMEs are SMEs that operate in innovative technology fields. European law (Recommendation 2003/361/EC; European Commission, 2003) defines innovative SMEs as SMEs that present at least two of the following three characteristics: (i) set out to research and develop an expense volume greater than 3% of the greater cost and total value of production; (ii) the employees are highly qualified (at least one-fifth of employees have a PhD or are graduates with three years research experience, or at least one third of employees are masters graduates); (iii) own a patent or a copyrighted software. The requirements for innovative SMEs are as follows: (i) they must have less than 250 employees; (ii) their turnover must be less than  $\mathfrak{C}50$  million or they must have assets that are less than  $\mathfrak{C}43$  million; (iii) the headquarters need to be in Italy or Europe, with at least one production site or branch in Italy; and (iv) the SME cannot be listed on a regulated market.

Based on such criteria, innovative SMEs refer to 1,820 firms<sup>1</sup> that operate in the manufacturing, tourism, services, commercial, agriculture, and fishery sectors. They mainly operate in the service sector (e.g. consulting firms or software companies, 69.5%; n = 1264), followed by the manufacturing sector (23.6%; n = 430), the commercial sector (5.8%; n = 106), the tourism sector (e.g. tour operators, 0.7%; n = 13), and agricultural and fishery sectors (0.2%; n = 4), while three pertain to unspecified sectors (0.2%; n = 3).

Specific incentives for innovative SMEs in Italy have been issued by the Italian government. Some of them were already in place when the CO-VID-19 pandemic spread, while others have been specifically introduced to assist firms and businesses in general to counter the loss of revenue due to the emergency situation. The former refers to a more flexible corporate management, tax incentives for investments, support in covering systematic losses, internationalisation support by the Italian Trade Agency, and equity crowdfunding mechanisms (Ministry of Economic Development, 2020). COVID-19 related incentives were foreseen in the "Relaunch Decree" (Italian Parliament, 2020), which introduced urgent measures to support the Italian economy and foresaw the need for specific innovative SME incentives.

<sup>&</sup>lt;sup>1</sup> https://startup.registroimprese.it/ (accessed 12th of February 2021).

These COVID-19-related incentives refer mainly to three categories: (i) Additional resources (€200 million) to the "Venture Capital Support Fund", (ii) Additional resources (€100 million) to refinancing of the relief granted in the form of soft loans, and (iii) The provision of relief granted on capital injections that may support investments.

#### 5. Method

A survey was administered to the total population of innovative manufacturing SMEs operating in Italy for the period September - November 2020 using the Qualtrics<sup>2</sup> package. Based on the survey's aims and the questionnaire's adopted framework (herein presented), firms operating in other sectors were excluded. Innovative manufacturing SMEs were identified using the AIDA dataset by Bureau Van Dijk (AIDA, 2021), which is the national dataset of firms' financial information, integrated with the Registroimprese<sup>3</sup> dataset by the Italian Ministry of Economic Development. Of the total population of 430 innovative manufacturing SMEs, 16 firms were wound up at the time of the survey; therefore, the final sample included 414 firms.

Innovative SMEs in the sample are mainly located in the north of Italy (n = 55; 56%), followed by the centre (n = 26; 26%) and the south (n = 18; 18%). In terms of regions, they were predominantly located in Lombardy (n = 29; 29.63%), Piedmont (n = 11; 11.11%), and Marche (n = 10; 9.88%). Firms in the sample (for the year 2019) have an average number of employees of 30, average revenue of 4.307 million, and average net profit of  $\in 58,917$  (AIDA, 2021).

Firms' email addresses were collected online; invitation to fill in the questionnaire was directed to the firms' CEOs, and follow-ups were conducted to increase the overall response rate (Millar and Dillman, 2011). Appendix 1 presents the survey.

Table 1 identifies CE practices, competences, and resources. Firms were required to indicate the extent to which they adopted these CE practices and developed consistent resources and competences in each field of action, based on a 7-point Likert scale (1 = "not at all"; 7 = "completely").

Firms were also investigated with regard to their reception of COVID-19-related incentives. Therefore, respondents were asked to indicate whether they had been addressers of the different types of incentives, namely the "Venture Capital Support Fund" (VCSF), the refinancing of the relief granted in the form of soft loans (RGSL), and the provision of relief gran-

<sup>&</sup>lt;sup>1</sup> https://www.qualtrics.com.

<sup>&</sup>lt;sup>2</sup> https://startup.registroimprese.it/ (accessed 12th of February 2021).

ted on capital injections that may support investments (RGCI). Furthermore, firms who have been addressers of COVID-19 related incentives were asked the extent to what some factors do limit (or can limit) CE implementation based on a 7-point Likert scale (1 = "not at all" to 7 = "completely"). According to the literature (Rizos et al., 2016; García-Quevedo et al., 2020; Mura et al., 2020), these barriers refer to difficulties in identifying funding sources to support CE innovation, the amount of investment required to implement circular practices, the availability of human resources to address CE innovation, a lack of a clear normative framework on CE, a lack of economic support from institutions, the scarce adaptability of environmental monitoring tools to SME characteristics, and a lack of knowledge regarding the benefits of CE implementation (in economic and non-economic terms).

#### 6. Results

A total of 99 questionnaires were returned, with an overall response rate of 23.91%, which is in line with other SME studies (Nawrocka and Parker, 2009). Non-response bias tests were performed by comparing early and late responses available in the sample, based on the assumption that late respondents are more likely to be non-respondents (Amstrong and Overton, 1977). A comparison of the groups gave no indication of response bias, based on Mann-Whitney-U at the 5% significance level; none of the variables proved to be significantly different in their distribution.

Of the 99 respondents, 43 (43.43%) were granted COVID-19-related incentives, which were introduced to support innovative SMEs during the COVID-19 pandemic. The remaining 56 firms did not receive such incentives. The 43 firms were asked about the incentives received, and the respondents reported the number and type of incentives received.

As data for dependent and independent variables were collected from the same respondents, Harman's single-factor test was performed to ensure the absence of common method bias (Podsakoff et al., 2003).

Considering CE practices, competences, and resources, three composite normalised indexes were created, merging the items in the different fields of action. The composite index approach has previously been used to assess the level of SMEs' CE implementation in regions and sectors that focus on business practices (see for e.g., García-Sánchez et al., 2021). In this study, composite index creation was based on an additive function, and equal weighting schemes were applied hierarchically (Gan et al., 2017).

## 6.1 The effect of COVID-19-related incentives

We first tested whether SMEs receiving pandemic-related government financial support reported greater CE practices compared to those that did not receive dedicated financial support. We performed a one-way analysis of variance (ANOVA) using the SPSS software package (Miller, 1997; Field, 2000; Kutner et al., 2005). As shown in Table 2, the analysis reported significant differences between the groups for all performance variables considered. In fact, for all three variables the p-value is significant (p = .000, two-tailed test). In particular, firms that did not access the COVID-19-related incentives reported lower levels of CE practices (mean = .209, s.d. = .216 versus mean = .429, s.d. = .230), competences (mean = .211, s.d. = .250 versus mean = .464, s.d. = .246), and resources (mean = .226, s.d. = .259 versus mean = 538, s.d. = .270).

Table 2: Variance analysis (incentives)

		Sum of squares	df	Mean square	F	Two-tailed sig.
	Between Groups	1.178	1	1.178	23.941	.000
Practices	Within Groups	4.773	97	.049		
	Total	5.951	98			
	Between Groups	1.560	1	1.560	25.235	.000
Competences	Within Groups	5.995	97	.062		
_	Total	7.555	98			
	Between Groups	2.364	1	2.364	33.979	.000
Resources	Within Groups	6.749	97	.070		
	Total	9.113	98			

Given these results, we undertook further analysis, focusing on the number of such incentives. Of the 43 firms that received COVID-19-related incentives, 32 firms (74.42%) were supported by one incentive, and the remaining 12 (25.58%) received two incentives. Therefore, the following analysis tests the significance of the differences among the three groups (no incentives, one incentive, and two incentives) for the development of CE practices, competences, and resources (Table 3).

Firms that did not receive COVID-19-related incentives presented significantly different values concerning CE practices, competences, and resources when compared to those who received one incentive (p = .000, two-tailed test) or two incentives (p = .001, two-tailed test). Concerning practices, firms that did not receive incentives presented a mean = .209, s.d. = .216, while firms with one or two incentives presented higher values related to CE practices (mean = .410 (s.d. = .228) and mean = .483 (s.d. = .237), respectively. Non-significant differences emerged between the second and third group of firms (p = .613, two-tailed test).

