



Responding to unexpected crises: The roles of slack resources and entrepreneurial attitude to build resilience

Elisa Conz · Giovanna Magnani ·
Antonella Zucchella · Alfredo De Massis

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Abstract This study explores how entrepreneurial firms responded to - and displayed resilience in - coping with the uncertainty generated by an unexpected crisis. We examine how entrepreneurs leveraged slack resources to build organizational resilience and, thanks to their entrepreneurial attitude, could eventually turn adversities into opportunities. Through a multiple case study, four key entrepreneurial responses emerge about the type of slack resources (business or family) and extent of entrepreneurial attitude (favourable or unfavourable) leveraged: “waiting while seeding”, “keeping business as usual”, “striving to resist” and “surfing the pandemic”. Slack resources, both business and family, can enable the absorption of a shock, contributing to building absorptive resilience, or the adaptation to the

shock, contributing to building adaptive resilience. Yet, they are not sufficient to turn adversities into opportunities because firms also require a favourable entrepreneurial attitude to activate slack.

Plain English Summary How entrepreneurial firms respond to - and display resilience in - coping with a crisis’s uncertainty varies according to the entrepreneurial attitude of the entrepreneur and the typology of slack resource leveraged. We find that these firms responded to the Covid 19 crisis either through: “waiting while seeding”, “keeping business as usual”, “striving to resist” or “surfing the pandemic”. The four responses differ in the type of slack resources — business or family — and extent of entrepreneurial attitude — favourable or unfavourable — leveraged. Slack resources, both business and family, are not sufficient to turn adversities into opportunities because firms require a favourable entrepreneurial attitude to activate slack. The study contributes to business practice by showing that both family and non-family

E. Conz (✉)
Department of Social and Political Sciences, University
of Pavia, Corso Strada Nuova 65, 27100 Pavia, Italy
e-mail: elisa.conz@unipv.it

G. Magnani · A. Zucchella
Department of Economics and Management, University
of Pavia, Via San Felice 5, 27100 Pavia, Italy
e-mail: giovanna.magnani@unipv.it

A. Zucchella
e-mail: antonella.zucchella@unipv.it

A. De Massis
Centre for Family Business Management, Faculty
of Economics and Management, Free University of Bozen-
Bolzano, Bozen-Bolzano, Italy
e-mail: alfredo.demassis@unibz.it

A. De Massis
International Institute for Management Development,
Lausanne, Switzerland

A. De Massis
Lancaster University, Lancaster, UK

A. De Massis
Institute of Family Business and Institute
for Entrepreneurs, Zhejiang University, Zhejiang, China

businesses to thrive in the “new normal” era will have to develop the entrepreneurial resources of the team. Policymakers must be attentive to how firms’ accumulated resources are deployed during times of crisis and foster the capture of opportunities out of the storm.

Keywords Resilience · Entrepreneurship · Slack resources · Entrepreneurial attitude · Uncertainty

JEL classifications H12 · L25 · L26

1 Introduction

Unexpected shocks generate uncertainty and represent a threat to the continuity of businesses (Belitski et al., 2022; De Massis & Rondi, 2020; Kark et al., 2020; Kuratko & Audretsch, 2021). Coping with extreme events like a global pandemic is especially challenging for those entrepreneurs who do not have relevant prior experience in facing such unexpected circumstances. Nonetheless, shocks represent a unique opportunity to build and test entrepreneurial abilities in a context of true Knightian uncertainty (Knight, 1921), i.e., a lack of any quantifiable knowledge about potential occurrences, and future scenarios. As mentioned in previous studies (e.g. Bullough & Renko, 2013), some entrepreneurs respond to external shocks by being discouraged because they perceive a great sense of adversity, and by showing an unfavourable attitude towards capturing opportunities. Conversely, other entrepreneurs develop a more positive reaction, by seeing and enacting opportunities out of uncertainty (ibid).

This research builds on entrepreneurship studies of entrepreneurial action under Knightian uncertainty (Dimov, 2018; Leyden & Link, 2015; Miller, 2007) and the strategic management literature on slack resources (i.e. Barney, 2001; George, 2005; Peteraf, 1993) and resilience (i.e. Bhamra et al., 2011; Hamel & Välikangas, 2003; Reinmoeller & van Baardwijk, 2005). It explores how entrepreneurs respond and develop organizational resilience, i.e., the organizational ability essential to face unexpended events (Chrisman et al., 2011; Danes et al., 2009; Korber & McNaughton, 2018; Linnenluecke, 2017) to preserve business continuity, by leveraging slack resources and entrepreneurial attitude. Both slack resources and

entrepreneurial attitude are critical for firms to overcome uncertainty and react to crises also by generating value (Campopiano et al., 2018; Koudstaal et al., 2016; Tognazzo et al., 2016). First, slack resources, i.e., the excess resource stock of human, social, family, and financial capital (Danes et al., 2009), are key to build organizational resilience. Though, most studies about slack resources are devoted to explaining firm performance and/or firm growth in “normal” business times (Baker & Nelson, 2005; George, 2005; Minola et al., 2021), overlooking how firms leverage slack resources under conditions of uncertainty. Second, entrepreneurial attitude, i.e., the tendency to react positively or negatively to entrepreneurship (Kusmintarti et al., 2014), also plays an important role in contributing to organizational resilience (Leipold & Greve, 2009) because it may foster action thanks, for instance, to proactiveness, and lower risk/uncertainty aversion (Koudstaal et al., 2016).

In this study, we aim to answer the following research question *how do entrepreneurs respond and build organizational resilience in a crisis environment?* by employing as empirical setting the uncertainty generated by the spread of the Covid-19 pandemic. We adopt a grounded theory approach and select nine firms located in one of the regions in Europe that have been most affected by the pandemic: the Northwest of Italy.

Results reveal that entrepreneurs developed four responses to the crisis that we labelled: “waiting while seeding”, “keeping business as usual”, “surfing the pandemic”, and “striving to resist”. Such responses vary along two dimensions: the type of slack resources leveraged to build resilience — business vs family slack — and the entrepreneurial attitude towards opportunities — favourable vs unfavourable. We refer to business slack as the surplus of financial, technological, and human resources that allow an organization to adapt to internal and external pressures (Bourgeois, 1981). Family slack is the excess of resources proper of family businesses which derive from the long-term orientation and trust that characterize family-owned and managed organizations, such as for example, tacit knowledge, reputation, and relationships (Le Breton–Miller and Miller, 2015).

In all the firms in our sample, slack resources enabled organizational resilience, whether in the form of the absorption of a shock — absorptive resilience,

i.e., the ability of the firm to resist disturbance and to quickly return to a phase of equilibrium after the shock (Conz & Magnani, 2020), or in the form of the adaptation to the shock — adaptive resilience, i.e., the ability to cope with and to adjust to shocks by recombining existing resources (ibid).

Yet, for the firms studied here, slack resources per se have not been sufficient to turn adversities into opportunities, as a strong entrepreneurial attitude is needed. We also observed that, in contrast to extant studies that claim the superior ability of family firms, compared to non-family ones, in surviving and thriving in the aftermath of unexpected events (Salvato et al., 2020), both types of firms show similarities in how they built resilience and entrepreneurially responded to the shock.

By answering the call of George (2005, p. 674) to further investigate “the multiple forms of slack resources and entrepreneurial firms’ ability to leverage and deploy slack across potential alternate applications for a specific resource”, this qualitative research contributes to the entrepreneurship and resilience literature by reconsidering the notion of slack, and its relationships with entrepreneurship and resilience. Specifically, we identify that, although in different degrees, slack resources are a key antecedent for building resilience at the organizational level and argue that a strong entrepreneurial attitude is a necessary condition to activate the former to capture business opportunities during crises. The paper is structured as follows: we first introduce the concepts of organizational resilience, slack resources, and entrepreneurial attitude. Second, we describe the research design, data collection and analysis methods. Third, we illustrate the study’s findings by advancing four entrepreneurial responses. Last, we address our contribution to theory and practice and provide avenues for future research.

2 Theoretical framework

2.1 Building resilience by leveraging resources

According to the process perspective (Hamel & Välikangas, 2003; Reinmoeller & van Baardwijk, 2005; Teixeira & Werther, 2013), resilience is a dynamic process by which firms build and use their resources to positively adjust and continue to operate before, during and after adversity (Conz & Magnani, 2020; Williams et al., 2017). This conceptualization implies a dynamic

adaptation to a shock, practised by anticipating, withstanding, and coping with the change, specifically by recombining and leveraging existing resources to get out from the crisis more strengthened and resourceful (Hamel & Välikangas, 2003; Reinmoeller & van Baardwijk, 2005; Teixeira & Werther, 2013).

