

“Resilience and coping behaviour among micro and small sized
enterprises in times of economic crisis:
A mixed-methods exploration of Greek and Cypriot firms”

by

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Abstract

The focus of this study was to explore organisational resilience in the context of micro, small, and medium sized enterprises (SMEs). Following the 2008 Global Financial Crisis (GFC), the deteriorating business conditions worldwide posed serious challenges to many firms. SMEs were particularly affected by the volatile environment due to acknowledged operational limitations (e.g., scarce resources) restricting their capacity to effectively respond to the new business reality. The impact was extremely high for businesses in the Southern European periphery, including Greece and Cyprus. Despite the growing academic interest in the concept of resilience over the past years, it remains unclear how SMEs can develop resilience and cope with different type of shocks (e.g., 2008 GFC, COVID-19). Due to the significant role SMEs have for the Greek and Cypriot economies (e.g., employment), among other countries, and various ongoing challenges (e.g., access to finance) that leave them exposed to impending turbulences, it is urgent to further explore the antecedents of resilience and determine how SMEs can promote resilience capabilities to adapt to volatile operational conditions. Based on a mixed-methods approach (parallel mixed design), empirical data were collected via semi-structured interviews (n=135) and questionnaires (n=406) from micro and small businesses (MSEs) in Greece and Cyprus; the lack of responses from medium sized enterprises represents one of the limitations of the study. In line with a parallel mixed data analysis, a distinct thematic analysis of qualitative data resulted in several themes that reflect the post-2008 business environment in Greece and Cyprus, and the factors that influence the resilience capacity of MSEs. Additional descriptive and inferential statistical tests provided evidence regarding the performance of Greek and Cypriot MSEs after the 2008 GFC and identified the critical success factors associated with a firm's coping capacity, among other results. Following the integration of qualitative and quantitative findings (narrative, joint display approaches), the resulting meta-inferences highlight several characteristics that influence the different resilience phases, namely anticipation (e.g., environmental scanning), coping (e.g., financial resourcefulness), and adaptation (e.g., innovative activities). The findings provide additional empirical support about the antecedents of resilience, specifically in the context of micro and small firms from Greece and Cyprus, and respond to acknowledged knowledge gaps, thereby contribute to the existing body of literature focusing on organisational resilience.

Declaration

The work presented in this thesis was carried out at the Liverpool Business School, Liverpool John Moores University. Unless otherwise stated, it is the original work of the author.

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Introduction

1.1. Overview of the study

In today's dynamic and rapidly changing global business environment, organisations are exposed to a wide range of threats and disturbances. Financial meltdowns, natural disasters, political anomalies, machinery breakdown, or human mistakes, among other events, could threaten an organisation's operation and future viability (Bhamra et al., 2016; Akpinar and Özer-Çaylan, 2022). Accordingly, the modern business reality is characterised by volatility (unstable-unpredictable), uncertainty (dearth of information), complexity (multiple associated elements) and ambiguity (new conditions) (VUCA) (Bennett and Lemoine, 2014), representing a continuously shifting business context (Lawrence, 2013). Under such prevailing circumstances, threats for businesses could originate from different conditions, both *external* (e.g., competition) and *internal* (e.g., staff or management mistakes) (Connelly and Shi, 2022). In the case of exogenous *shocks*, various systems (markets, societies, countries) experience adverse conditions resulting from random and unforeseen events not prompted by them. Correspondingly, the term *crisis* reflects the long-term negative effects caused by a certain shock (Miklian and Hoelscher, 2021), though a crisis could also produce extremely beneficial results (Darling et al., 2005). Regardless of the cause, all systems (e.g., individuals, organisations) are susceptible to changes at some point of their life cycle due to either extrinsic (economic turbulence) or intrinsic factors (management choices) (Fujita, 2006). Only the time and impact from each incident is yet to be known (Skipper and Hanna, 2009). From an organisational perspective, businesses will most certainly experience a crisis at some point of their operation (Kash and Darling, 1998), irrespective of their business size and industry focus (Zaremba, 2010). The outburst of major perturbations (e.g., financial crisis) or even minor incidents (e.g., operational mistakes), could destabilise a company and thus both pose serious threats to corporate longevity (Annarelli and Nonino, 2016). For instance, turbulences could cause serious operational challenges through outdated or making unproductive various standard operating procedures and disrupting the business flow (Cotta, 2021). As an example of past real-life turmoil, the extreme risk policies adopted by banks was among the main reasons that triggered a Global Financial Crisis (GFC) in 2008 (Nelson and Katzenstein, 2014). In the context of nature, the eruptions of an Icelandic volcano in 2010, grounded airplanes across Europe affecting more than one million passengers per day and made air freight transportation almost impossible (van der Vegt et al., 2015). Based on the likely severe impact

resulting from different shocks, all organisations should formulate a strategy to survive in times of adversity (Zaremba, 2010).

There are several subjects focusing on turbulences and ways to reduce their impact. Among the principal options, risk management activities aim to recognise risks early and limit their impact making systems less exposed to them (Radic et al., 2022), hence shape disaster management, “the reduction of harm to life, property, and the environment...due to political, cultural, economic, or other reasons” (Coppola, 2015, p. 1). Business Continuity Management (BCM) is another related topic focusing on the consequences resulting from disturbances and the appropriate response to them (Engemann and Henderson, 2012). Although risk and disaster management represent a valuable business tool, it is difficult to determine the probabilities for extreme events and make appropriate choices (Carpenter et al., 2012). For example, unknown shocks, also called “black swan events”, reflect “events that might exist but which we cannot anticipate” (Walker and Salt, 2012, p. 50). Therefore, unforeseen events are not addressed through risk management activities (Dalziell and McManus, 2004), but still tend to occur more often than initially expected (Seville, 2009). On a different note, risks are usually assessed independent from other factors, however turbulences often develop due to multiple overlapping causes (Seville, 2009). In addition, the predominant risk management and relevant practices mostly neglect that systems change all the time including the developmental phase of transformation among other significant elements (Fünfgeld and McEvoy, 2012). When considering the post-turbulence outcome, the subjects of disaster and risk management aim towards the recovery of a system to its pre-crisis state. However, as highlighted in the context of natural disasters (see Alesch et al., 2001), a system’s survival after experiencing a catastrophic event, or else its recovery, does not suggest a return to the condition before the turbulence. Instead, a feasible new status enables the system to achieve its operational objectives, despite the possibility of being transformed (Alesch et al., 2001). If we apply such a reasoning in a business context, the operational conditions following a serious event, like the 2008 GFC or the COVID-19 pandemic, have changed to a level that no longer resemble the conditions before the incident emerged. Accordingly, if businesses attempt through risk management and mitigation related practices to regain their pre-turmoil performance level, such standards will most likely not reflect the requirements of the new business environment. Therefore, businesses should not aspire to bounce back to the status they had before a certain turbulence emerged, instead they should seek to recoup to a new status that is consistent with the environmental conditions (Dalziell and McManus, 2004). From the perspective of a

constantly shifting environment, systems (e.g., firms) also need to evolve in conjunction with their surrounding as means to maintain their value (Dalziell and McManus, 2004).

In the context of a turbulent business environment, the notion of resilience is instrumental in understanding how organisations cope in times of economic stagnation, market changes, and uncertainty. As Barton et al. (2015) explain, firms that are always exposed to vague and volatile operational conditions cannot merely depend on practices focusing on decreasing uncertainty but need to operate properly regardless of uncertainty. Specifically, organisational resilience (OR) is more complete than other similar subjects (BCM) as it not only pursues business recovery but also learning and enhanced competitiveness, through a probable transformation process (Bhamra, 2016), and entails measures for unexpected risks (Seville, 2008). Specifically, OR reflects a firm's ability to sustain and adjust its operation during unbalanced periods (Ates and Bititci, 2011), hence it is an important quality given the reciprocal link between organisations and communities (Dalziell and McManus, 2004). Although, OR was originally conceived in a more "defensive and reactive way", it further developed to include proactive managerial decision making vis-à-vis running day-to-day operations (Annarelli and Nonino, 2016, p. 2). Accordingly, resilience is not only an organisational ability to overcome a shock or a crisis, but also anticipate disruptions (Annarelli and Nonino, 2016), and thus offers a competitive advantage to businesses (Parsons, 2007). Therefore, resilience is a critical organisational attribute all management teams should consistently promote (Denhardt and Denhardt, 2010). Based on a rapidly shifting environment, both at micro (customers) and macro (technology, politics, society) level, that could create increasingly challenging operating conditions to organisations, the study of resilience should trigger academic interest as it can unveil the underlying cause and development of adaptation and flexibility during adverse times (Sutcliffe and Vogus, 2003). Indeed, the recent COVID-19 pandemic, along with other past turbulent events (2008 GFC), manifests the significance and urgency to focus more on resilience and sustainable related preparations as means to cope with impending future global adversities (Alibašić, 2022).

Based on the increasingly unfavourable business conditions worldwide, special consideration should be given to the most vulnerable organisations in times of crises. Specifically, more attention needs to be placed how small and medium sized enterprises (SMEs), also referred as MSMEs to distinguish micro firms, build resilience. Such an enquiry is crucial, especially since SMEs are far more exposed than other businesses during turbulent periods. For instance, the resilience capacity for large firms mainly depends on planning, resource slack, formal practises,

among other factors, while SMEs are known to experience serious challenges in these specific domains (e.g., resource scarcity) (Branicki et al., 2018). Indeed, SMEs are extremely challenged by large businesses, and firms with similar characteristics like theirs, however their small size and flexible capacity adjusting to environmental alterations represent some of their key strengths over large firms (Gunasekaran et al., 2011). Among the drivers that influence SMEs’ business longevity and competitive edge include shifting industry trends, evolving technology standards, and novel management approaches (Gunasekaran et al. 2011). In the case of the recent 2008 GFC and the COVID-19 pandemic, SMEs proved to be remarkably susceptible to shocks and crises (Miklian and Hoelscher, 2021). Therefore, it is crucial to investigate exactly what are the processes that develop SMEs’ resilience (Branicki et al., 2018).

1.2. Context of the study

1.2.1. SMEs and the case of Greece and Cyprus

SMEs have been the focus of many studies worldwide. Nonetheless, a universal SMEs’ definition is yet to be agreed; SMEs’ classifications depend mostly on national laws and the magnitude of a country’s economy (OECD, 2017). In the European Union (EU), SMEs are categorized as micro, small, or medium-sized based on three criteria; employment, turnover, and balance sheet total (Table 1.1). As an additional criterion, access to valuable resources (business partnerships) could determine whether a firm clusters as SME or not (European Commission, 2020).

Table 1.1-European Commission-SMEs’ definition

Company Category	Employees	Turnover	Balance sheet total
<i>Micro</i>	< 10	≤ €2 million	≤ €2 million
<i>Small</i>	< 50	≤ €10 million	≤ €10 million
<i>Medium-sized</i>	< 250	≤ €50 million	≤ €43 million

Source: European Commission (2020, p. 11).

SMEs play a significant role in the global economic development (World Bank, 2018a). Approximately 95 percent of all firms worldwide are SMEs (Beck, 2013), representing well over half of employment in both developing and developed nations (WTO, 2016), and supporting financial growth and social inclusion benefits via jobs creation (OECD, 2017). In Europe, SMEs are the foundation of the economy across all 28 EU member states (European Commission, 2022a). In 2021, SMEs accounted for almost all EU firms (99.8%) employing 83 million people in the non-financial sector (European Commission, 2022a). SMEs have a

particularly prominent economic role (e.g., employment) in the case of Greece and Cyprus (the Republic of Cyprus) (Table 1.2). Greek SMEs constitute almost 99.9 percent of all businesses and account for approximately 82 percent of employment (in the non-financial economy) (European Commission, 2022a). As a result, SMEs generate almost € 33.6 billion in the Greek economy, almost 23.2 percent more than large companies do (European Commission, 2022b). Similar to the Greek economic reality, SMEs are crucial for the Cypriot economy. In Cyprus, nearly 99.8 percent of all businesses are SMEs creating 82.1 percent of all jobs (in the non-financial economy) and adding approximately € 7.9 billion in the Cypriot economy, nearly 53 percent more than large firms contribute (European Commission, 2022c).

Table 1.2-Key figures for Greek and Cypriot SMEs

Class size	Number of Enterprises (%)		Number of persons employed (%)		Value added (%)	
	Greece	Cyprus	Greece	Cyprus	Greece	Cyprus
<i>Micro</i>	92.7 %	92.4 %	40.1 %	37.8 %	19.6 %	25.4 %
<i>Small</i>	6.5 %	6.5 %	27.1 %	24.9 %	19.2 %	27.7 %
<i>Medium</i>	0.7 %	0.9 %	14.6 %	19.4 %	22.8 %	23.2 %
SMEs	99.9 %	99.8 %	81.8 %	82.1 %	61.6 %	76.4 %
<i>Large</i>	0.1 %	0.2 %	18.2 %	17.9 %	38.4 %	23.6 %
<i>Total</i>	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: European Commission (2022b; 2022c).

1.2.2. The 2008 crisis in the context of Greece and Cyprus

At the end of 2008, a Global Financial Crisis (GFC) unfolded with severe impacts on the global economy. By early 2009, the global economic growth decreased by 7.3 percent (Mishkin, 2011), the international business trade collapsed (Helleiner, 2011), while rigid credit terms were imposed for businesses worldwide (OECD, 2009). In Europe, the GFC exacerbated existing sovereign and banking asymmetries in many countries (Moro, 2014), having a significant impact on the Southern countries (Ifanti et al., 2013). In addition, extreme economic disparities between EU countries in the North (e.g., Germany, the Netherlands) and South periphery (e.g., Greece, Italy), added extra pressure to vulnerable countries (Dimitriou and Metaxas, 2018). As an example, Greece was one of the most affected EU members from the 2008 GFC (Psycharis et al., 2014), that even exposed the country to the risk of bankruptcy (Bitros et al., 2016). However serious long-term structural impediments existed before the GFC erupted. For instance, Greece's bureaucracy was problematic before the 2008 crisis (Williams and Vorley, 2015). Other long-lasting challenges of the Greek economy include low competitiveness, low productivity, and low foreign investment, among other issues, due to an amalgamation of political, economic, and social reasons (Hyz and Gikas, 2012), while the 2008 GFC further exacerbated the country's economic performance. Following the 2008 GFC,

Greece was on the world spotlight after experiencing austere economic challenges (e.g., fiscal, financial) due to a soaring government debt as residue of long-term structural challenges in the national economy, while was also presented as the “weak link” among all Eurozone member states (Pegkas, 2018, p. 1). Since 2008, the Greek economy has shrunk by approximately 25 percent (Sarafidis et al., 2017), resulting in negative level of domestic consumption and investments (Gibson and Pavlou, 2017). Also, the unemployment rate rose to an unprecedented 27.5 percent by 2013 (Economides et al., 2017), and remained as the highest in the EU in 2016 (23.6%) and 2017 (20.6%) (Hellenic Statistical Authority, 2017; 2018).

Among other Southern EU countries, the GFC legacies had a serious impact in Cyprus (any data presented in this study only reflect the state of the Republic of Cyprus and not the Turkish Republic of Northern Cyprus). Specifically, Cypriot state officials failed to act promptly and effectively to resolve specific structural and economic problems (e.g., high public debt) to mitigate the impact in the local economy after the 2008 GFC (Zenios, 2016). The case of Cyprus’s debt is rather unique due to the mixed challenges in the banking sector, sovereign debt, and extremely high level of debts in the private sector (firms and individuals) (Kapetanios et al., 2018). Following an international bailout package and a private deposits bank levy, Cyprus’s economy depreciated by approximately 11 percent during the 2008-2014 period (European Parliament, 2016). These developments inevitably led to an increase in the unemployment rate, as it reached a historic high of 16.1 percent in 2014 and remained at high levels in 2015 (14.9%) and 2016 (12.9%) (Statistical Service of Cyprus, 2017). In reference to the key obstacles to business growth in the Cypriot economy, serious challenges result from government bureaucracy, restricted access to finance, and lack of infrastructure (WEF, 2017). Based on the acknowledged problems, it is not surprising that Greece and Cyprus are considered two of the most difficult countries to do business among all Eurozone member states (World Bank, 2018b); in terms of the 27 EU countries, Greece ranks as 26th and Cyprus in the 21st position (World Bank, 2020). Accordingly, the internal economic impediments in both countries combined with additional pressure resulting from the 2008 GFC created a toxic business environment for many local businesses.

1.2.3. The business reality for Greek and Cypriot SMEs after the 2008 GFC

The economic and business conditions following the 2008 GFC severely affected SMEs’ growth in Europe and elsewhere. At the end of 2008, the global decline in demand for goods and services posed serious challenges for SMEs across many countries (OECD, 2009). During

the period 2009-2010, approximately 3.25 million jobs were cut among EU SMEs (European Commission, 2009). In Greece, SMEs' employment rate declined almost 25 percent by 2014 (SEV, 2017); it remained in 2017 18.4 percent lower than its pre-GFC level (European Commission, 2017a). Among the main challenges resulting for SMEs include cash-flow problems, limited availability of loans, harsh tax regime, reduced national wage level, and a further deterioration of the business conditions as the crisis developed over time (e.g., capital controls, Grexit) (Lyberaki and Tinios, 2017). Based on the nature of predicaments, it is not surprising that approximately 250,000 SMEs ceased their operation as the crisis unfolded resulting in profit losses of around 25 billion Euros, while the sale performance of SMEs that endured the pressure decreased by 30 percent (Voumvaki, 2018). As in other EU countries, Cypriot SMEs were also significantly affected from the local and international turbulent business conditions. Since 2008, SMEs' financial contribution in the Cypriot economy and employment rate were substantially reduced (European Commission, 2017b). For instance, Cypriot SMEs' financial contribution in 2016 was still 23.2 percent lower than its pre-GFC level (European Commission, 2017b). In reference to the nature of problems, access to funding proved a significant challenge for local SMEs (Charalambous and Polemidiotis, 2017), among other. Based on the value SMEs elicit for the economies in both Greece and Cyprus (e.g., employment), appropriate measures were taken to relief the pressure and regenerate SMEs.

After 14 years since the 2008 GFC, Greek and Cypriot SMEs show notable signs of recovery over time; however, serious challenges still threaten their present and future viability. In the 2014-2018 period, Greek SMEs exhibited significant improvement in key performance indicators including employment (+7.5%) and value-added (+11.8%), though still significantly lower than the value-added at large firms (+20.6%), and with further progress expected in the following years (European Commission, 2019a). Despite the positive results over the 2014-2018 phase, Greek SMEs have still not managed to fully recover financially since the 2008 GFC (European Commission, 2019a). Specifically, SMEs in Greece still have a lower value-added (-40.8%) and employment rate (-9.7%) than the pre-2008 level (European Commission, 2019a). In addition, the recent COVID-19 pandemic highlighted that Greek SMEs are still vulnerable to impeding crises. Among the prevalent difficulties, most SMEs in Greece (79%) reported reduced sales and over half (52%) experienced supply related challenges, while receiving back debt owed proved problematic for almost two-third (67%) of SMEs (European Commission, 2022d). Based on such challenges, it is not surprising that smaller sized Greek

firms have less chances than larger ones to endure in the local market, especially during turbulent periods (Axioglou and Christodoulakis, 2020).

In the case of Cyprus, SMEs managed to steadily make progress on key performance indicators over the years. By 2017-2018, Cypriot SMEs surpassed their pre-crisis performance in employment (+6.3%) (European Commission, 2019b), though annual productivity per staff member (value added per person) was approximately twenty-five percent lower than the overall EU rate in 2020 (European Commission, 2021a). On a different note, recovery was not complete at other measures with the value-added rate still lower than the pre-2008 level (-3.8%) (European Commission, 2019b). Despite the overall progress in important performance indicators, most SMEs in Cyprus still experience problems with identifying different funding options, and launching new products (European Commission, 2021a). Additional important challenges relate to red-tape, restricted state-led provision of digital support, delays with repayment of owed debts, and maladministration both at central and local government level (European Commission, 2022e). Following the COVID-19 pandemic, Cypriot SMEs mainly reported lack of liquidity and delays on receiving back debt owed with no other serious operational problems noted (e.g., staff salaries), predominantly due to state funding during the pandemic (CCCI, 2021). The persisting challenges illustrate that SMEs in Cyprus and Greece are still exposed and vulnerable to future turbulences.

Based on the everchanging business environment and the important role of SMEs worldwide, it is important to further investigate how SMEs could adapt to the fluctuating operating conditions and cope with future turbulent events. In Europe, SMEs significantly influence the economic function of the whole union and its individual members states, especially in the Southern region. In the case of Greece and Cyprus, it is even more urgent to explore how SMEs could endure internal and external shocks, due to excessive and enduring macroeconomic imbalances in both countries, along with Italy, that have further escalated after the COVID-19 pandemic (European Commission, 2021b). As a way to deal with long-term and persistent inner barriers in the Greek economy, Lyberaki and Tinios (2017, p. 26) argued that “a small-firm based strategy could allow Greeks to lay the road out of the crisis with their own resources and potential”. The same reasoning could apply in the case of Cyprus due to the similar value SMEs play in the local economy.

In line with the challenging operating conditions in Greece and Cyprus, it is equally impelling to focus our attention at both countries and identify how local SMEs could cope with serious ongoing challenges but also future turbulences. Including SMEs from both countries as this study's population offers mixed benefits. Following the 2008 GFC, the unstable and increasingly deteriorating business conditions worldwide exacerbated diverse impediments at both economies with different duration (much longer for Greece-GR than in Cyprus-CY) which climaxed at different periods (CY: 2013; GR: 2015) through distinct national events (CY: private deposits bank levy; GR: capital controls), creating unique challenges for domestic businesses. Exploring the determinants of resilience from multiple perspectives could offer a more complete understanding how SMEs operating at different environments, including cultural variations (see chapter 5), the size of respective SME populations (e.g., level of competition) and their regulatory framework (e.g., law, public administration), respond to a wide range of ongoing problems but also ways to cope with future challenges. Specifically, the inclusion of both Greece and Cyprus aims to produce *cross-contextual generalities*, "an understanding of processes or phenomena in specific contexts" (Mason, 2002, p. 197), through a "strategic comparison of sensitive and rich understandings of specific contexts, whose significance in relation to a wider universe we can demonstrate" (Mason, 2002, p. 125). If statistical generalization is not possible, any likely cross-contextual generalities could be reached at an analysis and interpretation level (analytical generalization) (see Polit and Beck, 2010).

The cases of Greece and Cyprus embody an interesting setting to explore organizational resilience for multiple reasons: *a)* SMEs are extremely important for the economies of both countries (higher employment and value-added level than the EU average; see chapter 5), *b)* the turbulence created following the 2008 GFC exacerbated lingering internal impediments creating extremely adverse business conditions in both countries, setting them among the most severely affected EU economies (Carbo-Valverde et al., 2016), *c)* SMEs in Greece and Cyprus still experience important structural challenges (e.g., access to finance) making them vulnerable to future shocks, and *d)* the business environment of both countries has unique volatile characteristics (e.g., Cyprus is the only divided EU country). Based on the highlighted parameters, the concept of resilience could prove extremely relevant and valuable for businesses in Greece and Cyprus. For instance, resilience could support firms endure turbulences and develop an inherent capacity to adapt to environmental volatility, making businesses more equipped to manage challenging incidents (Burnard and Bhamra, 2011).

Therefore, an investigation of the factors that contribute to the development of resilience capabilities could be particularly beneficial and enable Greek and Cypriot SMEs not only survive but even grow during times of economic stagnation and uncertainty.

1.2.4. Knowledge gaps for OR and the context of SMEs

Although the concept of organisational resilience, and specifically in the context of SMEs, attracted considerable attention among academics in recent years (Herbane, 2019; Sullivan-Taylor and Branicki, 2011; Vargo and Seville, 2011), there are still factors that require further clarification or restrict its applicability. First, the subject area of OR has not been fully explored. For instance, contemporary studies do not clearly identify how firms can develop resilience in the event of future crises (Linnenluecke, 2017). Similarly, Burnard and Bhamra (2019) suggest that contemporary literature does not fully grasp the factors that contribute to resilience and how organisations could promote resilience. Second, there is still a limited number of studies investigating SMEs' resilience growth (Kamalahmadi and Parast, 2016). Accordingly, more studies should investigate how SMEs develop resilience (Branicki et al., 2018), providing additional practical validation how SMEs, and other firms, establish various measures of resilience (Alberti et al., 2018). Therefore, the topic of SMEs' resilience is still under-researched and available findings are mostly incomplete (Conz et al., 2017). Such a limitation applies particularly in the geographical context of Greece and Cyprus. Based on contemporary studies, the example of Greek SMEs has been used to investigate post-GFC performance (Trigkas et al., 2014), impediments to resilience growth (Alebaiki and Ioannides, 2018), or possible ways to survive during economic crises (Kottika et al., 2020), among a wide range of explored themes. In the case of Cypriot SMEs, some of the latest relevant investigations aimed at risk management models during financial crises (Yiannaki, 2012), strategic responses under turbulent economic periods (Tekelas, 2018), and individual resilience during the COVID-19 pandemic (Hadjielias et al., 2022), including several other topics. Despite the growing research interest focusing on SMEs in Greece and Cyprus, it is still unclear how SMEs in both countries can develop resilience as a response to current and future turbulences. Third, a fully developed theory of resilience (TOR) from the perspective of organisations is currently unavailable. In particular, Duchek (2020, p. 220) explains that “an overarching theoretical framework of organizational resilience” is yet to be established. Morais-Storz et al. (2018, pp. 1181-1182). also identified a gap in the literature on “theorizing about how organizations become resilient”. Moser et al. (2019, p. 33) further argue that “This conceptual fuzziness makes it difficult...to apply resilience in practice, test characteristics, or develop stable metrics that can be applied

across contexts”. On a similar note, Dormady et al. (2019) argue that the majority of available interpretations and measures of resilience lack a theoretical basis. To that extent, an overarching definition or theory of resilience based on characteristics across multiple research outputs is still not available (Linnenluecke, 2017). In line with the identified knowledge gaps and limitations, this study aims to contribute to the existing body of literature exploring how SMEs, in the context of Greece and Cyprus, could develop resilience capabilities.

1.3. Research aims, objectives, and questions

1.3.1. Research aims and objectives

Based on the acknowledged knowledge gaps, this research project investigates SMEs’ resilience and adaptive capacity in times of crises. As indicated by Bhamra and Dani (2011), SMEs are more susceptible than large companies to financial crises and changes, such as market and technological-related ones, among others. Despite SMEs holding a prominent role in the global economy, there is limited evidence how SMEs can build resilience and cope during turbulent periods (Kamalahmadi and Parast, 2016). This study also considers a narrower geographic focus, examining the case of Greek and Cypriot firm owners/managers. Although Greek and Cypriot SMEs represent the backbone of the economies in both countries (European Commission, 2022b; 2022c), it is still unclear how Greek and Cypriot SMEs develop resilience. The present study responds to the aforementioned knowledge gaps by identifying how SMEs in Greece and Cyprus deal with contemporary challenges, including an economic turmoil like the 2008 GFC. Such an investigation aims to determine the specific factors that contribute to resilience, including organisational capabilities (e.g., flexibility) and critical success factors for the performance of SMEs. Specifically, the current investigation seeks to unveil any actions employed before (pre-crisis resilience), during, and after various shocks (post-crisis resilience). Attempting to set a specific analytical timeframe and point of reference to prospective participating firms, the present exploration focuses at the 2008-2016 period; from the beginning of the GFC in 2008 and before the data collection begins by the end of 2016. From the perspective of the geographical focus of the study, the years between 2008-2015 cover the full length and post period of the national economic and debt crisis in Greece and Cyprus (Sfakianakis, 2022).

The following research objectives (RO) support the implementation of the research aims:

RO1) *To investigate SMEs' business conditions and performance in the context of Greece and Cyprus following the 2008 GFC.*

RO2) *To examine how Greek and Cypriot SMEs cope during adverse business conditions.*

RO3) *To explore the factors (e.g., traits, capabilities, processes, resources) that contribute to organisational resilience (OR), specifically in the context of SMEs operating in Greece and Cyprus.*

RO4) *To review contemporary literature and illustrate the actions employed by SMEs before, during, and after they get exposed to internal and external shocks.*

1.3.2. Research questions

This research project explores how Greek and Cypriot SMEs cope and adapt to the 2008 GFC legacies by identifying the key elements that shape their resilience capacity. In this respect, the following research questions (RQ) complement the highlighted research aims and objectives:

RQ1) How do Greek and Cypriot business owners/managers describe the post-2008 GFC business environment in their industry? For example, how have Greek and Cypriot SMEs been affected by the turbulent business conditions after the 2008 GFC, if at all?

RQ2) How have Greek and Cypriot SMEs performed in key business performance criteria after the 2008 GFC and what distinct performance outcomes result for Greek and Cypriot SMEs from nurturing resilience capabilities, if any at all?

RQ3) How do Greek and Cypriot SMEs manage to cope in time of crises and develop resilience, if at all, and how have Greek and Cypriot SMEs performed after the 2008 GFC in various factors that could influence their capacity to develop resilience?

In line with this study's exploratory focus, it would be valuable for a better understanding of organisational resilience to identify whether the determinants influencing the development of SMEs' resilience capacity vary among business environments. Accordingly, the following research question is included:

RQ4) Are the factors that determine SMEs' resilience capacity different in the context of Greece and Cyprus? Specifically, what are the differences between the way SMEs in Greece and Cyprus develop resilience capabilities, if any at all?

1.4. Outline of the thesis

The following sections of the thesis are structured as follows:

Chapter 2 introduces the concept of resilience across multiple subject areas, and specifically from the perspective of organisations, and presents emerging themes contributing to resilience in the context of SMEs.

Chapter 3 exhibits theoretical notions related to the development of SMEs' resilience capacity. Based on contemporary literature, the chapter illustrates the antecedents of resilience capabilities and adopted actions by SME ownership/management at different stages of dealing with shocks.

Chapter 4 outlines the methodological choices for this study with the selection of an appropriate research paradigm and a respective research design approach.

Chapter 5 presents the chosen data collection and analysis processes among relevant quality and ethical parameters.

Chapter 6 and *Chapter 7* exhibit empirical qualitative and quantitative data respectively from Greek and Cypriot firms. The analysis of multiple interviews elicits different themes reflecting the factors shaping resilience capabilities for micro and small businesses in Greece and Cyprus (Chapter 6). Based on questionnaire responses, chapter seven (7) presents descriptive and inferential statistical results.

Chapter 8 presents the integration of qualitative and quantitative outcomes reflecting the operating conditions, performance, and factors influencing the promotion of resilience in the case of Greek and Cypriot micro and small firms.

Conclusion summarizes the key parts of the thesis, including the research aims/objectives, contribution, limitations, and future research opportunities.

Chapter 2

The concept of resilience

2.1. Introduction

This chapter discusses the literature of resilience. The first section presents how resilience is defined in various fields, the predominant cross-disciplinary attributes, among other corresponding subjects. From the perspective of organisations, the different characteristics, types, and drivers of resilience are highlighted. In the context of SMEs, the unique operational features and key antecedents shaping resilience capacity are identified, including the role of managers/entrepreneurs. The last part of the chapter focuses on possible ways to measure resilience and likely performance outcomes and advantages stemming for businesses that nurture resilience capabilities.

2.2. Resilience across different subjects

2.2.1. Definitions, different types, and areas for further development

Resilience is a multifaceted and multidisciplinary subject. As a concept, resilience attracted considerable attention from the academic community across various fields (e.g., psychology, social sciences) (Ledesma, 2014), with each domain aiming at distinct features of resilience (Ortiz-de-Mandojana and Bansal, 2016). Despite the increasing academic interest in resilience, an overarching definition across different subjects is still not available due to the multifaceted characteristics of resilience (Branco et al., 2019). After a certain disturbance occurs (e.g., natural disaster, earthquake, banking crisis), **engineering** resilience reflects a system's ability to return to an equilibrium or steady state (Holling, 1973). Based on the engineering approach, a system's resilience is measured based on a) the ability to absorb turbulences and b) the speed it returns (bounce back) to equilibrium or a steady state after the turbulence (the faster the more resilient) (Davoudi et al., 2012). In contrast, **ecological** resilience relates to "the magnitude of disturbance that can be absorbed before the system redefines its structure by changing the variables and processes that control behaviour" (Gunderson, 2000, p. 426). In line with such a definition, resilience is a system's attribute developing endurance as an outcome (Holling, 1973), and is measured based on a) the time required to return to a stable status after a turbulence and b) the level of disturbance a system can endure and stay in specified boundaries (Davoudi et al., 2012). Accordingly, engineering resilience recognises a single steady

equilibrium (or steady state), while ecological resilience accepts the likelihood of multiple equilibria since “instabilities can flip a system into another regime of behavior” (Holling, 1996, p. 33), therefore a different stability state (Holling, 1973). As representatives of two opposing perspectives of **stability**, the desirable result for engineering resilience is to preserve the “efficiency” of an operation (Holling and Gunderson, 2002, p. 28), whereas ecological resilience attempts to preserve the “existence” of an operation (Holling, 1996, p. 33), or else its sustainability (Davoudi et al., 2012). In contrast to bouncing back to a pre-turbulence equilibrium (engineering) or forth to a new steady state (ecology), a third resilience stance assumes that systems do not return to prior state after exposed to challenges and changes could result from both external and internal disturbances not necessarily interrelated (Davoudi et al., 2012). Specifically, **evolutionary** resilience reflects an on-going **adaptation** process with specific stages (reorganisation, exploitation and growth, conservation, and decline and release) (Simmie and Martin, 2010). On a similar basis, the **socio-ecological** resilience represents a system’s ability to bounce back, re-organise, learn and adapt after experiencing disturbances (Folke et al., 2002). Overall, the third resilience perspective depicts the ability to make adaptations and regroup alongside dealing with disruption (Walker, 2020). From the context of other subject areas, in *psychology*, resilience exhibits adversity (individual or collaborative) and positive adaptation (Fletcher and Sarkar, 2013, p. 5), while *socio-economic* resilience relates to the capacity of a system (e.g., economy, community) to rebound from a disaster or interruption (Simmie and Martin, 2009). When considering the nature of disturbances, **specified resilience** depicts “the resilience of some specified part of the system to a specified shock” (Walker and Salt, 2012, p. 18), whereas **general resilience** exhibits the capacity “to adapt or transform in response to unfamiliar or unknown shocks”, a crucial dimension of resilience when exposed to serious turbulences (Carpenter et al., 2012, p. 3251).

Resilience is perceived in a variety of ways depending on the field of study. Following a review of definitions of resilience across multiple disciplines, Moser et al. (2019) identified that the term resilience is used to denote a system’s **characteristic** (ecology, engineering), and a **process** (e.g., strategy) or **outcome** (e.g., for regions-regional resilience) in the social sciences. As an example, resilience interpreted as a *strategy* reflects the actions taken to deal with convolution and ambiguity in fluid environments (Moser et al. 2019). More recently, there is a tendency to consider resilience as a system’s **capacity** able to be developed instead of a system’s feature (Moser et al., 2019). On a different note, depending on the degree of engagement, resilience is classified as either *active*, a system’s adaptive actions in anticipation

of change, or *passive*, a system's capacity to endure turmoil and remain operational or keep its initial configuration (Burnard and Bhamra, 2019). Although such a diverse range of notions highlights the growing interest to investigate resilience, we still lack a clear understanding about the concept (resilience) and many of its determinants still require clarification. For example, Moser et al. (2019) argued that the different interpretations of resilience create confusion rather than clarify the concept. On a relevant point, Williams and Vorley (2017) acknowledged that a unifying definition on resilience is yet to be agreed. The highlighted limitations emphasize the need to continue exploring the topic of organisational resilience.

2.2.2. Cross-disciplinary attributes influencing resilience and possible resilience outcomes

The contemporary literature highlights several factors that contribute to developing resilience. Rather than focusing on a single feature, resilience stems from the synergy of multiple characteristics (Burnard and Bhamra, 2019). In the social-ecological field, the key attributes influencing general resilience include *diversity* (variety of approaches or responses), *modularity* (connectivity within a system), *reserves* (available knowledge, skills, etc.), *feedback* (advice to take appropriate actions), and *monitoring* (access to clear and applicable information to organise responses), among other (Carpenter et al., 2012). Additional traits that contribute to resilience, as inherent system properties, include *efficiency* (operate by using limited resources), *adaptability* (flexibility to change as reaction to stress imposed), *cohesion* (availability of combined strengths or interconnections) (Fiksel, 2003), and *absorptive capacity* (assimilate any imposed disturbances) (Francis and Bekera, 2014). Other key characteristics associated with resilient systems comprise the *rapidity of recovery* (ability to complete urging tasks on time to minimise adverse effects), *robustness* (endure disturbances and remain functional) (Cassottana et al., 2019); *resourcefulness* (recognise difficulties, prioritise, and activate assets under severe conditions), and *redundancy* (ability to remain operational in case of distress through replaceable components) (Bruneau et al., 2003). In line with the highlighted attributes, resilient systems are predominantly identified based on the principles of *latitude* (the highest level of change a system can endure before reaching a state of being unable to recover), *resistance* (how simple or challenging is for a system to change), *precariousness* (the ongoing pathway of a system and its proximity to surpass a threshold, making recovery challenging or unfeasible), and *panarchy* (the synergy between structures that influence the resilience of a system) (Walker et al., 2004). Based on the identified points, resilient systems are recognised for their *minimal disruption* (reduce the impact), *speed of recovery* (fast response to a turbulence), *autonomous recovery* (non-reliance to external support), and *nonspecialized*

resources (no planned overabundance of resources) (Mithani, 2020). Mithani (2020, p. 517) further explain that “a system that provisions buffers in anticipation of shocks (where those buffers play no role in its integrity or functionality) is reliant on some form of intervention and is not completely resilient”.

Multiple outcomes are influenced by the highlighted resilience characteristics. In the context of maintaining or returning to an equilibrium state, engineering resilience resembles the notion of *elasticity*, “the reactive capacity to absorb a perturbation while minimising possible transformations” (Conz et al., 2017, p. 188), while ecological resilience represents the concepts of “*absorption*” and “*response*” to disruptions (Conz et al., 2017, p. 189). *Stability* is another common desired result, “the ability of a system to return to an equilibrium state after a temporary disturbance” (Holling, 1973, p. 17), whereas *recovery* reflects “the time it takes to return to the previous state following disturbance” (Folke, 2006, p. 257). In contrast, resilience regarded as an evolving *adaptation* process functions as an ‘adaptive cycle’ (release, reorganization, exploitation, conservation) based on the notion of panarchy (Holling and Gunderson, 2002). Adaptive cycles are not necessarily sequential or fixed, nor a system’s operation occurs in a single cycle but in a sequence of embedded adaptive cycles that integrate (Gunderson and Holling, 2002). In line with such a reasoning, resilience does not reflect the notion of ‘bouncing back’ but a system’s capacity to change and transform whilst enduring turbulences (Walker, 2020). Accordingly, the essence of resilience relates to “learning *how* to change in order not to *be* changed” (Walker, 2020, p. 2, emphasis in original). Following disturbances in complex adaptive systems, Folke (2006, p. 257) explains that a system “may look similar but it is not the same system, because like any living system it is continuously developing”. Accordingly, in the context of complex adaptive systems, the term recovery is progressively replaced by regeneration and reorganisation, among other similar terms (Bellwood et al., 2004). *Transformation* is another relevant concept and relates to “shifting development into other emergent pathways and even creating new ones” (Folke, 2016, p. 2). On the basis of the identified resilient characteristics, it is important to consider relevant factors that could influence a system's ability to develop certain resilient characteristics.

2.2.3. The notion of vulnerability and its relevance with resilience

Vulnerability is associated with resilience as both focus on shocks and stress endured by systems (e.g., economies, livelihoods), and their likely response and adaptation to those turbulences (Mckeown et al., 2021). The main features of vulnerability include the stress a

certain system is exposed, its sensitivity, and adaptive capacity (Adger, 2006; Gallopin, 2006), while the degree of vulnerability depends on the probability and magnitude of each turbulence (Sheffi and Rice, 2005). Systems can be vulnerable to a certain type of disruptions but resilient to other; it is also possible to be susceptible to a disturbance but not get exposed to it (Gallopin, 2006). **Exposure** reflects “the nature and degree to which a system experiences environmental or socio-political stress” (Adger, 2006, p. 270). While exposure is usually considered an element of vulnerability, differing views reflect exposure as a feature of the association between a system and a specific turmoil, approaching vulnerability as a system’s pre-existing attribute (Gallopin, 2006, p. 296). On a different note, **sensitivity** is “the degree to which a system is modified or affected by perturbations” (Adger, 2006, p. 270), and is a characteristic of a system before a certain adversity occurs and independent from its exposure to the distress (Gallopin, 2006). The last property of vulnerability, **adaptive capacity**, relates to “the ability of a system to evolve in order to accommodate environmental hazards or policy change and to expand the range of variability with which it can cope” (Adger, 2006, p. 270). Based on emerging evidence, vulnerability fluctuates dependent on the promotion or decrease of different resilience attributes (e.g., ability to absorb and adapt, self-management) (Adger, 2006).

2.2.4. The distinction between resilience and similar terms

Although several terms are associated with the concept of resilience, it is important to highlight any differences between them. First, *vulnerability* is relevant to resilience but there is a clear distinction between the two terms. As an example, Gallopin (2006) explains that resilience is the opposite of vulnerability as it reflects the ability to react towards vulnerability, or else “resilience is a function of both the vulnerability of the system and its adaptive capacity” (Dalziell and McManus, 2004, p. 8). Specifically, the focal point for both vulnerability and reliability is a system’s breakdown and performance failure, while resilience also focuses on the ability to recover (Cassottana et al., 2019). Indeed, resilience represents a system’s ability to *bounce-back* following a disaster, recover any losses and regain its pre-disaster status, but also *bounce-forward*, to adapt and positively change to the better (Manyena et al., 2011).

Second, a common misconception occurs between *stability* and resilience. Stability has its roots in the engineering discipline and describes a rigid system which undergoes no changes and usually operates within a rather secure environment (Linnenluecke and McKnight, 2017). Holling (1973, p. 17) defines stability as “the ability of a system to return to an equilibrium

state after a temporary disturbance”. The level of stability will depend on how fast systems rebound with as limited variation as possible (Holling, 1973). Correspondingly, Burnard and Bhamra (2019) argue that *longevity* does not relate to resilience but instead stability. Therefore, an organisation’s smooth operation over an extended time is a sign of organisational stability but not resilience. On a similar note, Berkes (2007) explains that resilience theory considers ecosystems as being ever-changing entities aiming to achieve a *restructured* than *stable* state. Likewise, following turbulences, stability entails that a system will remain in its equilibrium status with minimal variations, while resilience asserts the capacity of a cluster of systems to remain in their status-quo by assimilating any turbulences (Bhamra et al., 2011). The distinction between both terms, resilience and stability, gave birth to the notion of ecological and engineering resilience.

Third, *resistance* should not be used interchangeably with resilience. Resistance is the condition when a system is robust enough to withstand any experienced calamities (Linnenluecke and McKnight, 2017). Resistance allows systems to degrade the influence following a disaster and ultimately manage to avoid a total disintegration; resilience surpasses the resistance level with the preparation and recovery stages (Linnenluecke and McKnight, 2017). The association of *robustness* with resilience is also not clear. While robustness predominantly signifies the capacity to endure a turbulence without changing, resilience reflects change and adaptation as a reaction to turmoil (Walker, 2020). On a similar point, *risk mitigation* and relevant notions should not be confused with resilience. Specifically, risk mitigation aims to either lower the extent of any disaster or eliminate it (Linnenluecke and McKnight, 2017).

Further attention should be placed between the notion of *transformation* and resilience. Despite common beliefs, the two concepts are not contrasting but can supplement each other (Walker, 2020). Specifically, when a severe change is imminent because of environmental alterations or current operational conditions, a further attempt to adapt only deteriorates the situation (Walker, 2020). For instance, the preservation of resilience at one structure might necessitate a transformational alteration at different structures (Walker, 2020). Transformability entails to shape a completely new stability context consisting of either new elements or a combination of novel and past (Walker et al., 2004). While resilience and adaptability concern with the “dynamics” of a specific system, transformability involves changing the actual “nature” of a system (Walker et al., 2004, p. 2). Apart from the notion of adaptation, Walker (2020) explains that resilience also entails the ability to understand when it is impossible to avoid a

transformation. The emerging new system might compose of a different nature than in the past due to the environmental alterations (Walker, 2020).

2.3. Resilience in the context of organisations

2.3.1. Generic characteristics of organisational resilience

Several contemporary studies explored resilience from the perspective of businesses, thereby enhancing our understanding about the concept. Organisational resilience (OR) reflects “an organisation’s capability to handle challenging conditions in ways that secure both its existence and its prosperity” (Haase and Eberl, 2019, pp. 2-3). Table 2.1 presents additional definitions from relevant literature. As explained by Duchek (2020), the available conceptualisations of OR form three key clusters; the first group focuses on a firm’s ability to **absorb turbulences and recover** its performance (e.g., Linnenluecke et al., 2012), the second cluster highlights a firm’s ability to **make changes and adapt to turbulences** improving even further its operation (e.g., Vogus and Sutcliffe, 2007), while a third group considers a firm’s ability to **anticipate** crises (e.g., Somers, 2009). In line with the acknowledged classifications, the conditions that promote organisational adaptation include *avoidance* (deflect various threats), *absorption* (absorb turbulences and keep the original configuration and performance), *elasticity* (flexibility, both physical and cognitive, in spite of turmoil), *learning* (transform the operating framework and associated capabilities), and *rejuvenation* (restore operation after experiencing adverse effects) (Mithani 2020). From the perspective of the nature of turbulences, OR deals with challenges originating both *internally* (e.g., operational challenges) and *externally* (e.g., fierce competition) (Sutcliffe and Vogus, 2003). Most contemporary definitions describe OR as an *ability* (Rahi, 2019), and *capacity* or *capability* (Rahi, 2019; Burnard and Bhamra, 2019). An *ability* entails a set of either inherent or developed skills, while *capacity* relates to the actual possibility of advancing a specific skill(s) (Rahi, 2019). Depending on the timing of the response, resilience can be classified as *proactive* (before an event), *absorptive* and *adaptive* (during an event), *reactive* (after an event), or *dynamic* (before, during, and after an event) (Conz and Mangani, 2020). On a similar note, *pre-adversity organizing* (active resilience) (prepare and restore) reflects any business practises focusing on “anticipating, preventing, or mitigating” (Williams et al., 2017, p. 746), while *post-adversity organizing* (passive resilience) relates to responding to significant disturbances due to unexpected external incidents or amplified business vulnerabilities (Williams et al., 2017, p. 746). From the perspective of a possible outcome, organisational resilience classifies as *static*, when established as a defensive

mechanism to act as a buffer and limit any negative effects following a turbulence, or *dynamic*, when the introduced processes aim to contribute to a firm’s coping with disasters and limiting any negative aftermath, but also enhancing an organization’s ability to rebound to its initial or an improved level (Annarelli and Nonino, 2016). Accordingly, static resilience aims to achieve an efficient use of any accessible assets as means to preserve the original equilibrium, while dynamic resilience goes beyond that point and focuses on the revaluation of various resources (information) aiming at different meanings and opportunities that lead to a new equilibrium (a new normal), hence it is a more viable option when dealing with continuous disturbances as it is more suitable for adjustments (Mithani, 2020). Regardless the term or approach adopted, the three highlighted clustered attributes (anticipation, coping, adaptation) accurately reflect the resilient process for businesses and the relationship between assets and results as well as the fluid nature of resilience (Duchek, 2020).

Table 2.1- Selected definitions of resilience in the context of businesses

Authors	Definitions
Burnard and Bhamra (2011, p. 5587)	“the emergent property of organisational systems that relates to the inherent and adaptive qualities and capabilities that enable an organisations adaptive capacity during turbulent periods”
Lengnick-Hall and Beck (2005, p. 750)	“a unique blend of cognitive, behavioural, and contextual properties that increase a firm’s ability to understand its current situation and to develop customised responses that reflect that understanding”
Linnenluecke et al. (2012, p. 18)	“organisational capacity to absorb the impact and recover from the actual occurrence of an extreme weather event”
McManus et al. (2007, p. ii)	“a function of an organisation’s: situation awareness, management of keystone vulnerabilities and adaptive capacity in a complex, dynamic and interconnected environment”

2.3.2. Key antecedents and enablers of organisational resilience

There are multiple factors cited in contemporary literature that contribute to the development of business resilience (table 2.2). Based on a review of contemporary literature, Morales et al. (2019) identified several factors influencing OR including leadership, innovation and creativity, funding availability, decision making, and network, among other. For instance, *entrepreneurs* influence the process of developing OR by exploring new opportunities even in adverse environments (Bullough et al., 2014; Bullough and Renko, 2013). A *firm’s knowledge base* also acts as an antecedent of resilience by facilitating adaptation and anticipation enabling firms to forecast any changes inner or outside the firm (Duchek, 2020). On a relevant note, *employee characteristics* (e.g., skills, behaviour) influence the prospect of an organisation to become resilient (Van der Vegt et al., 2015). As an example, the relationship of employees with external stakeholders could determine a firm’s access to a set of capabilities and assets

needed for adjustment purposes (Van der Vegt et al., 2015). Based on the highlighted attributes, a mix of cognitive, behavioural, and environmental-based capabilities and routines support firms build resilience (Lengnick-Hall and Beck, 2003; 2005), enabling organisational responses to further progress and promote an environment of plurality and inclusion (Lengnick-Hall and Beck, 2009). From the perspective of a cognitive capacity, *collective sensemaking* helps organisations and staff members with interpreting and making sense of ambiguous incidents and developments (Weick, 1995). Among various behavioural capabilities, *resourcefulness* and *bricolage* (make do with any available resources) empower firms and individuals to identify innovative solutions and react to turbulences (Coutu, 2002). In reference to any variables stemming from the external environment, *social capital* could act as a separate source of resources and a different type of assistance (Lengnick-Hall et al., 2011). Among other alternatives, the notion of ‘*real options*’ could be used for the preparation of different responses in case of turmoil. Specifically, firms could invest in various tangible assets that allow managers to have the option, a right but not an obligation, to take certain actions at a future time at a specific cost (Trigeorgis and Reuer, 2017). Accordingly, firms could invest in *redundancy*, *business continuity planning* (e.g., scenario simulation), and *flexible applicable resources* (e.g., a wide range of products), among other choices (Sheffi, 2018). For example, redundancy relates to storing resources prior a turbulence (Conz and Mangani, 2020). Popular redundant options include safety stock, agreements with multiple suppliers, and use of several venues (Sheffi and Rice, 2005). Organisations could further support their resilience capacity and generate a competitive edge over rivals through developing *flexibility*, the development of internal capabilities able to detect threats and promptly react to them (Sheffi and Rice, 2005). Based on the previously identified elements, resilience reflects a firm’s capacity to perform a range of generic activities, including to *respond* (e.g., expected or unexpected incidents), *monitor* (e.g., their own performance and the business environment), *anticipate* (e.g., future developments) and *learn* (e.g., from previous experiences) (Hollnagel, 2010). Regardless of any identified attributes, the developing external business conditions determine whether specific features have a positive or negative influence on a firm’s resilience capacity (Gover and Duxbury, 2018). Another crucial element to consider is that firms are unique entities with different characteristics, hence an overarching approach towards promoting resilience might not be applicable to all businesses (Burnard and Bhamra, 2019). Despite the distinctive business characteristics and operational conditions, all firms need to establish both active (e.g., monitor their business environment) and passive (e.g., robustness) resilience attributes to remain operational in the long-term (Burnard and Bhamra, 2019).

Table 2.2-Selection of key antecedents and enablers of organisational resilience

Owners/managers' characteristics	Renewal
Anticipation	Creativity
Flexibility	Proactivity
Adaptation capacity	Organisational structure
Improvisation	Monitoring
Agility	Learning
Transformation	Knowledge base of firms
Organisational culture and values	Risk awareness
Networks	Innovation
Funding availability	Technological evolution
Managerial processes	Leadership

Sources: Morales et al., 2019; Gover and Duxbury, 2018; Tengblad and Oudhuis, 2018; Bullough et al., 2014; Bullough and Renko, 2013; Lengnick-Hall et al., 2011; Weick and Sutcliffe, 2015; Hollnagel, 2010

2.4. A unique type of organisations: the case of SMEs

2.4.1. Key operational characteristics for SMEs

The unique operational characteristics of SMEs impact their capacity to develop resilience amid volatile business conditions. SMEs are a heterogeneous group of businesses (Eggers et al., 2012), with different performance depending on the firm size (e.g., micro, small), industry of operation, and managerial characteristics (Pansiri and Temtime, 2010), among other factors. Among key limitations, SMEs cannot easily prioritize, anticipate problems, and also lack sufficient resources (Sullivan-Taylor and Branicki, 2011). Eggers (2020) further explains that the smaller a firm's size is the fewer assets it usually has, exposing it more to in-house and outside challenges (e.g., resignation of an important staff member, increased competition). However, the small size enables SMEs to be quite adaptable when new prospects or turbulences emerge in their operating environment (Eggers, 2020). As an example, SMEs have the advantage of swift decision making, reduced red tape and informal processes, fast learning, and are flexible to adjust their operation and tactics (Alberti et al., 2018). On a different note, SMEs are rather focused on short goals and daily operational challenges, and usually place less value to change management principles (planning, formulation, and establishing change) (Ates and Bititci, 2011). As a result, they usually just react to any exercised pressure (inner or exterior) (Ates and Bititci, 2011). From a financial perspective, SMEs are more likely to experience financial challenges than large businesses due to fewer funding options, hence are more depended on bank loans than large firms (Bussoli and Marino, 2018). Based on the identified business features, SMEs are significantly exposed during turbulent periods and unable to take appropriate actions due to insufficient reserves (e.g., cash, staff) (Vargo and Seville, 2011; Bamiatzi and Kirchmaier, 2014). In contrast, large firms are more capable to

endure exterior turbulences and deal with financial meltdowns and sustained reduced sales or price competition (Bamiatzi and Kirchmaier, 2014). Therefore, it is not surprising that large organisations (over 250 employees) are more capable to develop capacities that contribute to resilience (resistance, recovery, flexibility) (Polyviou et al., 2019). Based on the highlighted operational characteristics, and aligned with the aim of this study, special consideration should be set on the conditions that impact SMEs' operational performance.