Considering CE competences, firms that did not access COVID-19-related incentives presented significant differences compared to the other groups to the same extent (p = .000, two-tailed test). The first group reported a slightly higher mean than those already presented (mean = .211; s.d. = .250), but differences were higher due to higher values of CE competences related to the other firm groups. In this regard, firms that accessed one incentive reported a mean = .438 (s.d. = .242), while firms that accessed two incentives presented a higher mean = .541 (s.d. = .251). In addition, in this case, non-significant differences emerged between the two latter types of firms (p = .461, two-tailed test). Lastly, significant differences also emerged concerning CE resources when firms that did not receive incentives and other types of firms were considered (p = .000, two-tailed test). The means were higher than the previous ones for these three categories. Firms that did not receive incentives reported a mean = .226 (s.d. = .259), those that received one incentive reported a mean = .520 (s.d. = .279), and the remaining group reported a mean = .589 (s.d. = .249). Again, no significant difference was found between firms that received one or two incentives (p = .736, two-tailed test).

Table 3: Variance analysis (number of incentives)

Dependent variable	(I) Number of incentives	(J) Number of incentives	Mean difference (I-J)	Std. error	Two-tailed sig.
		1	201331	.04919	.000
	0	2	274629	.07320	.001
Dt:	1	0	.201331	.04919	.000
Practices	1	2	073298	.07758	.613
	2	0	.274629	.07320	.001
	2	1	.073298	.07758	.613
		1	226772	.054971	.000
	0	2	330156	.081810	.000
C 1	1	0	.226772	.054971	.000
Competences		2	103383	.086701	.461
	2	0	.330156	.081810	.000
	2	1	.103383	.086701	.461
		1	294087	.05859	.000
	0	2	363189	.08719	.000
D	1	0	.294087	.05859	.000
Resources	1	2	069102	.09240	.736
	2	0	.363189	.08719	.000
	2	1	.069102	.09240	.736

### 6.2 The different COVID-19-related incentives

Following the results presented here, firms who benefited from COVID-19-related incentives reported greater CE practices, resources, and competences than those who did not receive incentives. Consequently, we also performed an ANOVA to assess whether significant differences could be found in our sample with reference to the kind of incentive received (VCSF, RGSL, or RGCI) in terms of reported CE practices, competences, and resources. Tables 4a, 4b, and 4c report the results for the three types of incentives and the three groups.

In the sample considered, of the 43 firms that had access to incentives, 32 received RGSL incentives, 18 RGCI incentives, and only four accessed VCSF incentives. Nine firms received both RGSL and RGCI incentives, two were addressers of RGCI and VCSF incentives, while only one was subjected to RGSL and VCSF incentives.

The VCSF incentive did not present significant differences for either CE practices, competences, or resources (Table 4a). Those who accessed the VCSF presented higher values for all the variables considered than those who did not access this specific incentive, but the differences were not significant.

Table 4a:	Variance	analycic	(V/CCE 70C	other i	ncontinac	١
Table 4a:	variance	anaiusis	(VCSF OS	otner i	ncentives	,

		Sum of squares	df	Mean square	F	Two-tailed sig.
	Between Groups	.063	1	.063	1.193	.281
Practices	Within Groups	2.155	41	.053		
	Total	2.218	42			
	Between Groups	.156	1	.156	2.670	.110
Competences	Within Groups	2.389	41	.058		
	Total	2.545	42			
Resources	Between Groups	.062	1	.062	.841	.365

Conversely, the ANOVA, performed with regard to the refinancing of the relief granted in the form of soft loans, provides evidence of significant differences between those who accessed the COVID-19 related incentive and those who did not, although limited to CE practices (p = .041). As Table 4b reports, RGLS incentives recipients' results presented lower levels of CE practices (mean = .387, s.d. = .207) than those who did not receive such incentives (mean = .550, s.d. = .259). In contrast, no significant differences were detected with regard to CE competences and resources.

Table 4b: Variance analysis (RGLS vs other incentives)

		Sum of squares	df	Mean square	F	Two-tailed sig.
	Between Groups	.218	1	.218	4.464	.041
Practices	Within Groups	2.000	41	.049		
	Total	2.218	42			
	Between Groups	.080	1	.080	1.329	.256
Competences	Within Groups	2.465	41	.060		
	Total	2.545	42			
	Between Groups	.091	1	.091	1.258	.269
Resources	Within Groups	2.977	41	.073		
	Total	3.068	42			

Lastly, the analysis of the access to RGCI did not present significant results, as shown in Table 4c. Consistent with previous analysis, firms that received RGCI incentives did not report differences in CE practices, competences, and resources compared to those that did not access this incentive.

Table 4c: Variance analysis (RGCI vs other incentives)

		Sum of squares	df	Mean square	F	Two-tailed sig.
	Between Groups	.053	1	.053	1.007	.321
Practices	Within Groups	2.165	41	.053		
	Total	2.218	42			
	Between Groups	.017	1	.017	.277	.602
Competences	Within Groups	2.528	41	.062		
	Total	2.545	42			
_	Between Groups	.012	1	.012	.160	.691
Resources	Within Groups	3.056	41	.075		
	Total	3.068	42			

## 6.3 Reasons for not implementing CE

Firms that were addressers of COVID-19 related incentives to a different extent were further investigated concerning the barriers to implementation of CE practices. Table 5 reports the results of the question "To what extent do you believe that the following factors limit (or may limit) the adoption of CE practices in your firm?".

Table 5: Barriers to CE implementation

	Not at all (1)	2	3	4	5	6	Totally (7)
Difficulties in identifying funding sources to support CE innovation	16.3	14.0	2.3	20.9	14.0	14.0	18.6
Amount of investments required to implement circular practices	12.5	15.0	15.0	17.5	10.0	22.5	7.5
Availability of human resources to address CE innovation	16.3	20.9	4.7	20.9	14.0	11.6	11.6
Lack of a clear normative framework on CE	5.0	17.5	10.0	22.5	17.5	17.5	10.0
A lack of economic support from institutions	11.6	11.6	9.3	16.3	11.6	20.9	18.6
Scarce adaptability of environmental monitoring tools to SME characteristics	7.3	12.2	9.8	14.6	17.1	24.4	14.6
A lack of knowledge regarding the benefits of CE implementation	0.0	20.9	16.3	20.9	7.0	9.3	25.6

These results might support the comprehension of the main factors that prevent firms from implementing CE in SMEs. Focusing on the last three points of the scale for each item (from 5 to 7), which show medium or high perception of the barrier, some factors are perceived more than others to limit CE practice implementation. In particular, 56.1% of respondents rated the scarce adaptability of environmental monitoring tools to SME characteristics as a limit to CE implementation, followed by a lack of economic support from institutions (51.2%). Further, 46.5% of firms that received COVID-19 related incentives found difficulties in accessing funding sources to support CE innovation, while 45.0% emphasised a lack of normative framework on CE. Finally, 40.0% identified a limit in the amount of investments required to implement CE practices, and 37.2% reported the scarcity of human resources to address CE innovation as a limitation.

#### 7. Discussion and Conclusions

This study emphasises financial resources derived from the role of dedicated governmental support and their association with CE practices of innovative SMEs during the COVID-19 pandemic. The results of the empirical analysis show that innovative SMEs that benefited from dedicated COVID-19 related incentives also reported more CE practices than those who did not benefit from them. Thus, incentives may play a role in supporting investments in CE. Indeed, incentives could allow these firms to not reduce R&D investments during a financial crisis, as such investments support their innovation, growth, and profitability (Roper and Turner, 2020).

Furthermore, firms' competences and resources dedicated to CE projects were greater in those innovative SMEs that received COVID-19 related incentives, highlighting that external financial resources may allow these firms to invest in the development of internal assets that are needed to capture new business opportunities, such as CE.

Public incentives can help innovative firms sustain or recalibrate their resources and competences to find new business opportunities, such as CE, to overcome the pandemic crisis (Lim et al., 2020). SMEs that can seize these opportunities can restore their profitability and recover their relations with investors. This, in turn, can help firm managers access additional resources to support further innovation and firm growth. Regarding the typology of incentives, results also show that firms accessing the RGSL were less active in developing CE practices compared to those accessing VCSF or RGCI that may support investments. Even though the RGSL has been widely used as an SME support measure during the pandemic, it cannot be considered sufficient support for the SME recovery phase. It should be noted that such SMEs, if already in financial distress, may be reluctant to take out new loans and aggravate their debt position (Brown, 2020). A call for dedicated grants, therefore, seems to be the most promising solution to help innovative SMEs adapt to the pandemic situation (Brown, 2020). In the analysed sample, VCSF was the least accessed source of finance, and innovative SMEs accessing VCSF did not show differences in CE practice implementation and CE competences and resource development, compared to firms that did not access this finance source. Although the availability of equity finance, such as venture capital in the seed stage, has tended to decline during the pandemic (Brown et al., 2020; Bellavitis et al., 2021), this source is key to supporting innovative growth-oriented SMEs (Brown and Lee, 2019). As mixed results are found in the literature with reference to the role of venture capital supporting CE innovation, more research is needed to investigate how governmental incentives dedicated to the provision of additional venture capital funds can promote SMEs' innovativeness around CE in a time of crisis. In this study, RGCI and VCSF were associated with higher CE practices compared to those firms that accessed the RGSL. Additional funds from VCSF and RGCI may have supported investments in their resource bundle to bolster CE adoption through the development of proper CE competences.