To explain the resilience of firms, resources are critical: organizations can continue to operate under uncertainty not only because they possess the necessary and/or distinctive resources, but also thanks to the proactive management of resources, including relational ones — customers, suppliers, and more in general actors of the external environment (Dyer & Singh, 1998). Addressing the quest for resilience, Hamel and Välikangas (2003) suggested that liberating resources is one of the few but critical starting points for building a resilient organization. According to the authors, a firm is going nowhere if it is not able to free up its resources opening to an array of experiments within and aside from the core business. Liberating and reallocating resources is not an easy process, as it is perceived as uncertain. In the same vein, Bingham and Eisenhardt (2008, p. 243) asserted that resources are key to understanding a firm response to change as they are “fundamental to strategy because they shape many of the possible strategies that executives can undertake”. In their seminal work on the strategic logics linking resources to competitive advantage, they defined resources “as the tangible assets (e.g., location, plant, equipment), intangible assets (e.g., patents, brands, technical knowledge), and organizational processes (e.g., product development, country entry, partnering) from which managers can develop value-creating strategies” (ibid, p. 243). They also explain that resources are crucial to define the competitive advantage and strategic logic of firms, but how a firm gains a competitive advantage stems from the nature of resources and the linkages among specific resources rather than from a specific resource per se.

2.2 Slack resources and resilience

Among resources, we pay attention to those resources accumulated in excess, i.e., slack resources (Christianson et al., 2009; Sutcliffe & Vogus, 2003) which emerge as critical for firms to overcome environmental jolts and react to crises also by generating value (Tognazzo et al., 2016). The notion of slack rests on the seminal works by Cyert and March (1963) and Penrose (2009) : among other resources, she

mentioned the role of underutilized resources that she defined as “unused productive services [that] are, for the enterprising firm, at the same time a challenge to innovate, an incentive to expand, and a source of competitive advantage” (Penrose, 2009 fourth edition, p. 76). Slack represents free resources that could be invested in new ideas or to adjust to changing pressure rising from the external environment (Bourgeois, 1981). In Penrose’s work, underutilized resources support innovation and growth; slack can also be used to counter threats (Bourgeois, 1981) and/or to exploit and explore opportunities (Weinzimmer, 2000). Cyert and March (1963) consider that an excess of resources allows companies to cope with uncertainty, enabling response to unexpected changes in markets. Penrose (2009) establishes that slack resources, in excess of those strictly needed for normal company operation, represent an opportunity for managers, as these resources can be employed to pursue growth. Slack resources thus constitute a special type of resource, among the more general resources endowment of the firm. They are “idle” resources, suitable for different uses, i.e., fungibility, to address unexpected needs and new growth opportunities. Consistent with Penrose’s conceptualization, slack has been found to enable decision-makers to pursue innovative opportunities (Wiklund & Shepherd, 2005) and has been associated with increased experimentation and proactivity in organizations (Fadol et al., 2015; Garrett et al., 2020). A study by Wang et al. (2017) found that unabsorbed slack provides flexibility and confidence to explore and exploit new opportunities (Garrett et al., 2020).

Against the traditional view that slack resources are desirable (Cohen & Cyert, 1965), the concept of organizational inefficiency arises (Leibenstein, 1969). In the last decades, the strategic management and entrepreneurship literature have been largely dominated by the “efficiency paradigm”. While acknowledging the importance of resources for a firm competitive advantage, resources have been increasingly deemed to be deployed “efficiently”, aiming at full exploitation. This seems implicit in some seminal works about the Resource-Based View — RBV (Barney, 2001). Peteraf (1993), in setting some foundations of the RBV, relates efficiency and rent generation to resources in use. At the same time, efficiency may come at the expense of adaptability to fast-moving environmental conditions and market disruptions. Can slack contribute to address

these changes and to pursue novel growth opportunities, as originally suggested by both Cyert and March and Penrose? If so, is it a necessary or a sufficient condition? Bradley et al. (2011) in their empirical study found that “slack has a positive direct effect on growth but a negative effect on entrepreneurial management, and entrepreneurial management has a positive effect on growth” (ibid. p. 537). Especially during severe crises, slack may represent a type of resource that can be liberated, reallocated, and/or redeployed for the achievement of organizational goals (George, 2005).

Concerning the relationship with resilience, some authors (e.g. Gittell et al., 2006; Tognazzo et al., 2016) have argued that slack resources are essential to absorb the impact of the shock (Ismail et al., 2011), i.e., maintaining the course of action by building absorptive resilience. Conversely, other authors (e.g. Fama, 1980; Leibenstein, 1969) contend that slack resources are too costly, ultimately adding rigidity and limiting the quick and adaptive response of the organization. Building adaptive resilience means deviating from planned routines, recombining extant or novel resources, and prompting internal changes to adapt to varying circumstances (Andres & Round, 2015; Bhamra et al., 2011; Dahles & Susilowati, 2015).

Slack resources vary in type: financial, human, and technological. These three types refer to either excess resources and stock, or to the excess time utilized to use them (Grandori & Soda, 2006). The financial one is argued to improve firm performance and helps avoid the high level of debts and to face and recover when something “unexpected” alters the equilibrium of the firm like terroristic attacks (Gittell et al., 2006) and floods (DiFrancesco & Tullos, 2014).

Human resources (HR) slack refers to the excess of employees (Mishina et al., 2004). The definition includes redundancy of employees with relatively high expertise (e.g., R&D personnel) or relatively low expertise (e.g., workers engaging in labour-intensive jobs). Mishina et al. (2004) defined HR slack as the ratio between firm employees and firm sales. The larger the ratio (compared to a target level selected among companies within the same industry), the greater is the level of HR slack. The relation between human resources slack and growth is controversial: the excess of human resources can sometimes inhibit growth and firms need to find a trade-off between decreasing slack down to the minimum level pursuing efficiency and, conversely, accumulating slack till the

hedge to be ready in case of uncertainties of expansion (ibid). Also, Sgourev and van Lent (2017) confirm the dual nature of slack and the need to find the right balance between the effectiveness of HR slack, that for instance can mitigate the negative effect of skill shortage, and the efficiency in the use of slack in situations of uncertainty and constraints.

Technological slack refers to the pool of technological resources in an organization that exceeds the minimum necessary to produce a given level of output (Bueno et al., 2010). For instance, unused technological capacity and abundant and modern equipment are included in technological slack. The existence of technological slack stimulates organizational learning, by creating a positive climate that allows employees to research and experiment thanks to the availability of technological resources (ibid).

2.3 Entrepreneurial attitude and resilience

Entrepreneurial attitude allows entrepreneurs to create and capture opportunities in dynamic, uncertain, and fast-moving environments (Bullough & Renko, 2013; McMullen & Shepherd, 2006; Sarasvathy, 2001; Shane & Venkataraman, 2000), as it helps to cope with uncertainty (Lunnan et al., 2006). Entrepreneurial attitude thus provides a ground for building organizational resilience in the face of adverse events (Leipold & Greve, 2009) and for acting upon uncertainty, creating and capturing opportunities.

The meaning of “attitude” (Covin & Slevin, 1991; Lumpkin & Dess, 1996) is associated with attributes of risk-taking, innovativeness, and proactiveness (Miller, 1983). Overall, the literature refers to various factors influencing entrepreneurial attitude: motivation (Schwarz et al., 2009), as mentioned, risk-taking capacity (Olson & Bosserman, 1984), need for achievement, personal control and self-confidence (Robinson et al., 1991), self-efficacy, creativity, leadership and intuition (Athayde, 2009), attitude focused on earning money (Robinson et al., 1991).

The creation and capture of opportunities in uncertain and resource-constrained environments have been studied by the action-based stream of research in entrepreneurship (Dimov, 2018; Leyden & Link, 2015; Miller, 2007). Effectuation theory (McKelvie et al., 2011; Sarasvathy, 2001) suggests the use of flexible approaches and, in particular, the reliance on non-predictive control strategies involving exercising

control over what can be done with the available resources, instead of making a decision based on a given set of predictions and plans (Dew et al., 2009; Sarasvathy & Dew, 2005; Venkataraman et al., 2012). According to this approach, adopting a flexible and adaptive posture allows entrepreneurs to improvise appropriate strategies as needed (Yang & Gabrielson, 2017). This logic is in contrast with classical approaches about the problem of choice under uncertainty that suggest a more “motionless”, less flexible view, according to which uncertainty can be tackled just by increasing the amount of available information (Baker et al., 2003; Becker & Knudsen, 2005; Delmar & Shane, 2003). Similarly, bricolage (Fisher, 2012) is an approach based on creative uses of what is available, in resource-constrained and uncertain contexts, involving an adaptive posture based on improvisation and experimentation.