2.4.2. Critical Success Factors (CSFs) for SMEs and other organisations

Several studies focusing on SME performance highlighted critical factors for their success (CSFs). Bullen and Rockart (1981, p. 7) defined CSFs as “the few key areas where “things must go right” for the business to flourish and the manager’s goals to be attained”. In relation to the **financial performance**, *sales growth* tends to be a rather popular measure of business success (Kiviluoto, 2013). However, when business success is determined only by the result of sales growth can be “a dangerous oversimplification of a complex phenomenon” (Kiviluoto, 2013, p. 584). Accordingly, contemporary literature highlights the value of **non-financial factors** including *customer satisfaction* (delivery satisfaction, product/service satisfaction), *time* (distribution times), and *quality* (actual vs planned performance) (Hudson et al., 2001) and *owners/managers' expertise/skills* (Lussier and Corman, 1995; Pansiri and Temtime, 2010). Likewise, Yusof and Aspinwall (1999) distinguished as standard overarching CSF for SMEs, a) management leadership, commitment and support, b) supplier quality management, c) employee relations, human resource management, and d) training and education. On a different note, the strategic direction of businesses is also shaped by certain **internal** and **external environmental** factors (Pansiri and Temtime, 2010; Simpson et al., 2012). For instance, external environmental factors include the elements of *task environment* (e.g., competition, suppliers, clientele, and technology) and *general environment* (e.g., economy, politics, culture) (Elenkov, 1997). On a similar point, Gunasekaran et al. (2011) explain that SMEs' competitive and sustainable status depends on the technology evolution, shifting market trends, and nascent management and organisational processes. In contrast, internal factors reflect the owner-manager/entrepreneur and the firm itself (Simpson et al., 2012), and are considered crucial since they relate to issues firms can fully influence (Pansiri and Temtime, 2010). *Innovation* is another important factor that affects business performance and relates to both in-house (product innovation) and external processes (marketing innovation) (Sidik, 2012). As an example, a firm's ability to offer as innovative products/services as their competition does will affect its financial performance (Sidik, 2012). Other factors that

determine a firm's performance include *firm size* (e.g., micro, small) (Pansiri and Temtime, 2010; Postma and Zwart, 2001), *industry characteristics* (Pansiri and Temtime, 2010; Postma and Zwart, 2001; Hansen and Wernerfelt, 1989), as well as its *competitive stand* over rival firms (market share), and the degree of *resource availability* (volume and quality) (Hansen and Wernerfelt, 1989). From the perspective of small firms, the business characteristics (e.g., size, age, location, strategy) and entrepreneurial attributes are among the key factors associated with business growth in contemporary studies (Bamiatzi and Kirchmaier, 2014). In time of crises, SME performance could vary due to the market orientation, location, links with various stakeholders (e.g., customers, suppliers), and liability to debts, among other attributes (Sato, 2000). In the context of Greece, Voudouris et al. (2000) identified that thriving Greek SMEs tend to a) operate in highly specialised market sectors, b) focus on customer service, c) innovate and adjust to technological changes, and d) have an efficient management team and functional business culture. The identified factors act as distinct criteria supporting the performance appraisal of SMEs across different operating industries.

2.4.3. Performance measurement in the context of SMEs and other organisations

Although it is challenging to measure organisational performance (Meyer, 2005, cited in Simpson et al., 2012), **financial** related factors and the level of business **growth** (Wood, 2006; Poon et al., 2006) tend to be among the ones frequently used. As a relevant example, organisational performance could be measured based on sales growth, market share, and profits (Lumpkin and Dess, 1996), however it is important to clearly differentiate between metrics of growth and profitability (Rauch et al., 2009). For instance, a firm could aim to grow over a long period rather than emphasize on short-term revenue (Rauch et al., 2009). On a different note, **non-financial** factors also need to be considered. For example, business partners' gratification, staff satisfaction, and prestige include some crucial elements, among other (Lumpkin and Dess, 1996). Additional non-fiscal attributes relate to work-life balance, profit versus lifestyle, working hours (Green bank, 2001); job-satisfaction, sense of achievement and recognition (Sturges, 1999); management's prior relevant working experience (Harada, 2003); organisational culture (Choueke and Armstrong, 2000); cash-flow level (Cunningham, 1998); and management's personality and behavioural characteristics (Hill and McGowan, 1999). After attempting any type of performance measurement, results could offer valuable **feedback** to owners/managers and influence their future actions (strategy adjustment) (Simpson et al., 2012). In the context of this study, the interpretation of success and performance could vary among SMEs subject to management's personal beliefs and judgement (Simpson et al., 2012;

Simpson et al., 2004). Following such a reasoning, subjective performance targets (e.g., durability) could be more significant for some SMEs than objective performance norms (e.g., sales) (Postma and Zwart, 2001). Therefore, it is relevant to identify how Greek and Cypriot SME owners perceive success and which factors are important to them.

2.4.4. The post-2008 GFC response from Greek and Cypriot SMEs

Following the 2008 GFC outburst, Greek and Cypriot SMEs employed various measures to cope with the deteriorating business environment and improve their operating conditions. In the case of Cyprus, recent findings indicate that SMEs predominantly adopted *price reduction* strategies to maintain or boost their sales level and also attempted to reduce their operating expenses (e.g., salaries) (Charalambous and Polemidiotis, 2017). On a positive note, a satisfactory cash-flow level supported Cypriot SMEs endure the challenges resulting from the worsening business conditions after the main crisis outbreak in Cyprus (Charalambous and Polemidiotis, 2017). As a response to the rigid credit terms and restricted access to funding, Cypriot SMEs resorted to alternative funding options (family, friends) (Charalambous and Polemidiotis, 2017). Similar approaches were also employed by Greek SME management. Specifically, SMEs in Greece managed to survive the volatile business environment employing *downsizing* (reducing costs, expenses), *marketing activities* (introduce new products/services, reduce prices of products/services), *extroversion* (identify new markets and business associates, exporting activities), and *financial management* (no external loans, conventional financial management principles) (Kottika et al., 2020). As an example, Dimitropoulos et al.'s (2019) findings confirmed that cash reserves proved an important resource influencing Greek SMEs' financial coping and sustainability under conditions of reduced availability of loans and significant financial turbulence. Among other contributing factors, communication with key stakeholders (Bourletidis and Triantafyllopoulos, 2014), and management of information (enquire, collect, assess, use) based on a pre-crisis planning proved a valuable asset for Greek SMEs during the financial crisis (Bourletidis, 2013). In line with the identified actions, the role of entrepreneurs emerged as a pivotal factor nurturing Greek SMEs endure the challenging financial conditions after 2008 (Kottika et al., 2020). Among the highly influential elements include Greek SME management personality characteristics and expertise, the application of market and entrepreneurial orientation affecting the business performance, and use of strategies that develop higher quality products/services with a unique image (Kottika et al., 2020). Additional contemporary findings also identified bricolage activities as supplementing SMEs' main strategy, yet vary depending on the industry, business size, and other determinants

(Tsilika et al., 2020). Consistent with the highlighted findings focusing on SMEs in Greece and Cyprus, the detrimental effect of the 2008 GFC on businesses worldwide increased the popularity of the resilience subject in the academic community. Accordingly, several scholars attempted to validate empirically the attributes and processes able to promote resilience among the most vulnerable group of businesses, namely SMEs. The next section presents several attributes associated with SME resilience capacity and relevant contributing concepts.

2.5. The development of resilience in the context of SMEs

2.5.1. Generic antecedents of resilience in SMEs

Multiple research investigations identified attributes that could support SMEs in becoming resilient and adapting to crises. For instance, SMEs could increase **networking** with important stakeholders (clientele, competition, suppliers), among other measures, as part of a proactive course of action to expect (anticipate) change and make appropriate preparations (Ates and Bititci, 2011). Other factors able to influence SMEs' capacity to develop resilience include an **entrepreneur's characteristics** (education, employment experience), **business attributes** (size, financial availability), and **external market factors** (political, technology) (Branco et al., 2019; Lampadariou et al., 2017). As an example, management's proper selection of active resilience tactics, as part of an adaptive process development, could significantly determine the resilience outcome (Conz et al., 2017). On a different note, **planning** and **adaptiveness** are perceived as crucial elements of an efficient strategic crisis planning combined with leadership, organisational culture, decision making, and situation awareness (Vargo and Seville, 2011). **Ambidexterity**, the balance between *exploration* (the pursuit of attaining novel knowledge) and *exploitation* (the venture of applying and evolving any existing knowledge) (Levinthal and March, 1993), also emerged as a possible enabling factor for SMEs to cope with adversities and recover, further advancing their resilience capacity in case of crises like the GFC (Iborra et al., 2019). However, firms with restricted assets might not be able to fund both approaches (Raisch and Birkinshaw, 2008), limiting SMEs' ability to be ambidextrous due to certain constraining reasons (e.g., resource scarcity, organisational structure/administrative processes, etc.) (Lubatkin et al., 2006). Based on such principles, several scholars attempted to further explain how SMEs could build resilience and group a wide range of instrumental determinants.

2.5.2. Key factors shaping resilience in SMEs

Due to the growing interest in the topic of resilience, the current body of literature includes numerous attempts to identify the key variables that enable SMEs to develop resilience. Based on a selection of relevant studies (Pal et al., 2014; Branicki et al., 2018; Gunasekaran et al., 2011; Polyviou et al., 2020; Battisti et al., 2019), SMEs' capacity to develop resilience depends predominantly on three main parameters, in addition to other supportive factors.

In the context of SMEs, the capabilities of an organisation and its external environment are recognised as highly influential drivers of resilience. At an **organisational level**, resource availability (e.g., financial, social network, expertise), operational capabilities (e.g., flexibility, adaptive capacity, networking), and organisational culture (e.g., learning, values, strategies, policies) seem to have a substantial impact on the potential for SMEs to become resilient. The way SMEs deal with exogenous shocks and crises could vary depending on a) the nature of the business (e.g., size, capabilities, assets), b) the nature of the crisis resulting from the shock (e.g., type, scale), and c) the nature of responses to turbulences (e.g., reactive, proactive) (Miklian and Hoelscher, 2022). For instance, safety stock could prove valuable in cases of unexpected challenges, while cash flow and capital availability, or not, could influence (positively and negatively) SMEs' resilience capacity during turmoil (Pal et al., 2014). On a different note, an established relationship with various stakeholders (suppliers, clientele) could bolster the resilience of SMEs through building a capital-turnover ratio (Pal et al., 2014). Alternatively, operational flexibility (e.g., production, purchases) has been positively correlated with SME resilience further contributing to profits and cash flow (Pal et al., 2014). As an additional determining factor, the **external environment** (globalization, technology evolution) and **other attributes** (location of the firm) also impact SMEs' capacity to build resilience. For example, the location of an SME is important not only due to its dependence on local stakeholders but also from a marketing perspective and could impact both a firm's vulnerability and resilience (Gunasekaran et al., 2011). Specifically, a closer proximity to different stakeholders (e.g., clientele, suppliers) aids the collection of information about market and rivals' ventures (Herbane, 2019).

Another prominent factor in the process of developing resilient SMEs relates to **owners/managers**, their personal characteristics and endeavours. Specifically, individual resilience (personal network, perceived control over events), entrepreneurial behaviour (self-dependence, resourcefulness), and entrepreneurial bricolage (combination of available

resources) tend to determine at a significant degree whether SMEs could build resilience, among other important reasons. For instance, management and organisational culture (strategies, values) are the principal factors shaping the quality of products/services offered. In addition, a firm's management understanding of globalisation and competition influences SMEs' resilience capacity (e.g., via customer satisfaction) (Gunasekaran et al., 2011). On a relevant point, Seville (2009, p. 11) argues that "well managed risks and effective planning are still no substitute for great leadership and a culture of teamwork and trust which can respond effectively to the unexpected". Such an argument accentuates the value of improvisation and imagination (Shaw, 2012). Due to the significant impact entrepreneurs/managers have on business performance (e.g., individual goals, design and implement the business strategy) (Postma and Zwart, 2001), further research should highlight how owners/managers contribute to the resilience process (Branicki et al., 2018). As an example, contemporary research findings link SME resilience capacity and business longevity with a firm's management ability to select effective strategies (Conz et al., 2017). Accordingly, an investigation about organisational capabilities would be impractical without considering the input of the persons responsible to develop and maintain them, namely owners/managers (Mudalige et al., 2019). In addition, it is relevant to consider the main characteristics of the businesses in focus for this study, namely SMEs. Although, resource availability is among the determinants of resilience capacity in large firms, SMEs' limited asset disposal highlights the need to evaluate different type of measures for the promotion of resilience (Branicki et al., 2018). Therefore, the following sections review the impact of entrepreneurial resilience and entrepreneurial activities for the advancement of resilience in the context of SMEs.

2.6. The role of SME owners/managers for the promotion of resilience

2.6.1. Entrepreneurial resilience

Based on contemporary literature exploring antecedents of resilience from the perspective of SMEs (Conz et al., 2020; Branicki et al., 2018; Gunasekaran et al., 2011), 'entrepreneurial resilience' and its dimensions should receive special consideration. Entrepreneurial resilience relates to "the result of interactions between the entrepreneur and the environment which provide the entrepreneur with the knowledge and skills needed to face uncertainty" (Leonelli et al., 2019, p. 7). Although entrepreneurial resilience links with individual and organisational resilience, it is still distinct from both concepts (Branicki et al., 2018). On a similar point, individual and entrepreneurial resilience are related principles which likely supplement each

other yet not identical (Branicki et al., 2018). The notion of entrepreneurial resilience specifically explains why some entrepreneurs give up when exposed to adversities while others continue their business pursuits under hazardous conditions (Awotoye and Singh, 2017).

Entrepreneurial resilience consists of a wide range of interrelated elements. Following a review of contemporary literature, Lee and Wang (2017) clustered relevant attributes affecting entrepreneurial resilience in three main parts with several sub-factors, namely **intrapersonal** (personality traits, motivation, human capital, personal values and principles), **interpersonal** (family and network support, association with professional groups), and **contextual** (resource slack, market features, cultural convictions). Each cluster and sub-factors can both support and restrict (enablers and inhibitors) entrepreneurial resilience, while all sub-factors per cluster could enhance the impact of each cluster (Lee and Wang, 2017). As an example, entrepreneurs with high level of intrapersonal factors would be more likely to resume business after a misfortune in contrast to others lacking such characteristics (Lee and Wang, 2017). Specifically, the personality characteristic of *control* indicates the need for individuals to exercise a certain level of authority on their matters, while *confidence* entails self-belief in an individual's capacity to complete the necessary actions to realise any set goals (Bimrose and Hearne, 2012). On a different level, a good educational background could act as a balance for any limited skills (Lee and Wang, 2017). In addition, family support (interpersonal factor) could assist entrepreneurs experiencing financial challenges in times of economic decline (contextual factor) (Lee and Wang, 2017). From the perspective of entrepreneurial motives, contemporary studies (Nisula et al., 2017) identify a combination of incentives, both achievement/intrinsic (enjoy work) and materialism/extrinsic (financial reward) types, as necessary for an efficient entrepreneurial operation (Nisula and Olander, 2023). In the context of entrepreneurial resilience, entrepreneurs focusing on intrinsic incentives are inclined to work harder and overcome various challenges but also learn from them (Nisula and Olander, 2023).

Although entrepreneurial resilience is usually associated with a positive impact on organisational resilience, there are exceptions when it actually has a negative influence ("dark side") (see Korber and McNaughton, 2018, p. 1140; Williams et al., 2017). For example, several individual resilience traits (e.g., optimism, persistence) could motivate people to participate in entrepreneurial projects that will most likely fail (Spivack et al., 2014; Hayek, 2012). Similarly, entrepreneurs with extremely high self-confidence could assume their individual resilience as an alternative to formal anticipation activities (Marcazzan et al., 2022). On a relevant note, various entrepreneurial actions inhibit resilience, while certain resilience

activities are not particularly entrepreneurial (Branicki et al., 2018). Based on the significant impact entrepreneurs exert on business performance (e.g., individual goals, design and implement the business strategy) (Postma and Zwart, 2001), it is important to explore how owners/managers contribute to a firm's resilience capacity (Branicki et al., 2018). An investigation of organisational capabilities would be impractical without considering the input of the individuals responsible to develop and maintain them, namely owners/managers (Mudalige et al., 2019). Accordingly, the following sections consider relevant intrapersonal qualities that could influence SMEs capacity to become resilient.

2.6.2. Coping at an individual level (Individual resilience)

People always assess their interactions within their context (environment) (Lazarus and Folkman, 1984). Any situation that could be stressful (risky, dangerous) requires coping measures to manage the actual issue that triggers stress (problem-based coping) or the anxiety caused from the actual incident (emotion-based coping) (Folkman, 1997). Coping could be either a personality trait or a process. The initial model presented by Lazarus and Folkman (1984) entailed that coping processes elicit two possible developments for events; a *positive result* could possibly induce good emotions and the end of coping actions, or an *unfavourable result* could cause stress requiring more coping activities (Folkman, 1997). Another alternative, *meaning-based coping*, was later introduced as an additional option that could lead to positive emotions (Folkman, 1997), based on further appraisals after an unsuccessful event settlement (Folkman, 2008). The new emotions and appraisals affect the stress process through renewing coping resources and act as an incentive to continue problem-focused coping over an extended period, while positive emotions also are assumed to ease the upset (Folkman, 2008). As a process, coping shifts through time in line with its environment (Lazarus, 1993). The first stage, *anticipation*, relates to concerns whether the event will actually take place, its timing (when), and the specific type (what) (Lazarus and Folkman, 1984). The *impact* stage relates to determining the effect of the event and whether it was as expected or not (Lazarus and Folkman, 1984). After the event has passed, the *post impact* phase involves an evaluation and coping practises encompassing the past, present, and future (Lazarus and Folkman, 1984). Depending on the different coping phases, different types of coping are applicable. **Reactive** coping addresses a previously encountered distress (Biggs et al., 2017). **Anticipatory** coping deals with an acknowledged impending event in the foreseeable time to come (Biggs et al., 2017). **Preventive** coping covers any likely forthcoming difficulties and relates to attempts to store resources as a way to lower/decrease the turbulence (Biggs et al., 2017). **Proactive** coping aims

at events that will almost certainly happen in time (Biggs et al., 2017). In addition to the individual characteristics, the following sections present relevant notions able to influence an owner's/manager's resilience capacity in the context of SMEs.

2.6.3. Entrepreneurial self-efficacy

Entrepreneurs' self-assurance in their abilities is a crucial factor in the development of organisational resiliency. Self-efficacy, entrepreneurs' conviction in their capacity to successfully shape business procedures and cope with the results, could affect their ability to deal with various challenges (Bullough and Renko, 2013). According to the self-efficacy theory, a person's assessment of his/her competences is crucial for establishing their determination to participate in certain activities or enterprises (Farrukh et al., 2017). Based on such a reasoning, self-efficacy could be useful to perceive the extent of a person's entrepreneurial intentions and implement them (Farrukh et al., 2017). Likewise, Chen et al.'s (1998) study investigating students and business managers identified a positive correlation between entrepreneurs' self-efficacy and the probability of actually becoming entrepreneurs. Among other reasons, high self-efficacy associates with creativity, "an entrepreneur's courage to explore and step out of his or her comfort zone" (Nisula and Olander, 2023, p. 271). In the context of this study's exploration, Bullough and Renko (2013, p. 345) explain that "a personal belief in one's ability to manage stress and conflict contributes to coping skills and promotes resilience". Therefore, entrepreneurs with faith in their abilities will be able to endure difficulties resulting from recessions and decline in trade, and seek novel business prospects (Bullough and Renko, 2013). Based on the highlighted attributes, the entrepreneurial self-efficacy concept aligns with the aim of this study to investigate resilience in the context of SMEs. Specifically, micro businesses (0-9 employees), the majority among SMEs in Greece (92.7%) and Cyprus (92.4%) in 2021 (European Commission, 2022a; 2022b), depend highly on the abilities of their owners/managers due to their small staff number. As a result, it is pertinent to consider Greek and Cypriot owners/managers' confidence on their abilities as a possible factor that could affect the performance of SMEs and their capacity to become resilient. In addition, the entrepreneurial self-efficacy construct links with other concepts reflecting the degree of creativity entrepreneurs have to find solutions to problems and accordingly use any available material.

2.6.4. Entrepreneurial bricolage

The concept of entrepreneurial bricolage is gaining popularity among academics investigating factors that promote organisational resilience, and particularly in the context of SMEs. Lévi-Strauss (1967) initially referred to the actions of a bricoleur as to *make do* with whatever resources are disposal. Bricolage, also known as *ritualized ingenuity*, reflects “a kind of inventiveness, an ability to improvise a solution to a problem without proper or obvious tools or materials” (Coutu, 2002, pp. 6-7). Accordingly, Baker and Nelson (2005, p. 333) define bricolage as “making do by applying combinations of the resources at hand to new problems and opportunities”. The characteristics of bricolage align with the reasoning that organisational resilience results from further developing specific capabilities including “processes that enhance capabilities to recombine and deploy resources in new way” (Sutcliffe and Vogus, 2003, p. 15). In line with Lévi-Strauss’s original views, bricolage relies on the acquisition of a pool of diverse assets, both tangible and intangible, with no prior plan for their use until there is a specific task to be completed (Duymedjian and Rüling, 2010). Based on different types of bricolage, **internal** bricolage relates to a person’s knowledge and experience (education, professional) (Vanevenhoven et al., 2011), and a firm’s available in-house assets (Tasavori et al., 2018). **External** bricolage, in contrast, reflects any likely disposal organisational resources from the extrinsic environment (tangible, finance) including *network* and *asset* bricolage (alteration of various physical or financial resources) (Vanevenhoven et al., 2011). Among the possible advantages, bricolage enables businesses to consider new ways of using and combining their available assets and preserve them for ventures with significant merit in their trade (Senyard et al., 2010). More notably, the activity of blending resources significantly contributes to the development of novel results (Senyard et al., 2014), and supports bouncing back from hardships (Talat and Riaz, 2020). Accordingly, entrepreneurial bricolage positively impacts new business growth and adaptability (Yu et al., 2019). Specifically, bricolage activities contribute to adaptability through establishing at a greater level feasible ways to address challenges, attain essential assets, and a further decrease of expenses (Vanevenhoven et al., 2011). Therefore, bricolage could be particularly useful in volatile situations through assisting and realising unplanned actions (Vanevenhoven et al., 2011). In terms of possible disadvantages, bricoleurs could get distracted by constantly considering different ideas (Senyard et al., 2010). Therefore, an extensive use of bricolage could result in misused labour, and inability to build a rapport with qualified suppliers and clientele with high expectations (Senyard et al., 2014). Despite any likely drawbacks, bricolage activities could be particularly

useful for resource-constrained businesses (Senyard et al., 2014), such as the case of SMEs. For instance, bricolage could aid SMEs cope with their scarce resources by exploiting a range of possible alternatives and reduce some of the pressure exercised by large businesses (Guo et al., 2018). In addition, bricolage ventures are also positively associated with enabling SMEs' competitive advantage and product creativity, another factor responsible for SMEs' superiority over rivals (Tian et al., 2021a). In practise, bricolage actions, among other, could support entrepreneurs in resolving problems and find innovative ways to overcome challenges. As a result, bricolage contributes to the personal coping capacity of entrepreneurs, a key element in the resilience process based on the role of owners/managers in formulating and implementing SME business strategies.

2.6.5. Individual Entrepreneurial Orientation and Market Orientation

Amidst a fluctuating and ambiguous operating environment that influences business activities, a firm's entrepreneurial orientation (EO) and market orientation (MO) could prove crucial over a period of economic recession (Beliaeva et al., 2020). EO reflects "the entrepreneurial strategy-making processes that key decision makers use to enact their firm's organizational purpose, sustain its vision, and create competitive advantage(s)" (Rauch et al., 2009, p. 763). EO is widely accepted as an organisational attribute (Covin and Wales, 2019), however EO is considered an individual characteristic in the case of businesses run by a single person, including SMEs, or a leading figure within different business teams (Kollmann et al. 2007). Based on contemporary literature, EO is approached either as a single element based on a parallel manifestation of innovativeness (experimentation), proactiveness (launch new products), and risk-taking (employ drastic measures) (Miller, 1983), or as a multifaceted element involving a separate occurrence of innovativeness, risk-taking, proactiveness, autonomy (independent activities for the completion of a project), and also competitive aggressiveness (dynamic business presence against competitors) (Lumpkin and Dess, 1996), which resembles McClelland's (1961) notion of "need for achievement" (Santos et al., 2020, p. 190). As a later extension of the EO concept, the factors of passion and perseverance were introduced (see Gerschewski et al., 2016). Entrepreneurial passion reflects "*consciously accessible, intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur*" (Cardon et al., 2009, p. 517, emphasis in original). On a different note, perseverance or tenacity is an individual characteristic expressed as "sustaining goal-directed action and energy even when faced with obstacles" (Baum and Locke, 2004, p. 588). Among the possible benefits, EO

is associated with establishing a business strategy and business-related decision making (Kollmann et al., 2007). To illustrate the impact of EO on business performance, proactive people are in a superior position to direct assets and make choices ahead of other persons (Martins and Perez, 2020). In addition, innovative persons are more self-assured about the effective implementation of their viewpoints (Martins and Perez, 2020). From the perspective of this study, contemporary research evidence links EO with SME resilience. As an example, Zighan et al.'s (2021) findings confirmed EO as an important factor in developing SMEs' resilience capacity through advancing novel capabilities featuring efficiency, adaptation, collaboration, learning, and change. In the context of supply chain, EO has been positively associated with SME resilience through the dimensions of proactiveness and risk-taking (Al-Hakimi et al., 2022), and indirectly by promoting absorptive capacity and innovation (Al-Hakimi et al., 2021). When evaluated under the lens of the exploitative dimension of ambidexterity, the EO elements of innovativeness and proactivity were found to indirectly link with resilience (Gottschalck et al., 2021). From the perspective of the adaptation resilience stage, learning is associated with perseverance, an EO dimension (Van Gelderen, 2012).

As a supplement measure for EO, MO reflects "the organizationwide *generation* of market intelligence pertaining to current and future customer needs, *dissemination* of the intelligence across departments, and organizationwide *responsiveness* to it" (Kohli and Jaworski, 1990, p. 6, emphasis in original). MO classifies as responsive when aspires to comprehend and meet a clientele's expressed needs and proactive when the focus is to accommodate unexpressed (latent) desires, hence direct customers (Narver et al., 2004). In reference to the key MO activities, customer and competitor orientation aim at the collection of information about the clientele and rivals and channelling it within a firm, while interfunctional coordination reflects a firm's attempt to develop enhanced value to its customers (Narver and Slater, 1990). For example, a firm generates value to its clientele either by raising the advantages offered relative to the cost or by reducing the cost in regard to the provided advantages (Narver and Slater, 1990). MO yields multiple benefits for firms. For instance, MO is considered to greatly impact a firm's growth (Kasim et al., 2018), elicits advanced business performance (Morgan et al., 2009), while also corresponds with EO (Amin et al., 2016). MO is highly valuable for all firms, particularly for SMEs experiencing challenges in times of an economic decline (Petzold et al., 2019). In line with the entrepreneurial resilience concept, EO and MO are relevant concepts for this study's exploration of SME resilience in the context of Greece and Cyprus.

2.6.6. Mindfulness

Mindfulness is another concept relevant to the resilience framework. **Individual mindfulness** focuses on mental processes, whereas **collective mindfulness** (organisational mindfulness) considers social processes (Sutcliffe et al. 2016). Based on contemporary studies (Niemiec et al. 2010; Leroy et al., 2013), *individual mindfulness* reflects an individual's awareness of a variety of extrinsic and internal-mental events (e.g., feelings, instinct/hunch) occurring in the present (Sutcliffe et al. 2016). Established on the operating principles of High Reliability Organizations (HROs) (nuclear plants, aircrafts), *organisational mindfulness* is an enduring organisational characteristic that relates to the anticipation, detection, and response to unexpected events (Weick et al., 1999). In contrast, **mindlessness** reflects a dependence on past concepts, actions based on reflexes (automatic pilot), and an obsession with a particular approach without considering alternatives (Weick et al., 1999). Accordingly, mindlessness behaviours typically result in an automated application of static and protocol premised actions (Fiol and O'Connor, 2003).

Based on Langer's (1989, 1997) model, Weick et al. (1999) proposed that mindfulness results from five cognitive practices, neither independent nor acting as separate entities (Klockner, 2017). First, **preoccupation with failure** stipulates an intended and dynamic monitor for likely failures but also to assume any signs of failures as warnings for prospective serious complications (Vendelø and Rerup, 2020). Second, **sensitivity to operations** requires the development and preserving of a holistic understanding of operations at the present time (Vogus and Rerup, 2018), and yields situational awareness (Rerup, 2005). Third, **reluctance to simplify interpretations** involves nurturing and preserving diverse opinions and assessments to reduce bias (Rerup, 2004). The principal three processes guide organisations to consider signs and input from different viewpoints through regularly developing and elaborating classifications of experience (Vendelø and Rerup, 2020). The highlighted processes also allow for **anticipation**, "the ability to prevent failures and unexpected events from happening" (Rerup and Levinthal, 2014, p. 35). However, mindful organisations accept that it is unattainable to anticipate every single adversity and crisis before it emerges (Rerup and Levinthal, 2014). At the time of turbulences, **commitment to resilience** entails the ability to respond to challenges as they happen, absorb any changes, and use them to learn (Weick et al., 1999). As an example, a resilient silo will include improvisation by employing past actions to develop new ones and a "simultaneous belief and doubt" of the suitability of past experiences that will enable for adaptive actions when crises emerge (Weick et al., 1999, p. 101). On the

basis of **deference to expertise**, staff members with the highest level of competence and familiarity with the challenges make organisational decisions (Rerup, 2004).

The implementation of mindful practises yields serious advantages but also specific limitations for businesses. Mindfulness is the capacity to recognise the value of certain feeble warnings and take dynamic action (Weick and Sutcliffe, 2015). Such an ability is important because challenges identified early can be dealt with less assets (Weick and Sutcliffe, 2015), while early identification requires allocation of mainly “attentional” assets rather than monetary related ones (Weick and Sutcliffe, 2006, p. 516). Accordingly, mindful organisations are in a superior position to detect unexpected situations as they emerge and stop their escalation or limit their impact (Weick and Sutcliffe, 2015). If the event cannot be moderated, mindful organisations direct attention to resilience (coping) and rapid recovery (Weick and Sutcliffe, 2015). Despite the important benefits emanating from the state of mindfulness, the highlighted processes could also put organisations at risk. For example, an excessive preoccupation with failure could present most opportunities as threatening or an immense focus on diverse opinions might generate lengthy debates resulting in minimal action (Rerup, 2005). Also, mindfulness is associated with opportunity costs of various resources (time, energy) (Rerup, 2005; Levinthal and Rerup, 2006), and not adopting existing routines (Levinthal and Rerup, 2006).

2.6.7. Environmental scanning

Environmental scanning (ES) is an important business activity in volatile operational conditions. ES relates to “the acquisition and use of information about events, trends and relationships in an organisation’s external environment” to inform a firm’s ownership to formulate its strategy (Choo, 2003, p. 7). ES involves “both *looking at* information (viewing) and *looking for* information (searching)” (Choo, 2003, p. 11, emphasis in original), and should be an ongoing process to preserve a high anticipatory level towards escalating external effects (Albright, 2004). Based on the classification of the business environment in two parts, ES attempts could focus on the **task environment** including agents closely interacting with a firm and affecting its strategy (e.g., clientele, competition, suppliers), and the **general environment** reflecting factors posing an implicit impact on businesses (social, economy) (Elenkov, 1997). Information search is also described as “active listening” (Liao et al., 2008, p. 17), while obtaining a large amount of data improves the ability to recognise alterations in the business environment, react, and operate at a superior level (Liao et al., 2008). The main steps of ES include to a) initially acknowledge the necessity to scan and allocate sufficient resources, b)

obtain information, c) analyse the data, d) disseminate any results internally, and e) take appropriate decisions (Albright, 2004).

The characteristics of ES practises vary depending on the objective in focus. The viewing activities could be either *undirected* (no particular focus) or *conditioned* (focus is on specific subjects or mode of information), while searching could be either *formal* (planned based on a specific process) or *informal* (unplanned) (Choo, 2003); an efficient ES activity involves all four processes (Choo, 2003). Depending on the intended goal, ES activities can be classified as *primitive* (no particular motivation), *ad hoc* (comprehend better a certain situation), *reactive* (react to market and rival's developments), and *proactive* (attempt to gain a point of difference over competitors) (Jain, 1984). Additional characteristics of ES relate to the *intensity* (high, medium, low, none), *time horizon* (long-medium-short term, day per day), and *confidence level* regarding the scanned information (high, moderate, low, little) (Jain, 1984). On a different note, a firm's management could either scan the environment personally or consult other members in the organisation, while the rate of occurrence (frequency) and origin of information (mode) could also vary (Daft et al., 1988). The possible options acting as an information pool could be *personal* or *impersonal*, and *external* or *internal* (Aguilar, 1967). For example, personal sources reflect a close interaction with people (face-to-face), while impersonal sources could include different published information (official findings, newspapers) (Elenkov, 1997; Daft et al., 1988). Internal information relates to knowledge obtained within the firm regarding the business environment, whereas external sources refer to discussions with stakeholders outside an organisation, among other options (Elenkov, 1997; Daft et al., 1988). The ES rate could also fluctuate among different sectors and depend on the level of strategic uncertainty (perceived uncertainty and its significance) (Daft et al., 1988).

ES could be particularly beneficial for businesses in multiple ways. ES limits the likelihood to be surprised by external developments and promotes anticipation activities (Albright, 2004). Specifically, ES enables firms to identify alterations in their environment and establish efficient reactions that will protect or enhance their long-term status (Choo, 2003). Albright (2004) further explains that a firm's capacity to change its reaction towards environmental conditions based on information obtained through ES, could determine the business prosperity or decline. Among other advantages, ES is also associated with the concept of resilience. Specifically, the findings of YahiaMarzouk and Jin (2022) indicate that ES implicitly impacts SMEs' resilience capacity via the learning process. While ES activities and an awareness of extrinsic developments are not adequate to yield resilience per se, yet the interpretation and use of the

obtained information to improve operational practices contributes to organisational learning and boosts organisational readiness to manage shocks with a higher resilience level (YahiaMarzouk and Jin, 2022). Despite the benefits associated with ES, the cost implications could prove to be a serious barrier, especially in the case of resource constrained firms like SMEs. On a relevant point, Peteraf and Bergen (2003) explain that scanning costs tend to be higher when market competition is not homogeneous and the business environment fluctuates. In addition, a magnified perceived complexity could discourage a firm's management scanning endeavours (Boyd and Fulk, 1996).

2.6.8. Situation awareness

Situation awareness (SA) relates to “the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near future” (Endsley, 1988, p. 792). In line with the presented definition, the resulting **outcome** (product) is the condition of awareness based on information and knowledge (Adams et al., 1995). Therefore, SA reflects “a state of knowledge” (Endsley, 1995a, p. 36), while it is clearly different from the term **situation assessment**, all activities employed to develop and retain SA (Endsley, 1995a). Accordingly, SA bases on the combination of information stemming from repeated situation assessments (Sarter and Woods, 1991). SA is not just affected by the situation assessment process but also by an individual's cognitive process and other cognitive elements (perception and attention, working memory, mental models, schema) (Endsley and Jones, 2012). SA is a feature usually attributed to an individual within a fluctuating environment (Durso et al., 1998), while in the context of teams SA reflects “the degree to which every team member possesses the SA required for his or her responsibilities” (Endsley, 1995a, p. 39).

Among the key attributes, SA is a vital prerequisite for taking decisions and acting (Endsley and Jones, 2012), hence important for a robust business operation (Sarter and Woods, 1991). However, SA only reflects the capacity to comprehend an incident and does not relate to the actual undertaking (Wickens, 2008). In addition, SA is associated with the aims and objectives of a specific task (Endsley and Jones, 2012). It is important to note though that an individual's goals affect the environment, making such a future-oriented characteristic the key difference with other related cognitive concepts (understanding, perception) (Durso et al., 1998). Parasuraman et al. (2008, p. 145) further explain that SA mainly reflects rapidly shifting events hence differs from “general knowledge” (an enduring memory of data) that has a rather long-

term relevance obtained across an extended moment in time. Therefore, SA is temporary and is progressively developed rather than obtained directly (Endsley, 1995a). Accordingly, a person's understanding of the conditions in the environment anytime incorporates interim attributes of the environment concerning both past and future time (Endsley, 1995a). Although SA is primarily associated with specific events and a relatively short-time span (see Endsley, 1988), contemporary studies have attributed a more generic focus to SA, capturing the whole business environment rather than only isolated incidents (see McManus et al., 2008).

In reference to the different independent stages of SA, the **process** relates to the range of measures (perception, cognition) employed in developing, improving, and amending the state of awareness (Adams et al., 1995). Specifically, the first step involves the perception of different environmental factors via distinct means (visual, sound) or a mixture, either in-person or based on tangible information (written material) (Endsley and Jones, 2012). The comprehension stage requires blending a wide range of evidence to produce information arranged in order of significance and meaning (Endsley and Jones, 2012), and contrast it with the person's aim(s) (Endsley, 1995a). Based on identifying various environmental factors (stage 1) and their meaning for achieving a certain goal (stage 2), the last stage (projection of future status) entails to predict the future condition of the highlighted environmental properties (Endsley and Jones, 2012). The most prominent measures for enhancing an organisation's SA are scenario exercises and risk recognition activities (McManus et al., 2008). In contrast, SA is affected by people's confined working memory and restricted capacity to notice issues when dealing with multifaceted and fluctuating environments (Endsley and Jones, 2012). As a way to overwhelm their restricted capacity, individuals employ different approaches and cognitive elements (e.g., goals, mental models) (Endsley and Jones, 2012). Endsley (1995a, p. 36) explains that "Even the best-trained decision makers will make the wrong decisions if they have inaccurate or incomplete SA". For instance, such an outcome could result if a certain situation did not 'make-sense' to decision-makers before any actions/decisions are determined. Endsley (1995b, p. 65) explains that situation awareness "provides the primary basis for subsequent decision making and performance in the operation of complex, dynamic systems". The supplementary but crucial element for efficient decision making relates to the concept of sensemaking. On a relevant point, Lundberg et al. (2012) notes that situation awareness is the outcome of sensemaking. Endsley's (1988, p. 792) definition on SA indirectly refers to sensemaking when discussing about "the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their

status in the near future”, since ‘meaning’ is the product of sensemaking activities. On a relevant note, Parasuraman et al. (2008, p. 144) explain that while SA portrays “a continuous diagnosis of the state of a dynamic world”, SA is different from “the choice or decision of what action to take as a consequence of the diagnosis” (Parasuraman et al., 2008, p. 144). Despite its value, even a high level of SA does not guarantee a high-performance level (Wickens, 2008). A person could, for instance, have a perfect SA of a deteriorating structure but not be aware of any possible solutions or possess the abilities to execute them (Wickens, 2008).

2.6.9. Sensemaking

A crucial aspect of an entrepreneur's cognitive capacity is the ability to make sense of new situations. Sensemaking is based on the principle that “reality is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs” (Weick, 1993, p. 635). Sensemaking is instigated by cues (events, situations) that have an ambiguous meaning and/or uncertain results (Maitlis and Christianson, 2014). Accordingly, sensemaking is “the process through which people work to understand issues or events that are novel, ambiguous, confusing, or in some other way violate expectations” (Maitlis and Christianson, 2014, p. 57). In the event of uncertainty, individuals employ sensemaking due to lack of any interpretations, while ambiguity triggers lack of clarity with overabundant interpretations (Weick, 1995). Cues are usually in “the form of violated expectations” (Maitlis and Christianson, 2014, p. 66), as in the case of an unforeseen situation or a planned occasion not happening (Kilskar et al., 2020). However, unforeseen events might not always cause sensemaking (Maitlis and Christianson, 2014). It is the difference between an individual’s expectations and reality that provokes people (individuals, teams) to question what is happening and identify appropriate actions (Maitlis and Christianson, 2014). Besides any external events, individuals also frequently generate sensemaking processes striving to explore an uncertain environment (Barton et al., 2015). In particular, people resort to sensemaking in an effort to understand the meaning of these incidents and identify the proper ways to react (Kudesia, 2017). Therefore, sensemaking is “about “giving” meaning to events and situations” (Sharifi and Zhang, 2009, p. 556), while contemporary definitions highlight that it could occur both at a personal level (cognitive approach) and through more people (social approach) (Maitlis and Christianson, 2014). Specifically, uncertain situations prompt people to draw environmental signals (cues), make interpretations of them, and employ them to “make sense” of specific events and “enact their environment” (Brown et al., 2015, p. 267). Accordingly, sensemaking is different from other analytical approaches (interpretation, understanding,

attribution) and reflects a process that is social, based on identity formulation, reflective, ongoing, enactive of sensible environments, aims at and develops from drawn cues, and reflects probability instead of precision (Weick, 1995). For instance, the enactment phase is the distinguishing point between sensemaking and interpretation (Maitlis and Christianson, 2014).

Making sense of various situations happens progressively. Sensemaking starts when a continuous organisational operation is interrupted and continues up to the moment it is successfully re-established (Sandberg and Tsoukas, 2015). In plain terms, organisational members make a preliminary sense of an interrupted task (*creation* phase) through “bracketing, noticing, and extracting cues from our lived experience of the interrupted situation” (Sandberg and Tsoukas, 2015, p. S14). Then, a more explicit impression of the preliminary sense is made (*interpretation* phase) (Sandberg and Tsoukas, 2015). The final stage in the sensemaking process, *enactment*, reflects the notion that “when people act, they bring events and structures into existence and set them in motion” (Weick, 1988, p. 306), and elicits both a process (enactment) and a result (an enacted environment) (Weick, 1988). The direct outcome of sensemaking, ‘*meaning*’, is influenced by the individual characteristics of the person responsible for the sensemaking process (Sharifi and Zhang, 2009). Additional factors that determine sensemaking activities include the environment, emotion, language, among other (Sandberg and Tsoukas, 2015). In the case of SMEs, Sharifi and Zhang (2009) claim that meaning reflects the management’s attempt to defend as rationale any past or present actions taken. From the perspective of this study’s main theme, sensemaking can be an antecedent of resilience since it supports a system (e.g., individual) to recover (bounce back) after exposed to pressure (Kilskar et al., 2020). For example, sensemaking is associated with **situation awareness** (Lundberg et al., 2012), a concept also related to resilience. Specifically, Lundberg et al. (2012) notes that situation awareness is the outcome of sensemaking. Based on the sensemaking process, organisations are able to develop mindfulness and foster/establish a culture of diligence to resort to corrective measures when dealing with unexpected events (Ogliastri and Zúñiga, 2016). On a relevant point, Weick (1993) identified improvisation and bricolage, among other capabilities, as key origins of resilience that decrease a group’s vulnerability to interruptions of sensemaking.

There are several distinct types of sensemaking focusing on a specific subject area (interpersonal, market, environmental) and various sensemaking relevant concepts (e.g., sense-demanding) (Maitlis and Christianson, 2014). Among the prominent corresponding concepts, sense-breaking, or else “sense unmaking” (Giuliani, 2016, p. 221), relates to “the destruction

or breaking down of meaning” and requires “a fundamental questioning of who one is when one’s sense of self is challenged” (Pratt, 2000, p. 464). Sense-breaking happens in case “a person’s process of sensemaking is disrupted by contradictory evidence” (Giuliani, 2016, p. 221). Sense-giving, another popular associated notion with sensemaking, reflects “the process of attempting to influence the sensemaking and meaning construction of others toward a preferred redefinition of organizational reality” (Gioia and Chittipeddi, 1991, p. 442), and usually occurs after sense-breaking (Maitlis and Christianson, 2014). While sensemaking reflects “a “vision” or mental model of how the environment works”, sense-giving entails transmitting the meaning produced by sensemaking to other people and earning their approval (Hill and Levenhagen, 1995, p. 1057). In an effort to understand the differences between the affiliated constructs, Giuliani (2016, p. 221) explains that sensemaking deals with “the identification of justifications of a specific phenomenon”, sense-giving relates to “the diffusion of a justification among the members of an organization”, and sense-breaking reflects “the adoption of a new justification”.

2.7. Performance outcomes and advantages stemming from organisational resilience

Resilience could yield different performance outcomes for businesses. Based on contemporary literature, Williams et al. (2017) argue that the effect resulting from resilience depends on three primary factors, namely a) the state of return, b) the severity of adversity, and c) the phase at which resilience occurs. For example, the magnitude of the turbulence could vary depending on the nature of the situation including uncommon and disastrous incidents (Boin et al., 2010), or more every day and standard situations (Van Der Vegt et al., 2015). In reference to the timing, the resilience aftermath also relates to whether resilience happens prior or following a certain turbulent event (Boin et al., 2010). Depending on the state of return, the aim of organisational resilience is either a firm to return to its equilibrium state (focus on coping and return to pre-disturbance performance) or use challenges as an opportunity to get better and become more enterprising than the past (Lengnick-Hall et al., 2011). Following such a reasoning, the key performance outcomes stemming from resilience include **stability**, **survival**, and **sustained performance** or **growth** (Conz et al., 2017). In the context of natural disasters, an indication of a firm’s *survival* (recovery) could relate to its ability to remain operational for a long period (e.g., months, years) after the turbulence with the same profitability level as before the incident or even with reduced profits (Alesch et al., 2001). On a different note, *stability* is the result of a company’s response to various incidents and its ability to reinstate the equilibrium (Battisti et al., 2019). Resilience is also associated with

growth (Hillmann and Guenther, 2021), demonstrated via enhanced innovation (Sutcliffe and Vogus, 2003), and learning from the challenging situations and building novel skills (Williams et al., 2017). For example, highly resilient organisations are capable to select suitable routines to address external challenges and also determine the duration of occurring changes in their environment (Lengnick-Hall and Beck, 2005). Resilience capacity also influences the way firms adjust to changes by utilizing prior experiences and enhancing existing capabilities, as a mean to improve the available action plan (Lengnick-Hall and Beck, 2005). On a different level, based on the engineering resilience context, resilient organisations are capable to identify when the daily operation is close to exceed the safety level and accordingly take appropriate measures to re-establish a safe operational status (Hollnagel, 2010). Therefore, resilience enables businesses to effectively endure a wide range of disasters (natural, IT) or less critical incidents and adapt to various shifting trends (Bell, 2019). On a different note, resilience could stimulate competitiveness (Sheffi and Rice, 2005; Alberti et al., 2018), through improving product quality, among other approaches (Alberti et al., 2018). Overall, the likely benefits resulting for SMEs, and other businesses, align with the characteristics of most contemporary definitions of organisational resilience, thus a firm's ability to anticipate, cope, and adapt to various turbulences.

2.8. Measurement of resilience performance

Various performance indicators and generic performance outcomes could be used to assess resilience in businesses. A possible measurement option could be to consider a firm's ability to meet its objectives (profit goals, reputation) as clearly stated on the mission statement as a resilience benchmark (Dalziell and McManus, 2004). In line with such reasoning, specific key performance indicators (KPIs) could be used to evaluate whether businesses achieve their established goals (Dalziell and McManus, 2004). For instance, a firm's increased profitability and selection of beneficial or innovative strategies could be an indication of its resilience (Doern, 2017). On a relevant note, a system's vulnerability determines the extent various KPIs can deviate from their target levels, whereas adaptive capacity influences the time required to return to normal performance standards (recover) (Dalziell and McManus, 2004). Following such a rationale, the capacity of a system to withstand and recover from disruptions may be assessed in terms of the impact on KPIs during the reaction and recovery phases (Dalziell and McManus, 2004). In reference to generic performance measures, resilient firms have serious competitive advantages, including the ability to rearrange assets quicker than rivals do (Ates and Bititci, 2011), and comply with industry expectations even at turbulent periods (Ismail et

al., 2011), among other. When a return to an equilibrium is not the prerequisite, resilience is perceived as an on-going adaptive process with specific stages (reorganisation, exploitation and growth, conservation, and decline and release) (Simmie and Martin, 2010). As an example, resilient organisations are able to reconfigure-renew resources (Limnios et al., 2014; Williams et al., 2017), as part of a proactive change before it is externally forced (Hamel and Välikangas, 2003). The reconfiguration ability also relates to developing dynamic capabilities to enhance and adjust various internal capabilities (Limnios et al., 2014; Lengnick-Hall et al., 2011). In addition, contemporary findings link adaptive resilience with the level of specific performance indicators after disasters (e.g., profit, cash flow) (Chowdhury et al., 2019). As an overarching business performance criterion, an organisation's resilience capacity could be classified as efficient or not based on its reaction when experiencing turbulences (Morales et al., 2019).

Despite the availability of various generic criteria and distinct performance factors, measuring organisational resilience still proves challenging. Measuring resilience based on specific benchmarks is challenging because the impact of turbulences is not the same for each firm, while the magnitude of the effect could be dissimilar for certain parts of organisations and perceived differently by various organisational members (Dalziell and McManus, 2004). Accordingly, Burnard and Bhamra (2019, p. 21) claim that “resilience is not directly observed” but represents “the result of multiple interactions and exchanges” including “processes, structures, and practices that promote various competencies, restore efficacy and support growth”. Mithani (2020, p. 522) also argues that resilience does not restrict to explicit targets as it is “an ongoing process of protection, assessment, and improvement”. Therefore, it is not possible to clearly measure resilience as it yields long-term advantages (Ortiz-de-Mandojana and Bansal, 2016). In the context of engineering resilience, Hollnagel and Woods (2006, p. 347, emphasis in original) argue that it is possible to “measure the *potential* for resilience but not resilience”. Specifically, it is possible to measure the reliability of a system's safety, namely “the probability that a given function or component would fail under specific circumstances” (Hollnagel and Woods, 2006, p. 347). On a relevant point, Burnard and Bhamra (2019) support that business durability (longevity) is not a dimension of resilience; a successful business period should indicate stability rather than resilience. In some cases, resilient firms might even have to experience losses to achieve future rewards (Ortiz-de-Mandojana and Bansal, 2016). Despite the measurement challenges, resilience could be useful for firms in various scenarios, including cases of rapid technology evolution, lack of available materials, market changes, and economic meltdowns (Tengblad and Oudhuis, 2018).

2.9. Summary

This chapter exhibits an amalgamation of literature focusing on resilience across different fields. Depending on the state of return after a turbulence, resilience reflects the notion of stability, elasticity, recovery, adaptation or transformation. Based on contemporary studies, multiple factors influence a system's resilience capacity including the level of robustness, flexibility, resourcefulness, and adaptability, among other. From the perspective of organisations, resilience represents the capacity to anticipate, absorb, and adapt after experiencing turmoil. In the context of SMEs, the key determinants of resilience include owners/managers, organisational resource and capability base, and the external environment, among other supplementary elements. Stability, survival, enhanced performance, and growth are few of the performance outcomes that may result from resilience. Measuring resilience in businesses can be rather challenging, but various key performance indicators could serve as relevant metrics.

Chapter 3

Theoretical foundation and conceptual framework

3.1. Introduction

This chapter attempts to develop a theoretical foundation for the study of resilience in the context of small and medium-sized enterprises (SMEs). The chapter reviews theories and concepts that could influence a firm's response capacity before, during, and after the emergence of various internal and external shocks. Based on contemporary literature, the last section depicts the antecedents of resilience capabilities and possible cognitive and behavioural actions adopted by SME management to sense the operational environment, choose appropriate responses to emerging turbulences, and implement changes at various business areas.

3.2. Operational capabilities influencing organisational resilience

There are numerous studies in the contemporary literature that explore how firms could become resilient and specifically which factors shape such a capacity. As a defining feature, resilient organisations manage to employ effectively, consistently, and smartly any available resources (e.g., financial, social) to improve their abilities, as a way to cope with adversities and benefit from novel pursuits (Tengblad and Oudhuis, 2018). On a similar note, Waker and Salt (2012) explain that the volume and quality of different type of capital influences a system's (e.g., firm) ability to develop general resilience and deal with turmoil. *Physical* (e.g., equipment), *human* (e.g., staff), *financial* (e.g., budget), and *social* (e.g., network) are examples of the key types of capital (Adler and Kwon 2002). In line with the highlighted arguments, organisational resilience reflects "an organization's overall situation awareness, management of keystone vulnerabilities, and adaptive capacity" (McManus et al., 2008, p. 82). Accordingly, the following sections present selected theoretical concepts associated with specific operational abilities and qualities that could determine the capacity of SMEs to develop resilience capabilities (anticipation, coping, and adaptation).

3.2.1. Resource and knowledge-based view of the firm

The availability of assets and capabilities plays a crucial role for the progress of any company. Lack of certain resources (e.g., finance, staff) undermines firms' attempt to grow over time (Barney, 1991). Based on the 'resource-based view of the firm' (RBV) concept, a company must prioritise, through its strategy, to always have the appropriate mix of resources and capabilities, those that can offer a competitive advantage both in present and future time (Grant, 1991). Resources are classified as **tangible** (e.g., a firm's patents, technology, plants) or **intangible** (e.g., a firm's tradition, staff expertise) (Grant, 1991). On the other side, capabilities "involve complex patterns of coordination between people and between people and other resources" (Grant, 1991, p.122). Despite the acknowledged value of slack resources and capabilities, they can only yield a sustainable competitive advantage to firms if they meet specific qualities, namely they are valuable, rare, imperfectly imitable, and firms are organized to take advantage of the highlighted qualities (VRIO) (Barney and Hesterly, 2015; Teece, 2018b). Over time, the RBV theory has expanded with the addition of the 'knowledge-based view of the firm' (KBV) notion, which focuses exclusively on knowledge (Grant, 1996a). Depending on how challenging it is to receive and pass information to others, knowledge is classified as **explicit** (e.g., written guidelines-processes) and **tacit** (e.g., uncodified information) (Grant, 1996a). Based on the KBV notion, the successful assimilation of expert knowledge (e.g., employee's knowledge) within a firm is the most important factor for maintaining a competitive advantage (Grant, 1996b). Despite its popularity among researchers exploring business sustainability, the RBV concept is not free from limitations. As an example, Yang et al. (2015) question RBVs' focus on in-house factors and equally the limited attention to external ones, especially in the context of rapidly changing environments. Accordingly, Teece (2018b) argues that firms can be protected from competition, even tentatively, based on a combination of unique resources and a well-structured operating system.