In this regard, the way firms create synergies between the available assets in its bundle, also thanks to incentives, can be a key to the implementation of CE practices and deserves further investigation. Indeed, public incentives can help these firms sustain or recalibrate their resources and competences to find new business opportunities, such as CE, to overcome the pandemic crisis (Lim et al., 2020). SMEs that can seize these opportunities can restore their profitability and recover their relations with inve-

stors. This, in turn, can help firm managers access additional resources to support further innovation and firm growth. In this regard, the paper also provides managers with knowledge of the resources and competences that allow the adoption of CE practices in the time of crisis.

Regarding CE barriers, innovative SMEs perceived the scarce adaptability of environmental monitoring tools to SME characteristics as a limit to CE implementation, followed by a lack of economic support from institutions. Environmental monitoring tools have been said to provide information that can support the reconfiguration of the business model around specific CE strategies (Ormazabal et al., 2018; Scarpellini et al., 2020), and the literature has underlined the need to adapt these strategic performance measurement tools to the peculiarities and sector-specificities of SMEs to favour their implementation (Johnson and Shaltegger, 2016). The lack of economic support and difficulty in accessing CE-dedicated funds (Rizos et al., 2016; Ormazabal et al., 2018), as well as the lack of a clear supportive normative framework (Mura et al., 2020) also emerged as discouraging factors affecting the innovative SMEs' journey toward CE. The lack of qualified personnel was also identified as another issue to be solved (Rizos et al., 2016; García-Quevedo et al., 2020), despite literature showing mixed results on this barrier. To solve some of these issues, the Italian Recovery Plan, which operationalises the Next Generation EU and the React EU packages, will forecast venture capital support to bolster innovation. Indeed, one of the interventions proposed in the Plan is to stimulate the growth of an innovation ecosystem with a focus on ecological transition through investments in green venture capital funds, start-ups, and incubators. Other incentives dedicated to innovative SMEs relate to an additional resource provision that promotes the development of firms that specifically contribute to scientific progress and the national economy, which will provide support to at least 250 innovative SMEs with investments of €700 million. In the Plan, more traditional forms of funding, such as subsidised finance and tax credit, are also expected to support SMEs' internationalisation through digitalisation and sustainability. It is hoped that such a package of interventions, in which traditional financing tools are flanked by others that are more focused on innovative SMEs, will help these firms preserve their R&D focus and allow them to seize the opportunities derived from the ecological transition. In this study, we examined the role of occasional incentives (the COVID-19 related ones), whose principal aim was to provide financial relief to innovative SMEs affected by the crisis. In this regard, we were not able to test the extent to which such incentives promoted a business model reconfiguration around CE to support their competitiveness in the long run. In addition, the short period intercurrent from May 2020, in which the Relaunch Decree became operative and September 2020, when the survey was sent for the first time, could not be sufficient for incentives to produce important effects on the business models of the innovative SMEs under investigation, both in terms of CE adoption and the latter's impact on competitiveness. In this regard, further research may investigate whether COVID-19 related incentives will produce meaningful effects in terms of the adoption of CE practices in the long run and how these factors will, in turn, contribute to the competitiveness of SMEs. Indeed, at the time of writing this paper, it was not yet possible to retrieve financial data on innovative SMEs considering a sufficiently consistent time period to allow the conduction of a quantitative study and to be able to control for variables that could affect the above-cited relations (i.e. the year in which these firms have started to implement CE practices that may be prior to the attainment of a COVID-19 incentive). Another limitation of this study lies in the limited sample size, as the CE in SMEs is an emergent topic, and the pandemic may have prioritised practical and operational issues, impacting innovative SMEs' participation in this research, as confirmed by some of the feedback received from non-respondents. Further, consistent with the resource-based view of the firm (Barney, 1991), quantitative studies may test how financial incentives, derived from public policies specifically aimed at supporting CE, mediate the relationship between the firms' physical and organizational resources and the developed competences, and to what extent the latter impact the adoption of CE practices in SMEs.

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## Appendix 1: The questionnaire

Section 1: Take

	1 (Not at all)	2	3	4	5	6	7 (Completely)
Please rate the extent to which you agree with the following sentences related to CE practices in your firm:							
I produce energy from by-products or waste from the production process that I use to run the plant	0	0	0	0	0	0	0
I choose to purchase raw materials with a lower environmental impact	0	0	0	0	0	0	o
I use renewable materials	0	0	0	0	0	0	0
I use methods to quantify the relevant emissions and resources consumed and the related impacts on the environment and health	0	0	0	0	0	0	o
Please rate the extent to which you apply the following	compet	ences t	o reach	the afo	rement	ioned C	CE practices
Ability to select suppliers on the basis of their environmental impact	0	0	0	0	0	0	0
Exchange of information with suppliers to increase the use of circular raw materials	0	0	0	0	0	0	0
Ability to influence the characteristics of raw materials from a circular economy perspective	0	0	0	0	0	0	0
Sharing of circular economy values with suppliers	0	0	0	0	0	0	0
Please rate the extent to which you use the following r	esources	to reac	h the a	foremei	ıtioned	CE pri	actices
Biodegradable raw materials	0	0	0	0	0	0	0
Regenerated raw materials	0	0	0	0	0	0	0
Recyclable raw materials	0	0	0	0	0	0	0
Competent suppliers in the field of circular economy	0	0	0	0	0	0	0

Section 2: Make

	1 (Not at all)	2	3	4	5	6	7 (Completely)	
Please rate the extent to which you agree with the following sentences related to CE practices in your firm:								
I make tailor-made products in order to reduce waste and prevent overproduction	0	0	0	0	0	0	0	
I manufacture products considering the need to disassemble them for repair, refurbishment, or recycling	0	0	0	0	0	0	0	
I produce products separating the organic parts from the inorganic ones	0	0	0	0	0	0	0	
I design the product with attention to its envi- ronmental impacts during the entire life cycle	0	0	0	0	0	0	0	
The design and production take place with a view to reducing the use of raw materials and harmful substances	0	0	0	0	0	0	0	
I use resources or materials that last longer than a single life cycle	0	0	0	0	0	0	0	
Please rate the extent to which you apply the following competences to reach the aforementioned CE practices								
Eco-design skills	0	0	0	0	0	0	0	

Design of products whose life can be maintained or increased through repair	0	0	0	0	0	0	0	
Design of production processes with a view to reducing waste, increasing energy efficiency, and	0	0	0	0	0	0	0	
using renewable materials		0	0	0	0	0	0	
Project-management skills to facilitate the development of new CE products	0	0	0	0	0	0	0	
Please rate the extent to which you use the following resources to reach the aforementioned CE practices								
Standardized production processes	0	0	0	0	0	0	0	
Qualified personnel	0	0	0	0	0	0	0	
Technologies for monitoring energy consumption	0	0	0	0	0	0	0	
Technologies for monitoring the consumption of materials	0	0	0	0	0	0	0	
Technologies that reduce energy consumption	0	0	0	0	0	0	0	

Section 3: Distribute

				1					
	1 (Not at all)	2	3	4	5	6	7 (Completely)		
Please rate the extent to which you agree with the following sentences related to CE practices in your firm:									
I use packaging that reduces transport costs	0	0	0	0	0	0	0		
I use packaging with reduced environmental impact	0	0	0	0	0	0	0		
I use product distribution channels that limit road transport	0	0	0	0	0	0	0		
I provide customers with information on disposal of packaging	0	0	0	0	0	0	o		
Please rate the extent to which you apply the following competences to reach the aforementioned CE practices									
Attention to reducing the environmental and economic impact in logistics	0	0	0	0	0	0	0		
Warehouse management skills	0	0	0	0	0	0	0		
Logistic skills	0	0	0	0	0	0	0		
Packaging design with reduced environmental impact	0	0	0	0	0	0	0		
Please rate the extent to which you use the following r	esources	to reac	h the a	foremei	ıtioned	CE pri	actices		
Traceability system of raw materials and processes to guarantee the customer compliance with the principles of the circular economy	0	0	0	0	0	0	0		
Availability of third-party logistics service providers	0	0	0	0	0	0	0		
Cooperation with packaging producers with a view for sustainability (environmental and economic) of the packaging	0	0	0	0	0	0	0		
Cooperation with distributors with a view for (environmental and economic) sustainability of distribution	0	0	0	0	0	0	0		