3 Research approach and design

We adopt a qualitative approach based on a grounded theory research design (Eisenhardt & Graebner, 2007). Qualitative methods have been recently strongly suggested to understand the dynamics of unexpected phenomena, and the *how* of management processes (Chrisman et al., 2016; De Massis & Kammerlander, 2020), as they allow to fully explore the current situation in all its peculiarities and plurality of actors and perspectives involved (Teti et al., 2020). They have been also applied to learn more about the psychological foundations of organizations, for instance how psychological resilience fosters the resilience of small businesses (Hadjielias et al., 2022).

3.1 Research context

This study’s temporal and spatial context can be seen as one of Knightian uncertainty: the spread of Covid-19 in Northern Italy. This is a particularly suitable setting because this region was the first epicentre of the Covid-19 infection (February 2020) in Europe, as well as the first to impose restrictions on people and economic activities, including complete lockdowns, and one of the most hit areas in the world with 183100 deaths (as of 20 December 2022 — WHO, 2022). As a figure representing the extent of the

crisis, Italian active firms were respectively 14 thousand in 2020 and 24 thousand less compared to 2019 (Infocamere, 2022).

3.2 Case selection

We started collecting data from a proprietary database of 25 firms that we knew thanks to previous research projects, and whose entrepreneurial behaviours we had been observing since 2019. We first contacted all the 25 firms to inquire about the chance of doing interviews and accessing information. 15 firms agreed to be interviewed; reluctant firms were not yet ready to speak with us as they were too occupied during the emergency. We followed the logic of purposeful sampling (Patton, 2002, p. 30), which is about “selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry”. We also adopted a theoretical sampling approach, and we stopped interviewing firms when getting no further variations in the theoretical concepts and emerging relationships (Eisenhardt & Graebner, 2007).

Of the 15 firms, we ensured that the ventures to be interviewed matched the following purposeful sampling criteria (Patton, 2014): (a) being independent, i.e., an autonomous organization in terms of ownership and management; (b) being an entrepreneurial venture, i.e., an innovative, risk-taking and proactive (Covin & Slevin, 1991) venture able to maintain a “positive adjustment, or adaptability, under challenging conditions” (Sutcliffe & Vogus, 2003, p. 99); (c) being non-managerially controlled, i.e., with no managerial controls purposefully created by managers, but with other types of commitments such as those “represented in the norms, values, trust and mutual commitments that become embedded amongst organisational groups and/or individuals through day-to-day interaction, communication and dialogue” (Nyland et al., 2017, p. 473); (d) being available for repeated interviews.

Table 1 provides a summary of the final 9 cases in this study. In our final sample, there are 5 family and 4 non-family firms. Family firms in the sample are defined “[...] by a family’s involvement in ownership and governance and a vision for how the firm will benefit the family, potentially over generation” (Chrisman & Patel, 2012, p. 976; Kotlar et al., 2018).

3.3 Data collection

Data collection involved multiple data sources including in-depth interviews, internal documents, and publicly available data such as press articles, firms’ websites, blog entries, internal reports, and presentation slides (see Table 2). Primary data were collected in three rounds: pre, during, and post the outbreak of the pandemic by interviewing the key informant in the firm, i.e., an expert source of information (Marshall, 1996). We adhered to Gioia and colleagues’ suggestion (Gioia et al., 2013) of approaching knowledgeable informants, i.e., people at work that “know what they are trying to do and that they can explain to us quite knowledgeably what their thoughts, emotions, intentions, and actions are” (Gehman et al., 2018, p. 291), thus selecting as an informant who was the one in charge of entrepreneurial decisions.

All cases were part of a longitudinal observation started in 2019 which enabled adding depth and richness to our findings. We interviewed the firms through 29 semi-structured interviews (three/four for each case except for Miscusi that we interviewed one time and Grandinote, interviewed two times) with the entrepreneurs, who are the most knowledgeable informants available (Marshall, 1996), namely, individuals involved in the process of preserving the continuity of the business in a context of Knightian uncertainty. All the interviews were conducted by at least two authors, in Italian, lasting approximately 60 min and then digitally recorded and verbatim transcribed within 24 h. The most representative quotes used in this paper have been translated into English.

The first round of interviews took place during the 12 months before February 2020 (i.e. at time $t-1$ with respect to the crisis). During these interviews we gathered data about the firm’s “state of the art”, about its supply chain structure, future investments, and forecasts for 2020. Interviewees were also asked to describe which resources were accumulated, in which ways and through which investments. The second round of interviews took place in the period 21 February–21 April 2020 — the pandemic peak phase in Lombardy — to capture real-time data at time t , during the shock, coupled with retrospective questions about time $t-1$ before the shock, to further complement our understanding of the pre-shock phase. These interviews were particularly helpful to understand how companies were defining the way

Table 1 Case description

Case	A	B	C	D	E	F	G	H	I
<i>Name</i>	<i>Ecotechno</i>	<i>Julight</i>	<i>Gresmalt</i>	<i>ICSS</i>	<i>Vistarino</i>	<i>Lanificio</i>	<i>Grandinote</i>	<i>Miscusi</i>	<i>Guffanti</i>
<i>Business</i>	Photovoltaic systems	Photonic technologies and laser light	Ceramic tiles, three brands, different productive lines	Plastic packaging (polystyrene) for home appliances, pharma, food and components for the construction industry	Wine production, bottling, farming and land renting	Yarns and fabrics, dyeing of yards on third party account	Craftsman Amplifiers	Pasta restaurant chain and ready-to-eat products delivery	Cheese refiner and seller
<i>Short description</i>	The firm designs and builds plants to produce energy from renewable sources and provides a wide range of services, aimed at improving and guaranteeing over time the efficiency of the plants	Julight promotes smart use of photonic technologies and laser light, by combining optoelectronic integration, miniaturization, and cost-effectiveness. It offers a new class of contactless devices and instruments, enabling accurate control and monitoring of industrial processes and product quality	Five active plants that produce ceramic tiles for floors and walls. Gresmalt is currently testing a tool for real-time environmental, economic, and social impact assessment of production processes, thanks to the digital technologies of IoT and Industry 4.0	Five active plants and one holding company, three in Italy, one in Turkey and one in the UK. The main business are packaging (mainly for food, pharma and domestic appliances) in polystyrene	Century-old winery. The business is mainly focused on wine production, but revenues stemmed also from diversified activities such as cropping and farming, the rent of the land and some farms.	Third-generation mill weaving Australian-sourced wool into jacquard and tweed. Lanificio is responding to the increasing demand for sustainable fabrics, buying certified wool and producing fabrics following all the “sustainable” production requirements	One-man band enterprise founded in 1998 by Massimiliano Magri, who is both the owner and the craftsman. The firm owns an innovative technology named “Magneto-solid” which combines the advantages of solid-state and tube amplifiers overcoming their respective limitations	Italian brand dedicated to pasta and the Mediterranean lifestyle. The concept traces to the roots of Italian culinary traditions, promoting fresh ingredients and old-school recipes and offering conviviality at popular prices	Established business in the cheese industry. It selects, ages and resells the best cheese from Italian and European dairy traditions. Highly international business. It exports almost all over the world
<i>Foundation year</i>	2004	2011	1969	1969	1850	1965	2005	2016	1876

Table 1 (continued)

Case	A	B	C	D	E	F	G	H	I
Number of employees	15	6	378	170	15 (excepted for seasonal workers during the vintage)	60 (among which 10 are family members)	0+7 collaborators	300	13 (among which 3 family members)
Location of headquarter	Pavia, Italy	Pavia, Italy	Reggio Emilia, Italy	Pavia, Italy	Pavia, Italy	Biella, Italy	Pavia, Italy	Milano, Italy	Arona, Italy
Turnover (euro, 2021)	1.78 mln	410,000	132 mln	30 mln	1.4 mln	8 mln	300,000	11 mln	8 mln
Export intensity and markets (2021)	0%: they only sell to B2B and B2C customers in the North-West of Italy	50%, China is the main market, then they sell to European customers	80% France, Germany and the rest of the world	No direct export from Italy, but through their foreign plants in Turkey and UK	25%	30%	100% export in 26 countries	0%	70%
Governance	Non-family business	Non-family business	Family business	Family business	Family business	Family business	Non-family business	Non-family business	Family business
Suppliers	Materials and intermediate products plus some additional workforce needed for ad hoc installations	Julight internally develops the design of the optical, electronic and mechanical parts. External suppliers produce the individual parts, which Julight then assembles	Raw materials (clay), diverse countries, technologies (machinery) all suppliers are in the district	Raw materials (basic chemicals to produce polystyrene) from large multinational firms (like ENI, BASF etc.)	Bottles and packaging, machinery	Wool and dyes	Internalized productive cycle, no outsourcing, Massimiliano assembles the amplifiers from basic components and materials	Food raw materials	Cheese and packaging materials (i.e. plastic envelopes) producer

Table 1 (continued)

Case	A	B	C	D	E	F	G	H	I
Competitors	Bigger producers of photovoltaic systems	Two main German competitors	Spanish competitors	Italian Plastic packaging producers in the North of Italy	Italian producers of premium wines (especially Tuscany and Piedmont)	Italian luxury wool factories	Amplifier and pre-amplifier worldwide producers for the most demanding audiophiles	Monothematic restaurant brands with a fair quality/price ratio	Italian and French cheese producers and exporters

they were going to use slack and capture new opportunities, without knowing how long the crisis would have lasted. In this round, we asked questions to understand: (i) which slack resources entrepreneurs were using or planning to use, and which ones turn out to be critical during the shock to build resilience; and (ii) how they were approaching the shock, and whether the latter enable the capture of any opportunities. When interviewing family businesses in our sample, we also asked about the role of the family and of family-specific resources in facing the shock.