The RBV framework can be particularly valuable in the context of SMEs. Isichei et al. (2020, p. 1221) comment that "RBV is highly relevant to the performance of SMEs, as it assumes that internal competencies are the building blocks for increased performance and competitive advantage". Specifically, a mix of internal assets with a different set of resources, either available at a provisional basis or external, can prove crucial for SMEs to establish and sustain a point of difference over other businesses (Salder et al., 2020). For instance, the availability of in-house assets and capabilities can be highly valuable for SMEs' exporting ventures (Prange and Pinho, 2017). Similarly, Kachlami and Yazdanfar (2016) confirmed that SMEs with access

to abundant assets, hence larger SMEs, tend to grow more. As a result, slack assets support SMEs to build resilience and absorptive capacity to disturbances, enabling SMEs to transform to a novel business format able to promote their growth and revenues (Tognazzo et al., 2016). In line with contemporary research findings, the RBV-KBV concept is ideally suited to studies of business performance and resilience due to the significant role resources play for businesses worldwide. The review of the RBV-KBV concept is even more relevant in the context of SMEs due to the limited resource availability, which inhibits their growth and capacity to build resilience. Due to numerous ongoing challenges, the RBV-KBV framework could be rather applicable in the case of Greek and Cypriot SMEs. For example, both Greek and Cypriot SMEs have limited access to funding and experience lengthy delays in receiving debt repayment.

3.2.2. Dynamic Capabilities

The theory of Dynamic Capabilities (DC) reflects the diversity of a firm's assets and competences. A resource-based strategy can protect businesses from certain crises but is not adequate to create a substantial competitive advantage (Teece and Pisano, 1994). Based on such a rationale, Teece and Pisano (1994) focused on organisational *capabilities* as they could support businesses with adjusting, combining, and transforming their skill set, resources, and abilities during volatile business conditions. Organisational capabilities are clustered as **ordinary** (zero-level), any standard operating activities required to achieve certain tasks, and **dynamic**, "higher-level activities" that enable firms to manage any ordinary activities as a way to accomplish highly valued pursuits (Teece, 2014, p. 328). The DC concept represents three groups of business activities, namely '*sensing*', '*seizing*', and '*transforming*', that occur simultaneously across a firm's environment (Teece, 2018a). *Sensing* activities mainly relate to attempts to review the market environment for the collection of information about trends and determine whether they pose a future threat to a firm's sustainable position (Teece, 2018a). In contrast, *seizing* activities determine how fast firms react to new prospects and hazards after they have been recognised and assessed as significant (Teece, 2018a). *Transforming* ventures represent a firm's ability to modify its operation in line with shifts at its business environment (Park and Kim, 2013). From the perspective of the present investigation, the different groups of DC endeavours reflect the three stages of resilience, namely anticipation, coping, and adaptability (Burnard and Bhamra, 2019). Based on the highlighted points, DC reflect "a firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997, p. 516). In other terms, DC correspond to capabilities that aim to accelerate, transform, or develop ordinary capabilities (Winter, 2003).

Multiple operational advantages could result for firms nurturing DC. Specifically, ordinary capabilities support firms to survive in the short-term (Winter, 2003), but do not guarantee a prolonged business profitability without an efficient strategy (Teece, 2014). In contrast, dynamic capabilities (DC) reflect the ever-changing business conditions and the need for businesses to make timely adjustments as an attempt to follow the competition and innovation progress (Teece and Pisano, 1994). Among the possible benefits, DC elicit high profitability via unique product development and service delivery to emerging and established markets (Teece, 2014). In addition, DC support firms to maintain their dominant market position in volatile operating conditions by incorporating, developing, and reshaping any available assets (in-house and extrinsic) (Teece, 2014). DC also offer firms and their executive teams the opportunity to forecast and respond to consumers' purchasing criteria, operating challenges, and technological developments by redistributing resources and other actions that support ongoing design and evolution (Teece, 2014). Therefore, well-developed DC can secure a firm's financial growth (Teece, 2018b). In the context of SMEs, DC could determine immensely whether SMEs will prosper or fail (Park and Kim, 2013). For instance, DCs' focus on reforming available resources is particularly valuable for SMEs due to various challenges they experience (e.g., inability to access new assets) (Wang and Shi, 2011). Consequently, DC can benefit SMEs' non-financial performance (influence new clientele, products, advertising) (Nedzinskas et al., 2013), and exporting endeavours (Villar et al., 2014). Based on the highlighted advantages, it is important to emphasize on actions that further promote DC.

3.2.2.a. Dynamic Managerial Capabilities as an extension of the DC concept

The capacity of a company to sense, seize, and transform (DC) is significantly dependent on the management's decision-making skills. Dynamic Managerial Capabilities (DMC) represent "the capabilities with which managers build, integrate, and reconfigure organizational resources and competences" (Adner and Helfat, 2003, p. 1012). According to Adner and Helfat (2003), DMC are grounded in *managerial human capital* (e.g., Castanias and Helfat, 1991), *managerial social capital* (e.g., Burt, 1992), and *managerial cognition* (e.g., Huff, 1990). The identified mixed capabilities determine a firm's resource and capability repository (Adner and Helfat, 2003), and support operational capabilities responsible for every-day activities (Helfat and Martin, 2015). For instance, knowledge and experience (human capital) are crucial elements of the decision-making process, social capital produces valuable information, and cognition develops the propensity for various employed ventures (Adner and Helfat, 2003). Since owners/managers are largely responsible for the success or failure of a business, special

emphasis should be placed on cognitive ability in the context of SMEs. Managerial cognitive capability reflects the association between managerial capabilities and mental actions and expresses “the capacity of an individual manager to perform one or more of the mental activities that comprise cognition” (Helfat and Peteraf, 2015, p. 835). Cognitive capabilities, and other, can be further enhanced through practice (Helfat and Peteraf, 2015). From the perspective of the resilience process, DMC have relevance with Teece’s (2007) DC stages, and specifically influence the activities of sensing (e.g., perception and attention to recognize opportunities and threats), seizing (e.g., accurate interpretation of information to correctly identify opportunities, problem solving), and transforming (reconfiguration-orchestration) (e.g., use of language and communication to overwhelm any reluctance to change) (Helfat and Peteraf, 2015).

For the purpose of this study’s investigation, the notion of DMC, and particularly the principle of cognition, could prove rather relevant and useful. Specifically, based on acknowledged operating limitations, SMEs do not have the option to use redundant resources, among similar options, to respond to various disturbances (Cotta, 2021). Therefore, the repertoire of resilience for SMEs should depend on cognitive capacity as a remedy for challenges emanating from turbulences (Cotta, 2021). In line with such a reasoning, the way SMEs employ any available assets could possibly be of greater value than owning assets or the available volume (Temouri et al., 2020). On a similar note, Sirmon et al. (2007) argued that the way managers structure, bundle, and leverage assets have the same value as possessing assets. Following an equivalent rationale, Shaw (2012, p. 311) mentioned that “perhaps it is ultimately the human dimension, based on an intuitive, “sense-making”, approach to unfamiliar or chaotic situations that remains the crucial challenge in an era of profound uncertainty”. In line with the DC rationale, the following sections present relevant concepts that could impact the resilience outcome for SMEs.

3.2.3. Absorptive Capacity

The Absorptive capacity (AC) reasoning corresponds with the conditions of challenging business environments and complements other theoretical concepts. For example, in cases of extreme technological reforms, it is advantageous for firms to have multiple links with their environment to be able to better sense any developments (Cohen and Levinthal, 1990). AC echoes exactly such a need. Cohen and Levinthal (1989, p. 569) defined AC as a firm’s capacity to “identify, assimilate, and exploit knowledge from the environment” and “imitate new

process or product innovations”. Following a consecutive process, AC develops through exploratory learning (identify and acknowledge beneficial external knowledge), transformative learning (understand the new knowledge), and exploitative learning (develop new knowledge and business gains/turnovers based on the conceived new knowledge) (Lane et al., 2006). Based on the highlighted characteristics, AC clusters as **potential** (acquire and assimilate knowledge) and **realised** (transform and exploit knowledge) (Zahra and George, 2002). Although AC emphasizes the necessity for firms to value and obtain extrinsic knowledge (e.g., via established networks), it also considers in-house learning mechanisms based on previously acquired knowledge and present activities (Easterby-Smith et al., 2008). Accordingly, AC depends on both **internal** (organisational structure, size, strategy, existing knowledge) and **external factors** (extrinsic knowledge systems/communities) (Daghfous, 2004). Despite the growing popularity of AC among scholars over the years, there are conflicting views as to whether it is a distinct concept or a supplement to other frameworks. For example, Zahra and George (2002) consider AC as part of the DC framework that is already established in an organisation’s daily processes enabling firms to review the availability and direction of knowledge as the foundation of a long-term distinguishing feature.

AC could yield significant operational advantages and support diverse business endeavours. Among the likely benefits, AC could contribute towards a firm’s improved **creativity** (Todorova and Durisin, 2007; Daghfous, 2004), and an advanced **sensing ability** (DC model) during turbulent periods allowing for a more precise forecast of trends and appraisal of technical developments (Cohen and Levinthal, 1990). When considered as part of the DC framework, AC also supports organisations on multiple operating areas (e.g., advertising, supply) (Zahra and George, 2002). Therefore, building and preserving AC is crucial for a firm’s survival and ability to maintain a dominant market position (Senivongse et al. 2019). The concept of AC can also be particularly useful and applicable in the context of SMEs. For instance, AC tends to be displayed via an owner’s or staff passion, expertise, and advancement (Gray, 2006). In relation to possible advantages, SMEs with highly developed AC are well prepared for changes in their market and ready to pursue any feasible opportunities (Liao et al., 2003). On a different point, Owoseni and Twinomurinzi (2018) argue that SMEs with strong AC operate more efficiently by not repeating competitor’s failures based on the attained knowledge. However, Gray (2006) notes that small-sized SMEs usually do not prioritize learning activities or engage actively with other stakeholders. For the purpose of this study’s exploration how SMEs could develop resilience, AC could be particularly important in the

business context of Greece and Cyprus. For instance, AC could assist Greek and Cypriot SMEs address serious challenges and acknowledged limitations (e.g., access to finance). Through external knowledge acquisition, AC could help Greek and Cypriot SMEs capitalise on business opportunities and maintain their market share. On a different note, AC could contribute to SMEs' capacity to innovate and prevent them from repeating their rival's mistakes.

3.2.4. Organisational Agility

The concept of agility reflects the needs of businesses operating in complex and volatile environments. Gunasekaran (1998, pp. 1224-1225) explains that agile organisations have the capacity to “rapidly re-organize and even reconfigure themselves in order to capitalize on immediate, and perhaps only temporary, market opportunities”. The key capabilities needed to develop organisational agility include *responsiveness* (to distinguish and respond to market shifts), *competency* (effective strategy, quality products), *flexibility* (produce a range of goods and accomplish diverse goals using similar amenities), and *quickness* (perform any tasks fast) (Sharifi and Zhang, 1999). Although the terms of agility and flexibility have similar characteristics, yet they are distinct notions. For example, flexibility is an operational ability, while agility is a strategic ability that supports firms to develop a “strategic long-term vision” (Abdelilah et al. 2018, p. 1138). Specifically, flexibility consists part of other agile capabilities, including responsiveness and speed (Abdelilah et al. 2018). On a similar note, Nejatian and Zarei (2013) explain that flexibility and adaptability are among the most important elements firms need to develop agility. In the context of this study's exploration, Teece et al. (2016) argue that agility should be considered through a holistic framework, such as the DC. They explain that having an effective strategy is crucial due to the sunk costs involved with developing agility (Teece et al., 2016). In addition, Teece et al. (2016) support that strong DC can help businesses develop agility with small expenses. In line with the highlighted arguments, agility develops based on a range of organisational features and could be deemed as a component of a wider process, like the case of advancing resilience in businesses.

Among the likely benefits resulting from organisational agility, firms could promptly react to emerging market demands and attract customers and patrons (Ulrich and Yeung, 2019). Specifically, agile firms are able to recognise new possibilities in their industries, benefit from their wider network, and re-evaluate their worth and competitive stand by developing products and services (Sambamurthy et al. 2003). On a different note, agility significantly influences business creativity and competitiveness (Sambamurthy et al. 2003). Given the highlighted

attributes, it is not surprising that agility reflects a firm's capacity to effectively adjust to rapidly developing environments and produce superior results (Heisterkamp, 2019). Despite any possible advantages, there is no guarantee that agility will produce or sustain value for businesses; organisational strategy and planning are equally needed (Teece et al., 2016). From the perspective of this study, organisational agility could yield important advantages to resource constrained businesses operating in turbulent business environments. In the case of Greece and Cyprus, organisational agility could support SMEs overcome existing challenges (e.g., limited resources) by capitalizing high stakeholder engagement (e.g., clientele, wider network) to react early to emerging trends.

3.2.5. Social capital

Social capital (SC) is among the key factors influencing business performance. SC is based on the principle that people have relationships with others (Nahapiet and Ghoshal, 1998), which reflects the basic prerequisite to conduct business in most industries. Depending on the type of transaction, the key forms of social relations occur at a **market** (e.g., goods traded for capital), **hierarchical** (e.g., conformity), and **social** level (e.g., courtesy, help) (Adler and Kwon, 2002). Accordingly, SC is “a resource that is derived from the relationships among individuals, organizations, communities, or societies” (Bolino, 2002, p. 506), and is based on the ‘goodwill’ (e.g., sympathy, trust) that people have for others (Adler and Kwon, 2002, p. 18). In reference to the key attributes, SC classifies as *structural* (associations between different agents), *relational* (the level of trust between different agents), and *cognitive* (shared values between different agents) (Nahapiet and Ghoshal, 1998). Specifically, structural SC signals the availability of a network as means to obtain assets and connect with people, whereas cognitive and relational SC denote the capacity to share resources (Andrews, 2010). Consequently, SC consists of two parts, the “bonding” (trust and leadership) and “bridging” (efficiency of social networks) (Walker and Salt, 2012, p. 96). Contemporary literature on SC focuses on the interaction between people (**internal** social capital), the association between firms and their exterior associates (**external** social capital) (Leana and Pil, 2006), or both. When both internal and external relationships are considered, SC represents “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet and Ghoshal, 1998, p. 243).

In reference to possible advantages, SC is regarded as a significant resource, similar to different types of capital (e.g., material) (Bolino, 2002). For instance, in the discipline of organisational management, SC could be a source of financial resources (e.g., loans), among other (e.g., professional advice) (Portes, 1998), and it could even supplement or replace other resources (Adler and Kwon, 2002). On a similar note, obtaining information is an important and expensive type of SC (Coleman, 1988). It is therefore not uncommon to approach SC as an “investment in social relations with expected returns” (Lin, 1999, p. 30). Despite its potential value for businesses, SC requires a significant commitment of assets (e.g., economic, cultural) (Portes, 1998), and is not applicable to all contexts (Nahapiet and Ghoshal, 1998). SC, for instance, could support some activities but produce poor results or even cause damages in other cases (Coleman, 1988). Similarly, social relationships need to be systematically regulated to remain useful (Adler and Kwon, 2002).

The SC notion attracted the interest among scholars exploring ways to promote organisational resilience. Among other factors, a firm’s ability to establish relationships of trust with a group of people (family members, friends), able to assist if required, highly influences the development of resilience capacity (Martinelli et al., 2018). In line with such a rationale, Lengnick-Hall and Beck (2005, p. 752) argue that “deep social capital provides the interpersonal foundation for thriving despite uncertainty and for developing rapid responses to emerging conditions”. Firms with a high SC could, for example, create a higher volume of contacts than normally anticipated and set a channel of support and reserves (Lengnick-Hall et al., 2011). On a different note, the key characteristics of SC (e.g., trust, cooperation, and networks) tend to influence adaptive capacity (Lockwood et al., 2015), another factor associated with the promotion of organisational resilience.

The characteristics of the SC concept could prove particularly valuable for SMEs attempting to develop resilience and cope with challenging business conditions. For example, SMEs could use their network of partners to boost their operational capacity (Russo and Perrini, 2010), and balance some acknowledged limitations (small size, lack of security) (Spence and Schmidpeter, 2003). In practise, the SC notion could be the solution by which SMEs increase their resilience capacity by gaining access to a variety of assets during challenging periods (McGuinness and Johnson, 2014). Additional SC related benefits for SMEs include lower partnership expenses, enhanced exchange of ideas and creative practices (Iturrioz et al., 2015), and gain valuable information that promotes confidence (Spence et al., 2003). On the basis of the potential benefits, the SC concept could be particularly useful for the current investigation, which

focuses on the process of promoting resilience in Greek and Cypriot SMEs. For instance, the SC notion could aid SME proprietors in both countries in identifying new sources of capital during turbulent periods by leveraging an established network of contacts. In addition, SC could prove rather useful for promoting resilience, especially in a cultural context with the characteristics of Greece and Cyprus. In both countries, for example, the role of family, relatives, and friends is highly valued.

3.2.6. Organisational Learning

In dynamic environments, learning is an important factor for the efficient operation of businesses. Organisational learning reflects “a change in the organization’s knowledge that occurs as a function of experience” (Argote, 2011, p. 440), and involves the steps of attaining knowledge and its dissemination and interpretation within a company (YahiaMarzouk, 2022), as well as its institutionalization (develop routines and use them) (Crossan et al., 1999). Learning in organisations manifests in three layers, the individual (intuiting and interpreting), group (integrating), and organisational (institutionalizing) (Crossan et al., 1999). Other than experience, **internal** (e.g., a firm’s culture, strategy, structure) and **external** factors (e.g., competition, networks) are additional facilitators of organisational learning (Bapuji and Crossan, 2004). Regarding the antecedents of learning, the activity of **reflection** is considered among the prominent learning catalysts in the context of organisations (Knipfer et al., 2013). Reflection relates to the “process of stepping back from an experience to ponder, carefully and persistently, its meaning to the self through the development of inferences” (Daudelin, 1996, p. 39). Reflection is the result of a four phased process that includes a) expressing a problem, b) evaluating a problem, c) identifying a conditional framework to clarify a problem, and d) taking actions or considering if it is proper to act (Daudelin, 1996). Among possible benefits, learning tends to improve an organisation’s performance; firms able to promptly rectify their mistakes and rapidly respond to external shifting conditions could surpass their rivals that fail to learn (Tsang, 1997). Similarly, Tian et al. (2021b, p. 430) explain that knowledge, the outcome of organisational learning, is “a strategic asset that enhances firms’ competitive advantage”. Different types of knowledge could be identified, including perceptions, routines, and attitudes (Argote, 2011). Routines, for instance, link a firm’s old endeavours with future ones (Zhou et al., 2018).

In the context of SMEs, learning, as part of the DC framework, is the most important operational factor that facilitates an improved, faster, and structured operation (Hernandez-Linares et al., 2021). Likewise, Csillag et al. (2019) established that both learning and generating knowledge are crucial in SMEs' attempt to improve or maintain their competitive edge over. From the perspective of resilience, organisational learning is a crucial factor influencing SMEs' capacity to develop an adequate level of resilience and cope with turbulences, and also make available products of higher quality (YahiaMarzouk and Jin, 2022). Specifically, organisational learning facilitates the connection between ES and organisational resilience (YahiaMarzouk and Jin, 2022). On the basis of the acknowledged advantages emanating from contemporary literature, learning may prove particularly essential for the promotion of resilience capabilities in Greek and Cypriot SMEs. In practise, organisational learning could offer SMEs a better understanding of the market requirements (e.g., clientele) and enable them to adapt to the new business reality imposed following turbulent events. Thus, organisational learning could support SMEs in Greece and Cyprus maintain a dominant market position over rivals and overcome various operational limitations.

3.2.7. Adaptive capacity

Adaptive capacity, also known as adaptability or adaptation, is an essential component of the resilience process. Resilience focuses on the ability of various systems (people, organisations, communities, etc.) to adjust or transform to novel directions when dealing with extreme fluctuations (Folke, 2016). In line with such a principle, adaptive capacity represents “the ability of the system to respond to changes in its external environment, and to recover from damage to internal structures within the system that affect its ability to achieve its purpose” (Dalziell and McManus, 2004, p. 7), or else “the ability of the system to remain in a stability domain” (Gunderson, 2000, p. 427). In the context of ecosystems, the **adaptive cycle** model infers that systems display four progressive (not always though) stages of change (Gunderson, 2008), namely *exploitation* (a growth period as systems take shape), *conservation* (assets are preserved rather than used for growth), *release* (use of stored assets to deal with external turbulences), and *reorganisation* (a novel system emerges) (Holling and Gunderson, 2002; Gunderson, 2008). Smit and Wandel (2006, p. 286) further explain that “adaptations are manifestations of adaptive capacity, and they represent ways of reducing vulnerability”. As a way to explain the differences between different displays of adaptive capacity, Folke (2016, p. 2), describes *adaptability* as “human actions that sustain development on current pathways”, while *transformation* relates to activities “shifting development into other emergent pathways

and even creating new ones”. On a different note, *adaptness* reflects “the status of being adapted” (Dobzhansky, 1968, cited in Gallopin, 2006, p. 300), and relates to a very specific context (Gallopin, 2006). Gallopin (2006) cites Dobzhansky (1968) to explain that a species may be highly adapted to a certain situation yet have a limited capacity to adapt to different ones or disturbances within its context. In practice, systems (e.g., individuals, organisations) manage to adapt by implementing any currently accessible options or use them in different ways, and by adopting a completely original approach to deal with a certain development (Dalziell and McManus, 2004). Therefore, adaptive capacity relies on a range of interrelated factors that “vary in space and time” and “exist and function differently in different contexts” (Smit and Wandel, 2006, p. 288), including the environment, social and economic issues, and cultural characteristics (e.g., values, norms), among other (Keys et al., 2014). Depending on the actual cause, adaptation is classified as **reactive** when instigated by recent or present incidents and **anticipatory** when prompted by a prospective evaluation of the established context (Adger et al., 2005).

Regardless of the mode of adaptation, nurturing the capacity to adapt when exposed to challenging conditions has multiple benefits. For example, systems with a high adaptive capacity are less exposed to forthcoming threats or progressively intensifying hardships (Adger et al., 2004). In practise, firms with enhanced adaptability use their decision-making to increase their awareness about wider expectations (e.g., society) and possible consequences from their choices by simultaneously developing and contrasting different options (Friedman et al., 2016). Accordingly, adaptive capacity reflects, among other characteristics, an organisation’s ability to innovate and be versatile, and the process to obtain, channel, and preserve information, (McManus et al., 2008). From the perspective of SMEs, adaptive capacity demonstrates a firm’s ability to recognise and promptly exploit extrinsic prospects through modifying internal processes as an attempt to adjust to volatile business conditions (Owoseni and Twinomurinzi, 2018). In terms of potential benefits, Hodgson et al. (2017) determined that even a small increase in adaptability could yield a competitive advantage over rival SMEs; however, such an increase might not significantly enhance business viability. As a result, adaptability enables firms to become resilient by enhancing their capacity and rapidity to deal with hardships (Seville et al., 2008). Although resources have a crucial role in determining business performance, Williams et al. (2017, p. 742) explain that “An entity does not survive merely because of inner resources; rather it survives and thrives on the basis of its ability to adapt and/or dynamically relate to its environment”. Following the consideration of resource

availability and DMC as potentially significant factors in the attempt of Greek and Cypriot SMEs to develop resilience capabilities, the notion of adaptive capacity could equally be particularly useful for multiple reasons. Notably, Greek and Cypriot SMEs have not fully recovered following the 2008 crisis and still experience serious challenges that impede their operation and expose them to future volatility. Adaptive capacity could alleviate some of the existing problems and support SMEs develop resilience and cope with any challenging business conditions. Adaptive capacity could, for instance, support Greek and Cypriot SMEs in perceiving the expectations of key stakeholders (e.g., clientele) in their operating environment.

3.3. Rationale and structure of the conceptual framework used for this study

In fulfilment of the research objectives, the study reviewed contemporary frameworks focusing on organisational resilience as a point of reference to further explore how Greek and Cypriot SMEs could develop resilience. A conceptual framework reflects “concepts, empirical research, and relevant theories to advance and systematize knowledge about related concepts or issues” (Rocco and Plakhotnik, 2009, p. 9). As a foundation to evaluate resilience in the context of businesses, it is relevant to take into account certain underlying characteristics of the targeted population. Specifically, all firms have different features and experience diverse challenges (Burnard and Bhamra, 2019). Based on such a rationale, each firm probably develops resilience differently and uses distinct ways to react to certain events (Burnard and Bhamra, 2019). From the perspective of this study’s population, not all SMEs face, react, and are affected in the same way by turbulent events (Miklian and Hoelscher, 2022), making unfeasible any overarching resilient measures (Sullivan-Taylor and Branicki, 2011). Consistent with such a logic, various resilience determinants (e.g., resources, operational flexibility) are relevant in specific business environments (e.g., industries) (Haase and Eberl, 2019). Therefore, resilience frameworks should reflect the distinctive nature of each firm considering each time the different factors that influence a firm’s capacity to develop resilience. However, even in such a case, the key qualities of organisational resilience are still the same in both passive (resistance, robustness) and active (adaptation, change) forms (Burnard and Bhamra, 2019). Accordingly, the key drivers of organisational resilience, namely a firm’s ability to prepare, respond, adapt, and learn (e.g., Koronis and Ponis, 2018), could act as the foundation of any proposed framework focusing on business resilience.

Based on contemporary organisational resilience frameworks (Duchek, 2020; Burnard and Bhamra, 2011) and the notion that resilience reflects an effective response before, during, and after challenging events occur (Koronis and Ponis, 2018; Linnenluecke et al., 2012; McManus et al., 2008), but also corresponding with Teece's (1997) dynamic capabilities theory, this study approaches resilience as a **three-phased process** with the interrelated (the impact is also backwards) and continuous stages of **anticipation, coping, and adaptation** based on relevant capabilities. Accordingly, in the context of this investigation, organisational resilience is a "meta-capability" resulting from the successful completion of all resilience phases based on a range of capabilities (Duchek, 2020, p. 224), and combines forms of resilience that are both passive-static (e.g., pre-established approaches of response) and active-dynamic (e.g., scan the external environment) (Burnard and Bhamra, 2019). In line with the highlighted characteristics, resilience relates to a process "*by which an actor (i.e., individual, organization, or community) builds and uses its capability endowments to interact with the environment in a way that positively adjusts and maintains functioning prior to, during, and following adversity*" (Williams et al., 2017, p. 742, emphasis in original). Therefore, the three identified resilience phases relates to the actions employed before, during, and after a certain turbulence emerges. A process-based definition also reflects the multi-variable nature of organisational resilience (Burnard and Bhamra, 2019), and the dynamic qualities of resilience through a synergy between the firm and its operational context (Williams et al., 2017). The resulting outcome of the resilience process equals to the *state of return* each SME has after the process is complete (see Williams et al., 2017); back to the equilibrium state or at a more advanced and enterprising status (Lengnick-Hall et al., 2011).

Each phase of the resilience process contributes in different ways to the development of SME resilience. First, the *anticipation stage* develops an "organizational resilience potential" (Somers, 2009, p. 12), resilience that "is not presently evident or realized" (Somers, 2009, p. 13). Accordingly, anticipation capabilities act as the foundation for a successful reaction to challenging events (coping stage) (Duchek, 2020). As part of the anticipation phase, preparation enables firms to build a sufficient level of resources as required in the scenario of crises (e.g., contingency plans, social contacts) (Duchek, 2020). For instance, the availability of contingency plans is important for businesses to respond and recuperate after crises, however intuitive decisions could be required to deal with rapidly evolving events (Seville et al., 2008). Based on SMEs' scarce resources, adopting a strategic and proactive response might be needed to cope with potential risks and crises (Sullivan-Taylor and Branicki, 2011). As an example,

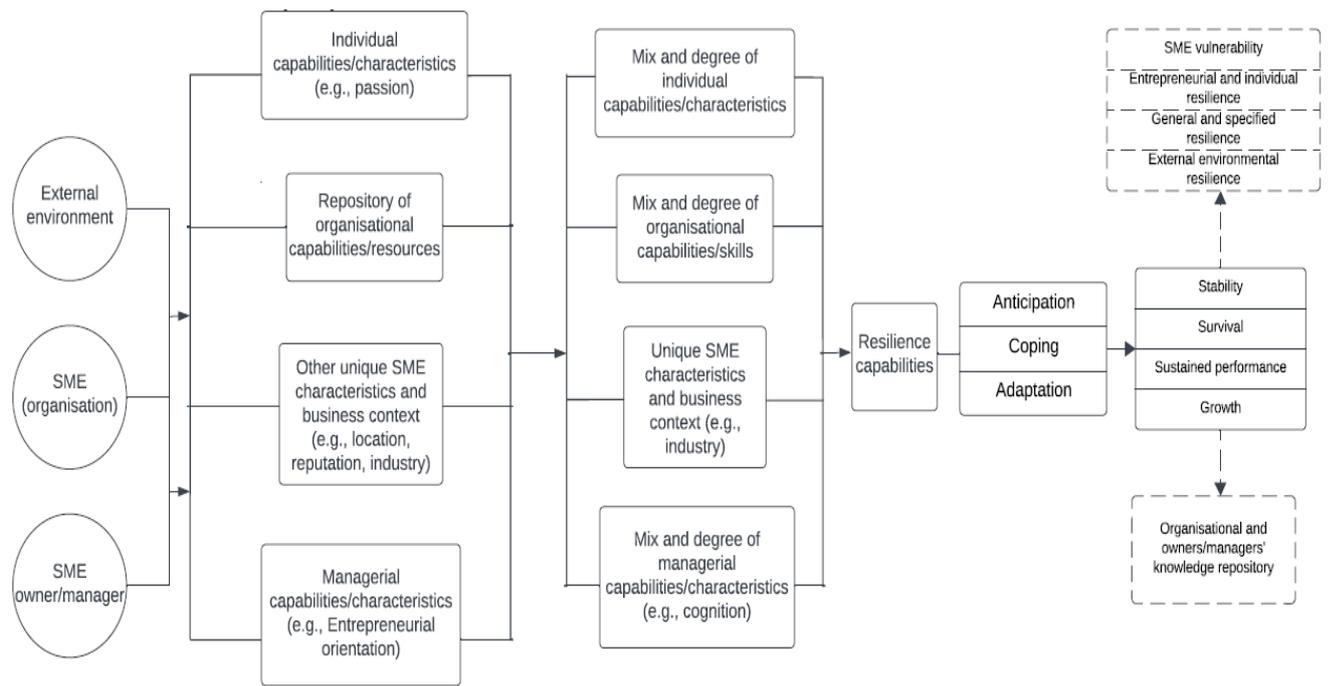
the speed of response influences SME's effectiveness in dealing and surpassing the effects of a turbulence (Burnard and Bhamra, 2019). Specifically, in the context of economic crises, firms need to swiftly make decisions to adjust their strategy to the adverse business conditions (Beliaeva et al., 2020). From an engineering resilience viewpoint, Hollnagel (2006) also argues that identifying a turmoil at an early stage could make recovery more straightforward and would require minimal adjustments. Likewise, Teece et al. (2016, p. 14, emphasis in original) argue that firms operating in uncertain business contexts need to “sense and/or generate options for growth *before* the market logics of those options become apparent to all”.

The second resilience phase relates to a *coping capacity or capacity of response*, a “system’s ability to adjust to a disturbance, moderate potential damage, take advantage of opportunities, and cope with the consequences of a transformation that occurs” (Gallopín, 2006, p. 296). Such a coping capacity is an inherent quality of a system (e.g., organisation) prior to any turmoil (Gallopín, 2006). The final part of the resilience process, *adaptation*, requires adaptation capabilities that enable firms to learn and change while handling turbulences (Duchek, 2020). The synergy between potential (anticipation stage) and realized (coping and adaptation stages) resilience could be the reason certain businesses have better results when dealing with crises (Duchek, 2020). In line with the highlighted resilience stages, the next section focuses on the key antecedents of resilience capabilities for SMEs.

3.3.1. Antecedents of resilience capabilities in the context of SMEs

In line with the research objectives, figure 3.1 represents an attempt to illustrate how a combination of different types of capabilities and resources could influence the resilience process (anticipation, coping, adaptation) across SMEs with different characteristics (e.g., industry, resource availability). According to contemporary studies, the primary determinants of SMEs’ resilience capacity include the *organisation*, the *business owner/manager*, and the *business environment* (Polyviou et al., 2020; Battisti et al., 2019; Branicki et al., 2018; Pal et al., 2014; Gunasekaran et al., 2011).

Figure 3.1- A conceptualisation of factors influencing SMEs' resilience capacity



The organisation and each owner/manager comprise a unique reservoir of diverse capabilities and resources per each firm. At an **organisational** level, *resource availability* (e.g., cash, knowledge), *operational capabilities* (e.g., agility), and *organisational culture* (e.g., strategies) are among the most influential factors shaping resilience capabilities. From the perspective of the DC theory, Teece (2014) explains that high-valued DC are not sufficient to differentiate firms from competitors without the disposal of novel assets and an effective strategic direction, in addition to other crucial elements (e.g., management, organisational culture). **Additional factors**, such as a company's location, reputation, number of years in operation may have a significant impact on its responsiveness to turbulent business conditions. In a volatile business environment, firms with an established market reputation and strong clientele rapport, for instance, could have an advantage over competitors. The business owners/managers also have a significant role in the resilience process due to various *managerial* (e.g., entrepreneurial orientation, cognition) and *individual* (e.g., personal ambitions) characteristics, among other reasons. In the context of DC, Teece (2014, p. 343) explained that "Dynamic capabilities are partly resident in the leadership team itself, rendering such capabilities even more idiosyncratic". For instance, if an owner/manager has little or no prior experience managing a business, he or she may make poor daily and strategic operational decisions. Nonetheless,

depending on the business environment, various organisational and entrepreneurial capabilities or characteristics (e.g., self-confidence) could both promote and inhibit the resilience process (e.g., Gover and Duxbury, 2018). Apart from the likely effect on organisational resilience, the availability and degree of the identified features (organisational resources, managerial/individual characteristics), as well as other (e.g., environment), may also influence the level of individual and entrepreneurial resilience.

Subject to a unique business context (e.g., operating industry, competition) and other generic environmental characteristics (e.g., technological evolution, political), SMEs require a different *mix* and *degree* of capabilities and resources to develop and maintain a diverse range of resilience capabilities. For example, each operating industry has distinct characteristics (competition intensity) and requirements, hence not all SMEs experience the same challenges or have access to similar opportunities. In line with such a reasoning, Collis and Anand (2019) argue that it is not sufficient for a firm to have DC if its competitors have better ones. Similarly, the resilience of other systems (e.g., clientele, suppliers) coexisting with firms influences their resilience capacity and vice versa (Seville, 2009). Subject to the specific industry and environmental conditions and unique organisational features, SME owners/managers need to take important decisions about the coordination of any available assets (e.g., what assets to use, how, when), further emphasizing the importance of cognitive capabilities. Attempting to cluster the main factors influencing SMEs' resilience capacity, an interplay between a different mix and degree of 1) organisational capabilities, 2) managerial and individual capabilities, and 3) unique SME features (e.g., location) and the operational environment (e.g., competitors), determine at a great extent the ability for SMEs to develop resilience at both specified (e.g., a specific turbulence) and generic level (e.g., unforeseen events). The identified factors also impact the vulnerability level of SMEs, the magnitude of individual and entrepreneurial resilience, along with the resilience capacity of various actors at the external environment (e.g., suppliers, clientele, rival firms). After illustrating the key factors that could impact the resilience process, the next sections focus on each of the resilience stages.

3.4. Generic characteristics of the adopted conceptual framework and stages of the resilience process in the context of SMEs

Following a review of contemporary literature, the study employs the structure of available organisational resilience frameworks (Duchek, 2020; Burnard and Bhamra, 2011) and further adapts them to reflect SMEs unique characteristics merging relevant concepts. As a way to

establish an overarching framework, three key parameters are considered affecting SME resilience capacity, namely a) *the unique nature of all firms, including SMEs*, b) *the distinct industry characteristics*, and c) *the restricted resource availability experienced by many SMEs, if not all*. In line with the highlighted conditions, and the important role of owners/managers shaping SME resilience (Branicki et al., 2018), this study places a particular emphasis on owners/managers' cognitive actions influencing their decision making and effective coordination of any available resources for the development of resilience capabilities. Respectively, Parker and Ameen (2018) note that organisational resilience does not only require accumulating assets but developing capabilities that enable businesses to capitalize available resources in a practical and acute way. On a relevant point, Sarkar and Clegg (2021, p. 242) further explain that "Resilience emerges when cognition and behaviour work in conjunction". As an attempt to further explain why some firms, and specifically SMEs, are more capable to cope with challenges and adapt to volatile business environments, sensemaking theory is incorporated as an essential part of the resilience process shaping cognitive related activities and through them the subsequent behavioural actions.

The principles of sensemaking provide a useful foundation to explore resilience across firms with limited disposal assets and distinct features. Resource availability plays an important role in a firm's attempt to understand the operational environment and identify innovative alternatives to challenges emerging following market fluctuation (Teece et al., 1997; Kurtmollaiev, 2017). However, the efficient use of resources is equally important, if not more. For example, Beliaeva et al. (2020) argue that a firm's ability to efficiently use its limited resources during periods of economic turmoil could be the distinguishing point over competitors, among other reasons. In the context of dynamic capabilities (DC), Teece (1998, p. 63) explains that the essence of the DC concept lies on "the deployment dimension", also referred as orchestration, an element highly influenced by cognitive capabilities (Helfat and Peteraf, 2015). Based on the highlighted points, the resilience capacity of family firms is highly dependent on the availability of financial capital and complemented by human capital too (Mzid et al., 2019). Following a similar reasoning, the concept of sensemaking, "the process through which people work to understand issues or events that are novel, ambiguous, confusing, or in some other way violate expectations" (Maitlis and Christianson, 2014, p. 5), could be rather valuable as it directly influences behavioural related capabilities and determines their outcome. Weick (1996, p. 148) explains that "real action occurs long before decisions ever become visible. By the time a decision needs to be made, sense-making processes have

already determined its outcome”. While decision making aims at *strategic* rationality, sensemaking pursues *contextual* rationality, and sets the required conditions for resilience (Weick, 1993). In that sense, it is crucial to take the correct actions, especially when the disposal resources are limited, as is the case with SMEs. However, individuals are unaware which actions are the proper ones before they actually do something and wait for the result (Weick, 1988). Accordingly, Weick (1996, p. 148) argues that “we need to design structures that are resilient sources of collective sensemaking ...decision making...occurs too late to make much difference”. Lengnick-Hall and Beck (2005, p. 750) further explain that sensemaking is “essential when events are unprecedented and require responses that go beyond an organization’s normal repertoire”. In such a scenario, the social characteristic of sensemaking could prove extremely valuable. For instance, Carpenter et al. (2012, p. 3251) argue that “People in isolation have their limits”, whereas “collectively, however, people can create an institution to improve on these cognitive limits to rational behavior”.

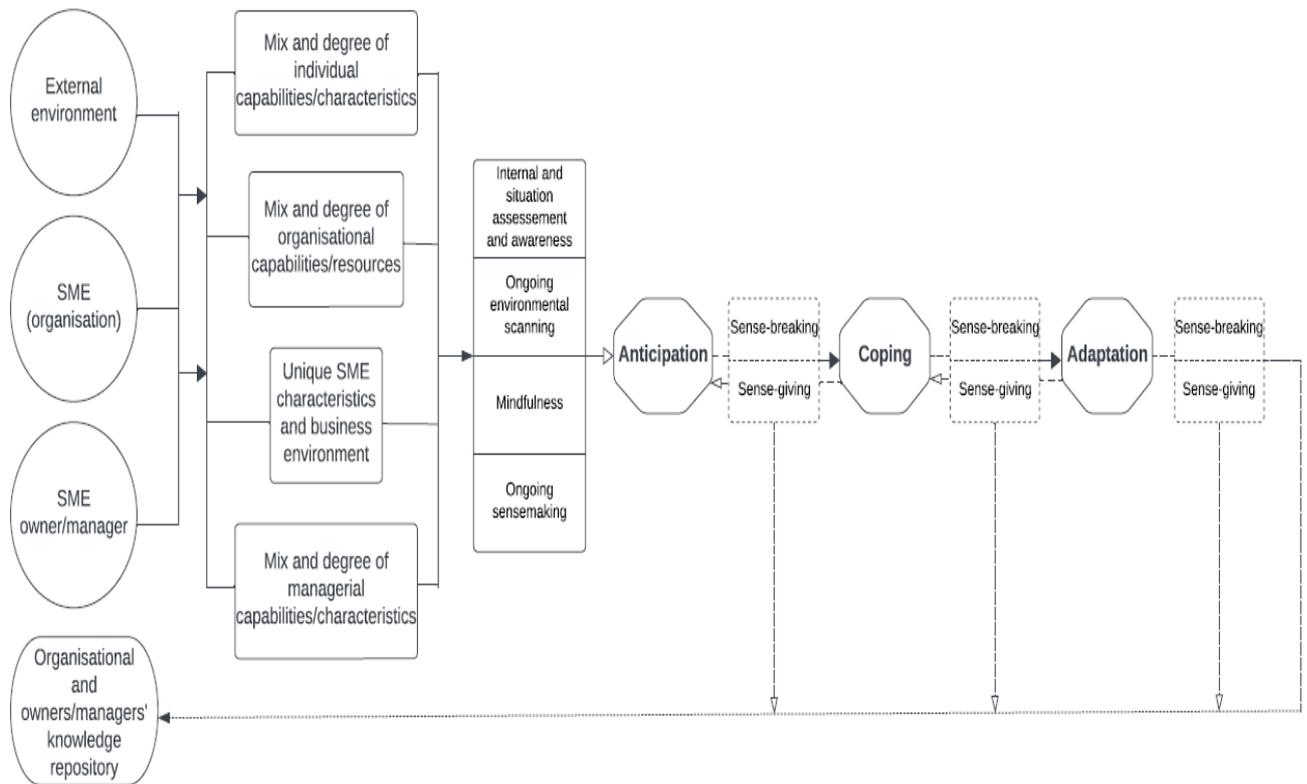
Based on the highlighted characteristics, it is not a surprise that the concept of sensemaking has been widely applied in the business and management literature. From the perspective of dynamic capabilities, sensemaking is comparable to other respective capabilities (e.g., generative sensing, scenario planning) that contribute to the development of the *sensing dynamic capability* (see Teece et al., 2016). In the context of organisational resilience, sensemaking has been associated with the *coping* phase influencing the development and implementation of possible solutions amid a crisis (Duchek, 2020). As an example of studies focusing on the recent Covid-19 crisis, Sarkar and Clegg (2021) employed sensemaking to identify how organisations enacted resilience to deal with the challenging conditions. According to their findings, sensemaking influenced business adaptation through cognitive and behavioural shifts (Sarkar and Clegg, 2021). Based on the highlighted arguments, the principles of sensemaking theory are particularly relevant and applicable for the purposes of the present exploration. Specifically, sensemaking activities (both at an individual and collective level) could support SME management make sense of the requirements of an everchanging business environment and implement measures that enable firms maximize any resulting benefits from using their available resources. On a relevant point, Hillmann and Guenther (2021, p. 12) note that “An organization can try to anticipate risks or multiple futures, but it can lead to blindness regarding other events which were not expected”.

In line with the role commonly attributed to sensemaking when considering different resilience phases (e.g., sensing, coping), this study adopts the highlighted points but also expands the application of sensemaking across all resilience stages (anticipation, coping, adaptation) and assumes related concepts (e.g., sense-breaking/giving) as important activities further complementing the different resilience phases (figure 3.2). Specifically, this study assumes that sensemaking and relevant concepts (e.g., sense-breaking/giving) are essential for the effective implementation of all resilience stages and could be among the primary reasons why some firms manage to cope better with the challenging conditions resulting from internal and external shocks.

Based on SMEs' operational features and limitations (e.g., scarce resources), sensemaking activities could determine to a great degree, along with other factors, the outcome of the resilience process including the level of preparedness, response, adaptation, and learning. For example, sensemaking could indirectly influence the coordination of SMEs' limited assets (e.g., via decision-making), hence impact the business survival and sustainability prospect. Complemented by the notions of *environmental scanning*, *situation awareness*, and the cognitive state of *mindfulness*, the presented framework illustrates how sensemaking and its related practices of *sense-breaking* and *sense-giving* could shape SME owners/managers' responses before, during, and after a shock fully emerges. For example, Weick and Sutcliffe (2007, p. 45) explain that anticipation is not simply an application of sensing but "it is also an exercise in stopping the development of undesirable events. The escalation and spread of small discrepancies are slowed by actions of anticipation and stopped by actions of containment". On a relevant note, the state of mindfulness at an individual or organisational level, to be attentive and act (Weick et al., 1999), supports the ability to recognise the value of early-stage environmental cues (under development) and dynamically act (Weick and Sutcliffe, 2015). Supported by environmental scanning activities, the notion of situation awareness reflects "a measure of an organisation's understanding of its entire operating environment" (McManus et al., 2007, p. 2), and entails the capacity to anticipate opportunities and likely crises, including their impact and likely causes, and be aware of the internal and external disposal resources as well as the key stakeholder's requirements (e.g., clientele, employees) (McManus et al., 2007). The proposed framework also highlights the unique SME characteristics and factors (e.g., industry, capabilities) that impact the outcome of sensemaking endeavours and subsequently a firm's resilience capacity. Attempting to further consider the relevance of prominent resilience concepts in the context of SMEs, this study integrates the notion of *transformation* (positive or

negative) as a possible outcome of the adaptation resilience phase depending on the business conditions and organisational capabilities.

Figure 3.2- Overview of the resilience process in the context of SMEs (Adapted from: Ducheck, 2020)



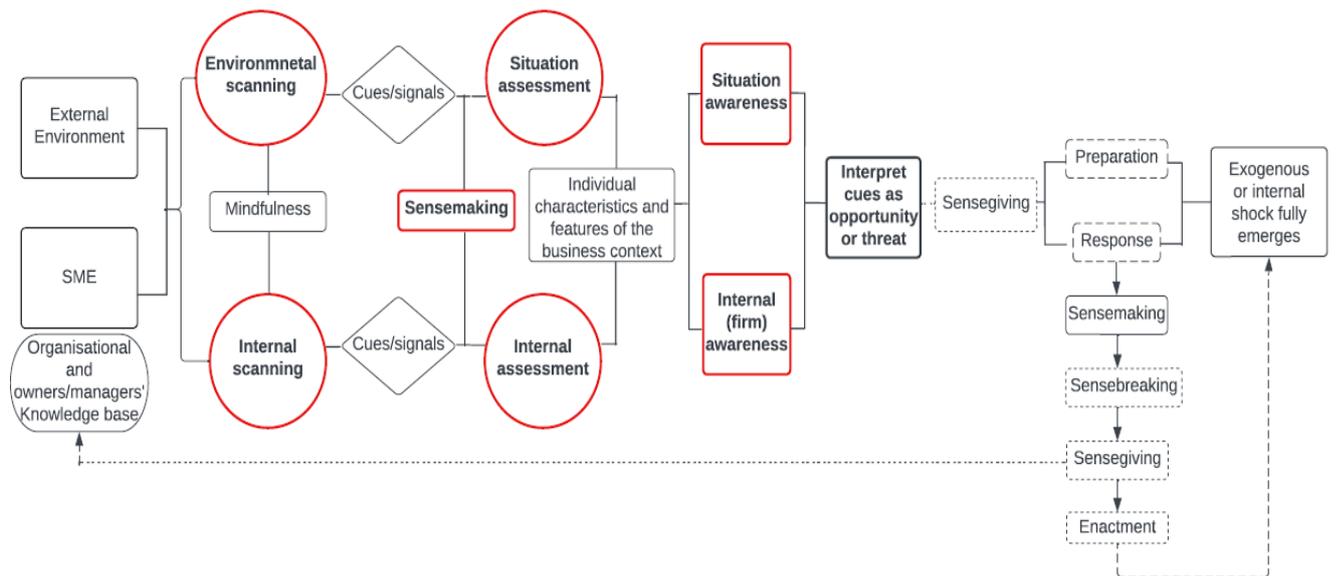
As a response to turbulences resulting from within the firms (internal) and the business environment (external), the following sections present various cognitive and behavioural activities at each resilience stage integrating concepts and findings emanating from contemporary conceptual frameworks (Duchek, 2020; Burnard and Bhamra, 2011) and literature focusing on resilience (Polyviou et al., 2020; Burnard and Bhamra, 2019; Battisti et al., 2019; Branicki et al., 2018; Teece, 2018a; Teece, 2018b; Koronis and Ponis, 2018; Williams et al., 2017; Pal et al., 2014; Linnenluecke et al., 2012; Gunasekaran et al., 2011; McManus et al., 2008; Adger, 2006; Gallopin, 2006).

3.4.1. Anticipation resilience phase

Based on contemporary organisational resilience literature (Burnard and Bhamra, 2011; Somers, 2009), the anticipation resilience phase (sensing) includes the cognitive activities of a) observing the operational environment (internal and external conditions), b) noticing any significant changes and potential hazards, and then the behavioural action of c) preparing to

the greatest possible extent for unforeseen incidents (Duchek, 2020). Any organisational capabilities related to monitoring and recognising alterations enable firms to identify and respond to environmental shifts before their effect is at the highest level (Duchek, 2020). In line with the highlighted literature, this study illustrates the adopted activities and considers additional contemporary concepts (e.g., sensemaking, mindfulness) as important parts complementing the anticipation resilience phase, particularly in the context of SMEs.

Figure 3.3- Anticipation resilience phase (Adapted from: Duchek, 2020; Burnard and Bhamra, 2011)



As presented at figure 3.3, SME management engage in internal and external scanning, which is ongoing. As a way to monitor the external environment, SMEs engage in *environmental scanning* to view and search for information, and through such activities receive or identify signals-cues from developing events that require further review. The environmental scanning ventures could involve SMEs’ ownership in-person interaction with various stakeholders (e.g., suppliers, clientele, local officials) and/or taking into consideration a range of written material. The source of information could include both SMEs’ close environment (task environment) and general environment (economy, politics). The notion of *mindfulness*, “being aware of context” (Langer, 1989, p. 138), is also relevant as it expands the scope of environmental scanning, produces interpretations that are more related to the environment in focus, and contributes to a more selective decision making (Weick and Sutcliffe, 2006). Accordingly, mindfulness is associated with information processing (Fiol and O’Connor, 2003; Langer, 1989), and enables firms identify weak warnings from volatile contexts and take more efficient actions (Vogus and Welbourne, 2003). Langer (1989) explains that mindful people have an

increased capacity to detect elements in their environment. In the context of this study's proposed framework, environmental scanning practices provide the required information for the initial stage of the *situation assessment process*, the recognition of significant factors from the operational environment. Despite any incoming information, understanding the significance of an immense turbulence at a primal stage entails to comprehend the business context but also requires the reflective capability of decoding the meaning of a situation (Sheffi, 2005). Accordingly, a separate *sensemaking* activity is necessary to enable SME owners/managers 'make-sense' of any alarming data and subsequently interpret what they mean for the firm (opportunity or threat). Although sensemaking is conceptually grounded on social actors (Weick, 1995), individuals also frequently generate by themselves sensemaking processes as a way to explore an uncertain environment (Barton et al., 2015). The sensemaking result depends on various factors including the individual sense maker, prior environmental and internal awareness, organisational vulnerability, among other.

Depending on the sensemaking outcome and subject to the nature of the situation, SME owners/managers interpret the identified cues-signals and attempt to project the future development. Based on the situation assessment process, the resulting *situation awareness* reflects the whole operational environment rather than only distinct incidents (see McManus et al., 2008), and is influenced (positively or negatively) by various attributes of the task environment (competition intensity) and SME owners/managers' personal characteristics (attention capacity, memory, stress) (see Endsley, 1995a). Bartscht (2015) explains that business leaders should employ situational understanding to efficiently navigate their firms in highly dynamic environments (e.g., volatile, uncertain, complex, ambiguous). A similar process is employed to monitor the internal environment, the firm. An internal scanning, supported by the entrepreneur's state of mindfulness, allows for business introspection and identification of organisational strengths and possible areas of concern, including vulnerabilities and weaknesses. After distinguishing any cues/signals, a sensemaking process is used to make sense of the situation and produce an internal assessment. Depending on the characteristics of the entrepreneur and the task environment (see Endsley, 1995a), SME owners/managers develop internal awareness. In the context of dealing with turbulences, an awareness of internal weaknesses/vulnerabilities is essential to recognize situations that could harm a firm (Burnard and Bhamra, 2011), and could be used as a point of reference when considering responses to volatile incidents.

Based on the established situation and internal awareness, SME management can interpret whether the emerging developments in their environment pose a threat or an opportunity to their business. Specifically, a *threat assessment* involves three measures, 1) to establish whether a certain threat is likely to happen if limited or no measures are taken (level of certainty), 2) consider a firm's vulnerability to a specific threat, and 3) assess the probable severity of a threat (Connelly and Shi, 2022). Several factors influence the threat assessment outcome, including the situation awareness, SME vulnerability level, and social pressure (through sensemaking), among other, and inform SME management's decision making regarding the needed preparations and/or responses to various trends or specific developing events. On a relevant point, Weick and Sutcliffe (2015, p. 120) explain that the required conditions for decision making include "sensing, knowledge, and plausible stories", whereas projecting the future state of events involves a state of wisdom (experience combined with doubt) to relate new developments to the present time (Weick, 1993). After the conditions are assessed (e.g., opportunity or threat), a *sense-giving* activity might be required to communicate and promote the management's perceived view of the situation to staff members within the firm. Such an action might be essential since some people are more resilient to ambiguous and uncertain situations than others, thus could assign different meanings to certain events (Duncan, 1972).