#### Section 4: Use

	1 (Not at all)	2	3	4	5	6	7 (Completely)		
Please rate the extent to which you agree with the following sentences related to CE practices in your firm:									
The product remains the property of my company which carries out maintenance, repair, and recycling activities throughout its life	0	0	0	0	0	0	0		
The product remains the property of my company and the customer pays me to use it	0	0	0	0	0	0	0		
I offer products guaranteed by environmental certification or eco-sustainability	0	0	0	0	0	0	0		
The products or part of their components can be reused	0	0	0	0	0	0	0		
Use of second-hand collection systems that guarantee a continuous flow of material for regeneration	0	0	0	0	0	0	0		
Please rate the extent to which you apply the following competences to reach the aforementioned CE practices									
Dialogue with customers to extend the life cycle of the product and reuse and recycle it	0	0	0	0	0	0	0		
Development of long-term customer relationships	0	0	0	0	0	0	o		
Involvement of customers in the design of products and services	0	0	0	0	0	0	0		
Development of an effective after-sales service that encourages the repair/reuse of products	0	0	0	0	0	0	0		
Please rate the extent to which you use the following resources to reach the aforementioned CE practices									
Market analysis techniques	0	0	0	0	0	0	0		
Business intelligence tools	0	0	0	0	0	0	0		
After sales service	0	0	0	0	0	0	0		
Channels of communication with customers	0	0	0	0	0	0	0		

Section 5: Recover

	1 (Not at all)	2	3	4	5	6	7 (Completely	
Please rate the extent to which you agree with the following sentences related to CE practices in your firm								
I use the by-products of my production processes as raw materials for the manufacture of new products	0	0	0	0	0	0	0	
I convert used products into new products of the same quality	0	0	0	0	0	0	0	
I convert used products into new products of lower quality or reduced functionality	0	0	0	0	0	0	0	
I convert unusable waste materials into energy	0	0	0	0	0	0	0	
Exchange and / or share with other companies by-products to be used as inputs in production processes	0	0	0	0	0	0	0	
Please rate the extent to which you apply the following competences to reach the aforementioned CE practices								

Attention to the reduction of production waste through the philosophy of reduction, reuse, and recycling	0	0	0	0	0	0	0
Return logistics use: recovery of products or components to create new ones	0	0	0	0	0	0	0
Please rate the extent to which you use the following resources to reach the aforementioned CE practices						CE practices	
Management attentive to the processes of reduction, reuse, and recycling	0	0	0	0	0	0	0
Staff attentive to the reduction, reuse, and recycling processes	0	0	0	0	0	0	0
Production processes that allow the recovery of materials	0	0	0	0	0	0	0
Relationship with customers for the purpose of recovering products	0	0	0	0	0	0	0
Presence of third-party service providers who recover the materials	0	0	0	0	0	0	0

Section 6: Barriers

	1 (Not at all)	2	3	4	5	6	7 (Completely)
Please rate the extent to which the following factors do	Please rate the extent to which the following factors do limit (or can limit) CE implementation in your firm						your firm
Difficulties in identifying funding sources to support CE innovation	0	0	0	0	0	0	0
Amount of investments required to implement circular practices	0	0	0	0	0	0	0
Availability of human resources to address CE innovation	0	0	0	0	0	0	0
Lack of a clear normative framework on CE	0	0	0	0	0	0	0
A lack of economic support from institutions	0	0	0	0	0	0	0
Scarce adaptability of environmental monitoring tools to SME characteristics	0	0	0	0	0	0	0
A lack of knowledge regarding the benefits of CE implementation	0	0	0	0	0	0	o

Section 7: Incentives

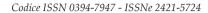
Recent normative provisions foresaw occasional incentives to support firms during the pandemic. Please indicate which of the following economic benefits your firm accessed following the COVID-19 emergency:

- The "Venture Capital Support Fund" Refinancing of the relief granted in the form of soft loans
- Provision of relief granted on capital injections that may support investments
- None of them



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# SME AND INNOVATION IN AUTOMATION: THE INFLUENCE OF FAMILY GOALS

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#### Abstract

*Purpose.* The paper examines whether, on the basis of Socio Emotional Wealth (SEW), family SMEs differ from non-family firms in their propensity to innovate in automation.

Design/methodology/approach. Built on SEW, we hypothesise that family firms, especially SMEs, differ from non-family SMEs, in two needs: (a) the care for their employees and (b) the preservation of the image and reputation of the family and the firm in the community. The empirical analysis is based on a sample of 3,618 Italian SMEs and adopts the two-stage procedure proposed by Heckman (1976, 1979).

*Findings.* Consistent with the SEW perspective, family SMEs are less inclined to innovate in automation.

Practical and Social implications. The evidence of this study could be used to design policies that promote the innovation and application of automation by helping family SMEs to evaluate the positive and negative aspects and to overcome any resistance due to the influence of socio-emotional endowment on strategic decisions. From a managerial point of view, the critical issues that family SMEs face when deciding to innovate in automation are highlighted.

*Originality of the study.* For the first time it is analysed how much family involvement affects the strategic decision to innovate in automation in SMEs by applying SEW.

## 1. Introduction

Automation technologies, such as artificial intelligence, big data and robotics, are spreading rapidly worldwide (Schwabe and Castellacci, 2020) and becoming essential for organisational survival as a source of competitive advantage (Acemoglu et al., 2020). In particular, literature recognises innovation in automation as a very important strategic decision, especially for most small and medium-sized firms (SMEs) (Ballestar et al., 2020). Moreover, since SMEs represent 99% of all businesses in the EU (EU Commission), research on the context of SME and innovation is quite relevant.

Innovation enables firms to compete and survive (Aziz and Samad, 2016; Udrivah et al., 2019) and has become an integral part in value creation for many industries (Hitt et al., 1996; Olson et al., 2006). At the same time, due to its negative consequences, automation is receiving increasing attention in the literature. Indeed, while automation technologies can increase firms' productivity (Bessen and Righi, 2019; Acemoglu et al., 2020), they can decrease firm employment (Bonfiglioli et al., 2020; Jung and Lim, 2020), as well as negatively affect employees' satisfaction and well-being (Schwabe and Castellacci, 2020). These aspects mainly lead both to economics and non-economic goals. However, if literature posed emphasis on the economic consequences of innovation in automation, research analysing both the influence of the non-economic and economic consequences of automation on the propensity to innovate is lacking. The presence of this gap takes momentum if we consider the impact that non-economic aspects have on the strategic decisions of family firms. Family firms still remain the most relevant part among the SMEs (Rondi et al., 2020)

To fill this gap, we aim to understand for the first time how much family involvement affects the strategic decision to innovate in automation in SMEs by considering the socio-emotional wealth (SEW) (e.g., Gast et al., 2018). SMEs present certain peculiarities with respect to the managementownership structure and management models: the overlap between the family system and the firm system is particularly high (Sciascia et al., 2013) and can impact the strategic decision to innovate (Rondi et al., 2020; Überbacher et al., 2020). Thus, research on the context of SME on innovation in automation is quite relevant. From another point of view, family firms are generally defined as small- or medium-sized firms that are owned and controlled by one or a group of families. While family SMEs may be encouraged to innovate in automation because they can achieve an increase in firm productivity and thus enjoy a competitive advantage, they may be reluctant to do so because of the negative non-economic consequences of automation. In particular, the decrease in firm employment and in the satisfaction and well-being of employees may lead to the disappointment of key stakeholders (in particular, employees) and thus the risk of souring

the relationship with them. It is therefore believed that the choice to innovate in automation for the family is, in other words, driven by two needs of a socio-emotional nature: the care for employees with particular regard to their level of satisfaction and well-being; and the pride in building and maintaining the image and reputation of the family and the firm. In this study, we aim to understand whether, due to the presence of these two needs and the preservation of the SEW, family SMEs innovate less in automation than non-family firms.

To address the research question, from a theoretical perspective we draw on previous findings from the literature on automation (Koch et al., 2019; Acemoglu et al., 2020; Schwabe and Castellacci, 2020) by re-reading them from the SEW perspective. From the empirical point of view, instead, we exploit a database of 3,618 Italian SMEs (both family and non-family ones) that have or have not innovated in automation.

This study contributes to the literature on automation and family firms. First, we show that automation is influenced also by non-economic aspects that the family involvement in the firm implies. Second, we advance the knowledge of the strategic decision-making process of family firms, considering the case of innovation in automation. A more detailed discussion of the contributions to the literature is offered in the conclusions.