The third round of interviews was carried out one year after the outbreak, during the period March 2021–April 2021. We went back to informants to gather feedbacks at the time $t+1$ after the shock and to understand, in case they were shown to be resilient to the crisis, which slack resources were revealed to be critical in building resilience. We also observed whether they could turn adversities into entrepreneurial opportunities.

Secondary data, such as those mentioned at the beginning of this section, were used to triangulate our findings .

3.4 Data analysis

We analysed data by following a two-step abductive process (Gioia et al., 2013; Mayring, 2008), by systematically combining empirical evidence and existing literature (Dubois & Gadde, 2002, 2014).

In the first step, we started drafting single case analyses by developing a narrative for each case. Secondary data comprised around 10–12 pages per firm. The authors independently read and coded the interviews’ transcripts, highlighting the emergent themes reflecting slack leveraged by entrepreneurs to build resilient responses and the entrepreneurial attitude in facing uncertainty (Reay, 2014).

Second, we identified the types of slacks leveraged by entrepreneurs to build resilience and prepare for unexpected shocks at (t-1). Specifically, we coded slack resources according to the type, i.e., business slack (technological, financial, human resources) or family slack (specific accumulated resources of a long-term oriented family-business as tacit knowledge, family intra relationships, social capital, family human capital, Danes et al., 2009). Financial slack including cash and patient capital, human resources, general human capital, the collective knowledge of

Table 2 Data sources

	Ecotechno	Julight	Gresmalt	ICSS	Vistarino	Lanificio	Grandnote	Miscusi	Guffanti
Informants (role) 9 in total	Founder	Founder	Head of Innovation	Owner and CEO	Owner and CEO	Production manager	Founder	Founder, owner and CEO	Owner and production manager
Relationship with the family	/	/	Non-family member	Family member	Family member	Family member	/	/	Family member
Number of interviews in total and 240 transcript pages)	3 1 at t-1 1 at time t 1 at time t+1	4 2 at t-1 1 at time t 1 at time t+1	3 1 at t-1 1 at time t 1 at time t+1	4 2 at t-1 1 at time t 1 at time t+1	4 2 at t-1 1 at time t 1 at time t+1	3 1 at t-1 1 at time t 1 at time t+1	4 2 at t-1 1 at time t 1 at time t+1	1 1 at time t	3 1 at t-1 1 at time t 1 at time t+1
Other sources (200 single-spaced pages)	Venture reports (3) News articles (3) Email correspondence (20) Following-up emails and discussion (1) Other files (PowerPoint, etc.) (3)	Venture reports (1) News articles (3) Email correspondence (3) Following-up emails and discussion (1) Other files (PowerPoint, etc.) (1)	Venture reports (1) News articles (3) Email correspondence (3) Following-up emails and discussion (1) Other files (PowerPoint, etc.) (1)	Venture reports (1) News articles (10) Email correspondence (10) Following-up emails and discussion (1) Other files (PowerPoint, etc.) (2)	Market reports (1) News articles (5) Email correspondence (10) Following-up emails and discussion (2)	News articles (2) Email correspondence (12) Following-up emails and discussion (3)	Venture reports (1) News articles (5) Email correspondence (10) Following-up emails and discussion (2)	News articles (10) Email correspondence (10) Following-up emails and discussion (2)	News articles (7) Email correspondence (20) Following-up emails and discussion (2)
Other data	Pre-interview mail exchange (1 page) Field notes (4 pages)	Pre-interview mail exchange (1 page) Field notes (5 pages)	Pre-interview mail exchange (2 pages) Field notes (4 pages)	Pre-interview mail exchange (1 page) Field notes (7 pages)	Pre-interview mail exchange (1 page) Field notes (5 pages)	Pre-interview mail exchange (1 page) Field notes (5 pages)	Pre-interview mail exchange (1 page) Field notes (5 pages)	Pre-interview mail exchange (1 page) Field notes (4 pages)	Pre-interview mail exchange (2 pages) Field notes (3 pages)

the top management team (TMT), its diversity and size, have been coded as generic business slack. We considered TMT experiences accumulated in previous firms and industries business slack, while patents, R&D intensity, and technological competencies as technology slack. We coded the reputation of non-family businesses as business slack; the family corporate and brand reputation as family slack; the personal financial capital of the family, despite being a financial slack, as family slack, as proper of family businesses. We classified as family slack the family specific human capital, in particular the knowledge that has been handed over across generations, as well as strong family ties, strong customer relationships, and the family organizational culture.

Third, we coded the entrepreneurial attitude either favourable or unfavourable. We labelled it as “favourable” when the entrepreneurs showed personal traits like risk-taking, proactiveness, flexibility, self-efficacy or competencies and skills proper of an entrepreneurial mindset (Tognazzo et al., 2020). Conversely, “unfavourable” when entrepreneurs displayed, for instance, negative attitudes like immobilism, negative thinking, distrust (Foo, 2011; Wolfe & Shepherd, 2015).

In a third step, we moved from data to theory collapsing first-order codes into two abstract second-order themes: (i) type of leveraged slack — business slack or family slack — and (ii) entrepreneurial attitude towards opportunities during the pandemic outbreak — favourable vs unfavourable. Finally, we collapsed our second order themes into four aggregate dimensions that represent four different entrepreneurial responses to unexpected shocks: *surfing the pandemic*, *keeping business as usual*, *waiting while seeding*, *striving to resist*. The four groups vary according to the type of slack leveraged and type of entrepreneurial attitude. Figure 1 shows the final data structure.

4 Findings

4.1 Surfing the pandemic (Miscusi; Guffanti)

Two firms have been able not only to withstand the lockdowns imposed by the pandemic but also to provide a remarkable entrepreneurial response to the shock: they have been able to do what we label as

surfing the pandemic. Miscusi (non-family firm) and Guffanti (family firm) both leveraged primarily non-family slack (i.e. financial, technological, and HR) to adapt to the new market conditions and build adaptive resilience. As Guffanti’s entrepreneur mentions, stressing the importance of entrepreneurial attitude:

I think that to survive this crisis we need adaptability, elasticity and readiness. Or you change or you are going to disappear.

Miscusi — a firm in the restaurant and food industry — was founded in 2016 and nowadays operates with 12 restaurants in 7 Italian cities and is looking for accessing new foreign markets. Before the pandemic, the firm had in the pipeline ten new openings in Italy by the end of the year, as well as the first international restaurant in Spain. Furthermore, during the Spring of 2020, the company was supposed to unveil the Miscusi Farm, a homestead nestled on 4200 acres outside Milan that serves as an innovation centre dedicated to sustainability and agricultural experimentation. It was thought also of as a social meeting point with panels and training courses for future Miscusi’s employees. The pandemic postponed but did not stop the entrepreneurial projects of the two founders. As stated by Miscusi’s entrepreneur, showing his favourable entrepreneurial attitude:

We are currently experiencing a crisis and we are influenced by what we are going to do in these months, which I see an opportunity, a new opportunity, as each time that the market changes so disruptively.

The Miscusi farm started its research activity in the summer of 2021 and the company opened its first restaurant outside Italy in London in November 2021, after a €20 million investment from venture capital funds MIP and Kitchen Fund.

A different story is that of Guffanti, a century-old family business, cheese refiner, and seller, 100% owned and managed by Guffanti’s family. The outbreak of the pandemic did not stop the production activity of the firm, rather it represented the push to offer new services such as home delivery as well as the kick-off of the firm’s brand-new e-commerce.