As the next step, SME management could either prepare in anticipation of challenging future conditions or decide to respond at the present time, subject to SME management's individual characteristics, unique SME features and capabilities, and the business context. Preparations might not necessarily involve resource accumulation (redundant coping approaches), especially since SMEs have restricted assets. Instead, SME ownership could continue or intensify its effort to maintain and further expand its social network that could be useful during turbulent periods. Alternatively, a prompt response might be required to address a particular developing event before it fully emerges. Among possible options, SME owners/managers could change certain operational strategies (e.g., pricing). Regardless the chosen action, Weick (1988, p. 309) argues that "initial responses do more than set the tone; they determine the trajectory of the crisis" and stimulate further sensemaking since any adopted action enacts the environment. After any implemented actions, *sense-breaking* could be useful to uncover the meaning of the updated business reality (e.g., are customers pleased with the adopted changes or not). In the case of SMEs with staff members (not individual firms), or even large firms, a *sense-giving* activity might be required to communicate and promote any employed

modifications to employees to increase the chances of being accepted and embraced within the firm. Helms Mills et al. (2010) further explain that members within an organisation might make sense of a certain turbulence in different ways, hence sense-giving could be useful to advocate the management's made sense. On a different point, any adopted actions shall enact the environment influencing the resilience of other stakeholders (suppliers, rivals), while enactment could also produce a replication of the three sensemaking phases (creation, interpretation, enactment) till the disrupted action is successfully re-established, specifically sense and action correspond (Sandberg and Tsoukas, 2015). Weick (1988, p. 307) argues that "cognition lies in the path of the action. Action precedes cognition and focuses cognition". Weick (1988) further explains that individuals are not aware which is the suitable action to a specific event before they act and wait for the outcome. Any resulting outcomes from the implemented actions, both for the firm and the external environment, will feed back to the organisational knowledge reservoir further enhancing SME management's experience repertoire for future events.

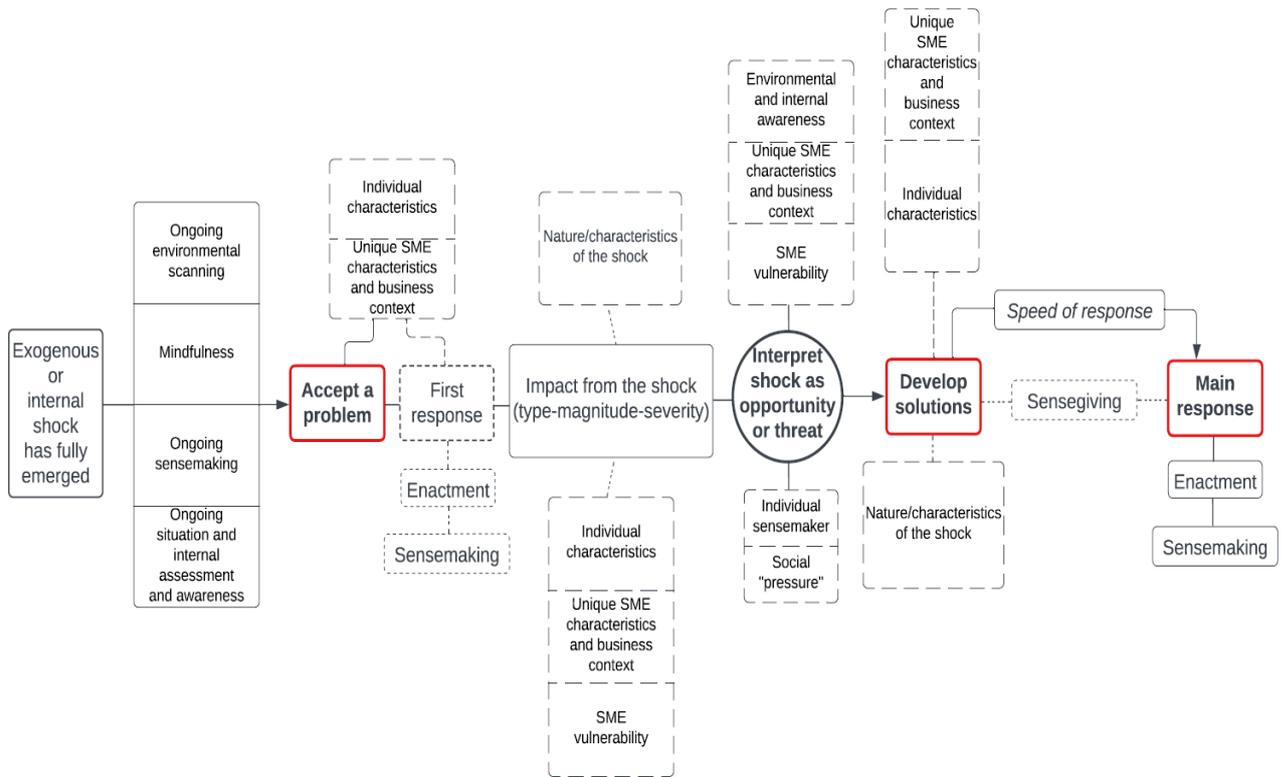
The identified steps at the sensing phase align with the principles of a *proactive posture* (e.g., Battisti and Deakins, 2017), a company's "strategic and behavioural readiness to respond to early warning signals of change in the organisation's internal and external environment before they escalate into crisis" (Lee et al., 2013, p. 34). On a relevant note, the anticipatory approaches employed by SMEs to distinguish indications of in-house and environmental crises depend on the degree of organisational commitment, "the combination of the frequency of the anticipation activities activated by the company and their formalisation" (Marcazzan et al., 2022, p. 3). Accordingly, possible SME anticipatory options include a *reactive* strategy (no prior plans with limited resource allocation), a *desultory* strategy (an improvised evaluation of information), a *regular* strategy (a consistent collection of information for prospective hazards through experts), and a *continuous* strategy (formal methods used for in-house and external observation to identify and categorise in official records both possible risks and matching responses that are constantly updated) (Marcazzan et al., 2022).

3.4.2. Coping resilience phase

Based on contemporary literature (Reilly, 1993; Jaques, 2007), the coping resilience stage involves the activities of a) accepting a problem (cognitive action) and b) developing and applying solutions (behavioural action) (Duchek, 2020). In line with the highlighted activities, this study attempts to illustrate all involved steps and review contemporary concepts (e.g.,

sensemaking) and a range of factors (e.g., SME vulnerability) that could influence SMEs' coping capacity. Accordingly, figure 3.4 presents the proposed steps determining the completion of the coping phase. First, *accepting a problem* entails to 1) understand the operational context, 2) recognize and prepare for possible operational breakdowns, and 3) determine what equates a stable condition (reference state) for the firm (Catalan and Robert, 2011). Accordingly, after a certain shock fully emerges, SMEs continue to engage in environmental scanning, situation and internal assessment, and sensemaking activities, while a mindful state is also beneficial. As a means to decode the developing shock and predict its impact, SME management might not necessarily invest resources to 'look for' information (searching) but could 'look at' information (viewing) from various available sources (e.g., online). Sensemaking is another relevant element at the coping stage. Although unforeseen events might not necessarily trigger sensemaking (a person's expectations does not match with an established reality), crises are a prominent source of sensemaking (Maitlis and Christianson, 2014). On a relevant point, individuals frequently generate sensemaking processes by themselves to explore an uncertain environment (Barton et al., 2015). Specifically, sensemaking is "about "giving" meaning to events and situations" (Sharifi and Zhang, 2009, p. 556), and identify appropriate ways to react (Kudesia, 2017). In line with the highlighted measures (e.g., environmental scanning), and depending on the nature of the incident, and individual and organisational characteristics and capabilities, an initial or temporary response could be selected to control the incident and constrain the impact (Sheffi and Rice, 2005). In addition, an early response could also shape the course of the turbulence (Weick, 1988), and assess the tentative meaning developed earlier via sensemaking (e.g., Maitlis and Christianson, 2014).

Figure 3.4- Coping resilience phase (Adapted from: Duchek, 2020; Burnard and Bhamra, 2011)



After accepting a problem, the next step requires to *develop and implement solutions*. Accordingly, SME management needs to identify an appropriate action based on multiple criteria. First, the characteristics of the turbulence (type, severity, magnitude) determine to a great extent, among other factors, the impact for SMEs, and other firms. For instance, different types of shocks (regional, societal, local) produce different challenges (Brunsdon and Dalziell, 2005). Another important factor relates to the level of organisational vulnerability. SMEs could be vulnerable to some disruptions but not in others, while a certain event could pose a threat, or not, subject to SMEs' adaptive capacity, and exposure and sensitivity to the specific turbulence. Similarly, McManus et al. (2008, p. 83) use the term "keystone vulnerabilities" to refer to various organisational characteristics (operational and entrepreneurial), both tangible (e.g., slack resources) and intangible (e.g., inter-firm and intra-firm relationships), likely to negatively impact a firm during turbulent periods. A firm's unique characteristics (internal and external) also play a crucial role on the magnitude and severity of the impact resulting from various shocks. For instance, the effect from a turbulence could be different among SMEs operating in different industries. On a relevant note, national culture and the level of economic development influence the association between DC and a firm's performance (Bitencourt et al., 2020). Subject to the previously identified determinants (magnitude of the shock, SME

vulnerability, internal capabilities), the full impact resulting from a turbulence could either be immediately felt or at a later stage (Sheffi and Rice, 2005).

After a shock fully emerges, and contingent upon its characteristics (type, magnitude, severity), the new and most likely deteriorating business conditions should be further reviewed under the prism of a firm's operational footprint. Accordingly, SME owners/managers continue to perform situation-internal assessment, environmental scanning, and sensemaking, all enhanced by a state of mindfulness. For example, in case of any early responses, sensemaking activities could provide meaning and clarify any possible difference between SME owners' expectations and reality. Only after the new operational conditions 'make sense' it is possible to accurately evaluate the developing situation and interpret it as an opportunity or threat, subject to multiple factors (individual sense maker, unique SME context). If firms involve staff or other stakeholders at the business operation (e.g., family members), *sense-giving* could be required to convince them about the chosen interpretation and response. From the perspective of considering possible long-term actions, the development of solutions requires both producing ideas and proper coordination (Duchek, 2020). As noted by Maitlis and Christianson (2014), contemporary studies associate sensemaking with creativity (the development of new ideas) (Drazin, 1999) and innovation (the effective application of creative ideas) (Dougherty et al., 2000). Weick et al. (2005) also argue that producing solutions requires a mix of sensemaking and acting. On a relevant point, Duchek (2020, p. 228) explains that "Only if people understand the crisis situation are they able to act on it", hence sensemaking is required. The notion of 'wisdom', a sense of belief and doubt at the same time (Weick, 1996), could also contribute to enhanced assessments. Weick (1996) explains that wise individuals acknowledge their limited comprehension of any unfolding events as they are distinct to that particular moment.

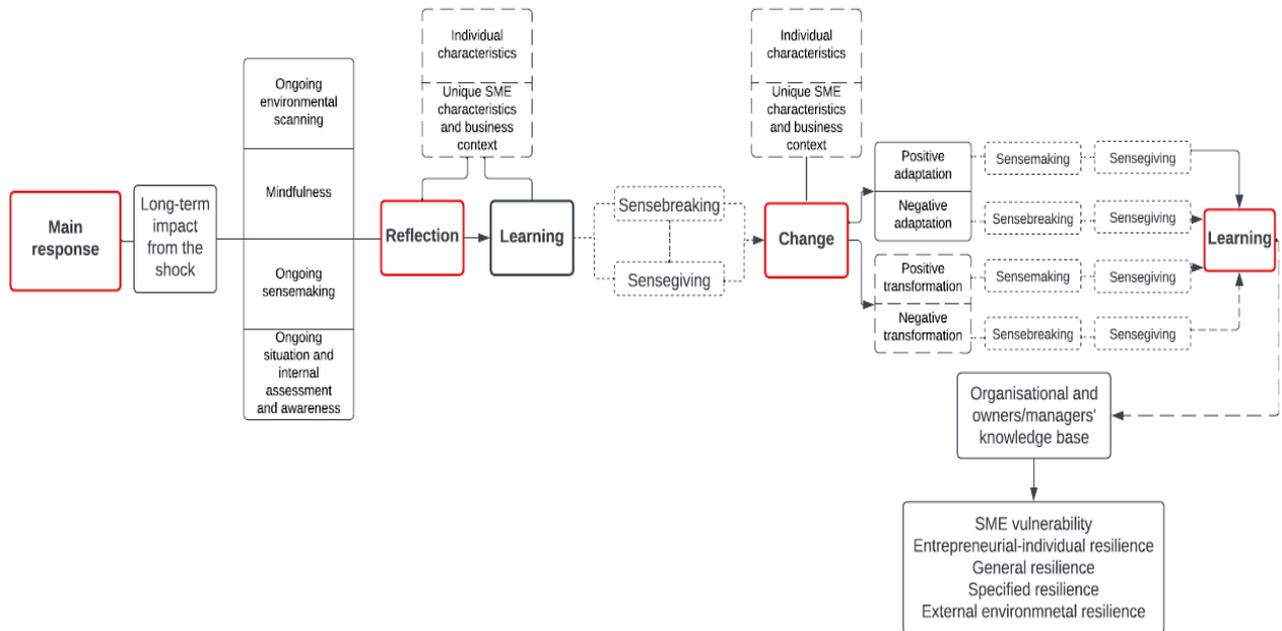
Based on the nature of the shock (type) and the unique firm characteristics and operational context (e.g., resource availability, industry), SMEs select their *primary response* to the new business conditions. Among the possible options, entrepreneurs could choose to *fight* (actively take measures attempting to naturalise or reduce any likely threat), *flee* (implement a business transformation), or *freeze* (take no actions assuming the magnitude of the threat will diminish) (Connelly and Shi, 2022). Apart from the chosen measure(s), the *speed of response* is extremely important as it influences SMEs' effectiveness in dealing and surpassing the effects of a turbulence (Burnard and Bhamra, 2019). In line with the sensemaking concept, any selected responses (early and main) will not only impact a firm's operational presence and future but also 'enact' the external environment and impact the resilience of other systems (e.g.,

competitors). Based on a more comprehensive sense of the external environment through sensemaking, any employed actions aim to reinstate the discontinued function (see Sandberg and Tsoukas, 2015).

3.4.3. Adaptation resilience phase

The last resilience stage, *adaptation*, relates to the capabilities of a) reflection and learning (cognitive action), and b) organisational change (behavioural action) (Duchek, 2020). Following the implemented main response(s), SME management attempts to reflect the resulting outcome for their business (figure 3.5). *Reflection* refers to “a practice of inquiry that is concerned with past, current or future phenomena, such as decisions, actions, processes and events” (Jordan et al., 2009, p. 466). Accordingly, SMEs continue to monitor their operating environment (e.g., environmental scanning) and evaluate the effectiveness of any previously adopted actions (e.g., situation assessment). Actions impact the development of a turbulence and further stimulate sensemaking (Weick, 1988). For example, a firm’s choice to amend its pricing strategy could affect (positively or negatively) its clientele’s purchasing behaviour and influence competitors change their strategy too, and vice versa. Among additional activities, an ongoing sensemaking and internal assessment support SME owners/managers to make sense of the conditions in place and have sufficient information to use as part of the reflective process. The condition of *mindfulness* is also considered essential for reflection while making responses (Jordan et al., 2009). Specifically, mindfulness “denotes a state of mind or mode of practice that allows practitioners to reflect on their actions as they go along” (Jordan et al., 2009, p. 469). The reflective stage could support SME management with important decisions about the appropriate future strategy. For instance, managers could review the results from any adopted responses and evaluate if they adequately addressed a certain threat (efficacy) (reduce it) (Connelly and Shi, 2022). SME owners/managers could also consider the nature of required adjustments (adaptation or transformation), timeframe (short-term/urgent or long-term), available organisational capabilities (e.g., staff), among other elements (Cameron and Green, 2015). Additional factors influencing the reflection activity include SMEs’ unique characteristics, both internal (e.g., individual capabilities, SME Vulnerability) and external (e.g., industry, competitors).

Figure 3.5- Adaptation resilience phase (Adapted from: Ducheck, 2020; Burnard and Bhamra, 2011)



The outcome of the reflection step is *learning*, “the creation of meaning from past or current events that serves as a guide for future behavior” (Daudelin, 1996, p. 39), and involves three main activities, namely *develop*, *maintain*, and *share* knowledge (Argote, 2011). As a way to develop knowledge, SMEs undertake activities related to sensing various internal and external developments (environmental scanning, situational/internal assessment), while sensemaking is particularly important for learning in extremely ambiguous contexts (interpreting emerging cues). Specifically, sensemaking “engenders learning at all levels by enabling people to better understand themselves, their situation, and how to make sense in the future” (Maitlis and Christiansen, 2014, p. 92). Various sensemaking relevant concepts could also contribute to the learning process. For instance, *sense-breaking* could be used to reduce the possibility of confusion resulting from interpretations at the reflection stage by developing a new meaning. On a different note, Ducheck (2020, p. 232) explains that “as every other organizational change, change in response to unexpected events may result in different types of resistance”. Accordingly, SME owners/managers might be required to alleviate any opposition to change (Helfat and Peteraf, 2015). In that context, *sense-giving* could be used to limit any likely resistance to change within a firm through sharing and promoting the management’s selected meaning to different internal stakeholders (e.g., staff). Following such a reasoning, the application of sense-giving activities could determine at a great extent whether the intended change will be successful (positive adjustment) or not (negative adjustment), among other

influential factors (external environment, SME management characteristics, etc.). Sense-giving could also support a firm's management effort to 'frame' the prospective changes and organisational goals based on a specific operating framework (see Cameron and Green, 2015). In line with the aforementioned points, Sherman and Roberto (2020) argue that optimal and credible sense-giving messages could develop highly efficient staff attitudinal reactions to a certain crisis. Although SME owners/managers' actions could influence the upcoming developments, it is impossible to fully direct change (Cameron and Green, 2015). Among other factors, the state of mindfulness is also associated with learning based on the high awareness of the conditions in place at a certain occasion (e.g., Langer, 1989; Langer and Moldoveanu, 2000). The business environment additionally influences the learning and change process (Maitlis and Christiansen, 2014).

Based on the reflection and learning process, SMEs attempt to implement changes with four possible outcomes, subject to SMEs' unique features and SME management's individual characteristics. A *positive adaptation* reflects "the ability of organisational systems to cope, adapt, recover and advance from disruptive events" (Burnard and Bhamra, 2011, p. 5589). Therefore, a successful change signifies a firm's ability to not only endure turbulences and recuperate but also establish a better post-turmoil position. Another round of sensemaking and relevant activities might also be required. Duchek (2020, p. 232) explains that "putting new knowledge into practice can create new problems or necessitate further changes". In such a scenario, sensemaking could be triggered to offer SME management an updated meaning of the developments in the operating environment (e.g., response from rival firms), while sense-giving could promote and maintain a common meaning within the firm (e.g., through staff or family members). On a similar rationale, in case there is a long-term impact resulting from a certain event (Sheffi and Rice, 2005), additional sensemaking and related actions might be needed at a later stage. Maitlis and Christianson (2014, p. 67) explain the adaptive nature of sensemaking as "a process, prompted by violated expectations, that involves attending to and bracketing cues in the environment, creating intersubjective meaning through cycles of interpretation and action, and thereby enacting a more ordered environment from which further cues can be drawn". If adaptation is unsuccessful (*negative adaptation*), SME management could employ sense-breaking to form a new meaning and then through sense-giving share it within the firm. In line with Staw et al.'s (1981) contribution, Burnard and Bhamra (2011, p. 5588) assume that a negative adjustment indicates that "during a disruptive event, control is restricted to a central authority and the organisation functions through its traditional channels".

Although adaptation is the primary aim of the resilience process, alternative options might need to be considered. Based on the characteristics of the turbulence and the unique SME features (e.g., *internal*: individual competences, scarce assets; *external*: industry features, etc.), operational adjustments might not be a sufficient response, or worth the investment of resources, requiring more extreme measures. In such cases, SME owners/managers could decide that a *transformation*, “to create a new way of making a living” (Walker and Salt, 2012, p. 20), might be a more sensible response than performing adjustments. In case of both positive and negative transformation result, another round of sensemaking and relevant activities (e.g., sense-breaking/giving) is required to draw conclusions, promote meaning within a firm, and learn from the transformation process.

3.5. Summary

Consistent with contemporary literature focusing on adaptation and resilience, several relevant concepts and frameworks were presented as a suitable theoretical pillar to investigate how Greek and Cypriot SMEs could develop resilience. Accordingly, selected operational capabilities were associated with the passive (e.g., resources-RBV) and active (e.g., adaptive capacity) promotion of resilience. In line with the research objectives, the study attempted to conceptualise and illustrate how a combination of different types of capabilities and resources could influence SMEs’ resilience capacity. Based on contemporary frameworks and literature, this chapter also depicts the actions (cognitive and behavioural) employed by SME ownership/management before, during, and after they get exposed to internal and external shocks. Given the unique characteristics of SMEs, special emphasis is placed on managerial cognitive capacity, which influences behavioural activities. Accordingly, this study’s adopted conceptual framework employs the notion of sensemaking and the related concepts of sense-breaking and sense-giving as important components per each resilience phase. Additional factors influencing the resilience outcome include the concepts of environmental scanning, situation awareness, and the state of mindfulness, among other.

Chapter 4

Philosophical and methodological considerations

4.1. Introduction

This chapter presents the philosophical and methodological approaches chosen for this study. The first section describes methodological options consistent with the requirements of the current investigation. The second part evaluates the suitability of different philosophical paradigms based on the characteristics of this research project. In line with the chosen paradigm and methodological position, the last section illustrates alternative research approaches and outlines an appropriate research design and strategy for this study.

4.2. Methodological criteria and research purposes for this study

Methodology reflects the viewpoint adopted by researchers for the selection and application of appropriate methods to address a research question (Mills, 2014). The review of contemporary literature focusing on organizational resilience, particularly in the context of SMEs, highlighted various knowledge gaps. For example, it is not clear how firms could develop resilience as a response to imminent crises (Linnenluecke, 2017), while the same limitation applies in the context of SMEs and warrants additional research (Branicki et al., 2018). The geographical context of Greece and Cyprus makes an investigation of organisational resilience even more pertinent. Over a decade after the outburst of the 2008 GFC, Greek and Cypriot SMEs still experience serious challenges (e.g., reduced employment) letting them vulnerable to current and future turbulences. This is particularly alarming given the importance of SMEs to the economies of both countries. As a result, the purpose of this study is to explore how Greek and Cypriot SMEs can develop resilience capabilities as a means to cope and adapt to challenging events. Specifically, the study seeks to identify the antecedents of resilience and the specific factors (e.g., strategies, resources, etc.) that influence (positively or negatively) the resilience outcome. Consequently, it is pertinent to investigate how Greek and Cypriot SMEs performed after the 2008 GFC on key performance indicators that could influence their ability to develop resilience.

Although the main aim of the study is exploratory (what, how) and lends itself to a qualitative research design, additional approaches are needed to fully comprehend how organisations develop resilience. Specifically, a quantitative methodology would enable ranking the importance of various determinants of resilience and the value SME owners/managers place

on certain measures of firms' success, as well as measuring the performance of Greek and Cypriot SMEs on key performance criteria after the 2008 GFC. The established research questions (table 4.1) also demonstrate the need for methodological diversity with an equal representation of both qualitative and quantitative paradigms. In line with the characteristics of this study, a mixed methods (MM) approach is deemed appropriate for achieving the research aim(s) and objectives of the present investigation.

Table 4.1- Research questions for this study

Research questions	Methodologies
RQ1) How do Greek and Cypriot business owners/managers describe the post-2008 GFC business environment in their industry? For example, how have Greek and Cypriot SMEs been affected by the turbulent business conditions after the 2008 GFC, if at all?	Qualitative
RQ2) How have Greek and Cypriot SMEs performed in key business performance criteria after the 2008 GFC and what distinct performance outcomes result for Greek and Cypriot SMEs from nurturing resilience capabilities, if any at all?	Quantitative
RQ3) How do Greek and Cypriot SMEs manage to cope in time of crises and develop resilience, if at all, and how have Greek and Cypriot SMEs performed after the 2008 GFC in various factors that could influence their capacity to develop resilience?	Qualitative and Quantitative
RQ4) Are the factors that determine SMEs' resilience capacity different in the context of Greece and Cyprus? Specifically, what are the differences between the way SMEs in Greece and Cyprus develop resilience capabilities, if any at all?	Qualitative and Quantitative

The combination of diverse methods serves multiple purposes. Based on the rationale that: “no single method ever adequately solves the problem of rival causal factors” (Denzin, 2009, p. 26), MM studies allow researchers to use any available methods to answer a research problem (Creswell and Plano Clark, 2018). A MM research approach employs “both quantitative (closed-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research problems” (Creswell, 2015, p. 2). The combination of dual methods allows researchers to approach a research problem from different viewpoints and analyse it more thoroughly than each method on its own (qualitative or quantitative) (Creswell, 2015). Specifically, quantitative results produce “general trends and relationships” while qualitative findings offer “in-depth personal perspectives of individuals” (Creswell, 2015, p. 36). Therefore, a MM design depicts both the “static” (quantitative) and “processual” (qualitative) perspective of society (Bryman, 2016, p. 645). Accordingly, the key advantage of mixed methods research is “to understand more fully, to generate deeper and broader insights, to develop important knowledge claims that respect a wider range of interests and perspectives” (Greene and Caracelli, 1997, p. 7).

In the context of this investigation, a MM approach contributes in multiple ways to the research. Based on the concept of complementarity, the inclusion of qualitative and quantitative methods

to evaluate “overlapping but also different facets of a phenomenon” allows for an enhanced and extensive understanding of the investigated topic (Greene et al., 1989, p. 258). The notion of complementarity also links (epistemologically) with the prospect of getting different assessments of reality (Fielding, 2008). Based on the heterogeneous nature of SMEs (Eggers et al., 2012), it is valuable to consider multiple perspectives how Greek and Cypriot SMEs can develop resilience. On a similar note, the use of MM allows for “participant enrichment”, the combination of quantitative and qualitative practises to improve the sample of the study (Collins et al., 2006, p. 76). Although not among the initial goals of the study, *initiation*, the identification of any “paradox and contradiction” (Greene et al., 1989, p. 259) is a possible research outcome. The mixture of different methods also aims to produce “significance enhancement”, the improvement of “researchers’ interpretations of data” (Collins et al., 2006, p. 83). The sections that follow present suitable philosophical options for combining qualitative and quantitative perspectives.

4.3. Research philosophy and paradigms

Any research inquiry depends on decisions related to the research philosophy. Philosophy as a term reflects the personal beliefs of a researcher regarding “truth, reality, and knowledge” and influences the choices for the data collection and analysis process in research projects (Ryan, 2018, p. 2). Research philosophies are determined based on the principles of *ontology* (nature of reality), *epistemology* (knowledge), and *axiology* (ethics) (Saunders et al., 2023). The concept of research paradigms helps researchers distinguish between different research philosophies. Following the introduction of the term (paradigms) by Thomas Kuhn (1962) expressing a model that acts as an example how to conduct research in a certain discipline, additional meanings were also attributed. For instance, Guba and Lincoln (1994, p. 107) define paradigm as “a set of *basic beliefs* (or metaphysics)” that also illustrates “a worldview that defines, for its holder, the nature of the “world”, the individual’s place in it, and the range of possible relationships to that world and its parts”. Alternatively, paradigms are viewed as epistemological stances that determine how research questions are formulated and addressed or as shared beliefs between academic fellows in a particular subject area (Morgan, 2007). In practise, a paradigm answers questions about ontology, epistemology, and methods (Guba and Lincoln, 1994; Taylor and Medina, 2011).

The premise of the incompatibility of research paradigms has been the subject of scholarly debate for years. The discourse, also known as ‘paradigm wars’, was based on the nature and fundamental differences among different research philosophies (Saunders et al., 2016). The

one group, *purists*, advocate that it is not possible to mix research paradigms due to “discrete and impermeable boundaries” (Creswell, 2011, p. 275), specifically “differences between their underlying paradigm assumptions” (Denzin and Lincoln, 2018, p. 5). As an illustration, Guba and Lincoln (1994) argue that ontological, epistemological, and methodological premises are interrelated, and each approach should inform the others. In contrast, *non-purists* advocate the mix of different paradigms. Morgan, for instance, disagrees with the notion of “incommensurate” research paradigms or “clearly defined boundaries that separated paradigms into airtight categories” (Morgan, 2007, p. 62). Johnson (2011, p. 35) also rejects the incompatibility argument because paradigms are “both homogeneous and heterogeneous, and both of these characteristics contribute to solidarity in some way”. On a similar note, Bryman (2016, p. 621) argues that the associations between ontology, epistemology, and methods “are best thought of as tendencies rather than as definite connections”. Despite the different opinions on the subject, Greene and Caracelli (1997, p. 7) claim that “there is wide consensus that mixing different types of methods at the technical level, or the level of method, is not problematic and can often strengthen a given study”. In the context of philosophy of knowledge, Morgan (2007, p. 68) also contends that “the possibility of separating the more metaphysical aspects of ontology from epistemological and methodological issues is a widely accepted option”. The following sections describe prominent research paradigms that correspond with the characteristics of this study.

4.3.1. Key philosophical paradigms

There are two leading philosophical paradigms that guide research inquiries, *positivism* (and post-positivism) with a quantitative focus, and *interpretivism* that assumes a qualitative approach. Table 4.2 presents a summary of the key viewpoints per each paradigm. Positivism is among the most widely employed research philosophies. Through most of the 20th century, positivism was the prevalent research paradigm for scientific enquiries (Feldman, 2014). From an ontological perspective, positivism advocates realism (also known as naïve realism); there is a single reality able to be understood and controlled by fixed rules and structures in the natural environment (Guba and Lincoln, 1994). Epistemologically, positivism advocates that “there is thus a ‘real world’ out there independent of people’s perceptions of it: the social world is revealed to us, not constructed by us” (Brewer, 2003, p. 236). Therefore, the researcher and external world should be kept separate to reach objective results through hypothesis testing and experiments (Howell, 2013). Following such an approach, knowledge derives through inferences (generalizations) that develop doctrines about how the world functions (Blaikie,

2004), and results need to be constantly verifiable to be considered as valid (Clegg, 2008). Although positivism was considered the most prominent approach in the social sciences, its popularity declined following criticism from various scholars (Brewer, 2003).

Post-positivism reflects the critique of the positivist notion (Feldman, 2014). The post-positivist concept is mainly attributed to Karl Popper, while different prominent ambassadors include Thomas Kuhn, Roy Bhaskar, among others (Howell, 2013). Post-positivists believe the world is uncertain, convoluted, unstable, and susceptible to multiple meanings (O’Leary, 2007). Post-positivists disagree with positivism’s absolute objectivity and empirical notion as a way to explain a world that people continuously shape via their activities and relationships (O’Leary, 2007). Specifically, post-positivism accepts that “reality is assumed to exist but to be only imperfectly apprehendable because of basically flawed human intellectual mechanisms and the fundamentally intractable nature of phenomena” (Guba and Lincoln, 1994, p. 110). Consequently, an objective reality exists but it can be sensed “only imperfectly and probabilistically” (Guba and Lincoln, 1994, p. 111). From an epistemological viewpoint, knowledge can be attained via partly experimental research approaches (Taylor and Medina, 2011). The post-positivist doctrine assumes that logic or experience cannot set the foundation for knowledge, hence knowledge is tentative (Feldman, 2014), and should not be anchored to a particular basis (Hicks, 2018,). In contrast to positivism, post-positivism supports the notion of “fallible knowledge”, meaning true assertions could emerge from fallible origins (Hicks, 2018, p. 1277). As Guba and Lincoln (1994, p. 110, emphasis in original) explain “replicated findings are probably true (but always subject to falsification)”. Therefore, knowledge could be unbiased even without total validity (Hicks, 2018). Apart from adapted experimental methods, it is also possible to use qualitative methods (Guba and Lincoln, 1994).

In contrast to positivism and post-positivism, *interpretivists* (e.g., Max Weber) assume that “the social world is interpreted or constructed by people and is therefore different from the world of nature” (Williamson et al., 2002, p. 30). Based on interpretivism, the aim of developing theories is not to derive to impractical concepts but to interpret real life practices (Hurworth, 2005). However, it is impossible to comprehend people’s actions without considering their interpretation of their environment and their own cultural traits (Hammersley, 2013). Accordingly, people evaluate themselves and the natural world being influenced by their own cultures (Hammersley, 2013), while any personal interpretations about their environment frequently contradicts with other people’s views (Williamson, 2002). In relation to knowledge (epistemology), it can be attained by a long-term association with the examined culture

allowing for casual interviews, participant’s observation, and the chance to develop a fruitful affiliation with participants (Taylor and Medina, 2011). Accordingly, any research outputs are not widely replicable but reflect specific research boundaries (McChesney and Aldridge, 2019). One of the key divisions of interpretivism, *constructivism*, similarly supports that “society is constructed by individual subjectivities” (Porter, 2003, p. 257), and the world is “complex and interconnected” (Klenke, 2016, p. 21). Consequently, constructivists acknowledge that it is not possible for researchers to be objective (Williamson, 2002). From an epistemological perspective, constructivism represents the concept that social actors are actively engaged in constructing knowledge by combining past and new experiences (Lohmeier, 2018).

Table 4.2- Summary of key philosophical viewpoints

<u>Paradigms</u>	<u>Ontology</u> (nature of reality)	<u>Epistemology</u> (knowledge)	<u>Axiology</u> (values)	<u>Methods</u>
Positivism	-Real, external, independent, tangible -One single reality experienced by all social actors	-Scientific approach, observations, measurements -Objectivist -Results are definitely true	-Value-free investigations -Researchers are objective and separated from what researched	-Deductive -Confirmation of hypotheses -Mainly quantitative
Post-positivism	-Real, reality is potentially measurable but only partially	-Objectivist -Results are probably true	-Value-free investigations -Researchers are objective	-Adapted experiments Possible use of qualitative methods
Interpretivism	-Relativism, convoluted, socially constructed via culture and language -Multiple meanings, perceptions, realities	-Theoretical frameworks are oversimplistic -Subjectivist -Use of narratives, personal stories	-Value-bound investigations -Researchers take part on what is investigated, and their evaluation is crucial	-Usually inductive -Qualitative methods yet other type of data can be analysed too

Sources: (Saunders et al., 2023, pp. 146-147; Guba and Lincoln, 1994, p. 109).

4.4. Paradigmatic options associated with mixed methods research

MM researchers have three key options for the selection of a research paradigm. Based on the *A-paradigmatic* approach, researchers do not consider as important to associate epistemology with methods but use the range of methods that seems useful to address the research questions (Teddlie and Tashakkori, 2009). Such an approach, however, puts at risk “the credibility, coherence, and validity of the resulting research” (McChensey and Aldridge, 2019, p. 228). Accordingly, it is not suitable for the implementation of this study. In contrast, the *single paradigm* position depicts the use of a sole paradigm that endorses both qualitative and quantitative methods (Hall, 2013). Pragmatism, transformativism, and critical realism are examples of widely used and significant single paradigms for mixed methods investigations (Johnson, 2017). Post-positivism has also been associated with mixed methods investigations

(see Alise and Teddlie, 2010), however Shannon-Baker (2016, p. 322) argues that “it is not presented in the mixed methods literature as a paradigm that deserves increasing attention like others”. Following the *multiple paradigm* approach, researchers could employ more than one paradigm for their projects (Hall, 2013). In the context of MM inquiries, the dialectic stance (e.g., more than one paradigm) is also among the important paradigmatic options (Johnson, 2017). Consequently, the next section presents a range of possible paradigms considered for the implementation of this study.

4.4.1. Pragmatism

Pragmatism, also known as classical pragmatism, is associated mainly with John Dewey, Charles Peirce, and Williams James (Kelly and Cordeiro, 2020). Pragmatism coincides with the term *pragmatic* (what actually works in a specific case) since both focus on action (Morgan, 2014a). However, pragmatism has a deeper meaning; it aims to create a better society (Goldkuhl, 2012). Pragmatists pursue research investigations as a way to deal with real world problems and improve the social and natural environment (Duram, 2010). In practise, pragmatism focuses on the results of research projects, the actual research questions asked instead of the methods used, and also supports the adoption of several data collection methods to resolve specific challenges being investigated (Creswell and Plano Clark, 2018). Respectively, pragmatists oppose to the distinction between an objective and subjective research approach (Teddlie and Tashakkori, 2009). Following the position of pragmatism, it is possible to merge the inductive and deductive reasoning as well as qualitative and quantitative evidence at different stages of research exploration (Creswell and Plano Clark, 2018). In relation to the nature of reality, pragmatists support that reality is not fixed but shifts depending on the circumstances (Kaushik and Walsh, 2019). From an epistemological perspective, knowledge should reflect the past and positively influence the development and progress, a “*prospective knowledge* (knowledge about the possible)” (Goldkuhl, 2012, p. 87). Pragmatists adopt empirical approaches to resolve problems (Johnson and Onwuegbuzie, 2004), and place the same value to both “epistemological and technical “warrants” that influence how we conduct our research” (Morgan, 2007, p. 68). Based on its key characteristics, Johnson and Onwuegbuzie (2004, p. 17) view pragmatism as “an immediate and useful middle position philosophically and methodologically” because it permits “methodological mixes that can help researchers better answer many of their research questions”. In line with such a rationale, Morgan (2014b, p. 1049) argues that pragmatism resolves the ‘paradigm war’ by “treating

those differences as social contexts for inquiry as a form of social action, rather than as abstract philosophical systems”.

4.4.2. Critical realism

Critical realism is the central branch of the doctrine of *realism* or ‘*subtle realism*’ that supports “that there is a world which exists largely independently of the researcher’s knowledge of it” (Sayer, 2004, p. 6). In contrast to empiricism, critical realism disputes the notion of a predominant empirical reality (Smith, 2006). Critical realists approach reality as external and detached though it is impossible to grasp reality through observations or one’s own understanding (Saunders et al., 2023). According to Bhaskar’s ontological viewpoint, reality comprises of three different levels (Houston, 2014). The *empirical level* depicts reality through social actor’s senses; the *actual level* represents any activities regardless of an individual’s involvement or not in them; the *causal level* relates to any undetected causal processes acting under the empirical and actual levels (Houston, 2014). Based on the critical realist stand, people can simply understand certain senses (the ‘empirical’), few demonstrations of what exists in the social environment than the real entities (Saunders et al., 2023). However, critical realists emphasize that senses could mislead us; hence, social reality can be understood based on our senses and specific incidents we face, as well as the mental reflection after we encounter them (Saunders et al., 2016).

4.4.3. Transformativism

The transformative paradigm offers the platform to explore issues of power, social justice, and cultural convolution (Mertens, 2007). Based on the transformative rationale, the general public should contribute to shape a research project’s aim (Mertens, 2007). From an ontological perspective, transformative paradigm supports that there is a single reality with several viewpoints (Mertens, 2010a). The society shapes these views and it is crucial to determine the value system of the different interpretations on several categories (e.g., social, economic, gender) (Mertens, 2007). In terms of the epistemology, researchers need to work jointly with research participants to comprehend realities (Mertens, 2007). From a methodological point, researchers have the option of all possible methods (quantitative, qualitative, or mixed methods); however, research participants should be involved to determine the main research problem, while any chosen method should adapt to reflect cultural convolution, manage power imbalances, and identify any cases of inequity or persecution (Mertens, 2007). Any selected methods should contribute to improve social equity (Mertens, 2010a). In terms of axiology, the

transformative paradigm reflects the values of respect, contribution, and justice (Mertens, 2007).

4.4.4. An evaluation of the single paradigm option for MM investigations: a comparison of prominent paradigms

The selection of a paradigm should correspond with the characteristics of the research investigation. Based on the unique features of SMEs, owners/managers experience different business conditions and challenges resulting from distinct industry characteristics, among other reasons. Accordingly, it is reasonable to infer that different realities exist depending on the context and features of each SME. In order to gain a clear understanding of the factors and processes that influence resilience in SMEs, it is important to explore a variety of perspectives. Table 4.3 presents an overview of the key paradigms as a single option for MM investigations. From a critical realist position, Mukumbang (2023, p. 2) explains that “Critical realism assumes that there is a “real social world” that can be observed objectively-using our senses-while the observation is at the same time shaped by personal, social, historical, and cultural frames”. On a relevant point, critical realism dismisses the assumption of multiple realities (Schoonenboom, 2019; Nicholls, 2017), when expressed as “independent and incommensurable worlds that are socially constructed by different individuals or societies” (Maxwell, 2012, p. 9, cited in Schoonenboom, 2019, p. 287). Instead, critical realist views are consistent with the notion of “different valid perspectives on reality” (Maxwell, 2012, p. 9, cited in Schoonenboom, 2019, p. 287), or “a view from a group that shares certain beliefs and expectations” but “not truth in any absolute sense” (Willis, 2007, p. 98). Among other characteristics of the critical realist perspective, Schhonenboom (2019, p. 287) notes that “researchers do not have direct access to this objective reality”. Specifically, individuals can access the ‘empirical’ level through their senses but not the ‘actual’ or ‘causal’ level. As an alternative single MM paradigmatic option, the transformative paradigm focuses on ethics and the promotion of isonomy and social justice (Mertens, 2012). In line with such an approach, representatives of the community are welcomed to contribute and shape the research aims (Mertens, 2007).

Pragmatism is another popular paradigm for mixed methods investigations (Johnson et al., 2007; Johnson and Onwuegbuzie, 2004). Pragmatists reject universal truths and focus on ‘warranted beliefs’ (Morgan, 2014a), thus seek solutions to “temporary problems” instead of “time-less knowledge” (Schoonenboom, 2019, p. 288). Such a purpose contradicts with the objective of this study, which is to expand the existing body of literature on resilience and

contribute to the development of a unified theory of resilience. In contrast to other traditional philosophical paradigms, pragmatism emphasises on the nature of experience and the consequences of actions instead of the nature of reality and truth (Morgan, 2014a). Based on pragmatist's disregard for the concepts of ontology and epistemology, Schhonenboom (2019, p. 289) argues that "the idea of multiple realities disappears as well". Therefore, pragmatism does not support looking at a wide range of opinions about the resilience phenomenon from the perspective of different SMEs. On a different note, Biesta (2010, pp. 112-113) contends that pragmatism could "offer philosophical support for explanatory research but not for interpretative research" due to Dewey's transactional view about knowledge (knowledge reflects the association between actions and their effect). This is an important limitation given that the current investigation has an exploratory focus. In that respect, Cronenberg (2020) explains that interpretivist perceptions are necessary to realise the divergent viewpoints and implications usually associated with complex phenomena. Based on the identified criteria, pragmatism does not align with the objectives and characteristics of this investigation. As another option, Cronenberg (2020, p. 29) argues that the dialectic stance "moves beyond pragmatism because the two perspectives collide, not for an additive understanding (as in triangulation), but rather for a third, entirely new perspective (of which an additive understanding is just one possible outcome)". In line with the identified paradigmatic limitations and this study's approach for an equal representation of the qualitative and quantitative paradigms (e.g., research questions), the next section evaluates the suitability of the dialectic stance for the implementation of this study.

Table 4.3- Summary of key paradigms as a single paradigm option for MM investigations

<u>Paradigms</u>	<u>Ontology</u> (nature of reality)	<u>Epistemology</u> (knowledge)	<u>Axiology</u> (values)	<u>Methods</u>
Critical realism	-External, independent	-Knowledge is historically established and temporary -Socially constructed	-Value-laden investigations -Researchers are biased from established belief systems, cultures -There is an attempt to limit bias as possible	-A variety of methods is applicable
Pragmatism	-Convolutd -Reality is the practical result of concepts	-Practical interpretation of knowledge under explicit conditions -Focus of attention is on challenges -Identify solutions	-Value-driven - A researcher’s values influence a study from the beginning and through all stages	-Methods depend on the research focus and questions -Mixed, multiple, qualitative, quantitative
Transformativism	-Single reality with several viewpoints	-Researchers need to work jointly with participants to make sense of realities	-Respect, contribution, justice	-A variety of methods is applicable but should contribute to enhanced social equity

Sources: (Saunders et al., 2023, pp. 146-147; Mertens, 2007, 2010a).

4.4.5. The Dialectic Stance as an alternative option for MM investigations

Following the dialectic stance approach, researchers employ in the same investigation multiple philosophical paradigms, methodologies, and methods so that each approach interacts with the other (Greene and Hall, 2010). The dialectic stance is based on the reasoning that no single paradigm is suitable to deliver a mixed methods investigation (Greene, 2006). Accordingly, the aim is “to delineate features of inquiry context that are best matched to various mixed methods paradigm stances” (Greene, 2007, p. 79). As its defining characteristic, the dialectic approach acknowledges the unique nature of philosophical paradigms and their significant differences (Cronenberg, 2020). Accordingly, the diverse paradigmatic characteristics “must be honored in ways that maintain the integrity of the disparate paradigms” (Greene and Caracelli, 1997, p. 8). The focus is not to mix two paradigms yet give attention to “the tensions and new understandings that arise” (Shannon-Baker, 2016, p. 328). Specifically, the use of dual paradigms and methodologies allows to reflect the phenomenon under investigation from diverse viewpoints (Greene and Hall, 2010), allowing to reflect the phenomenon under investigation from multiple perspectives (Ghiara, 2020, p. 14). In line with such an approach, both convergence and divergence are important benefits resulting from mixed methods investigations (Greene, 2006). Based on the dialectic stance reasoning (Greene, 2007), Johnson (2011; 2012; 2017) proposed the term *dialectical pluralism* (DP) as a meta-paradigm. DP aims

to “dialectically, and dialogically engage with difference and interact with multiple paradigms, disciplines, positive values, and concepts” (Jonson, 2011, p. 31). DP supports a pluralistic ontological approach (there is a wide range of significant realities including objective, subjective, intersubjective) and a dialectical epistemological view (Johnson, 2012). DP stands as a meta-paradigm as it embraces various paradigms (Johnson, 2012), and goes over the paradigm wars (Stefurak et al., 2016). The rationale of a meta-paradigm reflects the use of multiple paradigms (or approaches, theories) to yield “a new, more complex “whole”” (Johnson, 2017, p. 159), which could include viewpoints that mainly contrast, merge or a mix of both (Greene, 2011).

4.5. Philosophical assumptions for this study

This section outlines the philosophical assumptions underlying this study. The selection of a research paradigm is “at the discretion of the researcher(s)” (Shannon-Baker, 2016, p. 332), and should reflect a researcher’s individual value-system (Guba and Lincoln, 1994; Slevitch, 2011). Guba and Lincoln (1994) further explain that it is impossible to fully validate these convictions (values), hence should be accepted based on trust (faith) but still need to be rational. On a relevant note, the rationale used for the selection of paradigms and its intended application should be more important than an evaluation whether it was the ideal option or not (Shannon-Baker, 2016). As there is lack of agreement about the use and suitability of different paradigms (Denzin, 2012, p. 80), it is pertinent to offer a rationale how the selected research methods relate to the adopted paradigmatic approach (see McChesney and Aldridge, 2019). In line with the characteristics of this study, the use of both qualitative and quantitative rationale is needed to address all research questions and produce a more complete understanding about resilience. Cronenberg and Headley (2019) explain that when a study requires viewpoints from different paradigms, the dialectic stance approach enables researchers to use the ones needed. Based on a dialectical approach, mixed methods reflect “multiple ways of seeing and hearing, multiple ways of making sense of the social world, and multiple standpoints on what is important and to be valued and cherished” (Greene, 2007, p. 20). Following the dialectic stance principles, this study adopts dialectical pluralism (DP) (Johnson, 2011) based on the reasoning that “there are many perspectives, paradigms, methods, theories, philosophies, and ethical systems in the world that deserve much respect” (Stefurak et al., 2016, p. 345). In line with Johnson’s (2017, p. 159) argument that “DP fits perfectly with equal-status mixed research”, DP supports the study’s methodological approach. Consistent with the DP characteristics, the subsequent

sections present the ontological, epistemological, and axiological premises of the study and elaborate on the relevance and suitability of the selected paradigmatic premises.

4.5.1. Ontological perspective

An ontological stance reflects how researchers perceive social reality (Marsh and Furlong, 2002). Based on objectivism, “there is only one true social reality experienced by all social actors” (Saunders et al., 2016, p. 128), assuming that “social phenomena and their meanings have an existence that is independent of social actors” (Bell et al., 2022, p. 27). In contrast, a subjective ontological stance (constructionism) infers that “social reality is made from the perceptions and consequent actions of social actors (people)” (Saunders et al., 2016, p. 130), hence “social phenomena and their meanings...are also in a constant state of revision” (Bell et al., 2022, p. 28). In line with the principles of DP, this study adopts the position that “there are multiple true statements that can be made about reality” (Johnson, 2017, p. 163) since “the world is complex and has many important elements and processes” (Johnson, 2008, p. 204). For instance, social reality is likely to take multiple forms; an *objective* reality (e.g., the value of resources on business performance), a *subjective* reality that reflects personal experiences or values, an *inter-subjective* reality that relates to shared associations (e.g., culture, language) (Johnson, 2008). In the context of this study, the multiple forms of reality align with the heterogeneous nature of SMEs. As an example, each SME is unique depending on its size, years of operation, and the individual characteristics of its owners (e.g., educational background), among other. Based on SMEs’ distinctive features, it is appropriate to consider different opinions from SME owners/managers in various sectors. Therefore, the purpose of the study is to capture diverse views and accounts to explain multiple realities from various people. In reference to an objective format of reality, Johnson (2008, p. 204) offers the example of assets but also considers “the objective impact of subjective and intersubjective realities”. In the context of this study, the availability of resources is acknowledged as important for the performance and survival of SMEs. In fact, lack or restricted resources is among the main challenges most SMEs experience (Sullivan-Taylor and Branicki, 2011), if not all. Based on the highlighted viewpoints, this study assumes that multiple forms of reality exist (e.g., objective, subjective, inter-subjective) (Stefurak et al., 2016), and are frequently linked (e.g., empirically, theoretically) (Johnson, 2008).

4.5.2. Epistemological perspective

Epistemology reflects “*how* one gains knowledge” (Locke, 2007, p. 880, emphasis in original), and depicts the association between the researcher and what can be known (Punch, 2014). Depending on an objective or subjective nature of reality (ontology), an appropriate epistemological stance is adopted (Bell et al., 2022). In practice, prominent epistemological issues reflect whether researchers support the doctrine of rationalism (“a priori truths”) or empiricism (“sensory experiences”) and correspondingly endorse the key principles of positivism or interpretivism as a scientific approach (Bernard, 2013, pp. 7-8). Based on the DP reasoning, there are various significant and valid types of knowledge (e.g., tacit, empirical, experimental) (Johnson, 2008). In line with the dialectic stance (Greene, 2007), DP promotes “dialogue with two or more epistemologies” (Johnson, 2017, p. 164), as a way to develop novel syntheses stemmed from respecting the different characteristics (Stefurak et al., 2016). From the perspective of the current exploration, this study seeks to identify how SMEs in Greece and Cyprus develop resilience and cope with turbulences by adopting the paradigmatic stances of post-positivism and interpretivism.

In practical terms, the study collects and analyses structured quantitative data associated with the post-positivist paradigm to draw inferences about various factors that could impact, positively or negatively, the capacity of Greek and Cypriot SMEs to become resilient. The quantitative results are also mixed at the integration stage with assumptions resulting from the collection and analysis of qualitative data related to the interpretivist paradigm focusing on possible ways Greek and Cypriot SMEs could develop resilience (see Rocco et al., 2003). Bell et al. (2022) explain that interpretivism deals with the ‘how’ and the ‘why’ of social behaviour. Accordingly, the interpretivist approach is used to collect multiple views from Greek and Cypriot owners/managers aiming to understand how SMEs manage to cope with the challenging business conditions after the 2008 GFC and how they could develop resilience, if even possible. In contrast, the post-positivist viewpoint is employed to measure the performance of Greek and Cypriot SMEs following the 2008 GFC on specific business performance criteria, critical success factors, and other factors (e.g., strategies, operating capacities) that could influence their ability to become resilient. From the perspective of entrepreneurial resilience, the post-positivist approach enables to determine what measures of firm success are highly valued by Greek and Cypriot SME owners/managers. The combination of two opposing epistemological approaches (interpretivism/post-positivism) supports an in-

depth exploration of a complex phenomenon such as resilience in the context of SMEs with multiple influencing variables (e.g., individual resilience, organisational resilience).

4.5.3. Axiological perspective

Axiology focuses on “the nature of ethical or moral behavior” (Mertens, 2010b, p. 10), and examines how researchers handle their personal values and the ones of their research participants (Saunders et al., 2016). Accordingly, DP endorses a “pluralist and multidimensional view of ethics and values” (Johnson, 2017, p. 166), while researchers are supported to reflect different significant values and value-laden perspectives (Johnson, 2017). This study’s combination of research paradigms generates inquiries based on different value-systems (both value-free and value-bound). For instance, objective investigations (post-positivism paradigm) require measurements or observations with limited interference from research members (Ryan, 2018), hence value-free investigations without any biases and based on strict ethical procedures (Saunders et al., 2016). However, Johnson and Onwuegbuzie (2004, p. 16) argue that quantitative research includes subjective choices at different stages (e.g., topic selection, design of data collection tools) hence “the conduct of fully objective and value-free research is a myth”. In contrast, interpretivism regards researchers as part of the research process and their evaluation significant through the different research stages (Guba and Lincoln, 1994). Following the multiple approaches for the implementation of this study, each research stage follows different value principles resulting in both value-free and value-bound investigations. Table 4.4. offers a summary of the philosophical assumptions for the study.