# 2. Theoretical background

# 2.1 Family SMEs and innovation

Family firms operate with the aim of preserving their SEW (Gómez-Mejía et al., 2007; Jiang et al., 2016). Family firms thus pursue, in addition to financial objectives and business goals, non-economic objectives focused on family values and needs (Cennamo et al., 2012; Chrisman et al., 2012; Miller and Le Breton-Miller, 2014; Nordqvist et al., 2008). These goals may dominate economic ones (Kotlar and De Massis, 2013). In particular, on the one hand, being a family within a firm implies management that takes into account issues, values and preferences of family members through their involvement (Ibrahim et al., 2001; Gómez-Mejía et al., 2007). On the other hand, the awareness of "being a family" outside the firm means operating while preserving relationships with stakeholders (Berrone et al., 2012).

Family managers are stewards and act in trustworthy, collectivistic, and pro-organizational ways (Neckebrouck et al., 2018). Due to the overlap between ownership and management, they are intrinsically motivated to care about the welfare of the firm and tend to be deeply embedded in its socioeconomic context (Gómez-Mejía et al., 2011).

The literature on family SMEs confirms this evidence and report how

families in SMEs desire to continue the firm for the next generation (Mahto et al., 2014; Rondi et al., 2020) and to favour family goals over business goals (Koiranen, 2003).

Long-term orientation is one characteristic of family firms (Chua et al., 1999; Miller and Le Breton-Miller, 2006). Especially in sfamily SMEs, leaders plan to pass on the firm to heirs within the family (Miller and Le Breton-Miller, 2006). For this reason, they work to create a successful firm in the long run building long-term relationships with stakeholders (Zellweger et al., 2012). Particular attention is devoted to their employees, who are considered as an extension of the family (Marler et al., 2021).

Indeed, the unique SEW configuration of family SMEs (e.g., differences in the intensity of family control, identification, binding social ties, emotional attachment, and dynastic succession) (Harms et al., 2009) has a strong effect on how these firms manage technological innovations (Gast et al., 2018).

While innovation is a source of competitive advantage (Aziz and Samad, 2016; Udriyah et al., 2019), it also involves risks and uncertainties and significant financial and human resources (Chrisman et al., 2015). The literature on innovation in family SMEs provides interesting results that need to be advanced focusing, according to a recent call, to understand how and under what conditions family ownership influences innovation of family SMEs (Kellermanns et al., 2012; Gast et al., 2018). Family SMEs are more risk-averse and have less innovative behaviour (Craig et al., 2014; Mahto and Khanin, 2015; Rondi et al., 2020). Family SMEs create innovations with lower economic and technological importance compared to their non-family counterparts (Block et al., 2013; Kotlar et al., 2013). Differences are mainly due to the affective value family owners derive from their firms (Carnes and Ireland, 2013).

In summary, based on the literature on the topic, it is believed that the SEW framework provides relevant insight in order to predict the influences of the family goals on the decision to innovate and in particular to innovate in automation.

# 2.2 Innovation in automation: positive and negative aspects in light of the SEW

The decision to innovate in automation is particularly difficult given that automation technologies are associated with both negative and positive consequences that can generate both economic and non-economic implications. On the one hand, they can significantly decrease firm employment (Bonfiglioli et al., 2020; Jung and Lim, 2020) and employees' satisfaction and well-being (Schwabe and Castellacci, 2020). On the other hand, they can also increase productivity (Bessen and Righi, 2019; Acemoglu et al., 2020). Non-strictly economic aspects are extremely relevant for the family decision-maker such that economic benefits might be overshadowed.

Regarding the impact of automation technologies on employment, on the one hand, they cause a substitution effect, as they are designed with the aim of performing tasks previously done by workers or increasing labour productivity (Acemoglu and Restrepo, 2019a). On the other hand, they produce some compensation mechanisms, i.e. indirect effects that mitigate the initial reduction in employment (Acemoglu and Restrepo, 2019a). However, the final impact could be a net decrease in employment (Acemoglu and Restrepo, 2019b). While according to some studies the impact on automation at the firm level is positive (e.g., Bessen et al., 2020; Domini et al., 2021), other studies point to the possibility of a decrease (e.g., Bonfiglioli et al., 2020; Jung and Lim, 2020; Ballestar et al., 2021; Ni and Obashi, 2021). In light of this evidence, we consider that the possible negative impact on employment may generate SEW losses in family firms, including the fear of ruining the relationship with employees and the fear of losing the firm's reputation due to the reduction in societal welfare as a result of job losses.

The second aspect concerns the impact on employees' satisfaction, commitment and well-being. Automation technologies could have an impact on the non-pecuniary aspects that determine employees' well-being (Kaplan and Schulhofer-Wohl, 2018; Schwabe and Castellacci, 2020). These include many job outcomes (e.g., expectations, job prospects, career satisfaction, and organisational commitment) and well-being outcomes (e.g., mental health and stress) (Brougham and Haar, 2018). When company management is considering the adoption of automation technologies, employees begin to fear that they may be replaced by these technologies and thus lose their jobs (Schwabe and Castellacci, 2020): employees perceive that they are undervalued and unappreciated by the employer and that they are no longer "part of the family" (Meyer et al., 1993; Brougham and Haar, 2018).

Automation technologies may also have an indirect effect on well-being as they may decrease job satisfaction (Böckerman et al., 2011) and increase the likelihood of psychological stress, nervousness and burnout due to job insecurity in the future (Dekker and Schaufeli, 1995; Chen et al., 2004; Abeliansky and Beulmann, 2019). We believe that, as in the case of the impact on employment, the negative consequences of automation on employees' satisfaction, commitment and well-being may decrease SEW in the firm.

The last aspect to consider is the effect of innovation in automation on productivity. According to some studies, automation technologies increase both labour productivity and total factor productivity, especially in larger firms (Dinlersoz and Wolf, 2018; Ballestar et al., 2021).

We believe that the possibility of achieving productivity gains has a positive impact on the economic aspect of the strategic decision to innovate in automation both within family and non-family firms.

# 3. Hypothesis development

Family SMEs are typically guided by unique norms, cultures, and processes that rarely exist in non-family counterparts (Kellermanns et al., 2012). When making decisions, the family tends to balance strictly economic aspects with non-economic aspects aimed at preserving the family's SEW (Gomez-Mejia et al., 2007). In reference to the choice to innovate in automation, two non-economic aspects are considered relevant: the care for their employees and the reputation and image of the family and the firm in the community where the firm is located.

Caring for employees with reference to the choice of innovating in automation is expressed in the attention to limiting the job losses that automation can generate (Bonfiglioli et al., 2020; Jung and Lim, 2020) and to ensuring employees' satisfaction and well-being (Schwabe and Castellacci, 2020). Family firms are, in fact, recognised to be firms where employees are considered part of an extended family (Christensen-Salem et al., 2021). Family firms are strongly committed to creating stable employment conditions (Stavrou et al., 2007) and tend to avoid decisions that are considered even potentially harmful to their employees (Christensen-Salem et al., 2021) and that may ruin the relationship with them (Kaplan and Schulhofer-Wohl, 2018; Schwabe and Castellacci, 2020). This is particularly true for family SMEs, which are unlikely to make use of external human capital (Colombo et al., 2014). Thus, we consider that the employees of family SMEs may be strongly related to the family owners. Further, the typical limitations in human resources faced by family SMEs constrain their innovativeness (Gang et al., 2018). For these reasons, we expect family SMEs to limit innovation in automation compared to non-family firms.

Another aspect of a socio-emotional nature is the need for the image and reputation of the family and the firm in the community where it is located (Miller and Le Breton-Miller, 2005; Kellermanns et al., 2012). In family SMEs, such behaviour might be even more present as due to the strong identification between owners, managers and firms, any damage caused by innovations equally damages the family's and firm's reputation as well as the family's SEW (Sageder et al., 2018). A firm's image and reputation is largely built on how its stakeholders view the way it deals with different demands from the external and internal environment (Neubaum et al., 2012). In general, proactive stakeholder engagement refers to anticipating stakeholder needs and carrying out activities that proactively involve these people (Laplume et al., 2008). Family firms may be more incentivised in such behaviour than non-family firms because it allows them to gain economic benefits and, above all, greater reputation and legitimacy (Laplume et al., 2008; Surroca et al., 2010).

Proactive stakeholder involvement can be directed at internal stakeholders (e.g., employees) whose well-being is affected by the decisions and actions of family firms (Cennamo et al., 2012). Family firms tend, with reference to these stakeholders, to gain relational trust and approval for their activities and to improve the image and reputation of the firm (Cennamo et al., 2012). For the same purpose, firms can be concerned with increasing the well-being and prosperity of external stakeholders (Brickson, 2005, 2007). These aspects can influence the decision-making process in family firms (Baron, 2008). Therefore, family firms act with the dual purpose of increasing their recognition among the community and internal stakeholders and avoiding all actions that may conversely limit it.