Before the shock, both firms, Miscusi and Guffanti, were financially sound and with excess liquidity (financial slack) that guaranteed the payment of employees’ salaries during the lockdown, but also

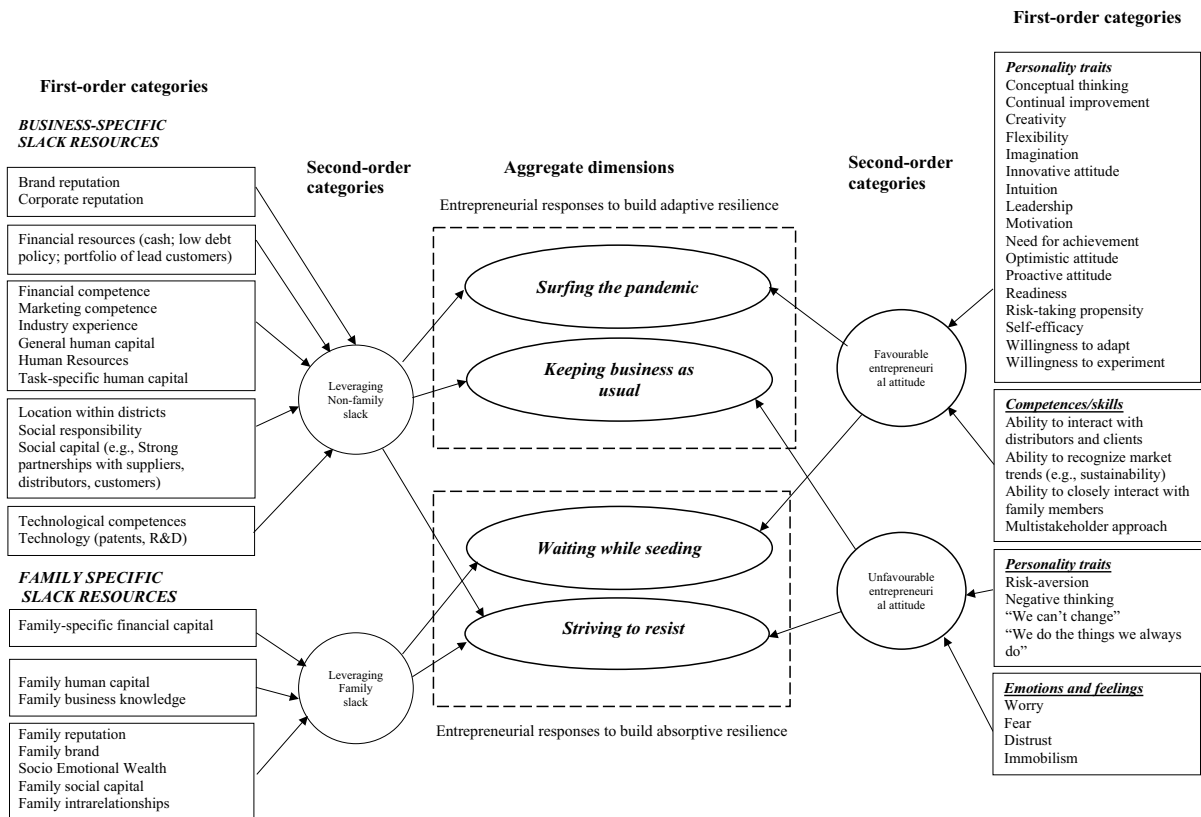


Fig. 1 Data structure

allowed the TMT to think and develop new projects freely. When restaurants were forced to close, Miscusi’s founders and their team were worried, nonetheless, they immediately understood they needed to quickly understand what to do and so they started to develop new projects, with long-term vision. As in the founder’s words: “We have to think to the now and then to the after”. For instance, both cases kicked off, during the first wave of contagion in 2020, the e-shop to exploit the opportunities of food delivery which were spreading during the lockdown. As asserted by Miscusi’s entrepreneur, showing his strong entrepreneurial attitude while explaining the effect of the Covid push on the company:

This forced stop is an opportunity for a strategic reorganization and why not also to take over some old restaurants and activities that won’t survive the crisis.

Overall, TMT’s human resource slack was highly important to capture emerging opportunities and develop new projects for Miscusi.

Miscusi, in the same way as Guffanti, was also able to quickly re-organize its human resources across the different business units as the human capital was in excess in size and diversity. Miscusi reallocated employees from restaurants to the “Bottega”, grocery stores of their products close to the restaurants that were forced to close. Similarly, Guffanti leveraged human resources slack as it quickly reacted to organize delivery to its B2C customers, by reallocating employees from the packaging area to the delivery activities. They did not experience problems in re-organizing, as they already had smaller packaged cheese and employees showed a flexible approach.

It was not difficult to open this new business line because we had already everything to

package cheese in small pieces. We demanded our employees to be flexible and to adapt. The admin staff is smart working. I asked those employees that were working in preparing big orders for the export, and now have nothing to do, to become bellboys and deliver. Till now we received orders by mail or telephone, but we are planning to open an e-shop and to maintain delivery also after the pandemic.

Both firms also exploited the shock to capitalize on their intangibles (corporate and brand reputation, but also organizational culture among employees), further strengthening their brand reputation for the introduction and promotion of new services and activities. Both companies were accumulating reserve of intangibles before February 2020: for instance, Guffanti invested quite extensively in its marketing and communication strategy to build a positive reputation that we can consider in “excess” as at the time of the outbreak Guffanti, as well as Miscusi, had already a high level of brand awareness. For instance, Miscusi prepared an Easter lunch for doctors and nurses in one of the biggest Covid-hospitals in Milan. The firm also organized a platform for the online training of its staff. According to the founder:

This will enhance the sense of belonging of our employees to the organization, allowing them to “live the brand” and to feel to be useful and to be part of a family – the Miscusi family – that has some values and a purpose.

Guffanti’s entrepreneur also stressed that being a family business allowed the firm to be more solid because family and business are overlapped and interchangeable. According to him, the business does not exist without the family and vice versa. In this case, the family’s socioemotional wealth, especially the emotional attachment of family members to the business, can be considered as an intangible family slack critical to build organizational resilience. As mentioned by the entrepreneur, it was crucial to manage the crisis during the outbreak of the pandemic:

Family is quite relevant especially to “not give up”, it represents a hint emotionally and psychologically. It allows you to feel safer and not alone in dealing with the shock.

Nevertheless, this was the only family slack that emerged within this group as critical to surviving the crisis by building resilience: as described above, business slack was prevailing over the family’s one. Specifically, financial slack, human resources slack, and the intangible slack of reputation, coupled with a favourable entrepreneurial attitude fostered adaptation of the two businesses to the new environmental conditions.

4.2 Keeping business as usual (Ecotehno; Julight)

Two firms in our sample, Ecotehno and Julight, both non-family businesses, reacted to the pandemic by easily adapting their routines to the “new normal”, providing an entrepreneurial response that we labelled *keeping business as usual*. These firms did not change their production, they just adapted their working conditions to the new rules issued by the Italian government, i.e., transitioning to smart working when needed and building adaptive resilience to *keeping business as usual*. The entrepreneurs of the two firms exclusively leveraged business slack, in particular human resources and cash, and showed an unfavourable entrepreneurial attitude. They did not try to exploit the crisis as an entrepreneurial opportunity, despite operating in an industry that was allowed to remain open and did not experience significant shocks, at least compared to other industries.

Both Julight’s and Ecotehno’s entrepreneurs faced the lockdowns and the related economic downturn without worrying too much, despite their organizations could have been indirectly affected by the economic crisis, for example by decreasing orders from clients and, more in general, by the uncertain economic outlooks. As asserted by Ecotehno’s entrepreneur:

We won’t have particular problems. Of course, we can foresee a lower income in the next 2–3 months, but if you are a structured firm, even though small, it means that you have to be able to confront this type of slowdown.

In the same vein, Julight’s founder and entrepreneur said: “The future seems, for now, pretty good”. He foresaw that their sector may have slowed down in terms of volumes because of the crisis, shifting some

orders ahead of some weeks. But, overall, looking ahead, for the type of client they have, i.e., the micro-electronics, automotive, and aerospace sectors, their activities had not been so much affected.

Despite the possibility to remain operative, both firms decided to reduce their activities and shift to smart working as much as they could, R&D activity included, showing a high level of flexibility, i.e. capability to quickly adapt routines and strategies to changing conditions (Pal et al., 2014). Their employees neither had to change their functions nor had to develop specific new skills: they simply adapted their daily activities to smart-working conditions. As in the words of Ecotechno's and Julight's entrepreneurs:

We will remain fully operational remotely to give customers maximum support, as long as the situation will not allow us to start again in place with serenity.

We do the same things as before, we are managing them a little differently, doing smart work and maintaining 1 or 2 people on-site.

Both firms were financially sound (financial slack) and with a solid organizational structure before the crisis. According to Ecotechno's entrepreneur even if the firm is small, it must be ready to confront a crisis and to develop a flexible and stable organizational structure which, in his opinion, is more able to adapt to slowdowns:

[...] the lockdown cannot last forever, but if it entails a few months, you have to be structured to withstand the impact of a crisis like this one.