Table 4.4- Summary of philosophical assumptions for this study

	<u>Ontology</u> (nature of reality)	<u>Epistemology</u> (knowledge)	<u>Axiology</u> (values)	<u>Methods</u>
Dialectical pluralism stance	<u>Multiple forms of realities exist</u> (objective, subjective, inter-subjective)	<u>Dialogue between two epistemologies</u> (interpretivism and post-positivism)	<u>Value-driven</u> (both value-free and value-bound)	<u>Mixed methods</u>

4.6. Research approach to theory development

Theory development is another element relevant to knowledge. Theory plays an important role in research investigations acting as the background and rationale of the research, and the context to explain social events and evaluate research findings (Bryman, 2016). Research inquiries are not entirely inductive or deductive, however a predominantly inductive or deductive approach is required depending on the issues under investigation (Bernard and Ryan, 2010). An *inductive* approach uses observations to develop theories (bottom-up approach)

(Bryman, 2016), whereas a *deductive* reasoning (top-down approach) uses pre-established theories to set hypotheses and empirically test them (observation, data collection) (Watts and Steiner, 2012). However, Bryman (2016, p. 21) explains that “even when theory or theories can be discerned, explicit hypotheses are not always deduced from them”. A ‘theory’ could reflect the contemporary literature on a specific subject area (Bryman, 2016). In contrast to induction and deduction, an *abductive* approach reflects the process “when a researcher observes a surprising event and tries to determine what might have caused it” (Teddlie and Tashakkori, 2009, p. 89). Abductive reasoning relates to “the process of forming a possible explanation involving an imaginative effort to understand on the part of beings acting and learning in a world” (Locke, 2010, p. 1). Based on the predominantly explorative characteristics of this study, abductive reasoning is not suitable for the implementation of this research enquiry. Specifically, abductive reasoning has an explanatory focus attempting to “explain *why* the observed phenomenon is manifesting itself in this particular way and not in others” (Watts and Steiner, 2012, p. 38, emphasis in original). As a generic rule, inductive research is adopted in cases of limited understanding or knowledge about a certain subject (Bernard and Ryan, 2010). Although it is mainly associated with qualitative inquiries, an inductive approach is needed at exploratory stages of all research studies regardless the type of data (e.g., numerical, narrative) (Bernard and Ryan, 2010).

The adopted philosophical approach (DP) is compatible with the use of both inductive and deductive reasoning for the purpose of this investigation. In particular, this study’s attempt to understand how SMEs in Greece and Cyprus could develop resilience and cope with extreme crises justifies the use of inductive reasoning with the collection of empirical evidence. In an attempt to get a complete understanding of the topic of organisational resilience, it is equally important to review the contemporary literature and consider any pre-established concepts and principles. A conceptual framework could then be induced based on available literature (Teddlie and Tashakkori, 2009). Based on a deductive logic, the study uses contemporary literature to evaluate whether various highlighted resilience traits are applicable in the context of Greek and Cypriot SMEs and could influence the resilience outcome. Additional secondary data are used to draw available information about the performance of Greek and Cypriot SMEs after the 2008 GFC.

4.7. Research design

Based on the adopted MM approach, the selection of a research design should align with the characteristics and requirements for this study. Research designs represent diverse ways to investigate a topic using various methods to guide certain research activities (Creswell, 2014). The selection of a research design should reflect which option offers “the most convincing answer to the research question being asked” (Gorard, 2013, p. 26). Among several MM design options (e.g., concurrent, sequential), the key attributes of MM designs include decisions about the *independence* (whether distinct methods are conceived, designed, and used independently or interactively), *value* (whether both methodologies are equal or not), *timing* (whether the distinct methods are employed sequentially or concurrently) (Greene, 2008), and *integration* (whether data from both methods integrate during the phase of data collection, analysis, interpretation, or a mixture) (Hesse-Biber, 2015). As an example, from the perspective of integration, a component design entails to keep the different methods separately and link them at the interpretation and conclusion phase, whereas an integrated design involves a higher level of integration between methods (Caracelli and Greene, 1997). Following the characteristics and paradigmatic choices for this study, the doctrine of DP is particularly suitable for MM investigations with equally valued quantitative and qualitative elements (both at paradigmatic and methods level) (Stefurak et al., 2016). Therefore, a sequential MM design with a dominant stage (e.g., either the qualitative or the quantitative) informing the other is not a suitable option for this study. Accordingly, this study adopts a ***parallel mixed design*** (see Teddlie and Tashakkori, 2009) and collects qualitative (QUAL) and quantitative (QUANT) data, ***concurrently*** (at the same time), of ***equal value*** (neither the qualitative nor the quantitative part is dominant) and ***independently*** (neither part is used to inform the other). Based on the highlighted features, the qualitative and quantitative data collection and analysis stages are autonomous and combine during the interpretation phase (Creswell and Plano Clark, 2018), a component integration design (Caracelli and Greene, 1997). In that respect, Caracelli and Greene (1997) explain that although component integration designs do not usually yield dialectic insights, it is possible in cases of divergent findings. The outcome of the analytical process is a *meta-inference*, a final interpretation based on the combined qualitative and quantitative findings (Teddlie and Tashakkori, 2009). In line with the employed design, the following sections present the corresponding research strategy and data collection approach.

4.8. Research strategy and data collection tactics

The selection of the research strategy in any study should support the research questions and research design of the study. Based on the characteristics of this study, a MM design employing both qualitative and quantitative data of equal value deemed the most suitable option to answer the study's research questions. In relation to the quantitative approach, this study uses a survey strategy to collect quantitative evidence. A survey approach allows for "a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (Creswell, 2014, p. 155), though there are also qualitative surveys with open-ended questions that produce non-arithmetic results (Punch, 2003). Accordingly, a survey is a common choice in social science investigations that yields empirical and scientific data in relation to people and social events (Ballou, 2008). Among the possible research instruments to be considered include *structured-interviews*, a *self-administered questionnaire* (Bryman, 2016) or a *researcher-administered questionnaire* (Mitchell and Jolley, 2013). Self-administered questionnaires, for instance, are completed by research participants without the presence of the researcher, while researcher-administered questionnaires are completed with researchers being present (Mitchell and Jolley, 2013). In reference to the stages of a survey, researchers should initially identify the appropriate population for their study, develop a research tool, and then assess how to distribute it (Bryman, 2016). A survey first examines generic topics and then focuses on relevant subjects to the research questions (Bryman, 2016).

For the purposes of this study, a self-administered questionnaire was chosen as a suitable option due to staff-resource limitations to distribute and collect the questionnaires, but also specific characteristics of the population in focus (SME owners have limited time). As an example, a survey is a rather quick and low-cost data collection method (Creswell, 2014), while a face-to-face survey approach is linked with highly representative results (Szolnoki and Hoffmann, 2013). In addition, SME owners/managers, especially at micro and small firms, have a busy time schedule as they need to complete multiple duties every day. Therefore, the option to allow owners/managers complete the questionnaires on their own at their best convenience could impact both the participation and response rates. For instance, a low response rate (e.g., lower than 15%-20% response at an average) may threaten the validity of survey results (Edmonds and Kennedy, 2017), while the precision of responses impacts the reliability of findings (Greene, 2008). At another level, participants tend to conceal their truthful opinion when asked in person (social desirability bias), which poses a threat to construct validity (Edmonds and Kennedy, 2017).

Regarding the collection of qualitative data, qualitative research reflects “the studied use and collection of a variety of empirical materials-case study, personal experience, introspection, life story, interview, artifacts, and cultural texts and productions” able to “describe routine and problematic moments and meanings in individuals’ lives” (Denzin and Lincoln, 2018, p. 10). In an attempt to explore resilience from an interpretivist perspective, this study employs semi-structured face-to-face interviews with multiple SME owners/managers in Greece and Cyprus. Among other possible advantages, qualitative interviews generate a lot of data in a short time (Marshall and Rossman, 2016). Specifically, semi-structured interviews align with exploratory enquiries offering valuable information about the environment in focus (Saunders et al., 2019). In addition, semi-structured interviews include a range of rather predetermined themes or questions acting as an interview guide (Bryman, 2016). Despite the list of pre-set questions, the interview protocol is flexible allowing interviewers to seek clarifications as required (e.g., follow-up, probing questions) or even change the order of questions if some participants start to discuss a certain topic (Bryman, 2016). In the context of this study, the same list of questions was used to allow for comparison during the data analysis stage (Bryman, 2016; Bernard and Ryan, 2010). As a result, it is possible to make sense how participants perceive the phenomenon under investigation, which is the focus of the interpretivist paradigm (Saunders et al., 2019). Table 4.5 presents the key methodological approaches employed for this study.

Table 4.5- Summary of key methodological approaches adopted for this study

<i>Research approach to theory development</i>	Inductive and deductive reasoning
<i>Research design</i>	Parallel mixed design to collect QUAL and QUANT data, concurrently (at the same time), of equal value (neither the qualitative nor the quantitative part is dominant) and independently (neither part is used to inform the other).
<i>Research strategy and data collection tactics</i>	<u>QUAL</u> : Semi-structured face-to-face interviews <u>QUANT</u> : Survey, self-administered questionnaire

QUAL=Qualitative; QUANT=Quantitative

4.9. Summary

This chapter presents suitable philosophical and methodological approaches for the exploration of resilience development in the context of Greek and Cypriot SMEs. In line with this study’s characteristics, a mixed-methods approach deemed appropriate to address relevant research questions and support the research aims and objectives. Following an evaluation of prominent research paradigms, a dialectic pluralist stance was selected over other popular options

associated with mixed-methods studies. Accordingly, this study adopts both an inductive and deductive reasoning. In addition, a parallel mixed design with the simultaneous collection of independent and equally valued qualitative (semi-structured interviews) and quantitative data (structured questionnaires) corresponds with the features of the current exploration.

Chapter 5

Research methods

5.1. Introduction

This chapter presents the selected methods for the implementation of this study. The first section introduces the investigated population and discusses appropriate sampling techniques. The second part outlines the data collection process including instrument design, pre-pilot testing, and ethical considerations. The next section describes the methods of administration, response rate, and the data analysis and integration process. The chapter concludes with an overview of quality related considerations and the principal research methods and relevant choices underpinning this study.

5.2. The geographical context and generic characteristics of this study's population

The empirical focus of this study is situated in the geographical boundaries of Greece (GR) and Cyprus (CY). The two Mediterranean countries differ significantly in terms of their territorial size (in km²-GR:132,049; CY:9,251) and resident population (GR:10,816,286; CY:854,800) (European Commission, 2022b; 2022c). Both members of the European Union and Euro currency zone (Hellenic Statistical Authority, 2023; Statistical Service of Cyprus, 2017), the two neighboring countries retained close ties over time at an economic, cultural, and social level (Kyril, 2012). Therefore, it is not surprising Greece and Cyprus are close trade partners (Statistical Service of Cyprus, 2017; Hellenic Statistical Authority, 2021; 2023). Among key structural differences, the Greek and Cyprus law have clear variations (GR: civil law; CY: common law/mixed legal system) (Papadopoulos, 2018), which could prove important during turbulent periods. In the context of the post-2008 financial crisis in Greece, the unavailability of stipulations over inbound reincorporations could be considered as a serious limitation, especially towards attracting foreign investments (Papadopoulos, 2018). From a cultural perspective, the Greek and Cypriot cultures have common characteristics forged at the Byzantine period (Banai and Katsounotos, 1993). George and Zahra (2002) explain that culture reflects an “enduring set of values of a nation, a region, or an organization” (p. 5). Although Hofstede's (1980) research on national cultures does not offer scores for Cyprus, Mitchell and Vassos (1998, p. 73) argued that Hofstede's cultural dimension findings about Greece largely reflect Cyprus due to “common ancient history, language, beliefs, and other characteristics”. 73). Dimitratos et al. (2011a) also adopted the same reasoning, but results indicated some

variance between Cypriot and Greek firms which was attributed to not identically matching cultural characteristics due to historical reasons. Specifically, Dimitratos et al. (2011a) argued that the British rule of Cyprus for nearly a hundred years before its independence (in 1960) left its footprint defining the state structure (e.g., legal system, public administration). As an additional point, Dimitratos et al. (2011a) contented that Cypriot managers favour the United Kingdom for their training because they are accustomed to the English language and educational system. Accordingly, it could be argued that Cypriot culture reflects both the Southern European (e.g., Greece) and Anglo-Saxon (e.g., UK) traditions.

From the perspective of this study's population in focus SMEs play a crucial role at the economies of both countries (employment, value-added contribution) (European Commission, 2022b; 2022c). Mirroring the surface size per each country, the number of SMEs in Greece is much higher than in Cyprus (GR:694,346; CY:57,469) (European Commission, 2022b; 2022c). SMEs are extremely important for all EU member states, but their value is particularly significant in the economies of Greece and Cyprus. For example, Greek (GR) SMEs have much greater levels of employment (GR-81.8%) and value-added (GR-61.6%) compared to the EU average (excluding GR) (employment-63.8%; value-added-51.5%) (European Commission, 2022b). Cypriot (CY) SMEs similarly exhibit notably higher levels of employment (CY-82.1%) and value-added (CY-76.4%) than the EU average (excluding CY) (employment-64.3%; value-added-51.7%) (European Commission, 2022c). With respects to post-2008 challenges, Greek SMEs experienced cash-flow problems, harsh tax regime, reduced national wage level, among other (Lyberaki and Tinios, 2017), while access to funding proved a significant challenge for Cypriot SMEs (Charalambous and Polemidiotis, 2017).

5.3. The sampling process

5.3.1. The sampling frame and selection criteria

After determining a study's population, the next step in the research process is to establish the sampling frame. A sampling frame is “the *set of source materials from which the sample is selected*” and should reflect the population under investigation (Turner, 2003, p. 3, emphasis in original). The ideal characteristics of a sampling frame entail to be “*complete, accurate and up-to-date*” (Turner, 2003, p. 4). Based on SMEs' heterogeneous nature and the focus on multiple contexts (Greece and Cyprus), it is important to collect data from micro and small firms operating across different sectors and experiencing varied challenges to fully understand and identify the overarching factors that influence their ability to become resilient. Following a similar reasoning, it is relevant to include SMEs from both rural and non-rural areas due to

the likely different severity resulting from the turbulent conditions after the 2008 GFC, based on unequal growth levels (e.g., employment level) in the Greek territory (see Gialis et al., 2017), among other factors. The selection of SMEs from diverse sectors and geographical locations allows different viewpoints to emanate (Eisenhardt and Graebner, 2007), and increases the external validity of results (see Maignan and Ferrell, 2000). On a relevant note, Rombinson (2014, p. 27) argues that “any commonality found across a diverse group of cases is more likely to be a widely generalisable phenomenon than a commonality found in a homogenous group of cases”. In addition, Rombinson (2014, p. 27) explains that “heterogeneity of sample helps provide evidence that findings are not solely the preserve a particular group, time or place, which can help establish whether a theory developed within one particular context applies to other contexts”. Accordingly, this study’s sampling frame includes Greek and Cypriot SMEs from a wide range of sectors (e.g., services) and regions with a significant financial contribution (e.g., Gross Domestic Product-GDP, Gross Value Added-GVA) to the respective economies.

Consistent with the recognised parameters, this study targeted SMEs among sectors with the highest value-added contribution per each country. In 2016, the sectors of *services* (GR: 37.4%; CY: 51.3%), *trade* (GR: 34.2%; CY: 24.7%), *manufacturing* (GR: 17.6%; CY: 12.7%), and *construction* (GR: 9.1%; CY: 8.1%) produced the highest value-added contribution in both countries (European Commission, 2018a; 2018b). In 2022, the same sectors generate the highest value added to both national economies (European Commission, 2022b; 2022c). Likewise, key locations in both Greece and Cyprus were identified based on the level of economic contribution per region (GDP). The selected administrative regions in Greece (Attica, 48.2%; Thessalia, 5.1%; Western Greece, 4.6; Peloponnese, 4.3%; Ionian Islands, 1.8%) accounted for approximately 64 percent of the 2014 GDP contribution to the national economy (Eurostat, 2016). In the case of Cyprus, three of the five administrative districts were selected based on the highest population distribution (Nicosia, 38.9%-Limassol, 28.0%-Larnaca, 16.9%) (Statistical Service of Cyprus, 2017), which assures high business presence and a high economic contribution level. As a way to obtain a sample that is as representative as possible of the Greek and Cypriot SME population, it was decided to include SMEs from multiple regions with high economic impact and from a wide range of industries, among other criteria. The researcher also attempted to invite firms with similar characteristics from both countries. Similar to other studies combining samples from Greece and Cyprus (Mitchell and Vassos, 1998), the samples used at this study are not identical as it would require the researcher

to have a detailed knowledge of the firms prior the study. Nevertheless, the same criteria were used in the case of both countries to ascertain eligible businesses that may participate at the study. Based on the qualitative and quantitative datasets, the demographic profile of firms and their respective ownership/management from both Greece and Cyprus shares similar characteristics. As additional inclusion criteria, only firms that had been in operation for at least two years at the time of the research and owners/managers older than 18 were considered for the study's sample. In line with the established sampling frame, the next sections present the key sampling features for this study.

5.3.2. The MM sampling characteristics for this study

Multiple factors influence the choice of sampling methods. In the case of MM investigations, the sampling approach depends on the research aim(s), objectives, purpose, questions, among other reasons (Onwuegbuzie and Collins, 2007). Based on a complementarity MM research purpose, the purpose of this study is to explore different aspects of resilience in the context of SMEs adopting an integrated blending MM design (two methods of equal value investigate at the same time different attributes of the same phenomenon). After considering the research goals, the decision about MM sampling designs also reflects choices about the time orientation (sequential, concurrent) and association between the quantitative and qualitative samples (identical, parallel, nested, multilevel) (Onwuegbuzie and Collins, 2007). In line with the characteristics of this study, a **concurrent** MM sampling approach is employed with a **parallel** relationship between the quantitative and qualitative samples. Based on the concurrent time orientation, both sampling techniques run at the same time and each approach does not influence or determine the other (independent) (Teddlie and Yu, 2007). In addition, a parallel relationship denotes that different samples are employed for the qualitative and quantitative elements, but both result from the same population in focus (Onwuegbuzie and Collins, 2007). In practice, a variety of different Greek and Cypriot SMEs satisfying the selection criteria were used for the quantitative and qualitative sections.

5.3.2.a. Sampling techniques for the qualitative and quantitative stages

Random (probability) and non-random (non-probability) sampling techniques represent the two key options for quantitative and qualitative research. The objective of quantitative sampling techniques (probability approaches) is to derive a sample that truly represents the population under investigation (Marshall, 1996). As a result, all members of a population have a possibility of being selected in the sample (Daniel, 2012). In contrast, non-probability sampling frames represent that some members of a population will have zero probability to be

part of the sample (Vehovar et al., 2016). In the context of this study, the unavailability of an official, complete, and up-to-date listing with SMEs from all industries in both countries precludes the use of a probability sampling technique. A number of business databases from Greece and Cyprus (ICAP, SEV, local commercial chambers; Cyprus Chamber of Commerce) allowed access to a large data set of SMEs across different locations in both countries. The used databases are the primary business pool in both respective countries (Dimitratos et al., 2011a). However, due to data privacy regulations, official and complete business records were not available to the public, thus the researcher did not have access to the entire SME population. Therefore, a non-random (non-probability) sampling technique was the only available option. The use of a non-probability sampling technique does not allow for the statistical generalization of findings (a sample of participants representative of the whole population) but makes possible their *analytical generalization* (at an analysis and interpretation level) or even their *transferability* (the audience assesses whether the findings apply to new contexts) (see Polit and Beck, 2010).

Since it was not possible to access the whole SME population as required for a random sampling approach, various non-probability sampling options were considered. Non-random sampling techniques aim to yield the maximum information about the phenomenon in focus (Teddlie and Yu, 2007), with the selection of suitable participants to support researchers attend to the research problems and questions (Creswell, 2014). For the *questionnaire survey* section, **purposive sampling** (judgemental sampling) was used to select a representative sample of the population under investigation (Vehovar, 2016). Specifically, purposive sampling involves the selection of units matching certain features to produce a sample of sufficient size and specific characteristics (Black, 2005). From a similar viewpoint, an **expert selection** technique (modal instance sampling), complemented with **purposive sampling**, was employed to select *interview participants* that best match specific attributes (e.g., Vehovar, 2016). The chosen sampling types reflect the purpose of non-probability sampling techniques to enable an in-depth insight of the subject under investigation (Onwuegbuzie and Collins, 2007). In line with the adopted sampling approaches, the next section focuses on the rationale and volume of the sample size set for both qualitative and quantitative sections.

5.3.2.b. Sample size criteria for the qualitative and quantitative stages

MM studies can follow different strategies to determine the sample size for the qualitative and quantitative phases. For instance, researchers could set the same sample size for qualitative and quantitative stages requiring a high qualitative sample or instead “weigh the qualitative data so that the cases are equivalent to the quantitative cases” (Creswell, 2015, p. 78). A third option would be to acknowledge the distinction between collecting qualitative and quantitative data (Creswell, 2015). Based on the characteristics of this study, both qualitative and quantitative paradigms have an equal value, yet their key characteristics need to be respected. Accordingly, the sample size of each phase is determined following contemporary criteria employed per each research approach.

In relation to qualitative research, multiple parameters influence the sample size. Patton (2015, p. 470, emphasis in original) explains that “*There are no rules for sample size in qualitative inquiry*”. Specifically, it is not possible to set rigid guidelines about the number of qualitative participants as each investigation is unique and depends on different determinants (Morse, 2000). The sample size (qualitative) would rely, among other, on the nature of the research endeavour and relevant objectives (Patton, 2015). Although there are no universally established standards for qualitative sample size, various studies offer some guidance and propose tentative minimum thresholds (Teddlie and Tashakkori, 2009). For instance, the number of interviewees can be set based on the notion of **sufficiency** and **saturation** (Seidman, 2006). Sufficiency reflects whether the volume of participants included adequately represents the entire population in focus (“the range of participants and sites that make up the population”) (Seidman, 2006, p. 55). In contrast, the concept of saturation could reflect data, codes, meaning, among other options. As an example, the (data) saturation point occurs when no new information emerges from the data collection process (Morse, 1995), and is different for every research project and each researcher (Seidman, 2006). Among the factors that influence the number of participants needed to reach saturation, include the research aim, the characteristics of the topic under investigation, quality of collected data, the study design, and other (Morse, 2000). Morse (1995, p. 147) argues that “saturation is the key to excellent qualitative work”, as it reflects “the building of rich data within the process of inquiry, by attending to scope and replication” (Morse, 2015a, p. 587). Specifically, *scope* relates to having a complete understanding of the phenomenon under investigation, while *replication* reflects data with common characteristics that emerge from different participants (Morse, 2015a). However, saturation does not focus on the “frequency of occurrence” but the variety of information (Morse, 1995, p. 147).

Specifically, rich data emanate from “detailed description, not the number of times something is stated” (Morse, 1995, p. 148). Attempting to identify the number of interviewees needed or settings to cover in qualitative research, Hammersley (2015, p. 688, emphasis in original) notes that “it is not so much the frequency with which data relevant to a theme occurs that is important but rather whether particular data segments *allow a fruitful analytic argument to be developed and tested*”. Another useful measure to set the volume of qualitative participants relates to the sample’s **information power**. As an example, the higher information power a sample has, the lower number of participants-units is required, and conversely (Malterud et al., 2016). Among the determinants that influence information power include the research aim, the quality of interview dialogue, and selected analysis strategy, among other (Malterud et al., 2016). As an example, the more generic the research aim is, the higher the sample size should be (Malterud et al., 2016). For the implementation of this investigation, the researcher considered the heterogeneity of the population under investigation (Kuzel, 1999), the research aims/objectives, the selected sampling strategy, and the multi-faceted nature of organisational resilience.

In the case of the quantitative research element, attempts were made to enhance the representativeness of the sample (despite the use of a non-random sampling technique). Accordingly, the sample size for the questionnaire survey was determined following guidelines from relevant literature and formal reports. Among the criteria that determine a quantitative sample size are the research aim, size of the population in focus, and relevant statistical parameters (confidence level, statistical error, etc.) (Israel, 1992; Miaoulis and Michener, 1976). According to official EU data (European Commission, 2019a; 2019b), the total number of SMEs in both countries is approximately 877,000 businesses (821,209 in Greece; 55,172 in Cyprus). In 2021, the number of SMEs slightly increased in Cyprus but had a significant drop in Greece (694,346 in Greece; 57,469 in Cyprus) (European Commission, 2022b; 2022c). Based on mathematical formulas, numerous studies propose minimum thresholds for representative sample sizes in quantitative inquiries (e.g., Yamane, 1967). In line with the margins presented by Teddlie and Tashakkori (2009) using various models (e.g., Barlett et al., 2001; Wunsch, 1986), and the population of Greek and Cypriot SMEs, a representative sample size for the questionnaire survey was set as over 384 usable responses in total based on a 5 percent confidence level (95% probability the sample represents the population). The identified threshold supports the requirement of this study to measure the performance of Greek and Cypriot SMEs after the 2008 GFC on specific business performance criteria, and other factors

that could influence their ability to become resilient. Based on the sampling choices, the following sections present relevant issues to the data collection process.

5.4. Data collection process

5.4.1. Qualitative and quantitative instrument design

5.4.1.a. Interviews design

A semi-structured interview approach was adopted for the collection of qualitative data. Specifically, a list of pre-set open-ended questions was employed across all interviews to ensure a consistent process and support the data analysis stage. The semi-structured approach also offered the opportunity for probing questions when further clarifications were needed. Based on a pre-established interview protocol, participants were asked to offer a brief background of their business (industry, years of operation) and describe how they perceive the current business conditions in Greece and Cyprus, including the type of extreme events, if any, that could affect their firm (e.g., natural disaster, financial crisis). The next series of questions aimed to identify the impact, if any, resulting from the deteriorating operating environment after the 2008 GFC and determine how SMEs managed to cope during that challenging period. For instance, participants were called to distinguish specific factors (strategies, capabilities) that could influence their firm's ability to develop resilience during adverse times. Based on the principles of individual resilience, interviews also sought to determine specific factors that aggravate detriments resulting from exposure to risks (vulnerability factors) and factors that could mitigate any ramifications (protective factors) (Luthar and Cicchetti, 2000). Accordingly, interviewees were asked to identify their firm's strengths, weaknesses, opportunities, and threats (SWOT), along with their business priorities and adopted strategy on specific operational activities (e.g., advertising, innovative practices, collaboration). The last section of the interviews focused on participants' view about the future of their industry, the main threats or any needed changes, and their future business plans.

5.4.1.b. Questionnaire design

As part of a MM research approach, this study employed a structured questionnaire survey to validate the factors that influence resilience in the context of SMEs and assess the performance of Greek and Cypriot SMEs after the 2008 GFC. Using a mix of nominal, ordinal, and scaled questions, the questionnaire was divided into five primary sections (sections A-E) based on contemporary literature and survey items used in previous studies exploring resilience and

relevant subjects. **Section A** sought to elicit demographic and other generic information about the owners/managers and their businesses (e.g., gender, age, years of operation, business structure) using nominal and ordinal questions. In addition, participants were asked to reflect on the impact resulting from the 2008 GFC, the ability of their business to respond to any associated challenges, and also rate their prior-2008 business performance. All subsequent questionnaire sections included items based on contemporary literature of resilience and business performance. Like other studies investigating organisational resilience (e.g., Burnard, 2013) and coping strategies after the 2008 GFC (e.g., Miller, 2020), a five-point Likert scale was selected since there is only a marginal improvement on reliability with the addition of any extra point (e.g., Hensely, 1999). Due to the subjective interpretation of business success among SME owners-managers (e.g., Simpson et al., 2012; Simpson et al., 2004), **section B** assessed the value participants place on various *measures of firm success* (e.g., Cegarra-Leiva et al., 2012; Walker and Brown, 2004; Greenbank, 2001; Voudouris et al., 2000), based on a continuous Likert scale (1=not at all important and 5=very important). Thus, it was possible to determine whether Greek and Cypriot ownership/management is motivated by intrinsic (e.g., sense of achievement) or extrinsic factors (e.g., materialism) (e.g., Nisula and Olander, 2023). Using a continuous Likert scale (1=not at all important and 5=very important), **section C** measured how respondents value certain *critical success factors* (e.g., Singh et al. 2008; Lussier and Corman, 1995) for the performance of SMEs after the 2008 GFC to capture the factors that influence SMEs' coping capacity in turbulent periods. In contrast, **section D** focused on possible performance outcomes that may derive from resilience. Consequently, Greek and Cypriot SME proprietors were asked to rate their firm's performance on key business *performance criteria* (e.g., Hudson et al., 2001) during the 2008-2016 period. The objective of the final questionnaire part (**section E**) was to evaluate how Greek and Cypriot SMEs performed on various factors (e.g., operational capabilities) (e.g., Burnard and Bhamra, 2011; Gunasekaran et al., 2011; Sullivan-Taylor and Branicki, 2011) that could influence their resilience capacity from 2008 to 2016. Both sections D and E used a continuous Likert scale (1= very poorly and 5=very strongly). In an effort to collect additional data per each section, a small number of open-ended questions (8 questions) was added to the questionnaire, asking participants to further comment on the respective sections (e.g., antecedents of resilience). However, almost all completed responses did not produce any qualitative data. Therefore, no qualitative data were included at the data analysis process for consistency purposes.

5.4.2. Pre-tests and pilot studies for interviews and questionnaires

As an attempt to establish whether the interview questions and questionnaire items support the research aims and objectives, a pre-testing activity and a pilot study were employed to finalize their format before the data collection process (table 5.1). For instance, the purpose of a pilot study is to inform the forthcoming study (Connelly, 2008), and specifically identify any potential challenges with the research process, methods, or tools (Beebe, 2007; van Teijlingen and Hundley, 2002; van Teijlingen et al. 2001). In reference to the *interviews*, all questions were initially reviewed by a panel of four academic staff members from Liverpool John Moore University (LJMU), including a native Greek speaker with expertise on SMEs. The panel reviewed all interview questions (the Greek member reviewed both the English and Greek translated versions), to check their compatibility with the research aims/objectives, research design, and the study's research protocol (ethics). For example, panel members considered the order of questions and their suitability to address the research questions set for this investigation. The final suggestions included minor amendments at the wording of two questions and possible use of specific probing questions, if needed to improve the richness of answers. The researcher also pilot tested the interview questions with members of the targeted population (Thomas, 2004). Accordingly, five face-to-face pilot interviews were arranged with Greek SME owners/managers and five online interviews (via Skype) with Cypriot SME owners/managers. The duration of the pilot interviews ranged between 20-25 minutes and enabled the researcher to get a real-life experience about the forthcoming data collection process. The flow of discussion at all pilot interviews was satisfactory and responses were detailed enough to support the collection of rich data. Participants from local Greek and Cypriot SMEs were also asked to confirm whether any used terminology was simple and clear (Rasinski, 2008), and whether the interview questions could lead or influence participants' answers, hence affecting the credibility of the findings (Elo et al., 2014). All participants approved the interview protocol but also suggested the addition of a question concerning how participants view the future of their industry and any likely changes required from local authorities to support businesses. Based on SMEs' heterogeneity, such a question could support our understanding about the range of challenges SMEs experience across different sectors and particularly highlight the factors that influence resilience among varied operating environments.

Table 5.1-Feedback and responses following pre-tests and pilot studies

<i>Interview questions</i>	
Comments	Responses
Complex academic terminology/language at two questions	The two questions were reviewed to include clear and easy to understand language/terminology
Use of probing questions, if required	The researcher employed probing questions when needed
Add a question about the future of the operating industry and any needed changes	A question about the operating industry and possible changes was added
<i>Questionnaires</i>	
Comments	Responses
Complex academic terminology/language at few questions (Greek version)	All identified questions were reviewed to include clear and easy to understand language/terminology
Few grammatical mistakes (English version)	The identified mistakes were corrected
Questionnaire structure	The suggested order of sections was fully adopted (sections D and E)
Reduce the number of open-ended questions	The number of open-ended questions was reduced (8 rather than 12)

A different pre-testing and pilot study was implemented for the *questionnaire survey*. The same panel team employed to assess the interview questions was also used for pre-testing the questionnaire. Both the English and Greek questionnaire versions were checked allowing for useful feedback. For instance, the Greek speaker of the panel team proposed alternative terminology at some questions to avoid potential confusion among respondents (Greek version). Also, panel members highlighted a few grammatical mistakes (English version) and suggested re-arranging the order of the scaled-items sections. Specifically, they proposed the business performance criteria scaled-item section (section D) to proceed the section focusing on factors that could influence the ability for SMEs to develop resilience (section E). All suggestions were fully adopted before pilot-testing the updated questionnaire version with members of the real population. Specifically, the questionnaire was electronically distributed to seven SME owners/managers from Greece and additional seven from Cyprus. Based on the comments, the average time needed to complete the questionnaire was 20-25 minutes. Participants were also asked to check the terminology of questionnaire items (Rasinski, 2008; Guest et al., 2012), and the sequence of all sections. In line with the provided feedback, the number of open-ended questions was reduced (8 rather than 12 open-ended questions) to avoid respondents' fatigue and support the response rate. On a relevant note, the researcher encountered challenges with the recruitment of participants for the questionnaire's pilot-study. Based on the low participation interest, the researcher considered additional distribution methods for the questionnaire (e.g., via post) to complement the in-person distribution approach.

5.4.3. Ethical considerations

Ethical considerations posit an integral part of every social research enquiry. Researchers need to consider how to handle a range of ethical issues during different stages of an investigation (Creswell, 2014). The key threats to ethical conformity in research projects include a potential harm of participants, lack of informed consent, invasion of privacy and confidentiality, and possible deception of participants (Lincoln and Guba, 1989). Accordingly, this study employed several strategies at different research phases to safeguard participants and manage possible ethical challenges. First, a detailed research protocol was developed including appropriate documentation to support and protect prospective participants (consent form, participant information sheet). An ethical clearance was also sought and granted from LJMU's research ethics committee (16/LBS/018) as a formal validation that all research activities (e.g., data collection) adhere to conventional research ethical norms. Second, the data collection process followed the sampling and recruitment approaches as explained in detail at the research protocol. Specifically, the researcher established contact and invited (email, letter, in-person) several SME owners/managers from Greece and Cyprus to participate in the study. All prospective participants received an information sheet and consent form with clear explanation about their anonymous participation on a voluntary basis, their right to withdraw, and other details about the data collection (time). To ensure the privacy of participants, all interviews were conducted at the business premises, at a mutually agreed upon day and time, and with their explicit consent to be audio recorded. In the case of questionnaires, copies were left at their business office and collected at a later point after prior communication. In relation to the dissemination of information, pseudonyms (GR, CY) were assigned per each interview case to protect participants' anonymity. Questionnaires did not ask for any personal information, so it was not possible to trace back any participants. All interview recordings were saved at LJMU's password protected online drive and questionnaire copies were stored on a lockable filing cabinet at LJMU's research room on campus. After all questionnaire responses were transferred to a Microsoft Excel document, all paper copies were shredded as an extra measure of protection and following the research protocol guidelines. All listed measures adhere to the international research standards for protecting the identity and privacy of participants.

5.5. Methods of administration and response rates

5.5.1. Interviews phase

The data collection process included semi-structured interviews and questionnaire surveys using a pool of Greek and Cypriot SMEs drawn from professional and other national databases (ICAP, local chambers of commerce). In the case of interviews, a total of 375 SMEs from a wide range of industries and geographical locations were contacted in both countries. Depending on the accessible contact details at hand (phone number, email), SME owners/managers were approached either via a letter/email of invitation or in person by the researcher for their availability to participate in a face-to-face interview at their business site. Meeting with business owners/managers first-hand at their own business setting allows researchers to achieve a holistic understanding of the explored phenomenon (Eisenhardt, 1989). An information pack was provided to SME owners/managers with relevant details about the purpose of the study, participation and withdrawal information, and the type of questions asked, among others. In case people were interested to assist with the research project, additional time was offered to prospective participants to read the documents (university ethics clearance) before their final decision. Following a second communication at a later period (after 1-2 weeks), an informed consent was secured, participants were explained the interview protocol, and final arrangements were agreed for the data collection process (date/time of the interview). In total, the qualitative data collection process included 135 face-to-face, semi-structured interviews (91 in Greece and 44 in Cyprus). Although not part of the initial planning, the study was not able to conduct interviews with owners/managers from medium sized firms, hence any drawn qualitative data reflect Greek and Cypriot micro and small businesses. Based on the economic profile (impact on GDP) of the selected administrative regions in Greece, almost half of the interviews involved firms from the Attica area and the rest equally from the other included locations. Based on a similar approach, approximately $\frac{3}{4}$ of the interviewed Cypriot business owners/managers were based in Nicosia and Limassol, the highest populated districts in the island (Statistical Service of Cyprus, 2017). Following participants' permission, all interviews were audio recorded with an average duration between 45 minutes to 60 minutes at maximum to avoid any non-related content.

In line with this study's highlighted characteristics, the qualitative participant recruitment process was determined by contemporary concepts reflecting the collection of sufficient information for the completion of the research goals. Specifically, *data adequacy* reflects "the quality and sufficiency of information as it provides close access to the richness of the subject

matter” (Levitt et al., 2017, p. 12). The main types of inadequate evidence relate to an insufficient amount and variety of data, a flawed interpretive status of data, and limited disconfirming evidence and discrepant case analysis (Erickson, 1986). In line with contemporary literature, a tentative sample size was set at the beginning of the study though the actual needed volume would be determined after the research process commenced (Sim et al., 2018); specifically, during the data collection stage evaluating the data adequacy to tackle the research questions (Braun and Clarke, 2021). As a way to determine when to stop collecting data, Dey (1999, p. 117) suggests that “a decision not to collect further data can be no more than a guess (albeit more or less well grounded) that such an investment is no longer worth the trouble given the likely (theoretical) reward”. On a relevant note, Hennink and Kaiser (2022, p. 9) explain that “an effective sample size is less about numbers (n’s) and more about the ability of data to provide a rich and nuanced account of the phenomenon studied”. Accordingly, the qualitative data collection process continued until the researcher was confident the available data offer an in-depth understanding about the diverse factors influencing SME resilience in Greece and Cyprus, among other research objectives. The concept of *theoretical sufficiency*, the point when “categories seem to cope adequately with new data without requiring continual extensions and modifications” (Dey, 1999, p. 117), was also considered to establish when to stop the qualitative data collection. While theoretical saturation assumes “the process of generating categories (and their properties and relations) has been *exhaustive*” (Dey, 1999, p. 117, emphasis added), theoretical sufficiency denotes it is “merely “good enough”” (Dey, 1999, p. 117). The availability of rich data was confirmed at the analysis stage with *meaning saturation*, “the point when we fully understand issues, and when no further dimensions, nuances, or insights of issues can be found” (Hennink et al. 2017, p. 596).

Attempting to deal with different threats rising from inadequate evidence, the total number of collected interviews is higher than the average sample size in qualitative enquiries, approximately 20 to 30 interviews (Creswell et al., 2003). However, Hennink and Kaiser (2022, p. 9) argue that “determining and justifying sample sizes for qualitative research cannot be detached from the study characteristics that influence saturation”. Among the determinants of a high qualitative sample size include “an extremely variable, heterogeneous sample; a broad, sweeping research question that aims at understanding very complex constructs; limited data available from each participant; and practical concerns about what will appear credible to a given audience” (Morrow and Smith, 2000, p. 219); this study’s characteristics reflect most of the highlighted points. Accordingly, a high qualitative sample size is deemed appropriate due

to the multifaceted nature of the research topic (resilience), the heterogeneous nature of the SME population, the inclusion of two countries in the sampling frame, and the adopted data collection tactics. On a relevant point, Morse (2015a) explains that the volume of collected data should not be directly associated with the number of participants used. Specifically, Morse (2015b) argues that semi-structured interviews produce limited data per each participant, despite the possible use of probing questions. In that case, it is pertinent to include a high sample size (at a minimum 30 to 60) to produce rich data (Morse, 2000). A high representation of qualitative findings could also prove beneficial and address possible challenges in MM investigations. As an example, the use of unequal qualitative and quantitative sample sizes could be problematic at the integration stage of MM investigations (Creswell and Plano Clark, 2018).

This study's qualitative sample size also reflects the contemporary discourse assessing the data saturation point. When saturation is defined as the point no new information yields from the data collection process, Low (2019, p. 131) argued that "It provides no didactic guidance on how researchers can determine such a point, and it is a logical fallacy, as there are always new theoretic insights as long as data continue to be collected". Attempting to reflect on the notion of saturation, Strauss and Corbin (1998, p. 136, emphasis added) also commented that it is always likely for "new" to manifest since "Saturation is more a matter of reaching the point in the research where collecting additional data seems *counterproductive*" and further explained that any novel development "does not add that much to the explanation at this time". On a relevant point, Braun and Clarke (2021, p. 201) support that "judgements about 'how many' data items, and when to stop data collection, are inescapably situated and subjective, and cannot be determined (wholly) in advance of analysis". Braun and Clarke (2021, p. 201) further explain that "meaning is generated through interpretation of, not excavated from, data", therefore "It is nigh on impossible to define what will count as saturation in advance of analysis, because we do not know what our analysis will be, until we do it" (Braun and Clarke, 2021, p. 210). Braun and Clarke (2021, p. 209, emphasis in original) argue that when scholars assume the (data) saturation point was met, "meaning seems to need to reside *in* data". In contrast, this study adopts Braun and Clarke's (2021, p. 210) view that "meaning requires interpretation". Braun and Clarke (2021, p. 210, emphasis in original) further elaborate that "attempting to predict the point of data saturation cannot be straightforwardly tied to the number of interviews (or focus groups) in which the theme is evident, as the *meaning* and indeed meaningfulness of any theme derives from the dataset, and the interpretative process". On a similar note, Sim et

al. (2018, p. 627) claim that “it is dangerous to equate the number of instances straightforwardly with some measure of analytical importance”.

5.5.2. Questionnaire distribution

Based on the same business listings used for the interview data collection, the quantitative data collection took place simultaneously with the interviews. In total, the number of firms targeted to participate in the questionnaire survey included 760 SMEs from both countries (615 in Greece and 145 in Cyprus). To address concerns from similar studies focusing on SMEs about low response rate in questionnaire surveys (Dennis, 2003; Wang and Ahmed, 2009; Panagiotakopoulos, 2009), the researcher employed a dual distribution strategy. Specifically, in the case of unavailable or no longer valid contact details (email, telephone), the researcher delivered in person a sealed envelope with the questionnaire and other supporting documents (information sheet) to 420 SMEs (338 in Greece and 82 in Cyprus). The envelopes were collected after a two-week period to offer sufficient time for their completion. A different approach was employed when business contact details were available but due to resource limitations (budget, time) the researcher could not visit certain locations. Subject to available information per firm, questionnaires and other relevant documents (consent form, participant information sheet) were emailed and posted (including a pre-paid return envelope) to 340 SMEs (250 in Greece and 90 in Cyprus) with a reminder email or phone-call after two weeks. In total, both questionnaire distribution approaches (in-person and email/post) generated 443 responses from which 37 were discarded due to being either partially incomplete or blank. Therefore, the quantitative data collection attempts elicited *406 usable responses, 348 from Greece and 58 from Cyprus, a 53.4 percent response rate*, with most usable responses (332; 81.8%) resulting through the researcher’s in-person questionnaire distribution. Like the qualitative process, all questionnaire responses reflect micro and small businesses but no medium sized ones. The number of usable questionnaire responses aligns with the volume produced in similar studies. As an example, Miller (2020) used a MM approach to explore SMEs’ coping strategies after the 2008 GFC having 269 questionnaires completed, 234 from Northern Ireland and 35 from the Republic of Ireland, while Burnard (2013) investigated organizational resilience based on 117 usable responses. This study’s survey response rate also falls within the expected average threshold. For instance, organisational studies yield an average survey response rate of 52.7 percent when focusing on individuals and a 35.7 percent in case the attention is on organisations (Baruch and Holtom, 2008). Depending on the different

type of data, qualitative and quantitative, the next section presents appropriate data analysis methods.

5.6. Data analysis

5.6.1. Generic characteristics of the data analysis process

In line with this study's research goals, the datasets with responses from participating Greek and Cypriot micro and small firms were separately analyzed (both qualitative and quantitative ones) to identify any significant variations per each geographic context. From a quality perspective, a separate analysis supports pertinent research questions (RQ6) and enhances the validity of the study. Based on comparable findings from Greek and Cypriot firms, both *separate* and *combined* outcomes are presented per each country (both for qualitative and quantitative sections). Consistent with the parity of both countries at "economic and social structures" (Sfakianakis, 2022, p. 111), it is not surprising that the combination of SME samples from Greece and Cyprus has been employed by other studies too. For example, Dimitratos et al. (2011b) integrated survey responses from Greek and Cypriot SMEs forming a Mediterranean cluster, Komodromos et al. (2022) merged interview data from hotels in Cyprus and Greece, while Papadopoulos et al. (2014) offered separate and combined questionnaire results from Cypriot and Greek furniture firms (among other sources). Following similar principles, it is common in contemporary literature to combine excerpts from a variety of countries. For instance, Khan et al. (2022) merged questionnaire responses from tourism-related SMEs in Italy (n=131), Spain (n=60), France (n=42), and Cyprus (n=23). On a relevant case, Serra et al. (2012) used independent and combined questionnaire responses from Portuguese and British SMEs. Similarly, Perrigot et al. (2013) produced separate and combined results based on survey responses from SMEs in France and the United States of America. From the perspective of organisational resilience, Miller (2020) investigated the post 2008 GFC coping strategies of SMEs in Northern Ireland (NI) and the Republic of Ireland (ROI), merging 269 questionnaire responses (n=234 from NI; n=35 from ROI) and 31 interviews (22 from NI and 9 from ROI). As another example, Marcazzan et al. (2022) investigated SME resilience using a combined sample of German and Italian SMEs based on the similar entrepreneurial environments in both countries, among other justifications. Due to the critical role SMEs play in the economies of both Greece and Cyprus, the same reasoning could be applied to both countries.

5.6.2. MM analysis approach for this study

In line with this study's research design characteristics (e.g., concurrent status), a *parallel mixed data analysis* is used for the qualitative and quantitative datasets. Parallel mixed data analysis is "the most widely used MM data analysis strategy in the human sciences" (Teddlie and Tashakkori, 2009, p. 266), and occurs following the data collection phase (Fetters et al., 2013). The process entails a separate quantitative data analysis using "descriptive/inferential statistics" and a thematic analysis for the qualitative data (Teddlie and Tashakkori, 2009, p. 266). As part of the analytical process, data reduction also occurs through coding quantitative (factor analysis) and qualitative (assign codes to parts of the interviews) data. The assumptions resulting from each section are then "linked, combined, or integrated into meta-inferences" aiming the two different data sets to "talk to each other" (Teddlie and Tashakkori, 2009, p. 266). The integration occurs based on a *weaving narrative* approach, the author writes simultaneously about both qualitative and quantitative findings about each respective theme or topic (Fetters et al., 2013). Resembling the *joint display* integration approach (Fetters et al., 2013), the use of figures and tables with qualitative and quantitative data also supplement the integration process through visual aids. Any similarities will be identified and in case of differences further analysis will follow exploring further the datasets (Creswell, 2014). The concluding result, a *meta-inference*, is a final interpretation based on the combined qualitative and quantitative findings (Teddlie and Tashakkori, 2009). Specifically, interpretation relates to "make sense of complex phenomena, to dissect and/or to synthesize, to abstract, to theorize, and to recognize how this fits into the work of others, all of which enables generalization and application" (Morse, 2015a, p. 587). Following the MM characteristics for the data analysis stage, the next sections present the separate analysis process per each method.

5.6.3. Qualitative data analysis

Thematic analysis is the selected option for the analysis of the interview data. Thematic analysis is "a method for identifying, analysing and reporting patterns (themes) within data" (Braun and Clarke, 2006, p. 79). The analysis process starts with the identification of *codes*, "the smallest units of analysis that capture interesting features of the data (potentially) relevant to the research question" (Clarke and Braun, 2017, p. 297), that represent the foundation for *themes*, "the dominant features or characteristics of a phenomenon under study" (Teddlie and Tashakkori, 2009, p. 252). Themes support researchers to interpret any collected data that could develop theories relevant to their selected research subject (Bryman, 2016). Repetition of patterns is a standard way to identify themes, but such a repetition should reflect the research

project's questions or main topic (Bryman, 2016). Therefore, a theme should not only result upon frequency but whether it “captures something important about the data in relation to the research question” (Braun and Clarke, 2006, p. 82). Accordingly, researchers are responsible to decide what constitutes a theme (Braun and Clarke, 2006). Any identified patterns could illustrate the opinions, insights, and attitude of members from a distinct population (Clarke and Braun, 2017). In reference to the main advantages, thematic analysis is an accessible and flexible data analysis method to code and interpret qualitative data in a methodical way (Braun and Clarke, 2012; Clarke and Braun, 2017). For instance, in contrast to other analytical approaches (e.g., grounded theory, Interpretative Phenomenological Analysis), thematic analysis is not attached to a distinct theoretical framework (e.g., realism, constructionism), but could be suitable for almost all frameworks (Braun and Clarke, 2006). However, Clarke and Brown (2018, p. 109) further explain that thematic analysis “is never conducted in a theoretical vacuum, and thus should not be thought of as atheoretical”, instead thematic analysis is a theoretically flexible method and it is upon researchers to select the theoretical framework based upon thematic analysis takes place (Clarke and Brown, 2018).

The different styles of thematic analysis cluster in two predominant groups, the methodology-specific (e.g., Grounded Theory, IPA) and the ones with a generic approach (e.g., Template analysis, Matrix analysis) (King and Brooks, 2017; 2018). Specifically, thematic analysis based on the methodology-specific approach constitutes a segment of a specific methodological stance (e.g., Grounded Theory), whereas the generic type is flexible and does not adhere to any philosophical or methodological approach (King and Brooks, 2018). Among various thematic analysis options, the ‘coding reliability’ option is methodical, grounded in positivism, and focuses on producing reliable and accurate coding (Boyatzis, 1998), the qualitative driven approach employs an organic method for coding and identifying themes, and a ‘codebook’ driven technique reflects templates and framework analysis (Clarke and Braun, 2018). In line with the characteristics of this study and the selected dialectic pluralist reasoning, this study adopts Braun and Clarke’s (2006) generic thematic analysis approach, also referred to as ‘reflexive’ approach (see Braun et al., 2018). Among the possible options to detect themes, thematic analysis includes an *inductive* approach (bottom up), a coding process with no previously established coding fixture (Braun and Clarke, 2006), and a *deductive* approach (top-down) that requires the researcher to use various notions or subjects to code and analyse data (Braun and Clarke, 2012). In relation to the degree of analysis, thematic analysis allows the identification of themes at a *semantic* (explicit) or *latent* (implicit) level (Clarke and Braun,

2017; Boyatzis, 1998). While the semantic approach involves the description and then interpretation of any detected themes, the latent technique allows to further assess the principles and reasoning that formulate the semantic part of the data (Braun and Clarke, 2006).

For the purposes of this study, the inductive thematic analysis aligns with the selected philosophical and research design approaches. For example, an inductive thematic analysis method tends to be rather suitable in cases of under-developed subject areas (e.g., organisational resilience in the context of SMEs) and when the research aim requires a valid representation of the whole dataset, rather than an in-depth review of a specific theme (Braun and Clarke, 2006). In reference to the level of analysis, a semantic approach, supports the principal aim of this study, the investigation of resilience development in the context of SMEs and identification of various factors that influence resilience capabilities. A latent approach would have been more suitable if the research aimed to establish causality and identify the determinants of a distinct factor or antecedent of resilience. Accordingly, the following section outlines the steps employed for the thematic analysis of interview data.

5.6.3.a. Thematic analysis steps for this study

Following the process identified by Braun and Clarke (2006), this study's qualitative analysis process includes six stages:

Stage 1: Familiarize with data

The first step for the qualitative data analysis process was the preparation of the dataset based on interviews. The researcher, who is bilingual (Greek, English), translated (from Greek to English language) and transcribed all audio-recorded interviews. An LJMU academic staff member who is a Greek speaker reviewed a sample of the transcriptions and confirmed the accuracy of the translation process. As soon as the qualitative data set was complete, the researcher reviewed the data to remember certain details. All interviews were conducted by the researcher, which allowed for a comprehensive understanding of the data-set and the key opinions highlighted by most participants. Accordingly, several notes were completed at different parts of each interview transcription to support the next steps of the analysis process.

Stage 2: Produce tentative codes

During the second phase of analysis, provisional codes were assigned to different parts of the dataset offering a useful insight about resilience and the business conditions after the 2008 GFC. Different types of codes were assigned including "clerical" that group the data and "descriptive" of experiences or activities (Bazeley, 2021, p. 157). In line with the concept of

convergence (see Guba, 1978), the researcher attempted to identify parts of data that match together, or else “*recurring regularities*” (Patton, 2015, p. 811, emphasis in original). The coding process was also complemented by NVivo, a Computer Aided Qualitative Data Analysis Software (CAQDAS). Among possible advantages, NVivo supports the classification of extensive data sets (Yin, 2018; Saunders et al., 2016), and offers the option to amend the label of the code and any clustered data at a later point (Bazeley, 2021). The coding process was completed at the point of saturation.

Stage 3: Identify themes

After all data were coded, it was possible to make a list of all identified codes and attempt to arrange them into tentative sub-themes and themes. As part of the collating process, thematic maps were used as a visual aid to manifest the essence of each code and its possible suitability to cluster under certain sub-themes and themes. The activity of positioning codes to specific themes involved several changes before it was possible to link each code with a matching theme. Anonymised participant’s quotes were also selected as examples from the data set once a preliminary list of themes, sub-themes, and their related codes was available.

Stage 4: Review themes

All tentative themes were checked in regard to their relevance to the identified sub-themes, codes, and the whole dataset. Specifically, all preliminary themes were reviewed to confirm whether data link well at each theme (internal homogeneity) and every theme is explicitly different than all other (external heterogeneity) (Patton, 2015). As an additional step, any identified themes (and patterns) were scrutinized (concept of divergence) (see Guba, 1978), through the process of *extension* (further elaborate on any patterns and themes), *bridging* (produce links between distinct patterns and themes), and *surfacing* (suggest novel themes and confirm them at the dataset) (Patton, 2015). In few cases, themes that included similar characteristics merged into a new theme. Among other employed measures, the researcher adopted Braun and Clarke’s (2012) list of possible areas to assess using specific questions (e.g., is this a theme or code?). To establish compatibility between each theme and the complete dataset, interview transcripts were inspected again to verify that all themes accurately reflect participants’ views. Following the completion of all reviewing activities, a tentative thematic ‘map’ was available.

Stage 5: Define and label each theme

In line with Braun and Clarke's (2006) suggestions, the assigned themes were further 'defined and refined' to distinguish their actual meaning and establish their association with specific characteristics of the dataset. Accordingly, themes and sub-themes were updated (e.g., merged), where needed, to better reflect the characteristics of the data set. The next step involved to assign labels to each theme allowing to finalise the thematic map. All designated labels were reviewed at a later stage resorting to few minor amendments and a further update of the thematic map.