Automation can decrease employees' satisfaction and increase employee insecurity about the workplace (Abeliansky and Beulmann, 2019; Chen et al., 2004). These aspects negatively affect the well-being of the individual by creating psychological stress (Abeliansky and Beulmann, 2019). Therefore, we believe that the conditions created by innovation in automation may lead the decision-makers of family SMEs to perceive a risk of loss of image and reputation both in relation to the family and in relation to the firm so that they tend to limit this type of innovation.

In summary, SEW leads us to consider how needs such as care for employees and family and firm reputation in the community influence the strategic decision to innovate in automation. Specifically, we advance the following hypothesis:

To preserve social-emotional wealth, family SMEs innovate in automation less than non-family firms.

## 4. Method

## 4.1 Sample and data

The sample for the analysis includes 3,618 Italian SMEs identified according to the European commission definition (EU recommendation 2003/361). Italy represents an interesting context both for the presence of family firms and for the adoption of automation technologies (Baltrunaite et al., 2019). Italy has been the second country in Europe for robot stock since the 1990s (Dottori, 2021), but Italian firms lag behind in the adoption of automation technologies due to the characteristics of the production structure (Codogno, 2009; Bruno and Polli, 2017), the family structure of firms (Bugamelli et al., 2012) and the institutional context (Sestito and Torrini, 2019).

The dataset<sup>1</sup>, which collects data as of 2019, results from a merging process of three datasets. Patent information is extracted from the EPO Worldwide Patent Statistical Database (EPO-PATSTAT). Patents related to the three automation technologies considered - artificial intelligence, big data and robotics - and filed by small and medium firms based in Italy were selected. To identify the patent codes relevant for the analysis, a literature search was carried out (Fujii and Managi, 2018; IPO, 2014a, 2014b, 2019; Keisner et al., 2015; Martinelli et al., 2019; Webb et al., 2018).

The information regarding the firms is obtained from the AIDA database (Bureau van Dijk), which contains identification data (location, year of foundation, sector), financial data and information regarding the ownership structure (the family name of each board member and shareholder along with the ownership share).

Finally, information regarding the internationalisation of the firm was added. This information was obtained from Reprint, which provides data on outgoing and incoming FDI of Italian firms since 1986.

 $<sup>^{\</sup>scriptscriptstyle 1}$  For the selection of the sample, the universe of active Italian small and medium firms that have filed at least one patent in automation was considered. The control sample was selected randomly;  $\chi^2$  tests on the distribution of firms confirmed the representativeness of the population of Italian small and medium firms.

## 4.2 Variables and measures

Table 1 reports the sources and definitions of the variables used in the empirical analysis.

Tab. 1: Definitions and sources of the variables used in the empirical analysis

Variable	Definition	Source
Dependent variables		
Innovation	Dummy variable equal to 1 if the firm holds at least a patent and 0 otherwise	EPO-PATSTAT
Automation	Number of patents in automation registered by the firm	EPO-PATSTAT
Independent variable		
Family firm	Dummy variable equal to 1 if a firm is majority owned by the family and the BoD is composed by family members for the majority; and 0 otherwise	
Control variables		
Firm size	Logarithm of domestic sales	AIDA
Firm age	Logarithm of number of years since firm foundation	AIDA
Internationalisation	Dummy variable taking the value 1 if the firm is part of a multinational group or has foreign subsidiaries, 0 otherwise	KEEKHNI
Return on investment	Net income on investment	AIDA
Return on equity	Net income on equity	AIDA
Value added	Value added per employee (euro, thousands)	AIDA
Risk	Standard deviation of return on assets on the last five years	AIDA
Liquidity ratio	Liquidity ratio, calculated as the ratio of current assets (net of inventory) and current liabilities	AIDA
Leverage	Debts on equity	AIDA
Fixed assets	Fixed assets (euro, millions)	AIDA
Gross investments	Annual growth rate in fixed assets	AIDA
Labour costs	Labour costs (euro, millions)	AIDA
North	Dummy variable equal to 1 if the firm is located in North Italy	AIDA
Industry	Categorical variable describing the industry in which the firm operates, with these levels: "Pavitt science based", "Pavitt specialised suppliers", "Pavitt scale and information intensive", "Pavitt suppliers dominated", "Pavitt other"	AIDA

**Dependent variables.** The dependent variables are *Innovation* and *Automation*. **Innovation** is a dummy variable equal to 1 if the firm holds at least a patent and 0 otherwise. Automation measures the number of patents in automation registered by the firm.

*Independent variable*. In line with previous studies we classify a firm as a family firm considering whether simultaneously the control of the shares and the composition of the board of directors is in charge of the family (e.g., Littunen and Hyrsky, 2000; Lee, 2006) (*Family firm*).

*Control variables.* The control variables relate to the specific characteristics of the firm. The size of the firm (Firm size) and the age of the firm (*Firm age*) are included as they influence the propensity to innovate (Bannò, 2016). We control for the internationalisation of the firm (Internationalisation) as multinational firms have more knowledge and can better capitalise on investments in innovation (Kotabe et al., 2002; Kafouros et al., 2008). Since the propensity to innovate is associated with firm profitability and productivity, the relevant control variables are included in the analysis (Hanel and St-Pierre, 2002). Firm profitability is measured by the variables Return on investment and Return on equity, while firm productivity is measured as value added per employee (Value added) (Bannò, 2016). A measure of risk is also included in the analysis (Miller and Chen, 2004) (Risk). Since the availability and cost of capital can limit the ability of firms to invest in innovation, the Liquidity ratio (Goodstein and Boeker, 1991) and Leverage (Simerly and Mingfang, 2000) are also included as control variables. Fixed assets and Gross investment are included (Van Roy et al., 2018). Labour costs are also considered. The geographical area in which the firm operates (North) is considered as the context can influence both the strategy and the performance of firms (Wright et al., 2007; Bannò et al., 2015). Finally, the industry to which the firm belongs is included with the aim of capturing structural differences between industries (Pavitt, 1984).

## 4.3 The econometric models

Since only firms that innovate can hold a patent in automation, the two-stage procedure proposed by Heckman (1976, 1979) is adopted to test our hypothesis. The first-stage selection equation estimates the probability that a firm innovates (i.e., dependent variable *Innovation*), while the second-stage regression estimates the number of patents registered in automation subject to the results obtained in the first stage (i.e., dependent variable *Automation*).

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<sup>&</sup>lt;sup>2</sup>The correlation matrix, available upon request, shows the acceptable correlation indexes (Greene, 2003).

## 5. Results

# 5.1 Descriptive statistics

Table 2 reports the means and standard deviations for the explanatory variables both for the whole sample (Panel A) and for the two subsamples of FFs and non-FFs (Panel B)<sup>2</sup>.

*Tab.* 2: Descriptive statistics

	Panel A			Panel B		
				Family firms (2.085 firms, 58%)	Non-family firms (1.533 firms, 42%)	
Variable	Mean/%	Min	Max	Mean/%	Mean/%	
Innovation	48.65%	0	1	42.69%	56.75%	
Automation	0,39	0	89	0,11	0,77	
Family firm	57,63%	0	1	-	-	
Firm size	6,61	0	9,51	6,64	6,58	
Firm age	1,42	0,48	2,17	1,44	1,38	
Internationalisation	31,92%	0	1	33,48%	29,81%	
Return on investment	6,38%	-29,72	29,71	6,36%	6,42%	
Return on equity	6,65%	-144,23	109,26	6,50%	6,84%	
Value added	105,99	-3.159,07	88.708,12	73,02	150,83	
Risk	4,75	0,03	327,88	4,07	5,68	
Liquidity ratio	1,58	0,02	9,91	1,52	1,66	
Leverage	1,60	-294,84	742,5	1,72	1,43	
Fixed assets	17,29	0	5.497,04	12,33	24,08	
Gross investments	35,93%	-100	32.258,06	13,17%	66,87%	
Labour costs	2,78	0	130,65	2,33	3,40	
North Italy	69,79%	0	1	67,39%	73,06%	
Pavitt science based	12,30%	0	1	6,91%	19,63%	
Pavitt specialised suppliers	26,42%	0	1	23,55%	30,33%	
Pavitt scale and information intensive	11,19%	0	1	12,37%	9,59%	
Pavitt suppliers dominated	40,55%	0	1	46,47%	32,49%	
Pavitt other	9,54%	0	1	10,70%	7,96%	

Exactly half of the firms in the full sample hold at least one patent. On average, firms in the full sample registered 0.39 patents in automation. While family firms hold on average 0.11 patents in automation, non-family firms hold 0.77 patents.