Just before the pandemic outbreak, Julight earned two European funding projects and a few regional ones (financial slack). Similar to Ecotechno's entrepreneur, Julight's CEO stresses the importance of being an experienced and structured firm to survive the crisis and adapt to changing conditions:

If the crisis would have hit us when the business was a start-up it would have been destroyed because we were much more financially exposed. Now we have been able to adapt. We have evolved, now we are no longer in the start-up phase.

Before the shock, the firm developed consolidated relationships with leading suppliers in all production

sectors relevant to the energy sector, "to guarantee our customers quality standards at the highest market levels". According to the entrepreneur, a positive brand reputation built over the years represented a key business intangible slack to face the lockdown:

Building strong relationships with clients and suppliers means that you will find them again when activities will start. There is no incentive for both parties to change [...]. It is important to consolidate habits and build trust with customers and suppliers so that after the crisis you will find them again and they won't change.

Also, Julight had established tight partnerships with distributors and clients, by maintaining close contact and being proactive in providing customized solutions. This was mentioned by Julight as an important factor to keep R&D in place during the crisis.

In both cases, we could argue that firm's reputation and customer relationship helped the firm during the crisis to be resilient, but what has been critical for these cases to maintain operational continuity had been financial slack and commodities (business slack). We also observed that no specific business opportunity was captured during 2020: entrepreneurs showed an unfavourable entrepreneurial attitude, characterized by immobilism and indifference towards opportunities. Julight continued the processes of improvements and changes that were already planned, for instance, a new product launch that took place as it was planned.

We were working on an internal project for improving the quality of our products. This R&D internal activity allowed to launch a new version of an old product at the end of 2020. Nevertheless, this was a "business as usual", because this activity was planned since far and it was not interrupted, conversely, it continued quietly.

4.3 Striving to resist (Lanificio; Grandinote)

Lanificio and Grandinote have been the most affected firms in the sample by the pandemic as they were forced to completely stop their production. These two firms provided an entrepreneurial response characterized by leveraging both business and family slack but at the same time the entrepreneurs showed

unfavourable entrepreneurial attitudes. Neither of the two cases exploited the “Covid push” to capture new opportunities. They deployed financial slack to build absorptive resilience thanks to which they tried to *striving to resist*, hoping the lockdown and the restrictions would have ended soon.

Both firms operate in niche markets, respectively producing wool luxury fabrics — Lanificio — and laser and photonic technologies applied to the automotive, mechanical, aerospace and energy industries — Grandinote. Both ventures were growing and performing well before the shock:

We were doing well, though the business is small (a niche in the niche) and I am the key resource, I have witnessed a good increase in sales in the last ten years. The brand got appreciated in a niche of customers and distributors worldwide. High-performance sound and craftsman abilities, the capacity to respond to customers.

The two firms have different governance types and ages: the first is a 60-year-old family business while the second is a start-up; yet they reacted in the same way to the pandemic. No emergency plans were available before the shock. The entrepreneurs perceived that something was starting to go wrong during December 2019 (two months before the outbreak of the pandemic in Italy), talking with clients in China, even if they did not understand immediately the impact of the pandemic on their business. Once the pandemic started spreading in Italy, these firms’ entrepreneurs reacted by showing distrust and pessimism. They thought the only way to face the outbreak would have been to “strive to resist” by leveraging their businesses’ financial slack. These two firms did not leverage other types of slack resources such as human and technological ones, and they were not able to capture opportunities out of the crisis. As Lanificio’s entrepreneur mentioned:

We operate in a highly risky industry, so is essential for us to have liquidity and to amortize the costs of all the new equipment. We do not have loans.

Despite the availability of financial slack, as both cases were financial sounds before the shock and made several investments in R&D and innovation and technology, slack reviled to be useless in facing

what Grandinote entrepreneur called a “supply chain and human resources” disaster. Both entrepreneurs were scarred and worried, especially because they were operating in industrial sectors like fashion and music industries that have been strongly affected by the collateral effects of the pandemic restrictions. The entrepreneur of Lanificio also manifested his concerns regarding smart working and did not see it as an option:

You lose your productivity and what you can do if you are producing luxury fabrics and your plant is closed?

Also, Grandinote’s entrepreneur was sceptical about remote working as personal interaction with his customers is essential. He asserted:

I rely on trade fairs because my product needs to be seen and tested and I need to get in personal touch with distributors and the most demanding customers.

These entrepreneurs did not see opportunities stemming from the outbreak: the only way to survive would have been to “go back to normal as soon as possible”. They also perceived increasing competition from foreign competitors:

Other countries did not stop manufacturing like here, my competitors are all doing business, and I am running a risk of being left behind.

Even if these firms could leverage the business’ financial slack, they did not pursue new business goals, nor they invested in new activities. They simply stopped the production that, after the restrictions, started exactly as it was before the shock. Within this group, financial slack was an enabler of absorptive organizational resilience but did not foster the turn of adversities into entrepreneurial opportunities. As stated by Lanificio’s entrepreneur:

We do what we do, we can’t convert our production, we are producing luxury fabrics for a niche market, and we can’t convert our production as Armani or Calzedonia [clothing manufacturing companies] because they are “assembling” fabric components while we produce them. And we can’t convert our business. It could be quite risky because you can lose your brand identity and your clients within the niche.

In the case of Lanificio, relying on family slack did not play a key role in capturing new opportunities but “being a family firm” allowed to build absorptive resilience and resist the shock. Lanificio’s entrepreneur asserts that it was thanks to the “non-debt” policy of the family that the firm was to resist the shock through its financial slack. The strong ties with customers that daily interacted with family members allowed them to maintain the orders and not lose clients. Being a small and flexible family business also accelerated the decision-making process and the communication among the members of the top management team that are all family members, nevertheless family slack alone did not allow to capture new business opportunities stemming from the crisis:

As a family we don’t get in too much trouble in catching up, deciding what to do and acting very quickly, but if you ask me if we are going to exploit some opportunities, I don’t think that once the pandemic will end the Lanificio will have a new business unit or will start to produce tablecloths instead of fabrics.

4.4 Waiting while seeding (Icss; Vistarino; Gresmalt)

Firms within this group are long-established organizations, leaders in niche markets, and they could rely on the long-time experience of the entrepreneurs within the respective industries. They have been mildly affected by Covid restrictions as they were allowed to stop their production only partially. Entrepreneurs showed a favourable entrepreneurial attitude: they exploited the forced stop of business activity for the outbreak of Covid-19 to design new business ideas to be realized after the peak of the pandemic. As mentioned by our informants, during the peak they were *waiting* for better times to come, while developing new projects and *seeding* business ideas. They did not immediately capture opportunities during the crisis but designed projects to be developed after the shock. Ventures that adopted a *waiting while seeding* entrepreneurial response are all family firms, market leaders in their business and built absorptive resilience during the pandemic by leveraging mainly family slack resources, and whose entrepreneurs showed a favourable entrepreneurial attitude

towards capturing opportunities. Despite having been partially affected by the closure of certain productive units and by the instability of the supply chain, these cases showed to be “like trees, agile and robust, to resist to market storms” (Gresmalt head of technical division).

ICSS and Gresmalt have a consolidated experience in their sector and a differentiated portfolio of business activities. Like ICSS, Gresmalt operates in diversified markets with multiple targets; as stated by the head of innovation: “good diversification is key to reduce the impact”. The third case is Vistarino, a century-old wine company: the business is mainly focused on wine production, but the firm has revenues also from diversified activities such as cropping farming, or the rent of the land and farms.

The combination of leveraging family slack and favourable entrepreneurial resources allowed them to positively respond to the crisis by absorbing the shock, by persisting in the face of change and remaining stable while waiting for better times. These firms’ entrepreneurs recognized that being “a family business” had been an advantage in absorbing the shock. Gresmalt’s informant, specifically, emphasized that long-term orientation, long-lasting relationships with local external actors and distinctive social capital contributed to protecting the business from turbulence and promoting stability. He also underlined the role of agility, i.e. the ability to quickly respond to a shock, in building absorptive resilience under conditions of severe uncertainty:

Family governance and management can be a constraint or an enabler. In my professional career, I have experienced both cases. In this company I see the family as an enabler, particularly in the actual crisis, for the following reasons: the fast decision-making (quick responsiveness), long-term orientation (they think of the firm survival over time), connection with the local territory and social responsibility towards the local community.

All the firms within this group were financially sound at the time of the outbreak:

We felt financially sound, thanks to a portfolio of lead customers (mainly large multinationals) who are used to pay their suppliers punctually.

This allowed us to get short-term credit from banks.