Stage 6: Write up the report

A report of key findings was prepared including various conclusive *quotes* linking back to the main research question and relevant literature (Braun and Clarke, 2006).

5.6.4. Quantitative data analysis

Quantitative data analysis reflects the processes and standards employed to condense big datasets by using statistics to enable researchers deduce inferences about emerging patterns (Scherbaum and Shockley, 2015). As a first step, all returned questionnaires were screened for any missing values or false entries. After the initial review, all usable responses were coded and entered on a Microsoft Excel document, and then imported to IBM Statistical Package for the Social Sciences (SPSS) Statistics v28 for further analysis. The use of SPSS offers the opportunity to examine data and identify statistically significant differences (Saunders et al., 2012). Accordingly, SPSS is a popular data analysis tool in studies focusing on SMEs (Balogun et al., 2017; Germanos, 2012). Depending on the type of quantitative research questions (descriptive, correlational, comparative), a suitable statistical analysis approach is employed (Onwuegbuzie and Leech, 2006). Therefore, the use of descriptive statistics (e.g., measure of central tendency, etc.) aligns with the descriptive nature of research questions adopted for this investigation. For instance, descriptive statistics enable the examination of differences among different groups (Scherbaum and Shockley, 2015). In line with the research goals, additional type of tests supplemented the quantitative analysis. Factor analysis tests were used as a data reduction technique to determine the proportion of variance in data that is repeated (common) (Field, 2018). Based on the variety of statistical tests, the subsequent sections outline the criteria used per each test.

5.6.4.a. Reliability criteria for the statistical tests

Reliability tests were performed to check the internal consistency of the questionnaire items. Specifically, the internal reliability of the questionnaire items was assessed using Cronbach's alpha value (Rasinski, 2008). In reference to what represents an appropriate rating, Bonett and Wright (2015, p. 4) argue that "there is no universal minimally acceptable reliability value". However, the contemporary literature offers guidance how to make acceptable assessments. For example, various studies set the minimum conventional threshold for Cronbach's Alpha at 0.70 value (Nunnally and Bernstein, 1994; Leech et al., 2015). Nevertheless, there are many examples in contemporary literature using questionnaire items with lower measures (0.60-0.69) (Leech et al., 2015). In line with the highlighted views, this study adopts the 0.70 score as the minimum acceptable Cronbach's alpha value.

5.6.4.b. Independent t-test

An independent t-test was used to identify whether the means based on responses from Greece and Cyprus (independent variable) significantly differ or are approximately equal when compared with various dependent variables (questionnaire scaled items). After considering the required assumptions of the t-test (normal distribution of the differences between the sample's scores, homogeneity of variance, independent scores, interval data measurement) (Field, 2009), the dataset deemed fit for the test. Based on Levene's Test for Equality of Variance and the Sig. value being higher or lower than .05, any statistically significant means from both groups were reported. As a measure of the effect size, "the *degree* to which the phenomenon is present in the population or the degree to which the null hypothesis is false" (Cohen, 1988, pp. 9-10, emphasis in original), Cohen's *d* was selected over Pearson's correlation coefficient (*r*). As explained by McGrath and Meyer (2006), Pearson's correlation coefficient (*r*) could produce biased results in cases of groups with very different group sizes. Based on Cohen's (1992) guidelines, the effect size is classified as small ($d=.20$), medium ($d=.50$), and large ($d=.80$). However, there is no consensus on the standards used to evaluate the importance of an effect size (Olejnik, 2010). As an alternative rationale, other scholars focus on the practical significance of the results in a real-life context (Kirk, 1996). While statistical significance reflects "whether a research result is due to chance or sampling variability" (Kirk, 1996, p. 746), practical significance exhibits whether "the public at large, for example, would consider a finding important and worthy of attention" (Preacher and Kelley, 2011, p. 94).

5.6.4.c. One-Way Analysis of Variance (ANOVA) test

One-Way analysis of variance (ANOVA) tests were used to identify whether significant mean differences result between certain independent variables (sectors, levels of response to challenges after 2008) and dependent variables (questionnaire scaled sections). The tests run in line with various assumptions (independent observations, normal distribution of the dependent variable, equal variances among all groups) (Morgan et al., 2013). Based on Levene's Test (Homogeneity of Variances) and the Sig. value being higher or lower than .05, various statistically significant differences were identified. A Tukey HSD post-hoc test was further employed to identify specific intergroup differences. The Tukey HSD post hoc was selected as it has both good statistical power (control over Type II error) and high control over a Type I error (Field, 2018). Specifically, Type I error is "the probability of accepting an effect in our population as true, when no such effect exists" (Field, 2018, p. 127), whereas a type II error occurs when "we believe that there is no effect in the population when, in reality, there is" (Field, 2009, p. 56). Consistent with contemporary literature (Field, 2018), the Games-Howell post-hoc test was also run as an additional quality measure, producing the same results as the initially selected post-hoc test (Tukey HSD). As a way to reflect on the effect size of the statistically significant differences, this study employed Hays's (1963) Omega-Squared (ω^2) since it produces rather unbiased results in comparison to other options (Eta/Partial Eta-Squared) (Yigit and Mendes, 2018), and is unrelated to sample size (Olejnik, 2010). Following Kirk's (1996) benchmark, the effect size is characterised as small ($\omega^2=.01$), medium ($\omega^2=.06$), and large ($\omega^2=.14$).

5.6.4.d. Factor analysis test

A factor analysis technique was employed as part of inferential statistics. Factor analysis aims to reduce large amount of data to a more practical size, among other purposes (Field, 2018). The available methods include exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA is used when there is no established theory about the optimal number of factors to retain or the association between variables and each factor, whereas in CFA there is an a priori hypothesis regarding the volume of factors and the link among the examined variables and factors (Flora et al., 2012). EFA should be applied when the aim is to "identify latent constructs and there is insufficient basis to specify an a priori model (or small subset of models)" (Fabrigar et al., 1999, p. 283). In contrast, CFA should be the choice when attempting to establish/determine "latent constructs and a substantial basis exists to specify an a priori

model or small subset of models” (Fabrigar et al., 1999, p. 283). Based on the characteristics of this study, an EFA approach is adopted to identify which variables cluster “as groups or are answered most similarly by the participants” (Leech et al., 2015, p. 68). Among the possible techniques, the two main options include principal component analysis (PCA) and (principal axis) Factor analysis (FA). PCA produces components based on an analysis of all the variances from the used variables, while FA establishes factors through an analysis only of any associated variances (Tabachnick and Fidell, 2013). For the purposes of the present investigation, a (principal axis) FA technique is employed focusing on the correlated variation among the used variables (Leech et al., 2015). Before running the tests, the data set was checked whether it supports the conditions of sample size and the strength of the intercorrelations between the used questionnaire items (Pallant, 2020). Although there is no mutual consensus about the sample size required for factor analysis, it is usually advised to get as large sample sizes as possible (Pallant, 2020; MacCallum et al. 1999). For example, MacCallum (1999) identified relevant studies that determine the minimum sample size (of the population) (N) at 100 (Gorsuch, 1983), or between 200 (Guilford, 1954), and 250 (Cattell, 1978). On a similar note, Comrey and Lee’s (1992) classification ranks sample size of 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1000 or greater as excellent. In line with the proposed thresholds, this study’s sample size (N=406) is sufficient for the purposes of running factor analysis tests. As an additional way to evaluate the suitability of data for factor analysis, the degrees resulting from Barlett’s Test of Sphericity (Barlett, 1954) and the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (Kaiser, 1970; 1974) were also considered. As identified in contemporary literature (e.g., Leech et al., 2015; Pallant, 2020), Barlett’s Test should yield a significant value ($p \leq 0.05$) and the KMO test should produce a value higher than .70. Both conditions were met at the factor analysis test for this study. In reference to the outcomes resulting from factor analysis, the level of communalities produced comply with the minimum margin of .030 value (Leech et al., 2015). Accordingly, both the data set and factors analysis outcomes satisfy all conditions reported in the contemporary literature.

Based on the suitability to perform factor analysis, the available rotation techniques were considered. The main rotation options produce either orthogonal (uncorrelated) or oblique (correlated) outcomes (Pallant, 2020), that tend to match especially when the outline of correlations is simple (Tabachnick and Fidell, 2013). Orthogonal rotation methods produce outcomes that could be reproduced in prospective research projects on the premise of a lower sampling error on the basis of “less capitalization on chance that would occur if more

parameters were estimated, as is the case in oblique rotation” (Kiefer, 1998, p. 13). In contrast, oblique rotations illustrate in a more factual and credible way the association between concepts offering further information than orthogonal rotations (Fabrigar et al., 1999). Specifically, oblique rotations assess the correlation between similar factors allowing to clarify the theoretical features of the similar factors (Fabrigar et al., 1999). Based on the advantages over the orthogonal rotation, it is advised to initially generate results from an oblique rotation (Pallant, 2010), and use an orthogonal approach in case there is no correlation between the factors (Fabrigar et al., 1999). In line with Fabrigar et al.’s (1999) recommendation, an oblique rotation was initially employed for this study resulting no correlation between the factors. Accordingly, the orthogonal rotation is used to present factor analysis results.

Among the possible criteria to determine how many factors to retain is the percentage of variance between variables explained by every factor (Kahn, 2006). Factors with large percentages of variance could be valuable to be retained, while factors with low percentage of variance could be rejected (Kahn, 2006). However, it is a rather subjective option as there is no consensus on what classifies large percentage (Kahn, 2006). Kaiser’s eigenvalue is an alternative option to determine the appropriateness of a factor. The eigenvalue resulting from a factor is “a measure of explained variance set on the same metric as the variables” (Kahn, 2006, p. 690). Based on Kaiser’s criterion (1958), factors with a minimum eigenvalue of one (1) are to be maintained (Leech et al., 2015). In line with the eigenvalue threshold, Kaiser’s approach should only be applicable in the case of a Principal Component Analysis (PCA) extraction method but not for Principal Axis Factoring (PAF) or ML (these approaches accept as variance of a variable values that are lower than 1) (Kahn, 2006). Another option is to view a plot with all eigenvalues (scree plot), draw a scree line at the level values level, and retain the factors over the scree line, but the main limitation of such an approach is its subjectivity (Kahn, 2006). Based on the objectives of this study and the use of PAF extraction method, a parallel analysis is used as an extraction method for factor analysis. Specifically, parallel analysis produces “eigenvalues from a random set of data based on the same number of variances and the same number of cases” (Kahn, 2006, p. 692). Any factors with higher eigenvalues than the random ones are retained based on the rationale that “a factor that explains more variance than chance is meaningful” (Kahn, 2006, p. 692).

5.7. Integration of qualitative findings and quantitative results and inferences

Attempting to address concerns about challenges relating to the integration of findings in MM investigations (Collins et al., 2007), this study integrates qualitative and quantitative findings at the interpretation stage using a twofold process. First, a *weaving narrative* approach was employed to write at the same time about both qualitative and quantitative findings focusing on a specific theme or topic in turn (Fetters et al., 2013). As an additional analytical tool, figures and tables including qualitative and quantitative data were used as a visual aid (similar to the *joint display* approach; see Fetters et al., 2013). In the case of factors influencing SME resilience, any emerging meta-inferences were summarised in a table to better demonstrate the merged results. In line with the DP reasoning and aided by the joint display approach, a weaving narrative analysis of qualitative and quantitative findings allows to identify any convergence or divergence across findings and yield a more complete understanding of the resilience phenomenon. In the case of divergent outcomes, the dialectic stance approaches any contradictory perspectives as a chance to “learn, deepen understanding, and potentially challenge the discipline with new insights” (Cronenberg, 2020, p. 32).

Another important element of the integration process relates to this study’s key MM characteristics. Based on the equally valued paradigms approach, researchers need to “preserve data integrity” and not perform data transformation for either qualitative or quantitative elements (Cronenberg, 2020, p. 30). For instance, quantizing relates to “a process by which qualitative data are treated with quantitative techniques to transform them into quantitative data” (Sandelowski, 2000, p. 253). In contrast, qualitzing reflects “a process by which quantitative data are transformed into qualitative data” (Sandelowski, 2000, p. 253), and requires participant’s profiling, “to create verbal portraits or typologies of them” (Sandelowski, 2000, p. 253). Cronenberg (2020, p. 30) further explains that “to transform data is to give more power, and thus, more voice to one perspective over the other”. So basically, no part (quantitative or qualitative) is prioritised via data transformation. As an attempt to limit any data transformation (e.g., qualitzing) as much as possible, or even completely, no labels are attributed to any factor analysis results (Nzabonimpa, 2018). Similarly, survey results are described without any use of qualitative driven terminology (few respondents) (Nzabonimpa, 2018). Although, the researcher avoids any intentional data transformation, it is impossible to entirely avoid some degree of qualitzing, at least in the way interpreted in contemporary literature. For example, Sandelowski (2000, p. 253) explains that qualitzing’s average profiling reflects “a verbal description of a group of participants around the mean of an

attribute”, yet it is “not usually identified in research reports as qualitative profiling”. In the context of this study, an equal qualitative and quantitative value aligns with Hall and Howard’s (2008, pp. 251-252) synergistic view of “equal value”. Based on Hall and Howard’s (2008, p. 252) viewpoint of equal value, “neither approach inherently overrides the other because researchers value the contributing epistemologies, theories, and methodologies equally all the time despite necessary fluctuations in the use of either quantitative or qualitative methods throughout the research process”. Following the integration stage, the process of making inferences depends on certain key parameters. First, researchers need to remember the research questions and purpose of their study (Teddlie and Tashakkori, 2009). Researchers should also answer each research question separately by considering and making a synopsis of all available results (Teddlie and Tashakkori, 2009). On a different point, the adopted research design influences the approach taken to make inferences (Teddlie and Tashakkori, 2009). In the context of this study, parallel MM designs require the mixing purpose to be stated at the beginning of the investigation but could be altered at a later stage (Teddlie and Tashakkori, 2009).

5.8. Quality measures for MM investigations

5.8.1. Quality standards in social sciences and the case of MM

Quality measures are essential to support a study’s research aims and objectives. MM investigations need to meet appropriate standards for both the qualitative, quantitative, and MM sections (Johnson, 2012). The main quality standards in social science include reliability, replication, and validity (Bryman, 2016). Reliability and replicability reflect whether a study’s findings can be repeated and replicated (Bryman, 2016). Validity depicts whether a research investigation captures a factual interpretation of society (Bloor and Wood, 2006). In *quantitative research*, the main types of validity include *internal*, *external*, and *construct*, among other (Johnson and Christensen, 2014). Specifically, internal validity reflects whether a study computes the constructs it initially planned to measure (Quinton and Smallbone, 2006), while external validity reflects the generalisability, or not, of any results (Saunders et al., 2016). Construct validity, also known as factorial validity (Garson, 2013), represents how appropriate are the operational measures for the topic in focus (Yin, 2018). In contrast to the quantitative approach, *qualitative studies* assess research quality based on the notions of *trustworthiness*, the degree of persuading an audience about the value of findings via their credibility, transferability, dependability, and confirmability (Lincoln and Guba, 1985), and *authenticity*

(e.g., fairness, ontological authenticity) (Guba and Lincoln, 1994). In the context of *MM studies*, Onwuegbuzie and Johnson (2006) proposed the term *legitimation* (valid and reliable findings or assumptions) as a way to merge the different quality perspectives of the quantitative and qualitative approaches. Other key quality criteria for MM investigations include the notion of *representation* (the capacity to represent real life events using words and numbers) and *integration* (the ability to merge datasets that result from different methods) (Onwuegbuzie and Johnson, 2006). The next section presents the measures employed to support the quality of findings and interpretations resulting from this study.

5.8.2. Quality measures for the separate quantitative and qualitative stages

This study employed appropriate quality measures for the distinct qualitative and quantitative parts. Table 5.2 presents a synopsis of the implemented actions. In reference to the qualitative section, the study adopted several quality criteria. First, the audio-recorded interviews serve as a point of reference to check the eligibility of the analysis and evaluation process (referential adequacy), further supporting the *credibility* of findings (Lincoln and Guba, 1985). The use of an audit trail (audio recorded interviews) also enhances the *confirmability* of the qualitative findings (Lincoln and Guba, 1985; Creswell and Miller, 2000). In addition, the application of a semi-structured interview protocol allowed the interviewer to connect with participants, while the questions asked fully addressed the research questions of the study increasing more its *validity* (Arksey and Knight, 1999). In addition, the adoption of a suitable sampling technique (purposive) in line with the research aim further enhances the validity of findings (Arksey and Knight, 1999). On a different note, the use of participants' verbatim quotes allows for a "thick description" and allows for *transferability* assessments (Lincoln and Guba, 1985, p. 313), but also supports the *credibility* (Creswell and Miller, 2000), *representation* (Onwuegbuzie and Johnson, 2006, p. 52), and *authenticity* (Kyngäs et al., 2020, p. 43) of qualitative findings. As a further enhancement of the *dependability*, the use of standardized qualitative data collection tools increases the potential for replication of the same measurement by other researchers, at different time periods and locations (Guest et al., 2012). Accordingly, the same set of questions and instructions to participants were adopted for all interviews (Saunders et al., 2016). At the data analysis stage, a standardized translation and transcription protocol was developed and employed to ensure consistency (Guest et al., 2012). As an additional reliability measure, a detailed explanation of the research design is available (Drucker-Godard et al., 2001). On a different note, this study's findings are compared with results from similar studies to increase their *trustworthiness* (Thomas, 2003).

Table 5.2- Quality criteria and measures for the separate quantitative and qualitative stages

<u>Qualitative criteria*</u>	<u>Measures used for this study</u>	<u>Quantitative criteria**</u>	<u>Measures used for this study</u>
Credibility	Referential adequacy.	Internal validity	Cronbach's Alpha measurement and multiple reviews of the questionnaire (pre-test, pilot study).
Transferability	Thick description.	External validity	Actions to ensure the best possible representative results include a) the selection of an appropriate sampling strategy based on known limitations, b) the number of usable responses aligns with the minimum expected threshold, and c) following the same approach as Maignan and Ferrell (2000), a sample from different industries was attained to enhance the external validity.
Dependability	Dependability audit.	Reliability	Internal consistency measurement: Cronbach's Alpha.
Confirmability	Confirmability audit including audit trail.	Objectivity	Content validity based on subject experts.

* Equivalent to the quantitative criteria, ** Equivalent to the qualitative criteria
 Source: adapted from Teddlie and Tashakkori, (2009) and based on Lincoln and Guba (1985).

Additional quality processes were equally adopted for the study's quantitative phase. For instance, a *reliability* analysis was performed based on Cronbach's alpha (both at pre-test/pilot study and data analysis stages) to assess the internal consistency (homogeneity) among items (Heale and Twycross, 2015), with a threshold at 0.70 value (Leech et al., 2015). In addition, *content validity* was realised using subject experts (see Litwin, 1995) at the pre-test and pilot study phases. Specifically, the review of the questionnaire by LJMU academic staff members supports the objectivity of the research process (Nzabonimpa 2018), while members of the population in focus (SME owners/managers) confirmed whether the employed terminology was simple and clear (Rasinski, 2008; Guest et al., 2012). In reference to *construct validity*, the questionnaire was designed based on validated items from contemporary studies investigating organisational resilience. As another form of construct validity, *convergent validity* was evaluated through confirmatory factor analysis (CFA) (e.g., Garson, 2013), retaining factor loadings over the value of 5.0 (Hair et al., 2011). In the case of *external validity*, a random sampling technique was not possible due to lack of an up-to-date and complete list of SME businesses in Greece and Cyprus. However, other measures were implemented to ensure quantitative findings represent the population in focus. For instance, the data collection included firms from different industries (Maignan and Ferrell, 2000), while the minimum

sample size threshold was met (Yamane, 1967). Apart from the identified quality measures on the separate quantitative and qualitative research stages, additional actions were implemented for the quality of the integrated results. The next section outlines all steps taken for the MM results.

5.8.3. Quality measures for MM inferences

After considering quality issues at the monomethod stages of the study, the integration phase of two different approaches raises new quality threats. First, MM investigations experience representation problems due to limitations resulting from the respective qualitative and quantitative phases (Collins et al., 2007). Specifically, the question of representation relates to “the difficulty in capturing (i.e., representing) the lived experience using text in general and words and numbers in particular” (Collins et al., 2007, p. 268). Another key challenge reflects the validity or legitimation of inferences based on the combination of two different approaches (Collins et al., 2012). In practise, it is difficult to obtain findings and/or produce inferences that are “credible, trustworthy, dependable, transferable, and/or conformable” (Onwuegbuzie and Johnson, 2006, p. 52). The third key challenge relates to whether the integration of two opposing methods can successfully answer all research aims, objectives, purposes, and questions (Onwuegbuzie and Collins, 2007). The fourth concern in MM investigations is about politics and ethics and whether the final research outcomes are practical and illustrate a socially ethical viewpoint (Collins et al., 2012). Based on the possible challenges resulting from mixing independent methods (Onwuegbuzie and Johnson, 2006), appropriate actions were implemented for the legitimation of this study’s findings. Following Onwuegbuzie’s and Johnson’s (2006) key types of legitimations for MM studies, table 5.3 presents the employed actions per each type. For instance, no data conversion was attempted during the analysis stage corresponding with the philosophical assumptions for this study to respect the characteristics of each method. As an attempt to deal with the highlighted quality threats, this study employs Harrison et al.’s (2020) mixed methods principles to ensure high level of rigor. For instance, the use of a MM approach was justified based on specific requirements for the investigation of resilience in the context of SMEs, while the benefits stemming from the adoption of MM were also presented. As additional measures, the study used MM research questions and the employed MM design is stated and justified (concurrent). As additional steps, contemporary literature focusing on MM is presented, while the MM approach is evidenced at multiple sections of the thesis (e.g., title, abstract). The adopted measures support the legitimation of this study’s findings.

Table 5.3- Quality MM measures-MM legitimation strategies for this study

<u>Legitimation format</u>	<u>Description</u>	<u>Measures implemented for this study</u>
Sample integration	Does the association between the quantitative and qualitative sampling approaches produce quality meta-inferences or not?	Both sampling strategies employed are justified (e.g., survey sample size based on a mathematical model) and contribute towards quality meta-inferences.
Inside-Outside	Does the study efficiently illustrate and use the views of the insiders and observers?	This study's quantitative part represents an objective observer's viewpoint and the qualitative part a subjective insider's view (Onwuegbuzie and Johnson, 2006).
Weakness minimization	Do the strengths of one method balance the weaknesses of the other?	An equal value to both qualitative and quantitative approaches was adopted. In addition, factor analysis and reliability tests were used as part of the quantitative part (Nzabonimpa, 2018).
Sequential	In the case of a sequential design, does the change of sequence impacts the meta-inference?	A parallel mixed design was selected with equally valued and independent parts (qualitative-quantitative) to address concerns about sequential legitimation at a meta-inference stage when merging both inferences (Onwuegbuzie and Johnson, 2006; Nzabonimpa, 2018).
Conversion	Does data transformation (e.g., qualitizing, quantitizing) produce quality meta-inferences?	In line with the philosophical assumptions employed and an equal value MM design, no data transformation was adopted to respect both characteristics of the qualitative and quantitative paradigms. In addition, any data analysis and interpretation occur "in an iterative and looping manner between both strands, referring back to explicit and implicit contextual features" (Nzabonimpa, 2018, p. 5).
Paradigmatic mixing	Are the researcher's philosophical assumptions clearly presented and implemented in the study?	The researcher's philosophical assumptions are clearly presented and justified influencing all relevant choices for the implementation of the study.
Consumerability	Do the meta-inferences mirror the quantitative, qualitative, and mixed viewpoints through a process of constantly shifting approaches?	The integration of findings resulting from both methods occurs through a narrative analysis and complemented by tables/figures like the joint display approach to enable both convergent and divergent outcomes.
Multiple validities	Does the study implement measures for the validity of quantitative, qualitative, and mixed parts?	The study employed different measures to support the validity of the individual quantitative and qualitative parts, and the combined inferences.
Political	Are the meta-inferences resulting from both quantitative and qualitative approaches valued or not?	Following Onwuegbuzie's and Collin's (2007, p. 305) suggestion, the study adopted sampling designs that are "realistic, efficient, practical, and ethical".

Source: adapted from Onwuegbuzie and Johnson (2006, p. 57)

5.9. Overview of the research methods and related choices underpinning this study

As an attempt to summarize this chapter's key points, table 5.4 presents the main decisions about the employed research methods for the implementation of this study's goals:

Table 5.4- Summary of the employed research methods and related choices

<i>Population</i> under investigation	SMEs across different industries from selected geographical regions in Greece and Cyprus
<i>MM sampling</i> characteristics	Concurrent time orientation (both QUAL and QUANT data collection phases run at the same time) and a parallel relationship between the two samples (different samples for QUAL and QUANT strands but from the same SME population); QUAL and QUANT have an <i>equal value</i>
<i>QUAL</i> and <i>QUANT</i> sampling characteristics and <i>sample size</i> criteria (pre-data collection stage)	QUAL: Non-probability sampling technique (<i>expert selection</i> and <i>purposive sampling</i>); the initial sample size goal established on the notions of <i>sufficiency</i> , <i>saturation</i> , and <i>information power</i> ; the data collection concluded based on the notions of <i>data adequacy</i> and <i>theoretical sufficiency</i> ; the availability of rich data was confirmed at the analysis stage with <i>meaning saturation</i> QUANT: Non-probability sampling technique (<i>purposive sampling</i>); the initial sample size target was set as <i>over 384 usable responses</i> based on models using mathematical formulas
<i>QUAL</i> and <i>QUANT</i> data collection characteristics and final number of <i>responses</i> (post-data collection stage)	QUAL: semi-structured interviews ; 135 face to-face interviews (91 in Greece and 44 in Cyprus) QUANT: structured questionnaire survey ; 406 usable responses (348 from Greece and 58 from Cyprus; a 53.4% response rate)
<i>MM</i> , <i>QUAL</i> , and <i>QUANT</i> data analysis and <i>integration</i> characteristics	MM: Parallel mixed data analysis ; a <i>separate</i> data analysis per each approach, QUAL (thematic analysis) and QUANT (descriptive and inferential statistics); QUAL findings and QUANT results are integrated based on a <i>weaving narrative approach</i> and supplemented by tables/figures as visual aids (like the <i>joint display</i> approach), further producing <i>meta-inferences</i>

MM=Mixed Methods; QUAL=Qualitative; QUANT=Quantitative

5.10. Summary

This chapter presented the selected methods for the implementation of this study. In line with the research aims and objectives, SME owners/managers in Greece and Cyprus were approached to participate in the research based on a non-probability sampling technique. After a pre-testing process, empirical evidence was collected at the same time through semi-structured interviews (n=135) and questionnaires (n=406) from micro and small business representatives in both countries; the data collection process did not yield any data from medium sized firms. In line with a parallel mixed data analysis, a thematic analysis (interviews) and descriptive and inferential tests (questionnaires) were conducted independently. The

integration of qualitative and quantitative findings via the weaving narrative approach and supplemented by figures and tables as visual aids (joint display) resulted in meta-inferences regarding organizational and entrepreneurial attributes influencing different resilience stages.

Chapter 6

Qualitative findings

6.1. Introduction

The previous sections outlined the adopted philosophical and methodological approaches for the implementation of this study's aims and objectives. This chapter presents qualitative findings from interviews with micro and small business (MSEs) owners/managers in Greece and Cyprus. Based on a thematic analysis approach, interview transcripts were coded forming different sub-themes and themes. The interview findings are organised in two main parts. The first section presents participants' demographic characteristics and the representative themes that demonstrate the established operational conditions for Greek and Cypriot MSEs after the 2008 GFC. The second section displays various factors (themes) that could influence MSEs' resilience capacity. The associated sub-themes and codes are also included with examples from participants' verbatim quotes to add further depth at the identified points.

6.2. Demographic information of participants and their businesses

Table 6.1 presents the key demographic characteristics of interview participants and their businesses. The results identified males as the predominant group (80.7%) and almost all interviewees (94.8%) were the owners of the businesses. Based on the number of staff-members, micro firms represent the majority of the sample (73.3%), a result that reflects the SME population in both countries. Specifically, micro firms comprise the prominent group of SMEs in Greece (GR) (92.7%) and Cyprus (CY) (92.4%) (European Commission, 2022b; 2022c). On a different note, most participating businesses were established over 21 years ago (62.2%) and operate in the retail and hospitality/tourism sectors (61.2%). A high representation of firms, and specifically MSEs, operating in the retail and hospitality/tourism sector is in line with the characteristics of the Greek and Cypriot economies (e.g., European Commission, 2022b; 2022c).

Table 6.1- Demographic attributes of the interview respondents and their businesses

	Greece		Cyprus		Totals	
	n=91	%	n=44	%	n=135	%*
Gender of the participant						
Male	73	80.2	36	81.8	109	80.7
Female	18	19.8	8	18.2	26	19.3
Role of the participant	n=91	%	n=44	%	n=135	%
Owner	88	96.7	40	90.9	128	94.8
Manager / Director	3	3.3	4	9.1	7	5.2
Type of business	n=91	%	n=44	%	n=135	%
Family firm	61	67.0	25	56.8	86	63.7
Non-family firm	30	33.0	19	43.2	49	36.3
Size of the firm (in full-time employees)	n=91	%	n=44	%	n=135	%*
0	48	52.7	5	11.4	53	39.3
1-9	28	30.8	18	40.9	46	34.0
10-49	15	16.5	21	47.7	36	26.7
Age of the firms	n=91	%	n=44	%	n=135	%
10-20 years	36	39.6	15	34.1	51	37.8
21-40 years	34	37.4	23	52.3	57	42.2
41+	21	23.0	6	13.6	27	20.0
Industry in which firms are involved in	n=91	%	n=44	%*	n=135	%
Retail	35	38.5	13	29.5	48	35.6
Hospitality/tourism	17	18.7	18	41.0	35	25.9
Food production	16	17.5	3	6.8	19	14.1
Winery/distillery	8	8.8	1	2.3	9	6.7
Repair shop	3	3.3	3	6.8	6	4.4
Travel agent	6	6.6	0	0.0	6	4.4
Miscellaneous (e.g., transportation, manufacturing)	6	6.6	6	13.6	12	8.9

* Percentages were rounded off.

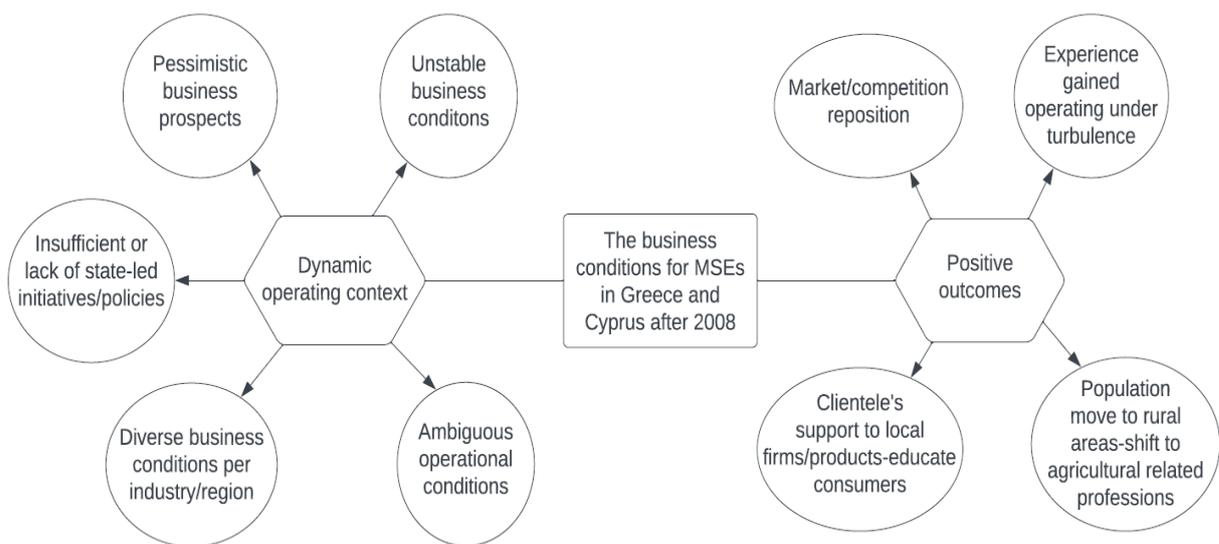
6.3. The business conditions for Greek and Cypriot MSEs after 2008

Based on the research aims and objectives set for this study, the following sections present an insight of the business reality for MSEs in Greece and Cyprus after the 2008 GFC and the impact resulting from the deteriorating business conditions worldwide. Consistent with this study's research questions (RQ4), the interview data sets from Greece and Cyprus were analysed separately to identify whether different viewpoints and challenges emanate from Greek and Cypriot owners/managers. However, the independent analysis resulted in the same type of views about the impact resulting following 2008. Based on Braun and Clarke's (2006) thematic analysis technique, various themes were identified as the predominant characteristics of the business environment in Greece and Cyprus and the subsequent key challenges for local MSEs. Consistent with contemporary literature on thematic analysis (Braun and Clarke, 2012), thematic maps were produced to combine the highlighted codes with the associated themes per each section. In addition, a selection of verbatim quotes is provided to clearly demonstrate the views of participants using an abbreviation per each MSE owner/manager to ensure the anonymity of participants (e.g., GR1 for Greece 1; CY1 for Cyprus 1).

6.3.1. The business environment characteristics for Greek and Cypriot MSEs after the 2008 GFC: the owners/managers' perspective

In line with this study's research objectives, interviewees were initially asked to describe how they perceive their business environment. Specifically, Greek and Cypriot MSE owner/managers were asked to describe their business reality after the 2008 GFC. Based on a thematic analysis of participants' opinions, nine codes were initially identified forming two key themes (figure 6.1).

Figure 6.1- Thematic map-the business conditions for Greek and Cypriot MSEs after the 2008 GFC



The first theme, *dynamic operating context*, reflects the uncertain and diverse operational conditions expressed by MSE management (table 6.2). Specifically, the business environment in Greece and Cyprus was described as extremely unstable after the 2008 GFC, while similar opinions were expressed at relevant contemporary studies (Lyberaki and Tinios, 2017). For instance, the frequent changes at a macro environment level (e.g., legislation, tax rates) proved a serious obstacle to smooth business operation. MSE owners/managers could not consider long-term responses or re-evaluate their business strategy and make appropriate actions due to the everchanging operational conditions. Accordingly, CY8 commented: *It is a very difficult environment to attempt business transactions. The current conditions make us feel as if we are at war every day.* On a different level, there was no steady business demand requiring continuous effort to improve sale figures through special offers, among other ways. Subsequently, MSE owners/managers were hesitant to invest in their businesses due to the high risk associated with potential decisions that may prove inadequate or obsolete in light of new

market demands. For this reason, GR3 noted: *Today's business environment is troubled. There is no hope to sustain a business. We can only hope to cover our expenses.* The inclusion of new policy measures challenged even more the daily business operation. Based on a rather ambiguous international and local environment, Greek and Cypriot MSEs had to continuously adjust to the new business context and identify new ways to perform even basic daily activities. For instance, the 2013 bank-haircut in Cyprus redefined the standard operating procedures for business transactions with both the clientele and suppliers or business partners. Cypriot MSEs had no access to banking services and remained operational for a short period depending on either limited cash-reserves and/or through established long-term relationship with suppliers. Specifically, CY4 explained that: *The main impact was in 2013 with the bank haircut. We could no longer offer or receive cheques as a payment form or even access our accounts. Actually, we could not even deposit money for a certain period. Not to mention that we could not take any payments via credit/debit cards for a long period with tremendous impact to our cash-flow.* In the case of Greece, the 2015 capital controls imposed at the Greek banking system had similar consequences for local firms. MSE owners/managers had to improvise and identify new ways to receive and deposit payments and purchase additional stock. Adding to the highlighted operational challenges, participants also voiced their scepticism regarding the initiatives and relief measures employed by local government authorities to support small businesses. For example, CY3 reflected that: *Every day is a struggle, especially for small businesses. The demand has dropped in most sectors, while the Cypriot state does not actively support businesses. It is very difficult to maintain a business operational under these conditions.*

On a different note, the fluctuating business environment generated a high degree of uncertainty among the public. Consumers were extremely cautious towards purchasing or committing to long-term instalment plans, with a priority placed to low-cost and short-term options. Consequently, the vague business climate did not favour entrepreneurial activities. MSE owners/managers described the established business environment as hostile for initiating new business endeavours or maintaining existing operations. However, interviewees from both countries noted that the impact and severity of challenges resulting after the 2008 GFC varied depending on the operating sector or type of products on offer. For example, Greek and Cypriot participants mentioned that the effect from the deteriorating conditions was rather mild for firms operating in the hospitality and catering sectors. As an example, CY36 observed that: *All sectors associated with tourism are performing really well. In catering specifically, there are many opportunities to open an establishment and be successful. However, other sectors face*

serious problems due to the crisis. These findings align with the heterogeneous nature of SMEs (Eggers et al., 2012), ensuing different business performance subject to the operating sector, size, and owners' management style (Pansiri and Temtime, 2010), among other elements.

Table 6.2- Dynamic operating context-selected verbatim quotes per code

Theme: Dynamic operating context	
Sub-themes: Volatile business conditions and unfavourable entrepreneurial climate	
Codes	Selected data items-quotes
Unstable business conditions	Operational requirements change daily, hence there is no point of reference for us to plan our business actions. They literally change every day! (GR11) ...the volume of business is rather sporadic and varies. Some days are so busy that won't have time for a break, while others will have no customers at all. (CY12)
Pessimistic business prospects	I believe the only right words are gloomy and dark. It is a very challenging environment, especially for young people attempting their first projects. (GR1) The golden years of the Cypriot economy are long gone. (CY39)
Diverse business conditions per operating industry or region/location	It is a difficult business environment; the level of success depends on each sector's particularities. Some sectors experience progress, while others still face serious challenges. (GR10) The latest official figures from the Ministry of Finance suggest the local economy has fully recovered from the crisis, but such conclusions are not reflected in the real economy. For instance, our sector has not recovered at all with serious challenges for most businesses. (CY1)
Insufficient or lack of state-led initiatives/policies	... the Greek state shows as if it does not want small businesses to survive the current crisis. (GR37) ...the Cypriot state does not actively support businesses. (CY3)
Ambiguous operational conditions	It is a new reality for all professionals. (GR83) The 2013 bank haircut not only shocked the local market and the whole society but also changed our daily operation... our daily standard operational procedures had to be amended. (CY4)

Apart from the negative consequences as an aftermath of the 2008 GFC, MSE owners/managers acknowledged various *positive outcomes* resulting under extremely challenging operational conditions (table 6.3). According to the interviewees, many firms with low quality standards, and partly responsible for a bad reputation in the whole market, were led to closure. As a result, MSE owners/managers expect long-term benefits from operating without rivals that refuse to conform to industry standards and focus on quick profits. Indeed, traders with poor quality standards do not remain in the market during periods of economic decline (Cowling et al., 2015). As an additional advantage, the reduced competition could improve the operational conditions for any remaining firms and allow for new business prospects (e.g., move to a central location) that could further strengthen their business presence and increase their market share. MSE owners/managers also gained experience operating under volatile business conditions. Being exposed to extreme operational conditions allows owners/managers to learn from mistakes and could perhaps enable them to make different choices and respond better at future shocks, enhancing their resilience capability both at organisational and individual level. On a different note, the turbulent context promoted new clientele behaviour. Based on participant quotes, Greek and Cypriot consumers showed an increased interest to support small firms and purchase local products. In practise, the crisis

proved an opportunity for consumers to realise the vital contribution of micro and small firms at the overall economy (e.g., employment, GDP). As another indirect result, predominantly in the case of Greece, the challenging business reality following 2008 motivated people to move to rural areas and engage in agricultural related professions. In line with certain positive outcomes, CY28 mentioned: *It is a difficult business environment but there will always be opportunities to succeed if you invest a lot of work and identify gaps in the market. I am optimistic.*

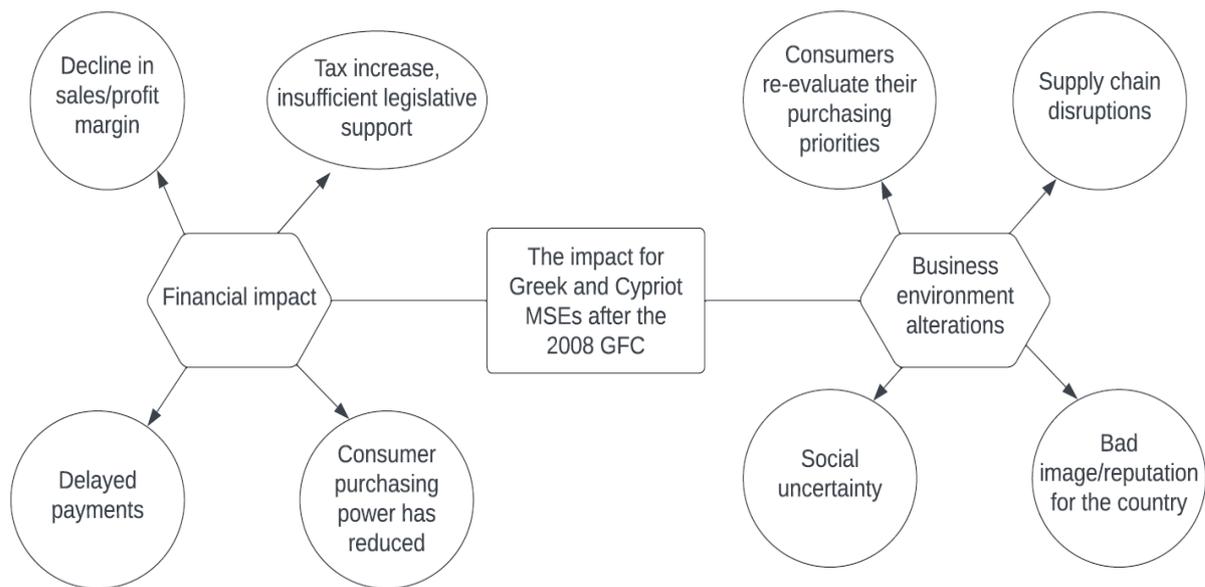
Table 6.3- Positive outcomes-selected verbatim quotes per code

Theme: Positive outcomes	
Sub-themes: Business opportunities and societal related developments	
Codes	Selected data items-quotes
Market/competition reposition	However, the positive effect from the crisis was that many businesses with limited experience, which created a bad reputation to all, had to terminate their operation. (CY2) I want to take advantage the financial crisis itself for the benefit of my business. Many shops have terminated operation in the city centre...I consider moving the business to a more central location...I aim to have increased footfall and penetrate different target groups as well (e.g., professionals, passers-by). (GR11)
Experience gained operating under turbulence	All business owners suffered a financial loss due to the crisis, but also gained in knowledge, experience to run businesses, and improved professional level. (CY22) The positive outcome was the purchase of new equipment to increase the production volume and become more competitive. Also, I managed to purchase a car for the business and get HACCP certified. (GR55)
Clientele's support to local firms/products-educate consumers	The public supports local products and creates a demand. (CY 5) Greeks showed increased interest for Greek products. People spread the word between them (word of mouth) to prefer Greek products as they contribute to GDP, employment, and balance of imports/exports. (GR34)
Population move to rural areas-shift to agricultural related professions	The high unemployment levels, especially in construction/building, has directed many people in livestock farming and agriculture. This resulted into an increase in the number of farmers even with very small flocks. (GR62) The positive impact from the crisis is that the lack of available jobs in cities directed many young people in rural areas and agriculture. (CY5)

6.3.2. The impact for Greek and Cypriot MSEs after the 2008 GFC

In the aftermath of the 2008 GFC, MSEs in both countries experienced various challenges as a result of the deteriorating business conditions. Based on participants' views, the main type of problems experienced by Greek and Cypriot MSEs reflect both financial and non-financial related issues (figure 6.2).

Figure 6.2- Thematic map-the impact for Greek and Cypriot MSEs after the 2008 GFC



From a financial perspective, Greek and Cypriot MSE owners/managers highlighted a series of challenges posing after the 2008 GFC (table 6.4). As a reflection of the unstable political and economic environment in both countries, interviewees acknowledged a significant decline of their clientele’s purchasing power. As a direct consequence, the demand for different type of products, including luxury (non-essential), dropped remarkably. Inevitably, the participating Greek and Cypriot MSEs recorded lower sales and reduced profit margins, in some cases even 40 percent under the pre-crisis level. For instance, CY7 noted that: *Unfortunately, most people have limited purchasing power and no capital savings after the bank haircut, hence cannot refurbish or build new houses.* As documented in contemporary sources, the Greek economy shrunk by approximately 26 percent during the 2010-2015 period (Economides et al., 2017), while the Cypriot economy decreased by almost 11 percent over the 2008-2014 term (European Parliament, 2016). The deteriorating economic conditions in Greek and Cypriot society instigated additional problems for local firms. For instance, MSE participants complained about serious payment delays, especially after the 2013 bank haircut in the case of Cypriot firms. As a direct impact, participating MSEs in Greece and Cyprus frequently encounter liquidity problems which prevent them from fulfilling their internal obligations (salaries, utilities) and meeting the demands of external stakeholders (suppliers), hence threatening their operational capacity. Participant CY15 specifically indicated: *It is a very challenging environment but not for selling products. Making a sale is easy, getting the payment back is the challenging part.* On a different note, state led policies and legislation initiatives further degraded MSEs’ capacity to respond to the turbulent business environment. Based on

participants' comments, the implemented tax policies (predominantly in the context of Greece) and other legislative acts to regulate the local market, decreased even more MSEs' financial reserves and set serious barriers to their capacity to compete against other firms and respond to the new business reality. As an example, GR22 argued that: *The operation of the market is very unfair. All legislation acts favour the large and multinational companies.* In line with the interviewees' remarks, the 2016 corporate income tax in Greece increased from 26 to 29 percent and Greek businesses were obliged to a 100 percent prepayment on the projected annual tax fee of the following fiscal year (SGI, 2017a).

Table 6.4- Financial impact-selected verbatim quotes per code

Theme: Financial impact	
Sub-themes: Revenue and regulatory related challenges	
Codes	Selected data items-quotes
Decline in sales/profit margin	Our profit margin has reduced by approximately 40% during the crisis. (GR90)
	We started to experience the first reduction in sales in 2011, with every year after being even more challenging. (CY12)
Tax increase, insufficient legislative support	The VAT has increased dramatically during the crisis. (GR18)
	We need state control over the trade terms imposed by supermarkets. There should be new legislations to protect small businesses. (CY13)
Consumer purchasing power has reduced	Not to mention that consumer purchasing power has significantly dropped during the crisis. (GR9)
	People can only afford the prices and quality of products offered at supermarkets. (CY29)
Delayed payments	We have to wait for payments in order to proceed with any purchase or further repayment of a debt or purchase. (GR30)
	I was neither able to pay my suppliers for the running projects at that time nor receive any payments for the work that has been completed. (CY3)

Apart from the financial impact, the turbulent business conditions imposed worldwide caused structural alterations for MSEs in Greece and Cyprus (table 6.5). As an aftermath of the deteriorating economic climate, both at local and international level, many businesses acting as suppliers to MSEs terminated their operation or declared bankruptcy causing serious operational problems. For instance, CY5 argued that: *The financial crisis did impact us indirectly via the collapse of some big supermarket chains. We had to take the cases to court to claim our payment.* In addition, the limited availability of suppliers after the 2008 GFC created stock shortages. MSE owners/managers were forced to explore the local and other markets to identify possible alternative business partners and establish new collaborations. On a different note, the declining financial capacity in the wider Greek and Cypriot societies, created uncertainty and influenced consumers to adjust their purchasing priorities. Based on participant comments, local consumers were sceptical and concerned about the economic developments. Accordingly, the public primarily focused on purchasing essential commodities and minimizing any discretionary expenditure. Consumers also did extensive market research and price comparison to inform their decision-making adding pressure to local firms to reduce prices, introduce offers, and further extend re-payment terms. Participant GR10 explained that:

Consumers research a lot before they purchase. They compare prices from different shops and reduce the portions/volume of their purchases. People choose to buy specific products from shops that usually offer significant sales. I think most people care about quality but first consider the price. As an aftermath, the clientele's new purchasing behaviour affected local MSEs' sales and profit margin. Another significant impact resulting from the volatile business environment relates to the international media attention on the economic hardships in Greece and Cyprus. Specifically, the bad publicity caused concern and mistrust to international business partners and suppliers requesting full pre-payment before shipping any orders or other changes on payment terms. CY4 commented that: *Our suppliers all over the world were alarmed with the banking meltdown. For instance, our shrimp suppliers from Vietnam demanded a full pre-payment before they send any more shipments, regardless our excellent collaboration in the past.* On a similar context, some businesses lowered their quality standards due to the challenging operational conditions, creating a bad reputation for the whole market and worsening even more the image of local businesses. Apart from the indirect financial impact, the highlighted challenges could threaten local firms' future business viability. For instance, the reduction in suppliers and clientele could increase the supply chain vulnerability (Pal et al., 2014).

Table 6.5- Business environment alterations-selected verbatim quotes per code

Theme: Business environment alterations	
Sub-themes: Market and societal related challenges	
Codes	Selected data items-quotes
Supply chain disruptions	We have survived until now, but the reduced range of suppliers has increased the challenge for us. We need to look for the suppliers who survived the crisis and make deals with them. (GR44) ...a large supermarket chain bankrupt two years after the financial crisis and caused us a huge financial loss. (CY36)
Consumers re-evaluate their purchasing priorities	Unfortunately, our products are not as essential as food or drinks. (CY7) The crisis changed people's habits and needs. (GR39)
Social uncertainty	There is definitely a financial implication from the crisis but for me the psychological impact is more important. People are scared to invest or spend any money or savings they might have just in case the conditions deteriorate more. (GR77) Consumers were afraid to spend money and tried to wait for any further development. (CY36)
Bad image/reputation for the country	Cyprus was in the centre of media interest for all the bad reasons. (CY39) Some professionals disrespect their customers by charging additional prices or selling products of low value for high prices. The result is to create a bad image for all of us. (GR16)

Although the range and magnitude of challenges was comparable in both countries, the sequence of events leading to the culmination of the crisis and its duration was different. In the case of Greece, local businesses were susceptible to the deteriorating worldwide business conditions shortly after the 2008 GFC erupted. Participant GR87 noted that: *Our profit margin has significantly reduced after the 2008 GFC. Both locals and tourists do not spend the same*

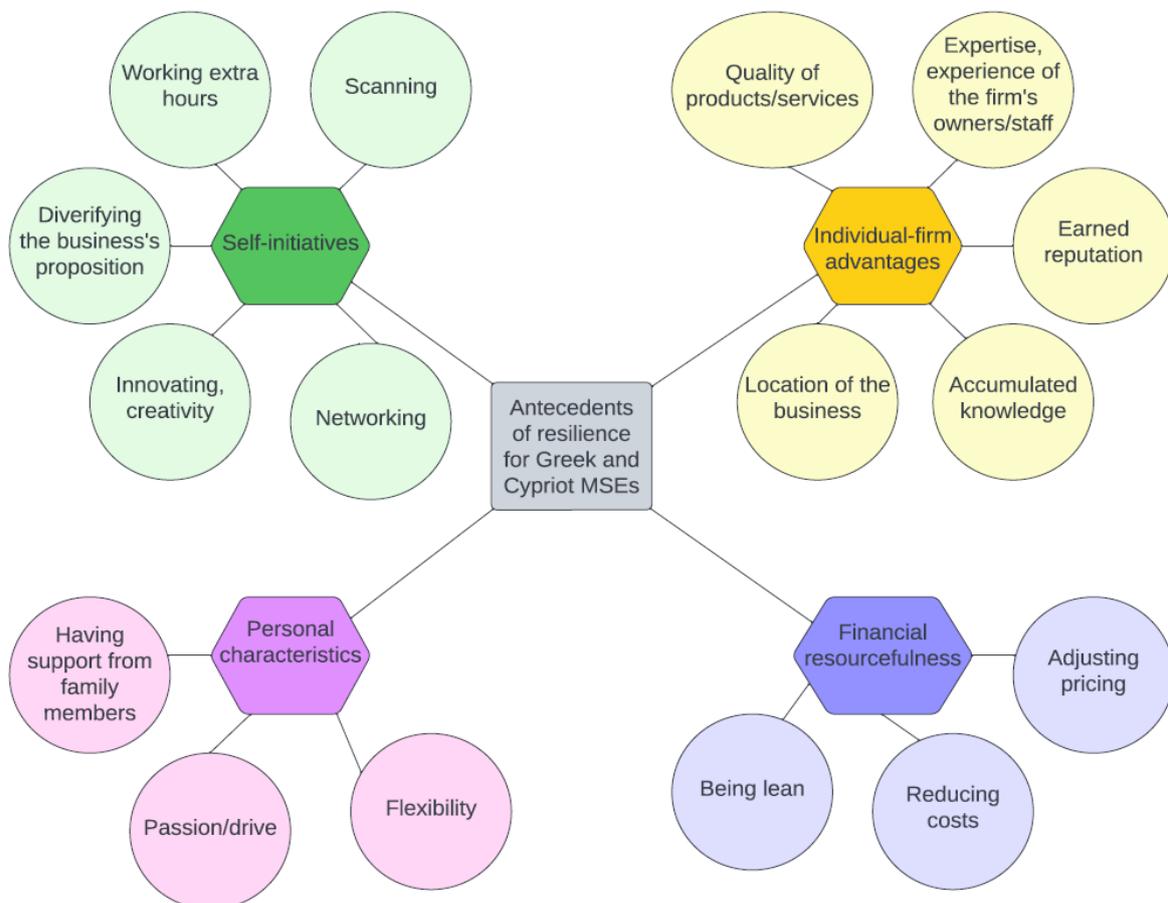
amount of money for their meals before the crisis. The same people who used to order many menu items now are very selective on what they will order and carefully check the overall cost. However, according to the interviewees, the business environment in Greece deteriorated remarkably after the austerity measures imposed in 2010 by European and International institutions (e.g., International Monetary Fund, IMF; European Central Bank, ECB). These views reflect the course of the Greek economy during the period 2010-2017. For instance, the unemployment rate rose to a record high 27.5 percent in 2013 (Economides et al., 2017), and remained as the highest in the European Union till 2020 (Hellenic Statistical Authority, 2018; 2020; 2023).