In the sample considered, 57.63% of firms are family firms according to the Italian distribution. Both size and age are similar for family firms and non-family firms. 31.92% of firms in the full sample are internationalised. Further differences emerge when analysing the other control variables except for location and type of industry.

# 5.2 Empirical findings

Table 3 shows the regression results for the model developed.

Family firm has a negative and significant impact both on firm innovation (b = -0.1624, p < 0.01; First stage) and on firm innovation in automation (b = -0.8669, p < 0.01; Second stage). Our hypothesis is thus confirmed: family SMEs tend to innovate in automation less than non-family firms.

Firm dimension has a positive and significant impact on the propensity to innovate (First stage). Firm age, while decreasing the probability of innovation (First stage), has a non-significant impact on firm innovation in automation (Second stage). The internationalisation of the firm increases its propensity to innovate (First stage). Generally, indexes related to the economic and financial situation of the firm do not have a significant impact on its propensity to innovate and innovate in automation. The only exception is Labor costs, which has a very small positive effect on the propensity to innovate (First stage). The variable North has a positive and significant impact in the first stage and not significant in the second one. Industries have positive and significant impact only in the first stage.

As a robustness check, the impact on innovation in automation was examined by distinguishing the three types of technologies: artificial intelligence, big data and robotics. The results obtained are consistent with those above.

Tab. 3: Regression results

	First stage	Second stage			
	Innovation	Automation			
Family firm	- 0.1624 ***	-0.8669 **			
raniny mint	(0.0471)	(0.1851)			
Firm dimension	0.0459 **				
	(0.0231) -0.2838 ***	-0.3647			
Firm age	(0.0957)	(0.3482)			
	0.4248 ***	(0.0102)			
Multinational enterprise	(0.0532)				
ROI	-0.0039				
KOI	(0.0025)				
ROE		0.0040			
1.02		(0.0034)			
Risk		-0.0022			
	0.111	(0.0074)			
Liquidity ratio	0.111 (0.0019)	0.0825 (0.0634)			
Leverage	-0.0019)	-0.0176			
	(0.0012)	(0.0249)			
	(0.001))	0.0001			
Fixed assets		(0.0001)			
	0.0001	, ,			
Gross investments	(0.0001)				
Labour costs	0.0001 ***				
Labour costs	(0.0001)				
Productivity	0.0001				
Troductivity	(0.0001)				
North	0.4208 ***	0.0.752			
	(0.0516)	(0.2293)			
Pavitt science based	1.3065 ***	1.0330 **			
	(0.1036) 0.7980 ***	(0.4823) 0.2181			
Pavitt specialised suppliers	(0.0884)	(1.4537)			
	0.4721 ***	0.1103			
Pavitt scale information intensive	(0.0996)	(0.4847)			
Davitt aumnliana daminatad	0.0977	0.4877			
Pavitt suppliers dominated	(0.0836)	(0.4339)			
Intercept	-1.8308 ***	1.2765 *			
	(0.1796)	(0.7165)			
Observations	3,618				
Rho	-0.0653				
KHU	(0.059)				
Sigma	3.65				
0151110	(0.0622)				
Lambda	-0.2390				
	(0.21655)				

Standard errors in parentheses. \* p < 0.1; \*\*\* p < 0.05; \*\*\* p < 0.01

## 6. Conclusions

This study analyses for the first time how much family involvement affects the strategic decision to innovate in automation in SMEs by applying SEW. Specifically, it aims to understand whether family SMEs innovate less in automation than non-family firms due to the preservation of the SEW and the presence of important needs of socio-emotional nature (i.e., care for employees with particular regard to their level of satisfaction and well-being; pride in building and maintaining the image and reputation of the family and the firm). We found that family SMEs tend to innovate in automation less than non-family firms, thus confirming a different behaviour of family firms compared to non-family firms (De Massis et al., 2013; Dibrell and Memili, 2019).

Our results are in line with previous literature on automation highlighting the relevance of both economic and non-economic implications of automation: we confirm that in addition to the possibility to obtain an increase in firm productivity, the risks of significantly decreasing firm employment and employees' satisfaction and well-being are taken into account when deciding to innovate in automation. Our results are also in line with previous literature regarding SEW: we confirm that family firms pursue, in addition to financial objectives and business goals, non-economic objectives focused on family values and needs (e.g., care for employees, need to build and maintain the image and reputation).

This study contributes to the literature on automation, which has mainly focused on the consequences of automation technologies, including the impact on firm employment, employees' satisfaction and well-being, and productivity. Our study builds on this literature and shows that when deciding to innovate in automation both the traditionally analysed (mainly economic) aspects and the non-economic aspects attributable to the peculiarities of family involvement in the firm are considered.

There are two contributions to the literature on family firms. The first is an advancement in the knowledge of the strategic decision-making process to innovate in automation of this type of firms. Our results confirm that the need to preserve the SEW plays a crucial role in the decision of family SMEs. The second contribution points to the need to investigate how and to what extent employee's care and family and firm reputation in the community influence other strategic decisions (e.g., internationalization and/or product diversification).

The work has both policy and managerial implications. The evidence from this study could be used to design policies that promote innovation and the application of automation by helping family SMEs to carefully evaluate the positive and negative aspects of automation and to overcome any resistance due to the influence of the need to preserve the SEW on strategic decision-making.

These policies could act on drivers such as the possibility of achieving an increase in productivity and provide support instruments (e.g., labour tax incentives) to prevent innovation in automation from resulting in a reduction of firm employment and employees' satisfaction and well-being.

From a managerial perspective, our work has highlighted the critical issues that family SMEs face when deciding to innovate in automation. In the literature, innovation has been treated as a homogeneous strategic decision. In this study, we showed that it is crucial to consider the type of innovation (i.e., the specific technology) because it can generate different emotional aspects and therefore different strategic decisions.

This study is not devoid of limitations. The analysis focuses exclusively on the Italian context. It might be interesting to conduct the analysis for other countries to examine whether contextual factors (e.g., labour legislation) intertwine with the non-economic implications of automation we identified as relevant (e.g., care for employees with particular regard to their level of satisfaction and well-being; pride in building and maintaining the image and reputation of the family and the firm), giving rise to a different result from the one we found (i.e., lower propensity of family firms to innovate). Some contextual factors may indeed decrease the perceived risk of reducing firm employment and employees' satisfaction and well-being, thus giving greater relevance to the economic consequences of automation.

Another limitation of the research concerns the sample, which only considers small- and medium-sized firms. It might be interesting to replicate the analysis on a sample of larger firms in order to verify whether the larger size reduces the risk of a reduction in firm employment as a result of the innovation in automation. In larger firms, employees displaced by automation technologies might be relocated to other work activities, resulting in an internal reorganisation of work rather than a reduction in firm employment.

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# RUNFOLA, A., MILANESI, M., AND GUERCINI, S., INTERNATIONALIZATION OF LUXURY FASHION FIRMS. EXAMINING THE BUSINESS MODELS OF SMES, PALGRAVE MACMILLAN, 2022.

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## Article info

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#### Abstract

Purpose. Filling a gap in current literature, the book innovatively focuses the analysis on small- and medium-sized enterprises (SMEs) with the aim to investigate the internationalization of luxury fashion organizations and the relationship between internationalization and business models. Design/methodology/approach. The qualitative methodology adopted by the book is that of case research, and, recognizing the key role of Italy in the luxury fashion industry, the empirical context of the study is the Italian fashion sector. This book provides six in-depth case studies of Italian luxury fashion SMEs; while two organizations are artisanal realities, the other four cases investigated are medium-sized companies.

Findings. The book is conceived around three main research questions which the Authors answer by linking the theoretical framework adopted with the research results. The study presents the reasons and modes of internationalization of luxury fashion SMEs, and the main implications for their business models. A possible structure of the business model of luxury fashion SMEs is suggested according to the mechanisms of value creation, value capture, and value delivery.

*Practical and Social implications.* Entrepreneurs, managers, and people involved in the luxury business can find valuable implications in the results of the study. Moreover, the book offers original insights about the international development of luxury fashion SMEs.

Originality of the study. The book enriches the international business and the international marketing literature by extending the debate on internationalization and business models from multinational enterprises (MNEs) to SMEs. The concept of "genetic internationalization" is originally proposed and discussed with reference to the luxury fashion industry.