Financial slack allowed them to “freeze” production and wait for better times. Nevertheless, the entrepreneurs thought their main sources to survive the crisis have been mostly family slack as family firm reputation, customer trust, and task-specific human resources. As in the words of Icss’ entrepreneur:

Only the best will survive, that is the strongest, those who can rely on the intangible capital of good reputation, excellent human resources and strong suppliers/customers ties will be able to resist and develop new projects.

We were used to see somehow these customers as a problem because they can be very demanding and put a lot of pressure on our prices: now we realize they are our main asset.

The three cases invested in firm-specific projects related to R&D and innovation before the shock (technological slack). Since 2012, Gresmalt has pioneered Industry 4.0 technologies in their plants as well as in a sustainability assessment of all the processes. The leveraging of business-specific slack, like human resources and technologies, also contributed to resisting the crisis and preparing for new entrepreneurial activities in the aftermath of the pandemic, despite family slack have been predominant in building resilience.

The interviews undertaken during phase *t+1* also confirmed that the entrepreneurial projects seeded in the first lockdown have then been implemented. For instance, Vistarino’s entrepreneur was foreseeing going back to normality in one year, but she also thought that the key to getting out of the crisis would have been to “invent something new”. In her words:

From here to six months I see us as a business that has to work to be excellent, perfect with fluid management of costs you have to be very good at not wasting resources, and total cutting marketing and promotion expenses, even if I kept the press office alive because I don’t want to leave the work on the brand, but I had to completely review the consultancy, in my opinion, we must try to cut as much as possible, to keep tough six months and start again after the pandemic with new projects.

Overall, family slack revealed to be key for the firms in this group: especially the excess of family-specific and inimitable resources and the experience of entrepreneurs in recognizing and exploiting opportunities, allowed them to withstand the shock during the pandemic.

Quality, efficiency, and excellence are stronger than any crisis. We are the pioneers in investments in sustainability in our field and now we have a full sustainability assessment of our processes that represents a strong competitive advantage.

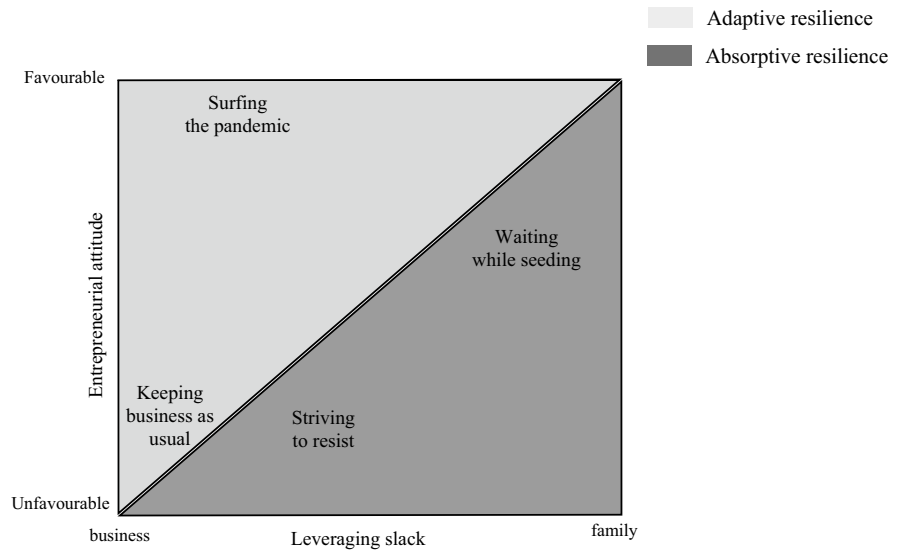
5 Discussion

This study aimed at explaining how entrepreneurs respond and build resilience by leveraging slack resources and entrepreneurial attitude in a context of uncertainty.

First, our findings show that the responses of entrepreneurial firms to uncertainty vary in terms of slack resources leveraged, business vs family, and entrepreneurial attitude, favourable vs unfavourable. The four types of entrepreneurial responses enabled organizational resilience, either in the form of an adaptive or absorptive reaction: in the first case, the firm maintains the course of action in the face of adversity, thus displaying absorptive resilience, in the second case, it deviates from planned routines, thus displaying adaptive resilience (see Fig. 2).

In all case studies, the role of slack resources is key: our findings provide evidence that slack buffers firms from environmental turbulence allowing them to survive and strive in the face of uncertainty. This is consistent with the perspective of organization theory on slack (George, 2005) arguing that slack facilitates the organization’s capacity to adapt by innovating and experimenting. This result also fits the literature on organizational resilience asserting that a high level of slack is fundamental to build resilience (Tognazzo et al., 2016; Vogus & Sutcliffe, 2007) and “weather the storm” by overcoming unexpected challenges (De Carolis et al., 2009). First, we identified the role slack played in the organizational responses to a major crisis, as theorized by Cheng and Kesner (1997). *Surfers* and *keepers* showed a proactive approach to slack,

Fig. 2 Entrepreneurial responses to Covid-19 crisis: the combination of slack and entrepreneurial attitude



meaning that slack resources provided the organization with the potential for adapting and innovating when an adverse event occurred. In this case, as already argued by Penrose in her seminal contribution (Penrose, 2009), slack represented an incentive to expand and invest in new ideas aiming to adjust to the changing environments, as *surfers* and *waiters* did. Conversely, *strivers* and *waiters* displayed a reactive approach to slack by leveraging slack to protect the organization from the shock and allowing the smooth functioning of the firm in times of severe crisis. This means that, in contexts characterized by Knightian uncertainty, the availability of slack resources, either business and/or family slack, positively influences the ability of entrepreneurs to build absorptive or adaptive resilience.

Second, we find that the combination of slack and entrepreneurial attitude promotes different entrepreneurial responses. Slack resources allowed all firms to cope with uncertainty and all the cases displayed resilience, as mentioned, by either absorbing or adapting to the shock. Yet, leveraging slack resources is a necessary condition for the exploration and exploitation of opportunities only when the entrepreneur has a favourable entrepreneurial attitude. This result is consistent with previous works on the cognitive and behavioural response of individuals to a major disturbance: individuals that show a positive response enable organizational resilience by shaping firm's strategic responses to adversity (Linnenluecke et al., 2013; Powell & Baker, 2014; Williams et al., 2017;

Anwar et al., 2021). Conversely, organizations whose entrepreneurs with limited entrepreneurial attitude demonstrated to be resilient only by leveraging slack resources to absorb or to adapt to the shock. In all, we can propose the following theoretical insights. The different combinations of slack resources (business and/or family) leveraged, and the degree of entrepreneurial attitude (favourable vs unfavourable), determine different entrepreneurial responses. Furthermore, owning slack resources per se does not imply the ability of entrepreneurs to turn adversities into opportunities, as a favourable entrepreneurial attitude is needed to activate slack resources to explore and exploit opportunities.

Third, our findings highlight varying results with respect to family firms that being a family firm is essential for a *waiter* type of response in weathering emergencies and transforming threats into entrepreneurial opportunities, but not for a *striver* type of response (a response that we observed in both family and non-family organizations). For the family firms belonging to the “waiting while seeding” group, who did not only survive during the pandemic but were also able to adapt to the new competitive scenario by exploring and exploiting opportunities, the involvement of the family in the business and family slack represented the key resource for preserving the business continuity. This result complements the literature on the continuity of family organizations (Brewton et al., 2010; Chrisman et al., 2011; Danes et al., 2009) and on entrepreneurship in family

firms (Lumpkin and Brigham, 2011) confirming that socioemotional wealth, especially close bonds among members of the family and social ties hold by family members, plays a positive role in building the resilient response of the organization while facing adversity (Alonso-Dos-Santos & Llanos-Contreras, 2019; Gomez-Mejia et al., 2011). The distinctive relational “locality” of family businesses revealed to be an advantage to sustain the business in the face of the pandemic (De Massis & Rondi, 2020). It also offers the psychological and emotional support necessary to transform a threat into an entrepreneurial opportunity. Nevertheless, what represents a novel contribution of our work is that non-family firms emerged from our qualitative account as equally and successfully capable of capturing opportunities and displaying resilience as family firms (see the case of Mis-cusi, a non-family *surfer* organization). Therefore, our findings suggest that family firms are neither in a better position in turning threats into opportunities nor demonstrate superior resilient performance, see the case of Lanificio, a family *striver*. This result contrasts with Salvato et al.’s (2020) findings, asserting that during times of adversity family firms perform better than non-family firms in terms of resilience and opportunities. The endowment of family slack is not sufficient to turn adversities into opportunities and, more generally, owning either business or family slack does not necessarily mean the firm can capture opportunities while facing adversities. For instance, *strivers* mitigated the effects of the outbreak by resisting the shock thanks to leveraging financial, technological, and human slack resources but did not turn adversities into opportunities. For the family firms within this group, family slack was necessary to display resilience, but not sufficient to be able to capture opportunities out of the crisis. This supports the theoretical insight that family slack may not lead to a superior resilient and/or entrepreneurial response of family firms compared to non-family firms.