The development of the crisis was different in Cyprus. This study's respondents identified the 2013 private deposits bank levy as the starting point for serious turbulences in the local economy with an immediate impact for businesses. As an example, CY33 reflected that: *The main impact was during 2013-2015 for most businesses in Cyprus.* However, Cypriot MSE owners/managers confirmed experiencing difficulties even at an earlier period (e.g., since 2011), as was the case for Greek participants but at a lower intensity. Specifically, CY1 explained that: *Our company experienced losses since the 2011 period as most constructors would not start any new projects due to the global financial crisis. However, the 2014 season has been a total catastrophe for our company. Our annual turnover was reduced by 70 percent in 2014. The next year, 2015, was slightly better but still not able to help us recover from the initial shock.* As an aftermath of the deteriorating business conditions, Cyprus's unemployment rate increased to a historic high of 16.1 percent by 2014 and remained at high levels in 2015 (14.9%) and 2016 (12.9%) (Statistical Service of Cyprus, 2017). In the context of SMEs, Cypriot firms showed notable signs of recovery surpassing by 2017-2018 their pre-crisis performance in employment (+6.3%) (European Commission, 2019b). Indeed, Cypriot interviewees confirmed the ongoing improvement at the operating conditions for local firms. For instance, CY4 argued that: *At this stage the conditions in the market are much more favourable than the previous years. The banking system has regained a normality, the whole economy shows signs of recovery, while people slowly dine more and increase their spending.* Despite the progress made, SMEs in Cyprus still experience important problems (funding options) (European Commission, 2021a). Based on the highlighted challenges and the turbulent business environment, it is crucial to identify how MSEs (and medium sized firms) could develop resilience capabilities. The section that follows presents factors that could influence MSEs' resilience capacity at different stages.

6.4. Antecedents of coping and resilience behaviour from the perspective of Greek and Cypriot MSE owners/managers

In reference to possible factors that could influence Greek and Cypriot MSEs' resilience capacity, the interview data sets from Greece and Cyprus were initially analysed separately. A thematic analysis of the interview transcripts produced comparable findings with 16 relevant codes per each country. At a secondary level, the identified codes were clustered in relevant sub-themes and four key themes representing the predominant factors that determine Greek and Cypriot MSEs' ability to develop resilience after the 2008 GFC. In line with contemporary literature on thematic analysis (Braun and Clarke, 2012), a thematic map presents the combined findings with the highlighted codes and associated themes/ sub-themes (figure 6.3). The following sections present all identified themes, namely individual-firm advantages, self-initiative, financial resourcefulness, and human characteristics, supported by verbatim quotes from Greek and Cypriot SME owners/managers.

Figure 6.3- Thematic map- antecedents of resilience from the perspective of Greek and Cypriot MSE owners/managers



6.4.1. 'Individual-firm advantages' theme

The 'individual-firm advantage' theme reflects several factors associated with business operating features and individual qualities of owners/staff (table 6.6). First, the availability of **quality products/services** enabled Greek and Cypriot MSEs to survive the initial shock at the beginning of the crisis but also remain at the top of their clientele preference as the crisis continued. Although consumers' purchasing power declined after the crisis, businesses offering quality products/services managed to retain the public trust, remain operational and survive during extremely challenging business conditions, and adapt to the new business reality. For instance, GR49 explained that: *Quality products is the main reason clients choose our business.* Second, the **expertise and experience of owners/staff** proved crucial for businesses to take proper decisions and choose appropriate measures throughout the crisis as a way to maintain their clientele's loyalty, overcome obstacles, and identify solutions to problems. As an example, CY3 mentioned that: *Our specialisation and expertise are a valuable asset for us. It is one of the key reasons why the business still operates in the market.*

On a similar point, respondents highlighted the value of **accumulated knowledge** to support businesses dealing with turbulences. Specifically, GR28 reported that: *I have been involved in the Hotel industry over 20 years and can support my business with all the acquired knowledge.* In addition, businesses with a good **reputation** among various local stakeholders (e.g., customers, suppliers) had a serious advantage over other firms during the volatile period. According to the feedback from participants, many customers expressed their active support, recognising their long-lasting relationship based on trust and mutual respect. CY1 clarified that: *We have an excellent reputation with the professionalism and consistency showcased at every project. Undoubtedly, the great reputation puts us in front of the competition even for the small projects.* The **location of the firm** also emerged as a significant factor to aid firms cope with difficult business conditions. For instance, MSEs located in preferential areas benefited from high footfall, easier promotion of their products/services, among other benefits. As an example, CY22 mentioned that: *Our current location is at the city centre with guaranteed high footfall. The shopping district is close and helps us remain one of the first choices for the public.*

Table 6.6- Individual-firm advantages-selected verbatim quotes per code

Theme: Individual-firm advantages	
Sub-themes: Entrepreneurial and business related characteristics	
Codes	Selected data items-quotes
Quality of products/services, firm performance	The quality of our products is unquestionable. Our customers prove this point with their trust. (GR34)
	We offer high quality products. The products are certified with ISO quality assurance and provide 100 percent guarantee that our clients will be satisfied. (CY1)
Expertise, experience of the firm's owners/staff	Our experience of over 45 years in the market is key. We know all possible tricks in the market. (GR12)
	The owner and staff members have extensive experience in the industry and have the expertise to support such a project. (CY22)
Earned reputation	We operate for many years and have established a good reputation in the market. People know us and have loyal customers for decades. There are many cases of people coming to buy glasses since they were babies and have now turned adults. (GR36)
	We have established a good reputation in the market. We are known as a reliable business with consistent quality products, service that has no financial debts, and is always on time with payments. (CY7)
Accumulated knowledge	Our experience of over 45 years in the market is key. We know all possible tricks in the market. (GR12)
	I have worked in luxurious hotels in almost all departments available. So, I got really confident as I continued to enrich my knowledge. As a result, I truly understand the industry and guests' expectations. (CY18)
Location of the business	Location is a key point for us. The hotel is located exactly at the city centre and half the distance from the exit of the city. Also, we are next to the main bus station and only a 2-minute walk from the train station. It is an ideal spot that combines quiet and safety. (GR28)
	Location is a key strength of the business. We are located by the beach with a very high footfall. It is an excellent point to have a business because of the sea view and easy accessibility to all parts of the city. (CY18)

6.4.2. 'Self-initiatives' theme

MSE owners/managers in Greece and Cyprus confirmed the value of self-initiative activities in their attempt to cope with the adverse business environment after the 2008 GFC (table 6.7). Respondents particularly focused on the value resulting from *networking* and *interacting* with various stakeholders (professionals, customers, suppliers) to establish affiliates that could be useful at difficult periods, but also *learn* from them. For instance, GR83 reported: *I try to travel to experience what type of olive oil and olives people aboard prefer or can find, and also discuss with other professionals*. Equally important proved to be the *diversification of the business offer*. Based on relevant interview comments, expanding the initial range of products/services allowed MSEs in Greece and Cyprus to offset the drop in sales and maintain their operational capacity. As an example, GR30 explained that: *We were forced by circumstances and the need to survive to have a wide range of activities*. In addition, Greek and Cypriot MSE owners invested resources (time, funds) to *scan* and *understand* better *how their market operates* (competitors) and identify possible future trends to inform their business strategy. For example, participants attended professional exhibition shows or other relevant meetings to exchange ideas with fellow professionals and get insights into current and future market developments. Specifically, CY3 explained that: *I always monitor the market trends and try to check what competitors do, small businesses or multinationals*. On a different note, most respondents *invested extra personal time* in their businesses to reduce their operating expenses or complete all needed tasks for the proper operation of their businesses. GR22

confirmed that: *We work longer hours to balance the expenses, not have profit. No personal life is possible now.* Indeed, owners/managers are crucial for the daily operation and management of SMEs in Greece and Cyprus since most SMEs in both countries cluster under the micro category (between 0 to 9 employees) (European Commission, 2022b; 2022c), therefore operate with limited resources (staff). **Innovating** and being **creative** were other useful measures enabling MSE owners/managers to overcome operational limitations or problems resulting from the challenging business conditions. For instance, CY18 mentioned: *I try to be innovative and think creatively for solutions. As a way to deal with competition, I have staff members at the beach to take orders from tourists and deliver take away food at the beach. I offer a commission per each order as an extra incentive for staff to take more orders.*

Table 6.7- Self-initiatives-selected verbatim quotes per code

Theme: Self-initiatives	
Sub-theme: Entrepreneur-led responses	
Codes	Selected data items-quotes
Networking, interacting, learning from others	Networking is essential for our business. We regularly go and meet with bank managers or other officers to remind them about our trips/services and other packages. (GR27)
	In Cyprus, it is essential to know the right contacts and have a large network. It is impossible to get assigned any project unless you know well the decision makers and stakeholders of these projects. As a result, networking is mandatory and requires presence in the right circles of power. (CY3)
Diversifying the business's proposition	We managed to cope with the drop of sales by extending our range of products. For instance, we have launched food products based on the taste of our drinks. An example is the 'Loukoumi' (Turkish delight) with the taste of 'Tentoura' liqueur. These products are an extra revenue stream for us and help us not to solely depend on the drinks consumption and balance any loss of sales form the drinks market. (GR34)
	There are just few new constructions we could sell elevators but there are thousands of elevators that should be repaired. As a result, we focus to deliver the repairs until the sector recovers from the crisis. (CY3)
Innovating in the business, creativity	We have built a special crepe machine to align with our product offer, quality requirements, consistency, volume, and speed of work. Also, the machine has been specifically designed to reduce staff fatigue. We have built a number of these machines which we rent to similar businesses located on a different city. (GR8)
	I always try to innovate and introduce unique products in the market before the competition. I focused on product development of a new generation of paints that are environmentally friendly but have the same result as paints based on turpentine. (CY1)
Scanning, understanding, learning about the market	We conducted an extensive research to identify who are the people who still travel. We identified who are these people at a local level to get a market share and have steady incoming business. (GR33)
	I monitor closely the latest development in my sector. I attend annual training seminars and tradeshows in Germany to get an update of the current and future trends. (CY1)
Working extra hours at the business	I need to personally invest more hours in the business to perform all needed tasks and maintain our service standards at a professional level. (GR90)
	I work almost all day long every day of the year to reduce the operating expenses and increase my profit margin. (CY39)

6.4.3. 'Financial resourcefulness' theme

Interviewees from both countries emphasized the importance of having financial insight and making appropriate financial adjustments as a response to the business conditions established after the 2008 GFC (table 6.8). For instance, Greek and Cypriot MSE owners **reviewed their pricing strategy** and/or offered special deals to maintain their clientele basis and adapt to the new business reality (e.g., reduced consumers' purchasing capacity). Among other actions, participating MSE owners/managers decided to absorb newly imposed state taxes instead of

increasing their prices. Accordingly, GR89 mentioned that: *I absorb any new taxes to keep my prices at the same level as the previous years. As a result, my profit margin has shrunk.* As an additional measure, participants attempted to further **reduce their operating expenses** to immediately respond to the different business context. As a result, MSE owners/managers laid off employees or reduced staff salaries, decreased their purchasing order to the minimum level, and resorted to more economical options to lower their utilities costs (e.g., use less fridges, light saving bulbs). For example, GR90 explained that: *We have reduced our staff members. Before the GFC, the restaurant operated with 15 staff members. Today, its only 3 family members.* The **limited exposure to debts or borrowing** also enabled MSE owners/managers to have more available options and set a new business strategy based on the less possible barriers.

Table 6.8- Financial resourcefulness-selected verbatim quotes per code

Theme: Financial resourcefulness	
Sub-themes: Reactive and proactive financial measures	
Codes	Selected data items-quotes
Adjusting pricing (e.g., lowering prices, discounts)	Our prices have remained stable over the past 10 years. Any new tax is not transferred to customers; hence, our profit margin is lower. (GR9)
Reducing costs, expenditures, downsizing	We offer special deals all over the year. Similarly, we reduced the prices for all our products to entice clients to begin new projects. The goal now is not to make profit but breakeven and at least cover the expenses. (CY1)
	Unfortunately, we had to reduce our staff members from 32 members to 18 members. (GR32)
	I had to further reduce the operational expenses of the business. I was forced to lay off three employees and fix the salaries at a certain level for the rest employees. (CY3)
Being lean (no debts, borrowing)	The most important element was that we had no accounts payable to third parties-suppliers, banks, etc. We did not owe any money to anybody and this is the reason we are still operational. We always followed a very tight control of our expenses and made sure we pay our debts on the agreed time. (GR35)
	We were fortunate to not have prior debts in banks or to other associates. As a result, we were flexible to adjust our operational focus from large projects to smaller ones until there is stability in the economy. (CY2)

6.4.4. 'Personal characteristics' theme

Based on interview findings, specific personal characteristics of owners/managers influenced greatly MSEs' ability to cope with the deteriorating operational conditions after the 2008 GFC (table 6.9). Due to MSEs' limited resource availability, the level of **passion** and **drive** demonstrated by owners/managers plays a significant role whether MSEs manage to cope with turbulences or not. For instance, most owners/managers invested additional hours to the business to overcome their restricted available resources (e.g., staff) and complete all required tasks. On a relevant point, CY18 mentioned that: *All staff members and owners are very passionate with their work, they are not simply here for their paycheck. Guests need to feel loved.* Having **the support of family members** also proved an invaluable asset for many Greek and Cypriot MSE owners/managers. Family support allowed owners to complete necessary tasks and keep operating expenses low. As an example, GR90 commented that: *Our family*

supports us tremendously. My brother is a fisherman and supplies me with fresh fishes which reduces a lot the costs of running the business. I am not sure whether the business would still be open had it not been for his help, and other family members. The ability to be **flexible** and adjust various operating processes was an equally important factor during the crisis. The small business size allowed many MSEs to adapt faster and easier than larger firms to the new business reality. Notably, CY31 highlighted that: *We were flexible and managed to quickly respond to the crisis by creating a new menu with special offers.*

Table 6.9- Personal characteristics-selected verbatim quotes per code

Theme: Personal characteristics	
Sub-theme: Individual traits and affiliations	
Codes	Selected data items-quotes
Passion, drive	We are hard workers and have the desire/hunger to support the business and survive. The agency operates from 09:00 till 21:00. (GR33) Both the owners and staff members have a personal passion for drinks and cigars. Our customers understand it and surely respect how much we love our profession and the products we promote. (CY22)
Flexibility	We are a small business that can act like a chameleon and adapt to new business conditions. For instance, our customers can find us 24/7. We are available to make any bookings any time of the day. We have flexible working hours. (GR33) We are much more flexible than other competitors or even bigger companies in terms of the finished products we can provide. We can fully adjust our production rate depending on the volume of orders. Equally, our delivery time could be accelerated when needed to support and please our customers. (CY1)
Having support from family members	The whole family supports the business operation. All three brothers help in times although we have full-time jobs. It is a moral obligation to our parents. (GR22) The family support helps to maintain the operational expenses at low level. (CY2)

6.5. Summary

Based on a thematic analysis technique, this chapter presented the main qualitative findings resulting from the interview data collection process. According to Greek and Cypriot MSE owners/managers, the deteriorating business conditions after the 2008 GFC created a challenging operational environment posing serious threats (e.g., reduced sales) but also opportunities (e.g., people focusing on local products). From the perspective of organisational resilience, four key themes were identified as shaping Greek and Cypriot MSEs' capacity to develop resilience and adapt during turbulent periods. The inclusion of participants' verbatim quotes validates the identified themes. The next chapter reports the questionnaire results aiming to complement the qualitative findings, and further distinguish the dynamics of resilience in the context of MSEs in Greece and Cyprus.

Chapter 7

Quantitative results

7.1. Introduction

This chapter presents the quantitative results from the questionnaire investigation. Specifically, descriptive statistics are used to demonstrate how MSEs performed on specific factors that could influence their ability to develop resilience and cope with turbulences, among other business performance criteria. In addition, inferential statistical tests are employed to identify any intergroup significant statistical differences (One-way ANOVA), whether the means of two groups are different from each other (Independent t-test), and for data reduction purposes (Factor analysis).

7.2. Demographic profile of participants and businesses

Tables 7.1 and 7.2 display the key demographic characteristics for the participants and their firms. Most participants were males, aged between 36 to 55 years old, and owned the businesses. Based on the number of employees, micro businesses accounted the overwhelming majority (83.3%) of the sample, while over three-quarters (75.4%) of participating firms were active for more than 10 years in their market. In addition, firms operating in the hospitality/tourism and retail/wholesale industry represented the highest proportion of businesses (73.1%). The industry comprising of the wholesale and retail trade, transport, accommodation, and food service activities has the highest GVA and employment contribution to both Greek and Cypriot economy (Eurostat, 2021).

Table 7.1- Demographic profile of participants

Profile of the participants	Greece		Cyprus		Totals	
Gender	n=348	%	n=58	%	n=406	%
Male	231	66.4	45	77.6	276	68.0
Female	117	33.6	13	22.4	130	32.0
Participants' age group	n=348*	%	n=58	%	n=406*	%
18-25 years old	3	0.9	1	1.7	4	1.0
26-35 years old	47	13.5	16	27.6	63	15.6
36-45 years old	118	34.0	20	34.5	138	34.1
46-55 years old	96	27.7	15	25.9	111	27.4
56 and above	83	23.9	6	10.3	89	21.9
Role of the participants	n=348	%	n=58	%	n=406	%
Owner	335	96.3	55	94.8	390	96.2
Manager/Director	13	3.7	3	5.2	16	3.8
Participants' highest level of education	n=348* *	%	n=58	%	n=406* *	%
Master's degree and above	26	7.5	5	8.6	31	7.6
Bachelor's degree	88	25.5	11	19.0	99	24.6
Technical/vocational degree	51	14.8	25	43.1	76	18.9

Secondary/High school	156	45.2	17	29.3	173	43.0
Primary/No school	24	7.0	0	0.0	24	5.9

* Missing one response; ** Missing three responses.

Table 7.2- Characteristics of the participating businesses

Characteristics of the firms	Greece		Cyprus		Totals	
	n=348	%	n=58	%	n=406	%
Size of the firm (in full-time employees)						
0	93	26.7	3	5.2	96	23.6
1-9	213	61.2	29	50.0	242	59.7
10-49	42	12.1	26	44.8	68	16.7
Age of the firms	n=348	%	n=58	%	n=406	%
5 years or less	29	8.3	0	0.0	29	7.1
6-10 years	65	18.7	6	10.3	71	17.5
11-20 years	158	45.4	39	67.3	197	48.6
21+ years	96	27.6	13	22.4	109	26.8
Firms' annual turnover (in Euros)	n=348*	%	n=58	%	n=406*	%
Less than 50,000	133	38.3	7	12.1	140	34.6
50,000 – 199,999	153	44.1	34	58.6	187	46.2
200,000 +	61	17.6	17	29.3	78	19.2
Industry in which firms are involved in	n=348	%	n=58	%	n=406	%
Hospitality/tourism	142	40.8	27	46.6	169	41.6
Retail/Wholesale	110	31.6	18	31.0	128	31.5
Food production/agriculture/fisheries	37	10.6	0	0.0	37	9.1
Manufacturing	24	6.9	3	5.2	27	6.7
Miscellaneous (e.g., real estate, financial and insurance activities, administrative and support service activities)	35	10.1	10	17.2	45	11.1
Firms' involvement in exports	n=348	%	n=58	%	n=406	%
Yes	34	9.8	4	6.9	38	9.4
No	314	90.2	54	93.1	368	90.6

* Missing one response.

7.3. Data screening and clearing before analysis

As explained in earlier chapters (see chapter 5), the quantitative datasets obtained from Greek and Cypriot MSEs were subjected to a screening process prior analysis to identify any mistakes and assess the suitability of employing inferential statistical tests. Initially, frequency tests were used to determine whether there are any data input mistakes and detect any obvious outliers. The tests did not identify any incorrect values during data import. The following step was to check for any missing data. As a proactive measure to improve this study's response rate, the researcher informed prospective participants about the advantages of reducing missing data. Upon thorough review of all variables, a total of 37 responses (GR: 29; CY: 8) were excluded from the analysis due to being partially incomplete or blank. Some missing items were also noticed in just few other cases. Due to the random missing pattern and the very low number of missing items when compared to total responses (2.5% or lower), no further action was taken to replace the missing values. The following sections present the results from all tests; any missing items are reported for all dependent and independent variables.

7.4. Descriptive and inferential statistical results

The following sections present results from descriptive and inferential statistical tests structured in five sections. The first part ranks different ‘measures of firm success’ in order of preference by MSE owners/managers. Second, MSEs’ business performance is evaluated based on key performance criteria. The third section reflects the value of various ‘critical success factors’ for the performance of MSEs in Greece and Cyprus after the 2008 GFC, relating to their coping capacity. The fourth part illustrates Greek and Cypriot MSEs’ performance on factors that could influence their capacity to develop resilience.

7.4.1. ‘Measures of firm success’

7.4.1.a. What are the most important ‘measures of firm success’ to Greek and Cypriot MSE owners/managers?

Due to the multidimensional nature of resilience and the significant role owners play in MSEs, participants were asked to rank specific ‘measures of firm success’ in order of importance (table 7.3). Based on the results, participants placed an equally high value to most items used in the study. Among the top priorities for respondents include the survival of their business (m=4.78), customer satisfaction (m=4.70), and profitability of their firm (m=4.69). In contrast, less importance was attached to contributing back to the society (m=3.41) and receiving public recognition (m=2.92).

Table 7.3- Perceived value for measures of “firm success”

Items investigated	n*	Mean	SD
Business survival/longevity	406	4.78	.481
Satisfied customers	406	4.70	.595
Profitability	406	4.69	.594
Usefulness/relevance of products/services to customers	406	4.45	.722
Work-life balance	406	4.33	.795
Business growth	406	4.24	.945
Personal satisfaction	406	4.17	.935
Innovating (e.g., solving problems, repairing equipment)	406	3.59	1.080
Contributing back to society (e.g., jobs, taxes)	406	3.41	1.066
Public recognition	406	2.92	1.462
* Missing two responses; a Likert-scale is used where 1= Not at all important and 5= Very important.		Cronbach’s Alpha scale: 0.771	

7.4.1.b. Independent t-test based on each country and ‘measures of firm success’

An independent t-test was used to identify any differences at the mean scores between responses from Greek and Cypriot MSEs. In the context of ‘measures of firm success’, the mean variation is marginal on almost all employed items and the effect size is mainly small and medium (Cohen’s d) (table 7.4). According to the results, ‘business survival/longevity’ was identified as the most important criterion for business success, with participants in Cyprus (m=4.98) attaining a statistically significant higher score than their Greek colleagues (m=4.75). Among other measures, MSE owners/managers in Greece and Cyprus placed a similarly high value on ‘profitability’, having ‘satisfied customers’, and their ‘personal satisfaction’. In terms of work-life balance, Greek respondents (m=4.37) recorded a statistically significant higher value than their Cypriot associates (m=4.05). The most noticeable statistically significant variation between both groups was for the measure of ‘business growth’, with higher scores from Greek participants (m=4.38) than Cypriots (m=3.43). In contrast, there was a modest interest from both groups to ‘contribute back to society’; the difference between Greek (m=3.49) and Cypriot (m=2.95) MSE owners/managers was statistically significant.

Table 7.4- Independent t-test based on country and ‘measures of firm success’

Items	Groups	n	M	SD	Sig.	Cohen’s d
Country (Greece-GR, Cyprus-CY) versus measures of firm success						
Personal satisfaction	GR	348	4.21	.925	NS*	.278
	CY	58	3.95	.963		
Profitability	GR	348	4.68	.606	NS	.131
	CY	58	4.76	.506		
Satisfied customers	GR	348	4.71	.601	NS	.126
	CY	58	4.64	.552		
Work-life balance	GR	348	4.37	.784	.005	.401
	CY	58	4.05	.826		
Business survival/longevity	GR	348	4.75	.509	.001	.497
	CY	58	4.98	.131		
Business growth	GR	348	4.38	.792	.001	1.072
	CY	58	3.43	1.313		
Innovating (e.g., solving problems)	GR	348	3.59	1.075	NS	.030
	CY	58	3.62	1.121		
Contributing back to society (e.g., jobs, taxes)	GR	348	3.49	1.037	.001	.521
	CY	58	2.95	1.115		
Usefulness/relevance of products/services to customers	GR	348	4.48	.710	NS	.236
	CY	58	4.31	.777		
Public recognition	GR	348	3.00	1.485	NS	.414
	CY	58	2.40	1.227		
NS*=Non statistically significant difference						

7.4.2. Business performance criteria

7.4.2.a. How have Greek and Cypriot MSEs performed in key business performance criteria after the 2008 GFC?

In line with this study's research objective to investigate MSEs' business performance in the context of Greece and Cyprus, the questionnaire survey asked participants to assess their businesses' performance against particular operational criteria and metrics following the 2008 GFC (table 7.5). The low ratings assigned to many performance measures verifies the difficult operational conditions after the 2008 GFC. Although participants confirmed an increase in the quality of suppliers (m=3.99) and customer satisfaction (m=3.96), most financial related performance criteria have rather low scores. For example, respondents indicated a poor performance on sales (m=2.79), purchases (m=2.73), and revenue (m=2.63). Based on a rather low business performance, as depicted on the results, it is not surprising that relatively few participants invested back to their businesses (m=2.27) or recruited more staff members (m=2.39).

Table 7.5- Perceived business performance after the 2008 GFC

Items investigated (Increase in...)	n*	Mean	SD
...quality of suppliers (e.g., products, ingredients)	406	3.99	.849
...client/customer satisfaction (e.g., with products, services)	406	3.96	.810
...improving the time required to prepare tasks/utilisation	406	3.61	.829
...enhancing the image of the firm/product/service	406	3.61	.835
...perception of dependability of the products/services	406	3.60	1.033
...integration with customers/guests	406	3.54	1.017
...perception of quality in products/services	406	3.52	.946
...controlling operating costs more effectively	406	3.52	.854
...perception of quality in the process of production/service	406	3.47	.930
...introducing new products/services	406	3.04	1.040
...capacity utilisation (e.g., space, facilities, land)	406	2.96	1.038
...client/customer base	406	2.91	1.068
...sales (e.g., number of products/services sold)	406	2.79	1.095
...purchases (e.g., goods, services)	406	2.73	.972
...revenue (Gross income)	406	2.63	1.089
...innovation (e.g., products, services, process)	406	2.60	1.183
...net profit (total income minus any expenses, taxes, interest)	406	2.59	1.077
...assets (e.g., buildings, land)	406	2.49	.970
...liquidity-cash flow/receipts (cash in hand)	406	2.41	1.116
...number of employees	406	2.39	.955
...investment on the firm (e.g., equipment, training)	406	2.27	1.137
* Missing eight responses; a Likert-scale is used where 1= Very poorly and 5= Very strongly.	Cronbach's Alpha scale: 0.946		

As an attempt to draw additional information about the performance of MSEs, participants were also asked to identify whether their businesses managed to respond to challenges (e.g., financial, operational) resulting after the 2008 GFC and also reflect on the level of impact caused by the crisis. Based on the results, less than one-quarter of firms (23.9%) managed to effectively respond to challenges associated with the 2008 GFC, while 65 percent of firms in the sample were seriously affected by the 2008 GFC. In addition, the results demonstrate that the majority of firms in the sample (86.2%) was profitable before the 2008 GFC.

7.4.2.b. What distinct performance outcomes result for Greek and Cypriot MSEs from nurturing resilience capabilities, if any at all?

Based on an ANOVA test, various statistically significant differences ($p \leq 0.05$) of predominantly large effect size (Omega squared) manifested after considering the level of MSEs' response to challenges (e.g., financial) resulting after the 2008 and their scores in key performance indicators during the same period (table 7.6). According to the results, MSEs that managed to respond well (very strong/strong) to various challenges after the 2008 GFC, clearly performed better than other firms at financial related measures, including liquidity ($m=3.44$), net-profit ($m=3.55$), revenue ($m=3.56$), and sales ($m=3.71$). Despite the modest means, MSEs associated with a positive response to turbulences also reported higher scores on other operational factors. For instance, highly responsive MSEs to post-GFC turbulences reported better results in staff recruitment ($m=3.25$), innovation ($m=3.42$), and capacity utilisation (e.g., facilities) ($m=3.52$). Accordingly, it is not surprising that MSEs indicating a strong response were relatively able to attract more clientele ($m=3.91$). Based on the highlighted evidence, MSEs demonstrating behaviour associated with resilience capacity (e.g., the ability to respond to turmoil) reported a better financial performance than less responsive firms, among other operational benefits (e.g., innovation).

Table 7.6- Selected intergroup differences based on the level of MSEs' response to performance indicators after the 2008 GFC

Items	Groups	Tukey HSD post-hoc test			Sig.	Omega squared
		n	Mean	SD		
Level of response versus MSEs' performance in key performance indicators after the 2008 GFC						
Increase in...net profit (total income minus any expenses, taxes, interest)	1. Not at all/Limited	184	1.98	.820	.001(1, 2)	.202
	2. Neutral	125	2.72	.867	.001(1, 3)	
	3. Strong/Very strong	97	3.55	.979	.001(2, 1)	
					.001(2, 3)	
					.001(3, 1)	

						.001(3, 2)	
Increase in...liquidity-cash flow/receipts (cash in hand)	1. Not at all/Limited	184	1.79	.850	.001(1, 2)	.001(1, 3)	.208
	2. Neutral	125	2.48	.885	.001(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.44	1.000	.001(3, 1)	.001(3, 2)	
Increase in...revenue (Gross income)	1. Not at all/Limited	184	2.03	.855	.001(1, 2)	.001(1, 3)	.187
	2. Neutral	125	2.77	.794	.001(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.56	1.080	.001(3, 1)	.001(3, 2)	
Increase in...sales (e.g., number of products/services sold)	1. Not at all/Limited	184	2.37	.978	.003(1, 2)	.001(1, 3)	.133
	2. Neutral	125	2.72	.885	.003(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.71	1.000	.001(3, 1)	.001(3, 2)	
Increase in...number of employees	1. Not at all/Limited	184	1.91	.864	.001(1, 2)	.001(1, 3)	.178
	2. Neutral	125	2.39	.783	.001(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.25	.681	.001(3, 1)	.001(3, 2)	
Increase in...capacity utilisation (e.g., space, facilities, land)	1. Not at all/Limited	184	2.79	1.037	.001(1, 3)		.043
	2. Neutral	125	2.80	1.100	.001(2, 3)		
	3. Strong/Very strong	97	3.52	.752	.001(3, 1)	.001(3, 2)	
Increase in...purchases (e.g., goods, services)	1. Not at all/Limited	184	2.33	.919	.001(1, 2)	.001(1, 3)	.118
	2. Neutral	125	2.74	.739	.001(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.46	.890	.001(3, 1)	.001(3, 2)	
Increase in...investment on the firm (e.g., equipment, training)	1. Not at all/Limited	184	1.69	.854	.001(1, 2)	.001(1, 3)	.197
	2. Neutral	125	2.27	.910	.001(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.34	1.069	.001(3, 1)	.001(3, 2)	
Increase in...innovation (e.g., products, services, process)	1. Not at all/Limited	184	2.15	1.202	.001(1, 2)	.001(1, 3)	.099
	2. Neutral	125	2.61	.960	.001(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.42	.911	.001(3, 1)	.001(3, 2)	
Increase in...introducing new products/services	1. Not at all/Limited	184	2.74	1.054	.004(1, 2)	.001(1, 3)	.050
	2. Neutral	125	3.10	.893	.004(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.57	.999	.001(3, 1)	.001(3, 2)	
Higher ...client/customer base	1. Not at all/Limited	184	2.42	.920	.001(1, 2)	.001(1, 3)	.179
	2. Neutral	125	2.88	.829	.001(2, 1)	.001(2, 3)	
	3. Strong/Very strong	97	3.91	.902	.001(3, 1)	.001(3, 2)	

7.4.2.c. ANOVA test based on different sectors and key performance indicators

An ANOVA test resulted in several statistically significant differences ($p \leq 0.05$) of small effect size (Omega squared) after comparing different sectors and MSEs' performance following the 2008 GFC (table 7.7). Based on the results, MSEs performed rather poorly across all participating sectors, including hospitality and retail. From all participating firms, manufacturing MSEs recorded slightly higher scores than businesses in other sectors, yet their performance was still at moderate levels on most performance indicators (e.g., net profit: 3.30%, revenue: 3.37%, sales: 3.41%). In line with the modest performance on sales and revenue, among other areas, participants across all sectors also reported a rather limited increase in investing back to their business and innovating (e.g., products). In contrast to the low ratings on most performance indicators, respondents from all sectors were relatively positive about their ability to control operating costs, and how the quality and dependability of their products is perceived.

Table 7.7- Selected intergroup differences based on sectors and MSEs' performance after the 2008 GFC

Items	Tukey HSD post-hoc test					Sig.	Omega squared
	Groups	n	Mean	SD			
Sectors versus MSEs' performance in key performance indicators after the 2008 GFC							
Increase in ...net profit (total income minus any expenses, taxes, interest)	Retail/Wholesale (1)	128	2.32	1.034	.001(1, 4)	.011	
	Hospitality/Tourism (2)	169	2.66	1.069	.029(2, 4)		
	Food production/agriculture/fisheries (3)	37	2.65	.949	.001(4, 1)		
	Manufacturing (4)	27	3.30	1.137	.029(4, 2)		
	Miscellaneous (5)	45	2.58	1.055	.041(4, 5)		
Increase in ...liquidity-cash flow/receipts (cash in hand)	Retail/Wholesale (1)	128	2.11	1.037	.041(1, 2)	.010	
	Hospitality/Tourism (2)	169	2.47	1.108	.001(1, 4)		
	Food production/agriculture/fisheries (3)	37	2.51	1.070	.041(2, 1)		
	Manufacturing (4)	27	3.07	1.328	.001(4, 1)		
	Miscellaneous (5)	45	2.47	1.014			
Increase in ...revenue (Gross income)	Retail/Wholesale (1)	128	2.30	1.054	.003(1, 2)	.014	
	Hospitality/Tourism (2)	169	2.75	1.068	.001(1, 4)		
	Food production/agriculture/fisheries (3)	37	2.59	1.040	.003(2, 1)		
	Manufacturing (4)	27	3.37	1.149	.038(2, 4)		
	Miscellaneous (5)	45	2.62	.936	.031(3, 4)		
Increase in ...sales (e.g., number of products/services sold)	Retail/Wholesale (1)	128	2.59	1.061	.003(1, 4)	.008	
	Hospitality/Tourism (2)	169	2.89	1.115	.003(4, 1)		
	Food production/agriculture/fisheries (3)	37	2.89	.936	.024(4, 5)		
	Manufacturing (4)	27	3.41	.797	.024(5, 4)		
	Miscellaneous (5)	45	2.62	1.211			

Increase in ...investment on the firm (e.g., equipment, training)	Retail/Wholesale (1)	128	1.98	1.115	.025(1, 2)	.009
					.001(1, 4)	
	Hospitality/Tourism (2)	169	2.37	1.106	.025(2, 1)	
	Food production/agriculture/fisheries (3)	37	2.22	.976		
	Manufacturing (4)	27	2.89	1.086	.001(4, 1)	
	Miscellaneous (5)	45	2.31	1.240		
Increase in ...innovation (e.g., products, services, process)	Retail/Wholesale (1)	126	2.26	1.147	.001(1, 2)	.015
					.001(1, 4)	
	Hospitality/Tourism (2)	169	2.78	1.136	.001(2, 1)	
	Food production/agriculture/fisheries (3)	37	2.30	1.175	.006(3, 4)	
	Manufacturing (4)	27	3.30	.912	.001(4, 1)	
	Miscellaneous (5)	45	2.67	1.261	.006(4, 3)	
Increase in ...introducing new products/services	Retail/Wholesale (1)	128	2.92	1.077	.020(1, 4)	.005
					.030(2, 4)	
	Hospitality/Tourism (2)	169	3.12	1.045		
	Food production/agriculture/fisheries (3)	37	2.97	1.093	.001(4, 1)	
	Manufacturing (4)	27	3.59	.694	.030(4, 2)	
				.034(4, 5)		
	Miscellaneous (5)	45	2.87	.991	.034(5, 4)	
Increase in ...controlling operating costs more effectively	Retail/Wholesale (1)	128	3.53	.878	.033(1, 5)	.009
					.007(2, 5)	
	Hospitality/Tourism (2)	169	3.59	.849		
	Food production/agriculture/fisheries (3)	37	3.43	.835	.001(4, 5)	
	Manufacturing (4)	27	3.93	.675	.033(5, 1)	
	Miscellaneous (5)	45	3.11	.775	.007(5, 2)	
					.001(5, 4)	
Higher.....client/customer base	Retail/Wholesale (1)	128	2.84	1.193		.005
	Hospitality/Tourism (2)	169	2.98	.976		
	Food production/agriculture/fisheries (3)	37	2.86	.887		
	Manufacturing (4)	27	3.44	.892	.013(4, 5)	
	Miscellaneous (5)	45	2.62	1.134	.013(5, 4)	

7.4.2.d. Independent t-test based on each country and key performance indicators

From the perspective of key performance criteria, an independent t-test was employed to identify whether there are significant differences at the mean scores between Greek and Cypriot participants. According to the results (table 7.8), the performance of Greek and Cypriot MSEs is comparable on most included criteria during the 2008-2016 period with a mean variation of mostly small effect size (Cohen's d). For instance, both groups reported modest scores on the financial related measures, namely net profit, liquidity, and revenue. In reference to sales, Greek owners/managers registered a higher rating (m=2.85) than their Cypriot colleagues (m=2.50), which was statistically significant. Despite the rather poor financial performance, participants from both countries (GR: m=3.53; CY: m=3.48) managed to control rather effectively their operating costs. The most noticeable difference was in the 'capacity utilization' item, with a statistically significant difference resulting between MSEs in Greece (m=3.07) and Cyprus (m=2.31). While both groups registered a similar performance towards their capacity to innovate and invest to their firms, Greek respondents rated slightly higher their ability to introduce new products/services (m=3.11) than Cypriots did (m=2.66), a statistically

significant difference. Perhaps the most positive note relates to rather high customer satisfaction scores, with a statistically significant difference between participants from Greece (m=4.03) and Cyprus (m=3.53).

Table 7.8- Independent t-test (selected items) based on country and key performance indicators

Items	Groups	n	M	SD	Sig.	Cohen's d
Country (Greece-GR, Cyprus-CY) versus performance indicators						
Increase in...net profit	GR	348	2.56	1.068	NS*	.134
	CY	58	2.71	1.108		
Increase in ...liquidity-cash flow/receipts	GR	348	2.38	1.118	NS	.124
	CY	58	2.52	1.064		
Increase in ...revenue (Gross income)	GR	348	2.61	1.088	NS	.090
	CY	58	2.71	1.060		
Increase in ...sales	GR	348	2.85	1.078	.025	.320
	CY	58	2.50	1.143		
Increase in ...assets	GR	348	2.54	.956	.032	.305
	CY	58	2.24	1.014		
Increase in ...capacity utilisation	GR	348	3.07	1.004	.001	.758
	CY	58	2.31	1.030		
Increase in ...number of employees	GR	348	2.42	.966	.040	.292
	CY	58	2.14	.868		
Increase in ...investment on the firm	GR	348	2.26	1.161	NS	.005
	CY	58	2.26	.947		
Increase in ...innovation	GR	348	2.59	1.162	NS	.058
	CY	58	2.66	1.278		
Increase in ...introducing new products/services	GR	348	3.11	1.028	.002	.442
	CY	58	2.66	1.069		
Increase in ...controlling operating costs more effectively	GR	348	3.53	.857	NS	.057
	CY	58	3.48	.843		
Higher...client/customer base	GR	348	2.94	1.063	NS	.154
	CY	58	2.78	1.077		
Higher...client/customer satisfaction	GR	348	4.03	.792	.001	.623
	CY	58	3.53	.799		

NS*=Non statistically significant difference

7.4.3. Critical success factors for MSEs' performance

7.4.3.a. How have Greek and Cypriot MSEs performed after the 2008 GFC in various 'critical success factors' that could influence their coping capacity?

In line with this study's research objectives, another questionnaire section probed participants to rate the significance of various 'critical success factors' for the performance of their business since the 2008 GFC (table 7.9). Based on the results, an effective financial management was among respondent's top business priorities. For example, participants highly valued the ability to adequately manage operating costs (m=4.73) and cash flow (m=4.71). MSE owners/managers perceived as equally important to communicate with consumers (m=4.63) and build a relationship of trust with various stakeholders (m=4.63). Other significant factors for the performance of MSEs included having prior experience in the market/industry

(m=4.60), investing extra personal time on the business (m=4.49), and the aspiration to grow the business (m=4.38). In contrast, the adoption of strategies followed by others received the lowest score (m=2.84). According to the responses, the most highly perceived factors for the performance of MSEs in Greece and Cyprus post-2008, hence their ability to remain operational during extreme business conditions (e.g., coping capacity), relates to multiple dimensions, including efficient financial management and specific managerial attributes (e.g., experience, passion), among others.

Table 7.9- Perceived value of ‘critical success factors’ for the performance of Greek and Cypriot MSEs

Items investigated	n*	Mean	SD
Managing operating costs effectively	406	4.73	.488
Managing cash flow efficiently	406	4.71	.484
Communicating with customers (e.g., face-to-face, online)	406	4.63	.727
Building a relationship of trust with external stakeholders (e.g., customers, suppliers)	406	4.63	.687
Accumulated prior experience/knowledge in my industry/sector	406	4.60	.625
Investing additional personal time on the business	406	4.49	.768
Personal aspiration to grow/expand the business	406	4.38	.791
Being passionate about the products/services of my business	406	4.37	.810
Monitoring the latest developments in my industry (e.g., opportunities, technology advancement, trends)	406	4.14	.951
Offering a highly specialised/unique range of products/services	406	4.03	.883
Constantly looking for new knowledge (e.g., reading reports, internet searches)	406	3.63	1.190
Focusing on specific niche market segments (e.g., affluent, more mature, younger consumers)	406	3.60	1.028
Allocating finances from lending institutions (e.g., banks) as needed	406	3.49	1.274
Developing new products/services (e.g., logistics, customised service)	406	3.42	1.071
Using technology to support the business operation	406	3.41	1.299
Imitating/adopting strategies used by others (e.g., marketing activities)	406	2.84	1.310
* Missing four responses; a Likert-scale is used where 1= Not at all important and 5= Very important.	Cronbach’s Alpha scale: 0.810		

7.4.3.b. Factor analysis test on ‘critical success factors’ for the performance of Greek and Cypriot MSEs

An Exploratory Factor Analysis (EFA) was used to condense the list of ‘critical success factors’ associated with MSEs’ business performance. Based on the results, three factors become distinct and explain 52.72% of the variance (table 7.10). In contrast to participants’ perceived view (see table 7.9), the first factor (26.84% of the variance) included the use of technology, imitating strategies used by others, and focusing on specific niche markets, among other items. The second factor (17.53% of the variance) reflects owners’ personal characteristics (e.g., passion, experience, aspiration to grow). In addition, the third factor (8.34% of the variance) represents financial management activities (operating costs, cash flow) and interaction with customers. Despite the high significance attributed by MSE owners/managers responses (see

table 7.9), investing additional personal time and building a relationship of trust with stakeholders were not factored in the groups.

Table 7.10- ‘Critical success factors’ for the performance of Greek and Cypriot MSEs following 2008

	Bartlett’s Test of Sphericity			<u>Communalities after extraction</u>
	Factor 1	Factor 2	Factor 3	
Cronbach’s Alpha – Standardised items: .810	Approximate Chi-Square: 2031.435			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .820	Degrees of freedom: 120			
Extraction method: Principal Axis Factoring	Significance: 0.000, Total variance (3 factors): 52.726%			
Rotation method: Varimax with Parallel analysis				
Imitating/adopting strategies used by others (e.g., marketing activities)	.791			.682
Using technology to support the business operation	.750			.618
Constantly looking for new knowledge (e.g., reading reports, internet searches)	.658			.540
Developing new products/services (e.g., logistics, customised service)	.635			.500
Focusing on specific niche market segments (e.g., affluent, more mature, younger consumers)	.603			.411
Monitoring the latest developments in my industry (e.g., opportunities, technology advancement, trends)	.571			.485
Allocating finances from lending institutions (e.g., banks) as needed	.501			.302
Being passionate about the products/services of my business		.593		.379
Accumulated prior experience/knowledge in my industry/sector		.580		.385
Personal aspiration to grow/expand the business		.542		.373
Managing operating costs effectively			.784	.627
Managing cash flow efficiently			.691	.521
Communicating with customers (e.g., face-to-face, online)			.501	.288

7.4.3.c. ANOVA test based on the level of response to challenges and ‘critical success factors’ for the performance of Greek and Cypriot MSEs

An ANOVA test established statistically significant differences of small and medium effect size (Omega squared) when considering the level of MSEs’ response to challenges (e.g., financial) resulting after the 2008 GFC and ‘critical success factors’ for the performance of Greek and Cypriot MSEs (table 7.11). Despite the modest means, there is a distinct difference between firms reporting a strong or moderate response and the ones registering limited or total inability to react. According to the results, firms with high response levels (very strong-strong) were clearly more willing to use technology to support the business operation and consider strategies used by others and develop new products/services. Therefore, it is not a surprise that MSEs able to respond well to the emerging turbulences were also more active to seek new knowledge (e.g., read reports) than other firms.

Table 7.11- Selected intergroup differences based on the level of MSEs' response to challenges after the 2008 GFC and 'critical success factors' for the performance of Greek and Cypriot MSEs

Items	Tukey HSD post-hoc test					
	Groups	n	Mean	SD	Sig.	Omega squared
Level of response versus 'critical success factors' for the performance of Greek and Cypriot MSEs						
Constantly looking for new knowledge (e.g., reading reports, internet searches)	1. Not at all/Limited	184	3.33	1.365	.020(1, 2) .001(1, 3)	.028
	2. Neutral	125	3.70	.994	.020(2, 1)	
	3. Strong/Very strong	97	4.06	.933	.001(3, 1)	
Focusing on specific niche market segments (e.g., affluent, more mature, younger consumers)	1. Not at all/Limited	184	3.39	1.080	.001(1, 3)	.018
	2. Neutral	125	3.65	.986		
	3. Strong/Very strong	97	3.91	.925	.001(3, 1)	
Developing new products/services (e.g., logistics, customised service)	1. Not at all/Limited	184	3.30	1.115	.024(1, 3)	.006
	2. Neutral	125	3.38	1.006		
	3. Strong/Very strong	97	3.65	1.081	.024(3, 1)	
Using technology to support the business operation	1. Not at all/Limited	184	2.96	1.298	.001(1, 2) .001(1, 3)	.059
	2. Neutral	125	3.56	1.214	.001(2, 1) .011(2, 3)	
	3. Strong/Very strong	97	4.04	1.079	.001(3, 1) .011(3, 2)	
Imitating/adopting strategies used by others (e.g., marketing activities)	1. Not at all/Limited	184	2.32	1.250	.001(1, 2) .001(1, 3)	.075
	2. Neutral	125	3.05	1.142	.001(2, 1) .011(2, 3)	
	3. Strong/Very strong	97	3.53	1.259	.001(3, 1) .011(3, 2)	

7.4.3.d. Independent t-test based on each country and 'critical success factors' for the performance of MSEs

An independent t-test was used to establish whether the importance placed on various 'critical success factors' for the performance of MSEs after 2008 significantly differs between Greek and Cypriot participants (table 7.12). Inspection of the results indicates that both groups attached similar value to the employed items and any mean differences are of small effect size (Cohen's d). From the perspective of finance related activities, MSE respondents in Greece and Cyprus assigned nearly similar importance to the management of cash flow and operational costs. The most evident difference was noted for the importance to allocate finances from lending institutions (GR: m=3.56; CY: m=3.07), which was statistically significant with a small effect size (0.384). Participants from both countries also valued equally high various individual related attributes, including having passion about the firm's products/services, personal aspiration, and investing additional personal time on the business. On a similar point, having

prior knowledge of the industry/market was also acknowledged as crucial, yielding a statistically significant difference of small effect size (.329) between Cypriot (m=4.78) and Greek (m=4.57) owners/managers. An almost equal level of importance was attached to building a relationship of trust with external stakeholders, corresponding to a statistically significant difference of small effect size (.273) between the two groups (CY: m=4.79; GR: m=4.61). In reference to the least valued performance attribute, imitating strategies used by others received low scores by both groups (GR: m=2.89; CY: m=2.48), which was a statistically significant difference of small effect size (.312).

Table 7.12- Independent t-test based on country and critical success factors

Items	Groups	n	M	SD	Sig.	Cohen's d
Country (Greece-GR, Cyprus-CY) versus critical success factors						
Managing cash flow efficiently	GR	348	4.70	.497	.022	.274
	CY	58	4.83	.381		
Managing operating costs effectively	GR	348	4.70	.505	.001	.362
	CY	58	4.88	.329		
Allocating finances from lending institutions as needed	GR	348	3.56	1.303	.002	.384
	CY	58	3.07	1.024		
Being passionate about the products/services of my business	GR	348	4.36	.824	NS*	.135
	CY	58	4.47	.706		
Personal aspiration to grow/expand the business	GR	348	4.37	.809	NS	.168
	CY	58	4.50	.656		
Investing additional personal time on the business	GR	348	4.47	.787	NS	.195
	CY	58	4.62	.616		
Accumulated prior experience/knowledge in my industry/sector	GR	348	4.57	.642	.004	.329
	CY	58	4.78	.460		
Constantly looking for new knowledge	GR	348	3.66	1.218	NS	.216
	CY	58	3.40	1.059		
Offering a highly specialised/unique range of products/services	GR	348	4.04	.897	NS	.101
	CY	58	3.95	.826		
Focusing on specific niche market segments	GR	348	3.63	1.031	.050	.279
	CY	58	3.34	1.035		
Communicating with customers	GR	348	4.64	.757	NS	.067
	CY	58	4.59	.497		
Imitating/adopting strategies used by others	GR	348	2.89	1.324	.029	.312
	CY	58	2.48	1.217		
Building a relationship of trust with external stakeholders	GR	348	4.61	.718	.005	.273
	CY	58	4.79	.409		
Developing new products/services	GR	348	3.42	1.097	NS	.086
	CY	58	3.33	.980		
Monitoring the latest developments in my industry	GR	348	4.13	.969	NS	.024
	CY	58	4.16	.834		
Using technology to support the business operation	GR	348	3.42	1.326	NS	.070
	CY	58	3.33	1.114		
NS*=Non statistically significant difference						

7.4.4. Factors that could influence MSEs' capacity to develop resilience

7.4.4.a. How have Greek and Cypriot MSEs performed in various factors (e.g., capabilities) that could influence their ability to become resilient?

As an attempt to have a more comprehensive understanding about the determinants of resilience in the context of MSEs, the questionnaire sought to review Greek and Cypriot MSEs' performance (between 2008 to 2016) against various factors associated with resilience (table 7.13). The results demonstrate participants' high ability to learn from past mistakes (m=4.18) and manage efficiently their time for the completion of required tasks (m=4.17). Respondents also confirmed receiving support from others (e.g., family) (m=4.10) and being able to prioritize activities depending on urgency (m=4.05). On the contrary, participants rated very low the financial support provided by government authorities (m=1.42) or other financial institutions (m=1.55). Equally low was their perception in relation to non-financial state aid (m=1.62) and their capacity to respond to turbulent events through extra capital availability (m=2.63).

Table 7.13- Perceived business performance (2008 to 2016) on various factors that could influence resilience

Items investigated	n*	Mean	SD
Learning from own mistakes-past failures	406	4.18	.707
Managing time efficiently to complete tasks	406	4.17	.750
Having the support of others (e.g., family members, friends)	406	4.10	.932
Prioritizing tasks in order of relevance/urgency	406	4.05	.822
Focusing on short-term priorities (e.g., buying supplies)	406	3.92	.952
Having an informal decision-making process	406	3.75	.774
Recognising the weaknesses/vulnerabilities of this firm	406	3.71	.739
Constantly seeking new business opportunities (e.g., new markets)	406	3.64	.988
Identifying threats for this business early (e.g., competition, price shifts, currency fluctuation)	406	3.63	.805
Creating new knowledge (e.g., asking customer feedback)	406	3.62	.977
Consistently managing established links within this industry/sector	406	3.57	1.203
Learning by networking with other firms	406	3.41	1.084
Constantly innovating/offering solutions to problems	406	3.30	1.039
Diversifying the current product/service offer	406	3.27	.895
Flexibility to make changes to this business in response to turbulent events (e.g., offers)	406	3.23	1.196
Educating consumers (e.g., share tips, explain benefits of products)	406	3.14	1.108
Swiftly responding to challenges in this industry/sector (e.g., to negative marketing)	406	3.12	1.079
Constantly improving the quality of products/services/logistics	406	3.06	1.087
Actively participating in industry/sector groups (e.g., associations)	406	2.85	1.106
Collaborating with other firms/entities to search for new opportunities (e.g., combine strength)	406	2.83	1.162
Having the capacity to respond to turbulent events (e.g., able to invest extra capital)	406	2.63	1.082
Receiving non-financial support from the government (e.g., training, knowledge)	406	1.62	1.023
Receiving support/access from banks/financial institutions	406	1.55	.877
Receiving financial support from the government	406	1.42	.761
* Missing ten responses; a Likert-scale is used where 1= Very poorly and 5= Very strongly.	Cronbach's Alpha scale: 0.864		

7.4.4.b. Factor analysis test on various factors that could influence Greek and Cypriot MSEs' ability to develop resilience capabilities

Based on EFA results, three factors (45.5% of the variance) were retained in reference to MSEs' performance on various attributes that could shape their resilience capacity (table 7.14). At the first factor (26.92% of the variance), the underlying elements relate to MSEs' capacity to respond to crises (e.g., available capital, flexibility) and identify early threats, among other options to deal with turbulences (e.g., innovation, improve quality, seek new opportunities). However, MSE owners/managers rated rather low their firm performance on most factored elements from the first group (e.g., extra capital availability to respond to turbulence) (see Table 8.12). The second factor (11.79% of the variance) reflects MSE owners/managers' personal management style, including time management, prioritization of tasks and short-term focus. Similar to the first factor, the included items at the last factor (6.81% of the variance) (learning by networking, collaboration with other firms) also received low scores by MSE owners/managers (see table 7.13).