## Review

In the luxury fashion industry, internationalization is not only a prerogative of large companies, conglomerates, and multinational enterprises (MNEs), but it is also an effectively exploitable possibility for small- and medium-sized enterprises (SMEs). Starting from and exploring this fundamental concept, the book contributes to the international business and international marketing literature through the investigation of the reasons, processes, and forms which characterize the internationalization of luxury fashion organizations. To this aim, particular attention is paid to the study of the relationship between internationalization and business models. As claimed by the Authors, the research perimeter could fall on the study of large companies and, therefore, of those fashion brands that enjoy greater fame and success. However, in this book, the approach takes on a different and certainly innovative nuance. The analysis, in fact, focuses on SMEs to understand why luxury fashion is particularly prone to the process of internationalization and why it has become one of the sectors most able to lead globalization in recent years.

The research field choices made by the Authors find numerous reasons. First of all, the luxury fashion industry stands out for the peculiarity of the relationship between sector and distribution. This factor favors the vertical integration of luxury fashion companies and a specific type of internationalization connected with the opening of retail stores abroad. Thus, there is a sectoral interpretation of the internationalization process. Moreover, luxury fashion firms operate in a customer market and, at the same time, are surrounding by a network of suppliers, business customers, and influencers. Secondly, to address a gap in the existing literature, the Authors considered it appropriate to examine SMEs, because, as well as large companies, they can have the necessary resources to expand internationally. Although, indeed, the internationalization theory has long considered the possibility of small businesses to internationalize quickly even after a few years from their creation as surprising, in international luxury fashion the perspective appears different. In this regard, the Authors refer to companies that are "born global ante litteram" and which have become widespread roughly since the Second World War.

Hence, the book deepens the internationalization of luxury fashion organizations through the case of the internationalization of SMEs. An original and inedited element of the work lies in taking SMEs as a strong emblem of internationalization, even if they notoriously suffer from general liabilities (e.g., smallness and newness) and liabilities specifically linked to the internationalization process (e.g., foreignness and outsidership). Inter alia, the international business literature conceives the liability of foreignness as the liability which derives from being in contexts different from the national

ones, while the liability of outsidership regards the difficulties related to being external to the most crucial and profitable international business networks. Nevertheless, SMEs can be as international as large companies but their size requires them to adopt ad hoc business models to operate in the global luxury industry and to deal with uncertain conditions. The book underlines the need to analyze the business models of luxury fashion SMEs as scholars and practitioners have always addressed the topic mainly based on large players.

In an innovative, far-sighted, and comprehensive way, the three Authors investigate and explain what are the main features of the business model of SMEs in the luxury fashion industry and to what extent the dimensions of these models relate to internationalization. In order to do so, the empirical investigation carried out in the book is on Italian small- and medium-sized enterprises which have a manufacturing base.

The entire book is structured around three cleverly defined questions that the Authors actually answer during the chapters: a) *Why* do luxury fashion SMEs internationalize?, b) *How* do luxury fashion SMEs set the internationalization process?, and c) *What* are the implications of internationalization for the business models of luxury fashion SMEs?

The book inquires these questions in eight chapters, where the first one is an exhaustive and complete introduction that presents the highlights of the book itself. Chapters 2, 3, and 4 retrace some specific aspects of the theoretical background generally referred to luxury fashion companies. Chapter 5 introduces the methodology adopted in the book and presents two case studies. Chapter 6 details the characteristics and specificities of the other four case studies. The penultimate chapter discusses the six business cases considering the theoretical framework outlined in the first chapters, while the last chapter concludes the book with theoretical and managerial implications.

To understand the important contribution of the book to the extant literature, it is required to briefly specify the content of each chapter.

Chapter 2 focuses on the relationship between internationalization and luxury, and provides the reasons that push luxury companies to undertake the path of internationalization, even since their foundation. The Authors show that luxury fashion firms look for foreign markets for, at least, four motives. First, luxury fashion organizations could find the demand in the domestic market insufficient and limited for their development. In addition, these companies could be also motivated by the growing interest among consumers in purchasing luxury products and by the increasing number of consumers from emerging countries. As a second reason, global image means global reputation and global recognition. For luxury fashion firms, it is also important to have a certain visibility on those cities commonly connected to the sale of luxury products; the Authors effec-

tively bring the example of cities like Milan, Paris, London, New York, and Monte Carlo. Thirdly, luxury fashion enterprises internationalize because luxury product consumers are usually cosmopolitan and attentive to the international scenario. Finally, the management of distribution and communication channels have some advantages, such as the economy of scope and the economy of scale, which can be maximized at the international level; hence, luxury fashion companies invest through the opening of both offline stores and online platforms.

Chapter 3 proposes an overview of the literature on the internationalization process of luxury fashion companies, taking into account three fundamental aspects: the opening of retail stores in foreign markets, which are an evident sign of internationalization, the configuration of the supply chain and sourcing strategies, which are needed to know and meet customer requirements, and the role of e-commerce, which enables companies to get in touch with consumers from all over the world. This chapter concludes with an articulated analysis of the main difficulties, i.e., the liability of foreignness and the liability of outsidership, that luxury fashion companies may encounter during their internationalization path.

Chapter 4 emphasizes the link between internationalization and the business model of luxury fashion organizations. Starting from the most recent academic debate, the Authors stress that, in the luxury fashion industry, internationalization is not a strategy but a necessary component of the business model in order to gain success. The chapter proposes a suitable business model taxonomy consisting of four types of business model referred to various luxury players: large luxury fashion MNEs, independent entrepreneurial SMEs, vertically integrated luxury suppliers, and digital native luxury brands.

The methodology used in the book is detailed in Chapter 5 and it is precisely a case study methodology. The empirical context of the analysis is the luxury fashion industry in Italy. Also in this case, the Authors coherently explain the reason for this methodological choice. Italy has a highly recognized role in the global luxury fashion sector. Italian luxury fashion organizations have always enjoyed remarkable international success thanks to a demanding internal consumption, a specific distribution system, a manufacturing expertise in areas such as textiles, clothing, and leather products, a solid presence in exclusive segments of luxury fashion, and a significant attention to sharing external resources with local production systems. Furthermore, the specific "Made in Italy" declaration arouses appeal and favorable value perceptions among foreign markets. To answer the research questions and explain the internationalization of luxury fashion companies through the example of the internationalization of SMEs, the Authors investigate six Italian manufacturing SMEs operating on an international scale in the luxury fashion industry. Chapter 5 focuses on two of

the six case studies adopted by the book. Sapaf and Bontoni are small-sized luxury fashion organizations in local clusters. They have a deep bond with the territory of origin. Sapaf is historically present in the Florentine territory (Tuscany region), while Bontoni is located in the Montegranaro district (Marche region). These two artisanal realities use leather as raw material and share a severe vocation for internationalization since their creation.

The other four companies are detailed in Chapter 6 as they are characterized by both a notable dimension growth and international expansion. Fabiana Filippi is based in Umbria, while E.Marinella was born in the Campania region; Antonelli Firenze and Monnalisa are both of Tuscan origin. These four cases are medium-sized organizations.

Chapter 7 wisely combines the theoretical framework with the findings of the empirical research carried out. In this perspective, the theoretical background of the book is specifically linked to the case studies to answer the research questions. The Authors, therefore, explain in detail the results of their investigation and, in particular, why luxury fashion SMEs are international, how they internationalize, and what are the implications of internationalization for their business models. The chapter not only proposes the business model of luxury fashion manufacturing firms and the relationship with the internationalization process, but also compares these business models with large global actors in the luxury sector. It is worth emphasizing that the Authors suggest the structure of the business model of luxury fashion SMEs on the basis of three mechanisms (i.e., value creation, value capture, and value delivery), where seven pillars of the international dimension of the business model are combined.

Finally, Chapter 8 closes the book. The study of luxury SMEs internationalization is the original contribution given by the Authors. From a theoretical perspective, the book responds to the gap found in the literature by discussing the "genetic internationalization" of luxury SMEs and the liability of localness: these two concepts summarize the international nature of the business model of luxury SMEs. Indeed, addressing the international market is not a strategy; many SMEs are genetically international because, in order to develop, the luxury fashion industry requires internationality as an element of the company business model. On the contrary, SMEs would be affected by a liability of localness: operating only at the local level would mean setting significant barriers to work in the luxury fashion sector. From a managerial point of view, entrepreneurs, managers, and people interested in the luxury business, regardless of the reference industry, may be involved in the insights provided by the research.

The book offers a cutting-edge and unique view of SMEs: their liabilities do not prevent them from being genetically international; the proposed case studies are a proof of this statement, even in the case of the two small artisan realities. Considering the luxury fashion industry, Runfola, Mila-

nesi, and Guercini combined their academic, professional, and personal experiences to enrich the international business and the international marketing literature by demonstrating that also manufacturing SMEs can lead and influence the internationalization process.

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