Finally, we observed that *keepers* (i.e., entrepreneurs who kept doing business as usual), have been weakly hit by the crisis. This because they could operate in industries that were not affected by the lockdown working restrictions. The firms in this group leveraged both family and business slack to adapt to the “new normal”. Nonetheless, despite the more favourable operating conditions - compared to those of *surfers* - these firms did not show any entrepreneurial

attitude, contradicting existing results revealing that industry specificity is key in explaining the likelihood of capturing post-disaster entrepreneurial opportunities (Salvato et al., 2020). In this case, operating in an industry that was not affected by lockdowns did not foster entrepreneurial action. *Keepers* showed relatively limited entrepreneurial attitude despite the more advantageous industry conditions and did not leverage any slack resources to explore opportunities out of the crisis. This finding supports the argument that more favorable industry conditions during a crisis do not necessarily lead to capturing opportunities if the firm is not sustained by a favourable entrepreneurial attitude.

6 Contribution to theory and practice

Our study makes four theoretical contributions. First, it contributes to the entrepreneurship literature on firms coping with conditions of Knightian uncertainty (Dimov, 2018; Leyden & Link, 2015; Miller, 2007) and to the management (Linnenluecke, 2017; Williams & Shepherd, 2016; Williams et al., 2017) and family business literature on organizational responses to adversities (Campopiano et al., 2018; Darnhofer et al., 2016; Salvato et al., 2020; Smith et al., 2021). As argued by Shepherd (2020), studies in entrepreneurship — yet this is also the case for the other two streams mentioned — do not describe the multiple ways by which entrepreneurs leverage slack resources under the extreme uncertainty caused by the pandemic and do not explore how entrepreneurs could foster entrepreneurial action so *rapidly* (hours and days rather than months or years) in the chaos generated by a pandemic. With this study, we responded to this call by contributing to explaining the role of leveraging slack resources in firms challenged by the Covid-19 pandemic (Shepherd, 2020). We also contribute to crisis management literature about the responses of organizations (e.g. Tang et al., 2021) by providing a multi-level perspective on organizational resilience through the lens of interpretive qualitative enquiry. More specifically, we contribute to the mentioned streams thanks to multi-level qualitative research that links personal traits and organizational outcomes (e.g. Kuratko et al., 2021; Santoro et al., 2021), thereby providing a more nuanced and fine-grained knowledge through the narratives of entrepreneurs who experience and manage crises.

Second, in contrast with most studies that analyse resilience at the supply chain level of analysis and mainly look at what happened *after* the crisis (i.e., Brewton et al., 2010; Pal et al., 2014), thanks to the mentioned multi-level approach, we focused on *ongoing* entrepreneurial behaviours at both the firm level and the individual levels, in particular how entrepreneurs leveraged slack resources and whether their entrepreneurial attitude supported them in turning adversities into opportunities. This answers the call of Giones et al. (2020) about exploring how entrepreneurs are *currently* balancing resilience and acting entrepreneurially. It also addresses Shepherd's (2020) call to grasp how firms deployed resources to face the Covid-19 outbreak. Furthermore, we focused on resource slack as we agree with Christianson et al. (2009) and Campopiano et al. (2018) who argued that slack is among the critical factors for a successful recovery from critical events. We do so by providing a more nuanced understanding of which types of slack resources are leveraged by entrepreneurial firms during a crisis and which entrepreneurial traits activate slack resources.

Third, we contribute to the literature on family firms by responding to the call by Campopiano et al. (2018) and Smith et al. (2021) who emphasized the need for exploring how family firms absorb and react to environmental jolts, developing specific responses to external threats. We observed that family slack is a key resource to build resilience, but it is not a key determinant of the "supposed" superior resilience performance of family firms compared to non-family firms in conditions of uncertainty (e.g., Salvato et al., 2020).

Fourth, we advance knowledge on the performance consequences of slack resources in family firms, observing how entrepreneurs leverage slack *while* the crisis is taking place, and not only during times of equilibrium (pre-shock), as argued by De Massis et al. (2018). Furthermore, our results show that in times of crisis, slack, especially financial, is the key resource to leverage to build resilience and preserve the continuity of the family firm.

Our findings also contribute to business practice. They highlight that owning idle resources, either financial, human, or technological, can be an enabling factor to develop resilience, thus surviving severe crises. Yet, slack resources per se do not lead to the exploration and exploitation of opportunities, nor to

performing well during a crisis. To face a disruptive event, not only aiming at surviving but also at capturing opportunities, slack resources need to be activated and orchestrated by an entrepreneur with a favourable entrepreneurial attitude, in a way they do not only serve as a "cushion" to absorb the shock but to adapt the business to now environmental conditions. We also add two main considerations to Anwar et al. (2021), which suggest that to develop organizational resilience firms need to work on the individual resilience of the top management team. First, both family and non-family businesses, to thrive in the "new normal" era need to also develop the entrepreneurial resources of the team. Second, they have to invest in workplace training programmes on how to face unexpected crises. If, on the one hand, it is known that individuals are endowed with different degrees of entrepreneurial attitude, on the other hand, it may be advantageous to develop and disseminate knowledge, also via learning programs, about how to foster entrepreneurial traits such as flexibility, tendency towards continual improvement, close interaction with distributors and clients, innovativeness, leadership, and creativity.

More widely, the (post, hopefully) pandemic world is teaching entrepreneurs how to manage increased pressure to build more resilient organizations. In the "new normal", entrepreneurs must be able to deploy the best practices learned in the Covid era to quickly adapt to future crises and be ready to exploit opportunities out of the adversity. In the same way, policymakers need to facilitate the process of adaption/absorption of possible further unexpected shocks, by stimulating smaller firms to be more resilient and entrepreneurial. Among others, policymakers must be attentive to how firms' accumulated resources are deployed during times of crisis. Our study revealed that financial slack resources played a role both in family and non-family firms in absorbing the shock. Accumulating slack resources during a period of calm allows firms to operate "debt-free", not only to survive the crisis but also to innovate. Compared to Lepääho and Ritala (2021), we observed that the ability to survive and be innovative during times of crisis can be attributed to the use of slack not only in traditional family firms but also in non-family. According to our findings, it seems that for entrepreneurs it is advantageous to accumulate financial resources during stable periods. Nevertheless, the deployment of financial

resources during a time of crisis might be at the detriment of further stable conditions, leading to contracting debts that could curb growth and profit after the crisis. Policymakers will need to proactively develop specific financial tools to help smaller businesses develop resilience before the crisis, and not only sustain firms when the crisis has already occurred.

7 Conclusions, limitations, and future steps

Like any study, ours presents some limitations. First, our study is context-dependent and provides findings that are the results of “local interpretations” (Williams & Shepherd, 2016). Our framework could serve as a basis to expand the analytical replicability of our “situated knowledge” to other comparable contexts and settings (Carminati, 2018).

Second, because of the key informant technique (Marshall, 1996), the chosen informants are unlikely to represent the various points of view of all the individuals working in a venture. Nonetheless, as mentioned in the research design section, all organizations are entrepreneurial firms, thus it is reasonable to assume that the informants are representative of the firm’s strategizing as they are those in charge of taking key strategic decisions. Also, the principal advantage of the key informant technique lies in the quality of data that can be obtained by interviewing an ideal key informant in a very short period. Further studies might collect multiple sources of information, considering different informants’ viewpoints and exploring whether the informant’s role in the organization has a relationship with the entrepreneurial attitude and the resilient response of the firm.

Third, as per its design and methodology, this research was deemed at capturing the different resilient responses of firms in relation to two key variables, i.e., slack resources and their activation through entrepreneurial attitude. The study was designed as a “variance” study and not a “process” one. Therefore, future studies can adopt a processual approach to uncover the dynamics of the “how” slack and entrepreneurial attitude determine resilience responses from smaller firms.

Future studies might also explore how independent variables such as industry, size, number of employees, and the country in which the firm operates, may

affect the slack-resilience and entrepreneurial attitude-resilience relationships, but also family-related variables such as the level of involvement of family members in the management of the organization or the age of the firm.

Finally, future research could also investigate how entrepreneurs understand adversities and how their understandings, i.e., the meaning they give to a certain phenomenon, influence the way they leverage slack to turn adversities into opportunities in conditions of Knightian uncertainty. Previous studies suggested that resource perceptions (Williams & Shepherd, 2016) and understanding of resilience (Conz et al., 2020) influence how entrepreneurs respond to the crisis. A phenomenographic inquiry (Angel et al., 2018) might explain why *keepers* and why *strivers* did not perceive the outbreak as a chance to capture new opportunities.

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