Table 7.14- Greek and Cypriot MSEs' performance on various factors associated with resilience between 2008-2016

	<u>Bartlett's Test of Sphericity</u>			<u>Communalities after extraction</u>
	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>	
Cronbach's Alpha – Standardised items: .864 Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .834 Extraction method: Principal Axis Factoring Rotation method: Varimax with Parallel analysis	Approximate Chi-Square: 3763.060 Degrees of freedom: 276 Significance: 0.000, Total variance (3 factors): 45.533%			
Having the capacity to respond to turbulent events (e.g., able to invest extra capital, get an expert opinion)	.773			.696
Flexibility to make changes to this business in response to turbulent events (e.g., change pricing strategy, make special offers)	.742			.796
Swiftly responding to challenges in this industry/sector (e.g., to negative marketing, trends, increased costs)	.725			.668
Identifying threats for this business early (e.g., competition, price shifts, currency fluctuation)	.628			.464
Constantly innovating/offering solutions to problems	.615			.658
Constantly seeking new business opportunities (e.g., new markets)	.569			.506
Constantly improving the quality of products/services/logistics	.550			.546
Managing time efficiently to complete tasks		.682		.486
Prioritizing tasks in order of relevance/urgency		.657		.457
Focusing on short-term priorities (e.g., buying supplies)		.520		.398
Learning by networking with other firms			.698	.606
Collaborating with other firms/entities to search for new opportunities (e.g., combine strengths)			.685	.635

7.4.4.c. ANOVA test based on the level of response to challenges and factors associated with resilience

Following an ANOVA test, several statistically significant differences of small and medium effect size (Omega squared) manifested when considering the level of MSEs' response to challenges (e.g., financial) resulting after the 2008 GFC and factors that could influence their capacity to develop resilience (table 7.15). Despite the modest means, there is a distinct difference between firms reporting a strong or moderate response and the ones registering limited or total inability to react. According to the results, firms that reported high levels of response (very strong-strong) shown greater adaptability in implementing changes (change pricing strategy) and swiftly react to challenges emerging in their industry/sector (e.g., increased costs). Therefore, it is not a surprise that MSEs adept at handling the growing challenges were also more active to seek new business opportunities (e.g., new markets) than other firms.

Table 7.15- Selected intergroup differences based on the level of MSEs' response to challenges after the 2008 GFC and factors that could influence their ability to become resilient

Items	Groups	Tukey HSD post-hoc test			Sig.	Omega squared
		n	Mean	SD		
Level of response versus MSEs' performance on factors that could influence their ability to become resilient						
Having the capacity to respond to turbulent events (e.g., able to invest extra capital, get an expert opinion)	1. Not at all/Limited	184	2.23	1.149	.001(1, 2) .001(1, 3)	.062
	2. Neutral	125	2.70	.873	.001(2, 1) .002(2, 3)	
	3. Strong/Very strong	97	3.18	.947	.001(3, 1) .002(3, 2)	
Constantly improving the quality of products/services/logistics	1. Not at all/Limited	184	2.56	1.112	.001(1, 2) .001(1, 3)	.087
	2. Neutral	125	3.34	.851	.001(2, 1)	
	3. Strong/Very strong	97	3.57	.989	.001(3, 1)	
Flexibility to make changes to this business in response to turbulent events (e.g., change pricing strategy, make special offers)	1. Not at all/Limited	184	2.82	1.222	.001(1, 2) .001(1, 3)	.065
	2. Neutral	125	3.35	1.057	.001(2, 1) .002(2, 3)	
	3. Strong/Very strong	97	3.88	.992	.001(3, 1) .002(3, 2)	
Swiftly responding to challenges in this industry/sector (e.g., to negative marketing, trends, increased costs)	1. Not at all/Limited	184	2.78	1.114	.006(1, 2) .001(1, 3)	.068
	2. Neutral	125	3.14	.948	.006(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.77	.848	.001(3, 1) .001(3, 2)	
Constantly seeking new business opportunities (e.g., new markets)	1. Not at all/Limited	184	3.40	1.019	.042(1, 2) .001(1, 3)	.036
	2. Neutral	125	3.66	.941	.042(2, 1) .005(2, 3)	
	3. Strong/Very strong	97	4.07	.820	.001(3, 1) .005(3, 2)	
	1. Not at all/Limited	184	3.02	.941	.001(1, 2)	.032

Diversifying the current product/service offer	2. Neutral	125	3.38	.792	.001(1, 3)	.001(2, 1)
	3. Strong/Very strong	97	3.58	.840	.001(3, 1)	
	1. Not at all/Limited	184	2.97	1.152	.002(1, 2)	.045
Constantly innovating/offering solutions to problems	2. Neutral	125	3.36	.849	.001(1, 3)	
	3. Strong/Very strong	97	3.75	.830	.002(2, 1)	
	1. Not at all/Limited	184	3.48	.870	.011(2, 3)	
Identifying threats for this business early (e.g., competition, price shifts, currency fluctuation)	2. Neutral	125	3.64	.700	.001(3, 1)	.028
	3. Strong/Very strong	97	3.97	.699	.006(2, 3)	
	1. Not at all/Limited	184	3.20	1.154	.006(3, 2)	
Learning by networking with other firms	2. Neutral	125	3.51	.904	.033(1, 2)	.016
	3. Strong/Very strong	97	3.70	1.082	.001(1, 3)	
	1. Not at all/Limited	184	3.20	1.154	.033(2, 1)	

7.4.4.d. Independent t-test based on each country and factors associated with resilience

Based on the performance of Greek and Cypriot MSEs on factors related to resilience capabilities, an independent t-test was employed to evaluate the level of difference between the two countries. An investigation of the mean scores from both groups revealed an equivalent performance on most used items with a mean variation of small and medium effect size (Cohen's d) (table 7.16). As an example, Cypriot and Greek participants reported comparable scores, with statistically significant differences of small effect size, in respect to their capacity to respond to turbulent events (CY: $m=2.97$; GR: $m=2.54$), recognising the weaknesses of the firm (CY: $m=3.97$; GR: $m=3.67$), and swiftly responding to challenges (CY: $m=3.40$; GR: $m=3.09$). In contrast, the two groups registered slightly varied scores in other items, though no extreme deviations were recorded. Specifically, statistically significant differences of medium effect size were identified towards the flexibility to make changes (CY: $m=3.91$; GR: $m=3.12$), the capacity to constantly improve product quality (CY: $m=3.59$; GR: $m=2.95$) and seek new business opportunities (CY: $m=4.07$; GR: $m=3.57$). Another statistically significant difference was identified when considering the participation in industry/sector groups (CY: $m=3.64$; GR: $m=2.73$; large effect size), and consistently managing established industry links, with higher scores from participants in Cyprus ($m=4.07$) than in Greece ($m=3.50$) of a medium effect size variance.

Table 7.16- Independent t-test based on each country and factors associated with resilience

Items	Groups	n	M	SD	Sig.	Cohen's d
Country (Greece-GR, Cyprus-CY) versus factors associated with resilience						
Recognising the weaknesses/vulnerabilities of this firm	GR	348	3.67	.722	.005	.402
	CY	58	3.97	.772		
Having the capacity to respond to turbulent events	GR	348	2.54	1.081	.006	.395
	CY	58	2.97	1.075		
Constantly improving the quality of products/services/logistics	GR	348	2.95	1.095	.001	.591
	CY	58	3.59	.974		
Flexibility to make changes to this business in response to turbulent events	GR	348	3.12	1.195	.001	.678
	CY	58	3.91	.960		
Swiftly responding to challenges in this industry/sector	GR	348	3.09	1.065	.042	.289
	CY	58	3.40	1.123		
Identifying threats for this business early	GR	348	3.61	.803	.016	.343
	CY	58	3.88	.774		
Creating new knowledge	GR	348	3.58	.995	NS*	.197
	CY	58	3.78	1.009		
Educating consumers	GR	348	3.13	1.113	NS	.040
	CY	58	3.17	1.216		
Focusing on short-term priorities	GR	348	3.90	.953	NS	.235
	CY	58	4.12	.957		
Constantly seeking new business opportunities	GR	348	3.57	.983	.001	.515
	CY	58	4.07	.896		
Constantly innovating/offering solutions to problems	GR	348	3.21	1.036	.001	.466
	CY	58	3.69	.977		
Diversifying the current product/service offer	GR	348	3.20	.887	.001	.467
	CY	58	3.62	.914		
Prioritizing tasks in order of relevance/urgency	GR	348	4.02	.852	.043	.288
	CY	58	4.26	.739		
Managing time efficiently to complete tasks	GR	348	4.17	.756	NS	.001
	CY	58	4.17	.729		
Having an informal decision-making process	GR	348	3.73	.778	NS	.211
	CY	58	3.90	.765		
Learning from own mistakes-past failures	GR	348	4.17	.710	NS	.032
	CY	58	4.19	.687		
Learning by networking with other firms	GR	348	3.36	1.095	.006	.391
	CY	58	3.78	.937		
Having the support of others	GR	348	4.09	.946	NS	.037
	CY	58	4.31	.799		
Collaborating with other firms/entities to search for new opportunities	GR	348	2.79	1.160	.049	.281
	CY	58	3.12	1.171		
Receiving financial support from the government	GR	348	1.38	.716	.034	.368
	CY	58	1.66	.928		
Receiving non-financial support from the government	GR	348	1.53	.943	.002	.562
	CY	58	2.09	1.274		
Consistently managing established links within this industry/sector	GR	348	3.50	1.246	.001	.482
	CY	58	4.07	.722		
Receiving support/access from banks/financial institutions	GR	348	1.51	.854	.031	.308
	CY	58	1.78	.956		
Actively participating in industry/sector groups	GR	348	2.73	1.096	.001	.859
	CY	58	3.64	.810		
NS*=Non statistically significant difference						

7.5. Summary

The previous sections presented empirical evidence in relation to Greek and Cypriot MSEs' performance after the 2008 GFC. Specifically, the results highlight which 'measures of firm success' and 'critical success factors' are important to Greek and Cypriot MSE owners/managers. Based on ANOVA tests, it was possible to draw information about the behaviour of MSEs demonstrating a high response level to the resulting challenges and identify specific performance outcomes, among other findings. Independent t-tests allowed to determine whether certain groups resulted in significantly different scores. Additional inferential statistical tests (EFA) were used to reduce the volume of data and produce a clearer understanding about the factors associated with resilience. The next chapter merges the quantitative results and qualitative findings aiming to produce a meta-inference about the antecedents of resilience and their influence at each resilience stage (anticipation, coping, adaptation).

Chapter 8

Data integration and discussion

8.1. Introduction

Following the presentation of qualitative findings and quantitative results, this chapter presents meta-inferences associated with this study's research objectives (RO). The first section highlights the post-2008 GFC business conditions in Greece and Cyprus and the key challenges emanating for local MSEs. The second part focuses on the antecedents influencing resilience capabilities in the context of Greek and Cypriot MSEs. Based on the identified drivers of resilience capacity, the next section directs attention to the distinct yet interconnected resilience phases (anticipation, coping, adaptation) from the perspective of MSEs in Greece and Cyprus. The last part of the chapter summarises the key characteristics of the resilience process in MSEs.

8.2. The post-2008 GFC business conditions and performance of Greek and Cypriot MSEs (RO 1)

Based on a weaving narrative integration of qualitative and quantitative findings supplemented by figures and tables as visual aids (joint display) (figures 8.1, 8.2; tables 8.1, 8.2), it is possible to have a more complete understanding about the prevailing business conditions for Greek and Cypriot MSEs after the 2008 GFC. Specifically, the combination of interview data with results from inferential statistical tests (One-way ANOVA) enabled to identify how MSE owners perceived their post-2008 business environment (challenges) and measure Greek and Cypriot MSEs' performance over the 2008-2016 period (key performance indicators). As a result, it was possible to develop a more complete overview of the specific challenges that required a response as part of the resilience process (coping phase).

8.2.1. The business reality for Greek and Cypriot MSEs after the 2008 GFC

Although the escalation of the crisis had different causes and time-periods per each country, both Greek and Cypriot MSE ownership/management perceived their business environment as volatile and hostile (figure 8.1). Based on qualitative findings, MSEs were unprepared to deal with the turbulences resulting from the deteriorating post-2008 worldwide business environment. The range and intensity of daily operating problems set extreme operating conditions for MSEs in Greece and Cyprus. Accordingly, Greek and Cypriot

ownership/management was predominantly pessimistic about the established business reality after the 2008 GFC (table 8.1). Interestingly, some Cypriot owners/managers portrayed a rather optimistic perspective depending on the severity of challenges at their respective operating sector. Among other environmental characteristics, Greek ownership/management expressed concerns about state led initiatives and relief measures to support businesses. Despite the identified challenges, findings also present various positive outcomes stemming from the new business reality following the 2008 GFC. Specifically, consumers in Greece and Cyprus clearly supported local micro and small firms endure the difficult circumstances, while further improvements could result at the local business conditions based on legislative changes. For instance, GR81 explained: *It is a real accomplishment for any SME to operate in today's business conditions. It is a very challenging business environment but strongly believe that businesses can have a future if state officials implement the proper policies and take the needed decisions.*

Figure 8.1- Thematic map-the business conditions for Greek and Cypriot MSEs after the 2008 GFC

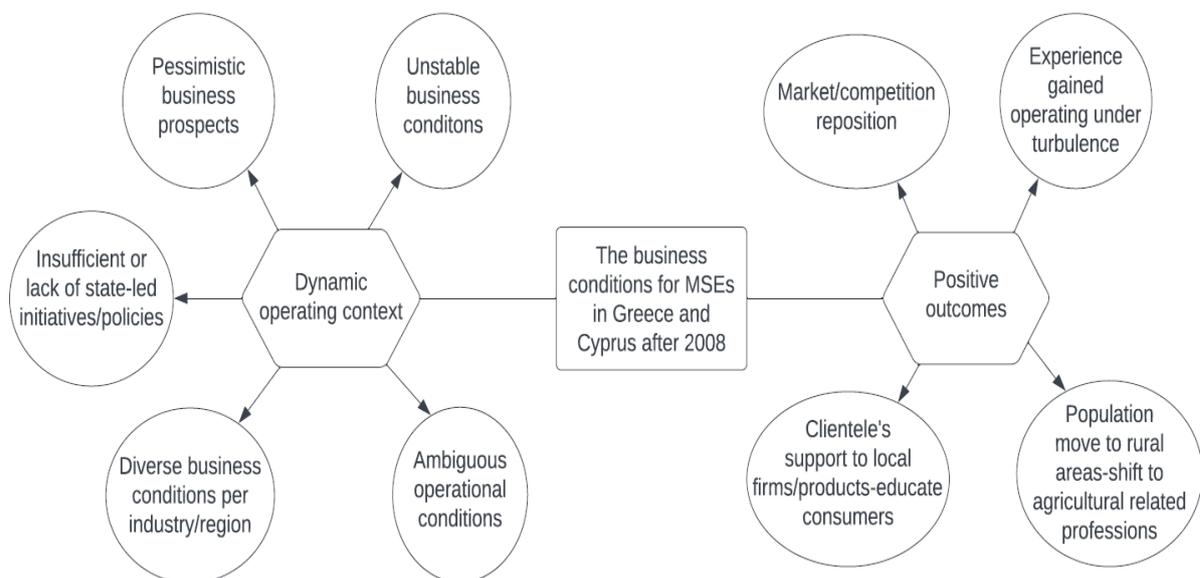


Table 8.1- Verbatim interview quotes representing the business reality for Greek and Cypriot MSEs after the 2008 GFC

GR4: It is a total mess. There is no comparison with the conditions ten years ago.
GR87: Today's business environment in Greece is terrible, there are no other words to clearly describe it.
GR48: We have to deal with unprecedented business conditions after the impact from the financial crisis was really felt in the country.
GR5: I believe it is rather 'dark' and gloomy. I believe both words describe well how the current situation unfolds for Greek businesses.

CY7: The business environment in our sector is terrible. We have almost reached the bottom.... Unfortunately, our products are not as essential as food or drinks.

CY18: It is a difficult environment to own a business due to lack of liquidity.

CY9: It is a very tough environment, especially in our sector, with fierce competition. However, the economy shows signs of recovery with an increased inflow of foreign investments and growth for many sectors.

CY11: We start to see the first signs of recovery for the whole market. Our turnover is still low but is increasing over the years.

8.2.2. The impact for Greek and Cypriot MSEs after the 2008 GFC

After 2008, Greek and Cypriot MSEs were exposed to a wide range of challenges posing a serious risk to their survival. Based on this study's qualitative findings (figure 8.2; table 8.2), the gradual shrinking of consumers' purchasing power led to reduced sales and profit margin for MSEs in Greece and Cyprus. In addition, high taxation, supply chain problems, and payment delays were identified as equally significant challenges, among other. As an example of the post-2008 fiscal pressure for Greek firms, Kaplanoglou et al. (2016, p. 411) explain that the local legislative initiatives at the 2009-2012 period included "six purely tax laws, 103 circular provisions, 85 Decrees and 18 non-tax laws that have tax provisions". Just the administrative workload of dealing with the imposed regulations was rather challenging (Kaplanoglou et al., 2016). On a relevant note, GR37 mentioned: *Today's business environment in Greece is against entrepreneurship. At this stage, the Greek state shows as if it does not want small businesses to survive the current crisis.* The quantitative results (table 8.3) also clearly depict Greek and Cypriot MSEs' poor performance at key benchmarks (e.g., sales, revenue) during the 2008-2016 period. The noted decline in revenue drop is consistent with results reported in other research examining Greek SMEs after 2008 (Balios et al., 2016). In line with such results, it is not surprising that employee recruitment and re-investment in the firm received the lowest scores. In contrast, MSE ownership/management highly perceived the quality of suppliers and level of customer satisfaction. Based on rather moderate to high scores, MSE owners/managers clearly attributed high value towards maintaining a good relationship with key stakeholders (clientele, suppliers), offering quality and dependable products/services, and effectively managing the operating costs and their available time.

Figure 8.2- Thematic map-the impact for Greek and Cypriot MSEs after the 2008 GFC

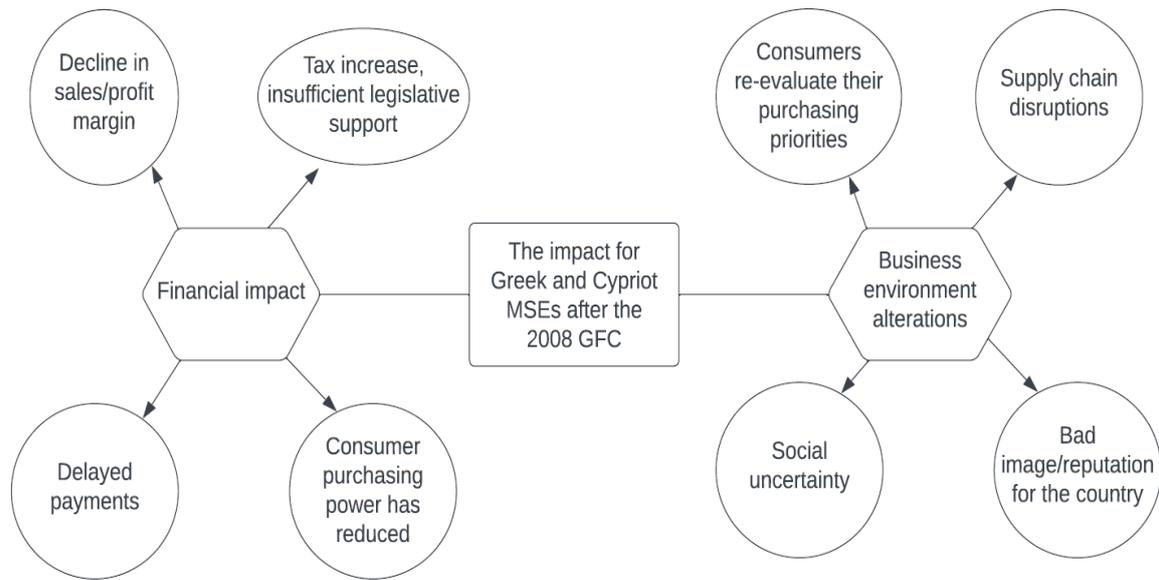


Table 8.2- Verbatim interview quotes representing the business reality for Greek and Cypriot MSEs after the 2008 GFC

GR62: The crisis changed consumers' purchasing behaviour and priorities. Cheese is considered a luxury product now.
GR22: Today, consumers' purchasing power is limited, which reflects the reduced sales.
GR65: The financial crisis has destroyed/shrunk the domestic market. The demand for any product has been significantly reduced since the beginning of the crisis.
GR3: We experience high taxation over the past years. It is impossible to cope with so high tax rates.
CY18: The 2013 bank haircut turned on one day millionaires to individuals with no possessions and need for social benefits just to survive. I personally lost 1 million Euros from my bank savings which were meant to be used to grow my business.
CY5: Consumers' purchasing power has been reduced as an impact of the crisis. People could spend less money which resulted in a drop of prices.
CY8: Consumers' reduced purchasing power created a difficult situation, as people were reluctant to pay for an essential product for their vehicles.
CY28: Basically, customers reduced their consumption level or visit our business less times. For instance, if they used to consume two bottles during the weekend, now they are more cautious with their spending. Excessive spending is no longer an option for most people.

Table 8.3- Perceived business performance for Greek and Cypriot MSEs between 2008-2016

Items investigated (Increase in...)	n*	Mean	SD
...quality of suppliers (e.g., products, ingredients)	406	3.99	.849
...client/customer satisfaction (e.g., with products, services)	406	3.96	.810
...improving the time required to prepare tasks/utilisation	406	3.61	.829
...enhancing the image of the firm/product/service	406	3.61	.835
...perception of dependability of the products/services	406	3.60	1.033
...integration with customers/guests	406	3.54	1.017
...perception of quality in products/services	406	3.52	.946
...controlling operating costs more effectively	406	3.52	.854
...perception of quality in the process of production/service	406	3.47	.930
...introducing new products/services	406	3.04	1.040
...capacity utilisation (e.g., space, facilities, land)	406	2.96	1.038
...client/customer base	406	2.91	1.068
...sales (e.g., number of products/services sold)	406	2.79	1.095
...purchases (e.g., goods, services)	406	2.73	.972
...revenue (Gross income)	406	2.63	1.089
...innovation (e.g., products, services, process)	406	2.60	1.183
...net profit (total income minus any expenses, taxes, interest)	406	2.59	1.077
...assets (e.g., buildings, land)	406	2.49	.970
...liquidity-cash flow/receipts (cash in hand)	406	2.41	1.116
...number of employees	406	2.39	.955
...investment on the firm (e.g., equipment, training)	406	2.27	1.137
* Missing eight responses; a Likert-scale is used where 1= Very poorly and 5= Very strongly.		Cronbach's Alpha scale: 0.946	

8.2.3. The impact for Greek and Cypriot MSEs after the 2008 GFC across different sectors

The differing views about the business reality and level of progress as the crisis developed illustrates the heterogeneous nature of SMEs, especially across different sectors. Specifically, interview participants from both countries noted that firms operating in the Hospitality/Catering industry were less affected by the post-GFC complications. For instance, CY28 argued that: *There has been an impact in the society, however, our business has not been affected. Overall, the catering industry, and specifically cafes, will always be relevant and on high demand in Cyprus. It is part of our culture to go out for a coffee and socialise.* However, a further review of quantitative results (both separate and combined country results) does not support such claims. Based on the questionnaire responses, participating MSEs across different sectors (including Hospitality/Catering) reported low scores at most key performance indicators (e.g., sales, net-profit, revenue) (table 8.4). Only manufacturing MSEs recorded slightly higher scores, but results should be used with caution due to the small survey sample size from both countries. Based on a recent evaluation of Greek firms' performance between 2001-2014, companies (of various sizes) operating at different industries performed in the same way in times of growth but differently when at recession (Axioglou and Christodoulakis, 2020). Among possible factors influencing SME performance variation during turbulent conditions include market orientation, location, and links with important stakeholders (clientele,

suppliers) (Sato, 2000). Therefore, it would not be unusual if micro and small firms across various sectors yield different level of performance, especially since “different product markets experience different competitive regimes at different times” (Bennett and Smith, 2002, p. 75). In the case of Greek wineries, firms operating in central Greece experienced more challenges after the 2008 GFC than firms in popular tourist destinations did (e.g., Santorini island) (Alebaki and Ioannides, 2018). From a methodological perspective, the divergent views between qualitative and quantitative findings reflect the concept of *initiation*, the identification of any “paradox and contradiction” (Greene et al., 1989, p. 259) as a possible mixed methods outcome.

Table 8.4- Selected intergroup differences based on sectors and MSEs’ performance after the 2008 GFC

Items	Groups	Tukey HSD post-hoc test			Sig.	Omega squared
		n	Mean	SD		
Sectors versus MSEs’ performance in key performance indicators after the 2008 GFC						
Increase in ...net profit (total income minus any expenses, taxes, interest)	Retail/Wholesale (1)	128	2.32	1.034	.001(1, 4)	.011
	Hospitality/Tourism (2)	169	2.66	1.069	.029(2, 4)	
	Food production/agriculture/fisheries (3)	37	2.65	.949	.001(4, 1)	
	Manufacturing (4)	27	3.30	1.137	.029(4, 2)	
	Miscellaneous (5)	45	2.58	1.055	.041(4, 5)	
Increase in ...liquidity-cash flow/receipts (cash in hand)	Retail/Wholesale (1)	128	2.11	1.037	.041(1, 2)	.010
	Hospitality/Tourism (2)	169	2.47	1.108	.001(1, 4)	
	Food production/agriculture/fisheries (3)	37	2.51	1.070	.041(2, 1)	
	Manufacturing (4)	27	3.07	1.328	.001(4, 1)	
	Miscellaneous (5)	45	2.47	1.014	.001(4, 1)	
Increase in ...revenue (Gross income)	Retail/Wholesale (1)	128	2.30	1.054	.003(1, 2)	.014
	Hospitality/Tourism (2)	169	2.75	1.068	.001(1, 4)	
	Food production/agriculture/fisheries (3)	37	2.59	1.040	.003(2, 1)	
	Manufacturing (4)	27	3.37	1.149	.038(2, 4)	
	Miscellaneous (5)	45	2.62	.936	.031(3, 4)	
Increase in ...sales (e.g., number of products/services sold)	Retail/Wholesale (1)	128	2.59	1.061	.001(4, 1)	.008
	Hospitality/Tourism (2)	169	2.89	1.115	.024(4, 5)	
	Food production/agriculture/fisheries (3)	37	2.89	.936	.024(5, 4)	
	Manufacturing (4)	27	3.41	.797	.024(5, 4)	
	Miscellaneous (5)	45	2.62	1.211	.025(1, 2)	
Increase in ...investment on the firm (e.g., equipment, training)	Retail/Wholesale (1)	128	1.98	1.115	.001(1, 4)	.009
	Hospitality/Tourism (2)	169	2.37	1.106	.025(2, 1)	
	Food production/agriculture/fisheries (3)	37	2.22	.976	.001(4, 1)	
	Manufacturing (4)	27	2.89	1.086	.001(4, 1)	
	Miscellaneous (5)	45	2.31	1.240	.001(4, 1)	
Increase in ...innovation (e.g., products, services, process)	Retail/Wholesale (1)	126	2.26	1.147	.001(1, 2)	.015
	Hospitality/Tourism (2)	169	2.78	1.136	.001(1, 4)	
	Food production/agriculture/fisheries (3)	37	2.30	1.175	.001(2, 1)	
	Manufacturing (4)	27	3.30	.912	.006(3, 4)	
	Miscellaneous (5)	45	2.67	1.261	.001(4, 1)	
Increase in ...introducing new products/services	Retail/Wholesale (1)	128	2.92	1.077	.020(1, 4)	.005
	Hospitality/Tourism (2)	169	3.12	1.045	.030(2, 4)	
	Food production/agriculture/fisheries (3)	37	2.97	1.093	.001(4, 1)	
	Manufacturing (4)	27	3.59	.694	.001(4, 1)	

						.030(4, 2)	
						.034(4, 5)	
		Miscellaneous (5)	45	2.87	.991	.034(5, 4)	
		Retail/Wholesale (1)	128	3.53	.878	.033(1, 5)	.009
		Hospitality/Tourism (2)	169	3.59	.849	.007(2, 5)	
Increase in ...controlling operating costs more effectively		Food production/agriculture/fisheries (3)	37	3.43	.835		
		Manufacturing (4)	27	3.93	.675	.001(4, 5)	
		Miscellaneous (5)	45	3.11	.775	.033(5, 1)	
						.007(5, 2)	
						.001(5, 4)	
		Retail/Wholesale (1)	128	2.84	1.193		.005
		Hospitality/Tourism (2)	169	2.98	.976		
Higher.....client/customer base		Food production/agriculture/fisheries (3)	37	2.86	.887		
		Manufacturing (4)	27	3.44	.892	.013(4, 5)	
		Miscellaneous (5)	45	2.62	1.134	.013(5, 4)	

8.2.4. Performance outcomes for Greek and Cypriot MSEs nurturing resilience capabilities

The quantitative responses offer an opportunity to reflect on likely performance outcomes for Greek and Cypriot MSEs that develop capabilities associated with their resilience capacity (table 8.5). As a possible resilience benchmark, key performance indicators (KPIs) could be used to evaluate whether businesses achieve their operating goals (Dalziell and McManus, 2004). For instance, a firm's increased profitability, among other factors, could signal its resilience (Doern, 2017). Despite the modest means, MSEs demonstrating behaviour linked with the capacity to develop resilience (e.g., the ability to respond to turmoil) reported a better financial performance (sales, net profit, cash flow) than less responsive firms including an increase of their customer base. Among other operational benefits, highly responsive Greek and Cypriot MSEs reported much higher scores for innovation and capacity utilization (e.g., facilities). In line with the highlighted results, contemporary literature confirms that resilient organisations can reconfigure resources (Limnios et al., 2014; Williams et al., 2017), along other capabilities. Although the available data and results do not allow for elaborate conclusions, it is possible to draw tentative inferences about the specific performance characteristics of Greek and Cypriot MSEs that respond well to turbulences amid an economic crisis.

Table 8.5- Selected intergroup differences based on the level of MSEs' response to performance indicators after the 2008 GFC

Items	Groups	Tukey HSD post-hoc test			Sig.	Omega squared
		n	Mean	SD		
Level of response versus MSEs' performance in key performance indicators after the 2008 GFC						
Increase in...net profit (total income minus any expenses, taxes, interest)	1. Not at all/Limited	184	1.98	.820	.001(1, 2) .001(1, 3)	.202
	2. Neutral	125	2.72	.867	.001(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.55	.979	.001(3, 1) .001(3, 2)	
Increase in...liquidity-cash flow/receipts (cash in hand)	1. Not at all/Limited	184	1.79	.850	.001(1, 2) .001(1, 3)	.208
	2. Neutral	125	2.48	.885	.001(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.44	1.000	.001(3, 1) .001(3, 2)	
Increase in...revenue (Gross income)	1. Not at all/Limited	184	2.03	.855	.001(1, 2) .001(1, 3)	.187
	2. Neutral	125	2.77	.794	.001(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.56	1.080	.001(3, 1) .001(3, 2)	
Increase in...sales (e.g., number of products/services sold)	1. Not at all/Limited	184	2.37	.978	.003(1, 2) .001(1, 3)	.133
	2. Neutral	125	2.72	.885	.003(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.71	1.000	.001(3, 1) .001(3, 2)	
Increase in...number of employees	1. Not at all/Limited	184	1.91	.864	.001(1, 2) .001(1, 3)	.178
	2. Neutral	125	2.39	.783	.001(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.25	.681	.001(3, 1) .001(3, 2)	
Increase in...capacity utilisation (e.g., space, facilities, land)	1. Not at all/Limited	184	2.79	1.037	.001(1, 3)	.043
	2. Neutral	125	2.80	1.100	.001(2, 3)	
	3. Strong/Very strong	97	3.52	.752	.001(3, 1) .001(3, 2)	
Increase in...purchases (e.g., goods, services)	1. Not at all/Limited	184	2.33	.919	.001(1, 2) .001(1, 3)	.118
	2. Neutral	125	2.74	.739	.001(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.46	.890	.001(3, 1) .001(3, 2)	
Increase in...investment on the firm (e.g., equipment, training)	1. Not at all/Limited	184	1.69	.854	.001(1, 2) .001(1, 3)	.197
	2. Neutral	125	2.27	.910	.001(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.34	1.069	.001(3, 1) .001(3, 2)	
Increase in...innovation (e.g., products, services, process)	1. Not at all/Limited	184	2.15	1.202	.001(1, 2) .001(1, 3)	.099
	2. Neutral	125	2.61	.960	.001(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.42	.911	.001(3, 1) .001(3, 2)	
Increase in...introducing new products/services	1. Not at all/Limited	184	2.74	1.054	.004(1, 2) .001(1, 3)	.050
	2. Neutral	125	3.10	.893	.004(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.57	.999	.001(3, 1) .001(3, 2)	
Higher ...client/customer base	1. Not at all/Limited	184	2.42	.920	.001(1, 2) .001(1, 3)	.179
	2. Neutral	125	2.88	.829	.001(2, 1) .001(2, 3)	
	3. Strong/Very strong	97	3.91	.902	.001(3, 1) .001(3, 2)	

8.3. Antecedents of coping and resilience behaviour in the context of Greek and Cypriot MSEs after the 2008 GFC (RO 2 and 3)

Following the same approach as the previous sections, a weaving narrative integration of qualitative and quantitative findings complemented by figures and tables as visual aids (joint display) was used to draw meta-inferences about the key antecedents of resilience in the context of Greek and Cypriot MSEs (figure 8.3; tables 8.6, 8.7, 8.8).

Figure 8.3- Summary of qualitative findings

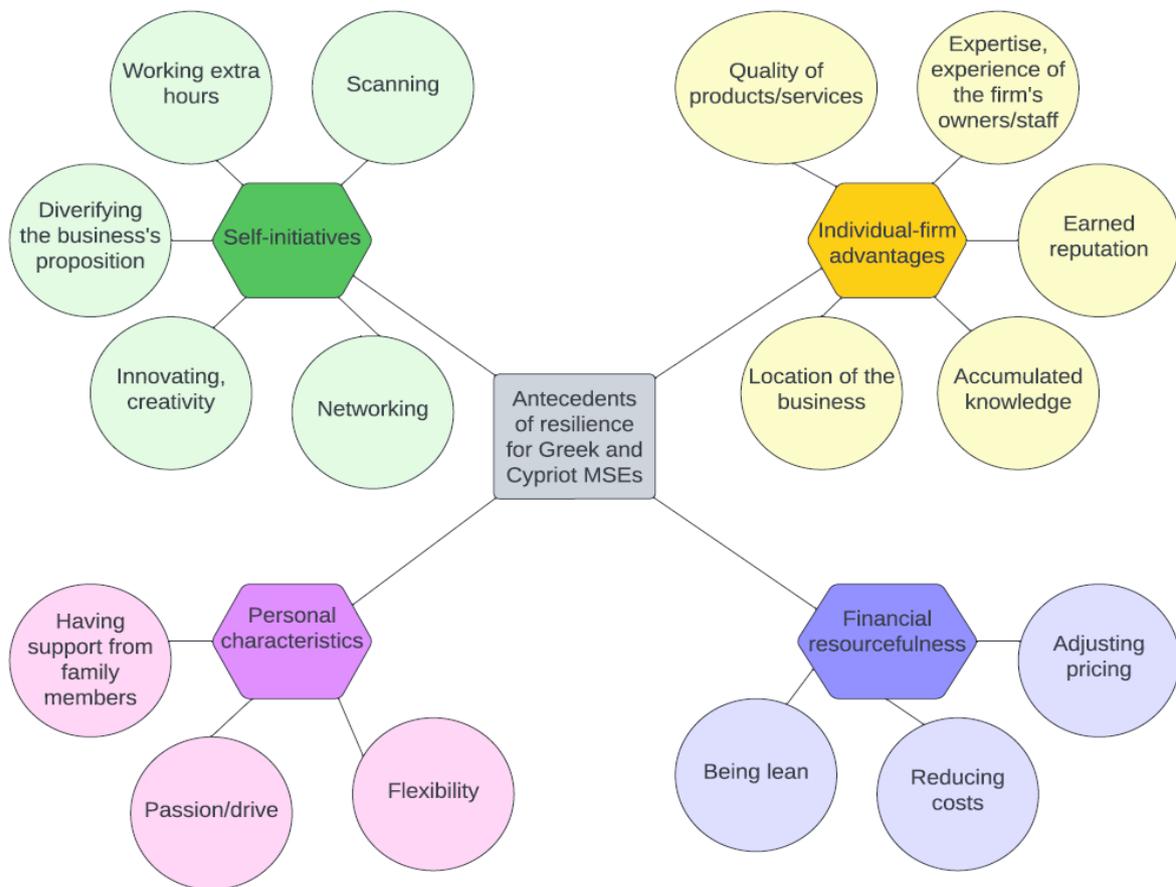


Table 8.6- Perceived value of ‘critical success factors’ for the performance of Greek and Cypriot MSEs

Items investigated	n*	Mean	SD
Managing operating costs effectively	406	4.73	.488
Managing cash flow efficiently	406	4.71	.484
Communicating with customers (e.g., face-to-face, online)	406	4.63	.727
Building a relationship of trust with external stakeholders (e.g., customers, suppliers)	406	4.63	.687
Accumulated prior experience/knowledge in my industry/sector	406	4.60	.625
Investing additional personal time on the business	406	4.49	.768
Personal aspiration to grow/expand the business	406	4.38	.791
Being passionate about the products/services of my business	406	4.37	.810
Monitoring the latest developments in my industry (e.g., opportunities, technology advancement, trends)	406	4.14	.951
Offering a highly specialised/unique range of products/services	406	4.03	.883
Constantly looking for new knowledge (e.g., reading reports, internet searches)	406	3.63	1.190
Focusing on specific niche market segments (e.g., affluent, more mature, younger consumers)	406	3.60	1.028
Allocating finances from lending institutions (e.g., banks) as needed	406	3.49	1.274
Developing new products/services (e.g., logistics, customised service)	406	3.42	1.071
Using technology to support the business operation	406	3.41	1.299
Imitating/adopting strategies used by others (e.g., marketing activities)	406	2.84	1.310
* Missing four responses; a Likert-scale is used where 1= Not at all important and 5= Very important.	Cronbach’s Alpha scale: 0.810		

Table 8.7- Greek and Cypriot MSEs’ performance on various factors associated with resilience between 2008-2016

	Bartlett’s Test of Sphericity			Communalities after extraction
	Factor 1	Factor 2	Factor 3	
Cronbach’s Alpha – Standardised items: .864	Approximate Chi-Square: 3763.060			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .834	Degrees of freedom: 276			
Extraction method: Principal Axis Factoring	Significance: 0.000, Total variance (3 factors): 45.533%			
Rotation method: Varimax with Parallel analysis				
Having the capacity to respond to turbulent events (e.g., able to invest extra capital, get an expert opinion)	.773			.696
Flexibility to make changes to this business in response to turbulent events (e.g., change pricing strategy, make special offers)	.742			.796
Swiftly responding to challenges in this industry/sector (e.g., to negative marketing, trends, increased costs)	.725			.668
Identifying threats for this business early (e.g., competition, price shifts, currency fluctuation)	.628			.464
Constantly innovating/offering solutions to problems	.615			.658
Constantly seeking new business opportunities (e.g., new markets)	.569			.506
Constantly improving the quality of products/services/logistics	.550			.546
Managing time efficiently to complete tasks		.682		.486
Prioritizing tasks in order of relevance/urgency		.657		.457
Focusing on short-term priorities (e.g., buying supplies)		.520		.398
Learning by networking with other firms			.698	.606
Collaborating with other firms/entities to search for new opportunities (e.g., combine strengths)			.685	.635

Table 8.8- Perceived value for measures of “firm success”

Items investigated	n*	Mean	SD
Business survival/longevity	406	4.78	.481
Satisfied customers	406	4.70	.595
Profitability	406	4.69	.594
Usefulness/relevance of products/services to customers	406	4.45	.722
Work-life balance	406	4.33	.795
Business growth	406	4.24	.945
Personal satisfaction	406	4.17	.935
Innovating (e.g., solving problems, repairing equipment)	406	3.59	1.080
Contributing back to society (e.g., jobs, taxes)	406	3.41	1.066
Public recognition	406	2.92	1.462
* Missing two responses; a Likert-scale is used where 1= Not at all important and 5= Very important.	Cronbach’s Alpha scale: 0.771		

As a way to demonstrate the integration between qualitative findings and quantitative results, tables 8.9a and 8.9b display the main elements that contribute to the resilience capacity of Greek and Cypriot MSEs. These factors include capabilities and characteristics at the *organisational, individual, and managerial* levels, among other factors (e.g., competitors’ activities or responses). The following sections include meta-inferences for all identified clusters.

Table 8.9a- Summary of integrated findings: antecedents of resilience in the context of Greek and Cypriot MSEs (QL=Qualitative; QNT=Quantitative)

Self- initiatives
-Working extra hours (QL+QNT)
-Using technology to support the business operation (QNT)
-Communicate and educate consumers (QNT)
-Networking (QL)+ Learning by networking with other firms (QNT)
-Scanning the environment (QL) +Monitoring the latest developments in the industry (QNT)
-Constantly looking for new knowledge (e.g., read reports) (QNT)
-Diversifying the current product/service offer (QL+QNT)
-Constantly innovating/being creative/offering solutions to problems (QL+QNT)
-Constantly seeking new business opportunities (QNT)
-Constantly improving the quality of products/services/logistics (QNT)
Financial resourcefulness and management
-Adjusting pricing (QL)
-Managing and reducing operating costs effectively (QNT + QL)
-Managing cash efficiently (QNT)
-Being lean (QL)

Table 8.9b- Summary of integrated findings: antecedents of resilience in the context of Greek and Cypriot MSEs (QL=Qualitative; QNT=Quantitative)

<u>Organisational characteristics/capabilities</u>
-Quality of products/services (QL) +Highly specialised/unique range of products/services (QNT)
-Earned reputation + build a relationship of trust (QL +QNT)
-Location (QL)
-Having the capacity to respond to turbulent events (e.g., able to invest extra capital) (QNT)
-Flexibility to make changes to this business in response to turbulences (e.g., change pricing strategy) (QNT)
-Swiftly responding to challenges in this industry (e.g., increased costs) (QNT)
-Identifying threats for this business early (e.g., price shifts) (QNT)
-Recognizing the weaknesses/vulnerabilities of this firm (QNT)
<u>Individual and managerial characteristics/capabilities</u>
-Expertise (QL)
-Flexibility (QL)
-Accumulated knowledge and experience (QL + QNT)
-Having support from family members (QL)
-Passion/drive/vision (QL+QNT)
-Managing time efficiently to complete tasks (QNT)
-Prioritizing tasks in order of relevance/urgency (QNT)
-Focusing on short-term priorities (e.g., buying supplies) (QNT)
-Having an informal decision-making process (QNT)

8.3.1. Organisational characteristics and capabilities

Several individual and firm-based advantages influenced MSEs' capacity to develop resilience capabilities. In line with contemporary findings from Greece (Kottika et al., 2020), the **quality of products/services** on offer proved a significant factor in MSEs' attempt to deal with the turbulent business conditions after the 2008 GFC. In a period characterised by declining purchasing power and domestic consumption (Sarafidis et al., 2017; Gibson and Pavlou, 2017), Greek and Cypriot MSE owners/managers continuously tried to improve the quality of the products/services on offer as a coping strategy while operating under volatile and uncertain conditions. For instance, GR72 explained that: *I focus on quality. Even during challenging financial periods, people are willing to pay for good quality honey. They want quality products for their children.* As a complementary course of action, this study's quantitative results also highlight the value of offering a **highly specialised/unique range of products/services**. As an example, GR66 stated: *Each bottle is a hand-made wooden chest, while the etiquette is sculptured by a professional sculptor. So, each bottle is unique and different from each other.* From a social capital perspective, a firm's established relationship of **trust** with external stakeholders proved really significant in the context of Greek and Cypriot MSEs. Specifically, trust, along with leadership characteristics, reflects the social capital element of "bonding" (with social networks) and represents an essential part of community resilience (Walker and

Salt, 2012, p. 97). In the context of developing organisational resilience, Koronis and Ponis (2018) link various resilience antecedents (e.g., preparedness) with a firm's specific cultural features, including trust. On a relevant point, having an established **reputation** in the market could offer multiple benefits. According to interview comments, good reputation enabled firms to maintain rapport with their clientele and retain their customer base at a large extent even under extremely challenging conditions. As an example, GR49 argued that: *Our long tradition plays an important role as well. We have a good reputation in the market and people respect our word.*

From the perspective of resources and capabilities, **having the capacity to respond to challenging events** could be a serious advantage during challenging times. For instance, bricolage activities (an amalgamation and innovative use of available assets) require access to a stock of heterogeneous resources (tangible and intangible) (Duymedjian and Rüling, 2010). As an example, CY1 acknowledged that: *We had to use personal funds to re-capitalise the business after the significant drop in sales after 2011. We were fortunate to have available funds that have not been lost with the bank haircut. The business would have to terminate its operation had it not been for the personal funds to pay for the operational expenses.* The availability of resources could also support firms to **swiftly respond to various challenges**. In that sense, MSEs would evidence a proactive posture (Battisti and Deakins, 2017), a preparedness to promptly act to initial indications of alterations within or outside the firm prior their proliferation (Lee et al., 2013). In the context of highly competitive markets, firms demonstrating a swift response could grow their market position (market share) while the ones with slow reflexes experience a decrease (Sheffi and Rice, 2005). The availability of resources and capabilities, even at a restricted level, also enables an **organisational flexibility** to make changes in response to environmental changes or turbulences. As an example, interview findings highlight the adjustment of prices or flexible payment terms as a response to volatile business conditions, among other measures. Specifically, GR89 stated: *I try to be flexible with the payment terms. In cases I know and trust certain customers, I might allow them to take the products and pay me at a later point in few weeks when they will get paid.*

The **location of the business** was identified as another significant factor in the case of Greek and Cypriot MSEs. A firm's location, among other factors, affects its competitive advantage (Porter, 1991), and impacts SME marketing presence (Gunasekaran et al., 2011), and overall SME performance during crises (Sato, 2000). For instance, there is an association between a company's location and its resources and capabilities (Freeman et al., 2012). However, the

business location does not only reflect access to existing and likely to be attained resources but also shapes the level of vulnerability or resilience (Herbane, 2019). As an example, a closer proximity to a certain location allows for a better collection of information about the competition and market ventures (Herbane, 2019). From the perspective of medium-sized businesses, geographic vicinity to policy makers influences an organisation's ability to mobilise agents from different regions as a response to turbulences (Polyviou et al., 2020). Location is also considered to be among the factors associated with small firms' growth (Bamiatzi and Kirchmaier, 2014). In the context of this study, CY37 reflected that: *The location of the establishment is ideal. We are located in the heart of the old town which is basically the city centre and one of the shopping districts for tourists and locals. The footfall is very high at this location.* As additional organisational characteristics, MSEs' ownership attempted to **recognise the operational weaknesses/vulnerabilities** and **identify early any possible threats** for their business.

8.3.2. Individual and managerial/entrepreneurial characteristics and capabilities

The role of owners/managers proved highly influential for Greek and Cypriot MSEs attempting to navigate through the increasingly deteriorating business environment after the 2008 GFC. Specifically, empirical findings identified several individual characteristics and/or capabilities shaping the resilience outcome in the case of Greek and Cypriot MSEs. First, MSE owners/managers were passionate about their products/services on offer and had a **personal aspiration to grow** their business. For instance, CY19 noted that: *We are passionate and enthusiastic for our profession.* The exhibited **passion** and **drive** counterbalanced various organisational limitations (e.g., resources) and enabled MSEs respond to multiple operational challenges. In practical terms, passion helps entrepreneurs to persevere and maintain their dynamism for their business ventures when exposed to challenges (Cardon et al., 2005), hence is associated with business growth (Baum et al., 2001). Among other individual motivations, passion and drive additionally dictate the journey of entrepreneurs as they progress through distinct phases of entrepreneurship (e.g., identify opportunities, establish ideas) (Shane et al., 2003). According to Kottika et al. (2020), Greek SMEs that survived the economic turmoil of 2008 were led by proprietors who possessed a more optimistic outlook and stronger negotiating abilities compared to the ownership at firms that ceased operations. However, a composed and relatively negative view of reality could be more advantageous when confronted with significant problems (Coutu, 2002).

On a different note, *accumulated knowledge* and *experience* turned to be a valuable asset as the operating conditions gradually worsened. Among possible benefits, CY2 mentioned that: *Many years of experience and expertise are required to offer a high-level service. I have been one of the first to offer similar services in Cyprus.* After being subjected to unprecedented events (the 2013 bank haircut in Cyprus, the 2015 capital controls in Greece), the study's participants used their experience and good understanding of the operating industry to maintain their composure, attempt to make sense of the novel situations, and identify tentative solutions. While MSE ownership/management had not encountered comparable levels of turbulence in the past, at least in terms of magnitude, their daily exposure to a wide range of internal and external challenges over the years gradually prepared them to operate in rapidly changing business environments. Specifically, a person's ability to perform in unforeseen situations is influenced by their familiarity with the operational environment, as well as their acquired learning (knowledge) and competencies (skillset) (see Landman et al., 2017). McCann and Selsky (2012) explain any knowledge gained from previous experiences in the workplace affects the way individuals respond to future events (e.g., proactive vs reactive). Experience serves as the fundamental knowledge base for organisational memory, which is necessary for the manifestation of bricolage (Duymedjian and Ruling, 2010). On a relevant note, Weick and Sutcliffe (2003, p. 4) explain that resilience "does not merely emerge in response to specific interruptions or jolts, but rather develops over time from continually handling risks, stresses, and strains". However, McCann and Selsky (2012, p. 95) also argue that "using tried and proven ways for looking at totally new conditions can lead to disaster". As an example from the 2008 GFC, they argue that Lehman Brother's management employed traditional approaches to supervise dealers handling high valued financial packages (McCann and Selsky, 2012). Additional research findings indicated that entrepreneurial experience had a little effect on the operation of SMEs after the 2008 GFC (Cowling et al., 2018). Accordingly, this study posits that the concept of sensemaking allows MSE owners/managers to frame any prior experience and other skills within the specific context they operate and guide them amid complex business situations.

Among other notable individual qualities, MSE ownership's *flexibility* and *expertise* (e.g., educational qualifications) in business related activities proved beneficial in multiple instances. During the coping resilience phase, MSE management used its expertise to educate consumers and further explain and provide further information to promote the benefits of the offered products and services. In the context of the adaptation stage, interviewee CY1 used his

chemistry specialisation to produce a new generation of environmentally friendly paints, thus further diversifying the product range. Flexibility also proved useful in making operational adjustments that provided additional benefits to the clientele in the highly competitive post-2008 business environment. **Having support from others** (e.g., family members) proved an additional important asset for Greek and Cypriot MSE ownership. As a practical manifestation of social capital, the support from family members and friends was valuable at all resilience stages, including anticipation (assisting with networking activities), coping (reducing expenditures), and adaptation (supporting the implementation of ideas). For example, CY14 explained that: *The family structure of the business helps a lot. We face problems as a team. We stand united under a common cause and always come up with solutions. Each family member will support the other when needed for the greater good of the business.* Based on data from the Central Bank of Cyprus (CBC) focusing on local SMEs between 2010-2013, social capital (e.g., family, friends) acted as an alternative form of financing when obtaining bank loans became difficult (Charalambous and Polemidiotis, 2017). On a relevant note, McGuinness and Johnson (2014) argue that social capital can serve as a solution for SMEs to access a wide range of resources during challenging periods and increase their resilience capacity. In the context of family businesses, social capital supports the implementation of business processes within the firm and redistribution of any available resources, hence empower firms to effectively deal with impending disruptions (Mzid et al., 2019). In addition to the individual characteristics, various **managerial characteristics** also proved highly influential in MSEs' potential to develop resilience. For instance, MSE ownership prioritized tasks in order of relevance/urgency and focused on short term-priorities. As an example, prioritizing tasks is among the possible approaches to reduce uncertainty (see Lipshitz et al., 2007), while also reflects MSEs' limited resource availability and could balance such a scarce resource capacity. On a relevant note, managing time efficiently to complete tasks was associated as an important aspect of entrepreneurial traits that may help address the restricted resources of MSEs.

8.3.3. Self-initiative activities

MSE management resorted to various personal initiatives to respond to the volatile business conditions. In order to mitigate the constraints imposed by limited resources and the burdensome tax environment, MSE owners/managers devoted **additional personal time** to their businesses. According to this study's survey results on various 'measures of firm success' (table 9.6), MSE ownership placed significant importance on intrinsic motivations such as

personal satisfaction, an indication of their willingness to strive and surpass any challenges that may arise (Nisula and Olander, 2023). From the perspective of entrepreneurial orientation, owners/managers demonstrated their autonomy and determination to meet the business goals (e.g., Lumpkin and Dess, 1996). As an example, CY22 mentioned: *I work many hours every day either in directly related issues of the business, such as stock control or service, or researching for new products, new ideas.* The integrated data also highlight the value MSE owners/managers attribute to understanding and learning about the developments in their operating environment. For instance, MSEs constantly *scan* and *monitor their industry, look for new knowledge* (e.g., read reports), and are alerted to *identify new business opportunities*. In line with findings from contemporary studies (e.g., Elenkov, 1997), Greek and Cypriot SME management engaged in environmental scanning using an informal approach rather than a more comprehensive strategic planning process. Nevertheless, such monitoring activities are important since SMEs' resilience capacity is contingent to the ownerships' acquaintance with the wider environmental developments (e.g., industry rivalry) (Gunasekaran et al., 2011). However, environmental scanning plays a role in contributing to organisational resilience when companies effectively exploit any acquired information to review or improve current practices (organisational learning) (YahiaMarzouk and Jin, 2022).

As additional initiatives, MSE owners/managers engaged in *networking activities*. Specifically, communicating with the clientele proved an important parameter on MSEs' ability to cope with the challenging business conditions. For example, an efficient and consistent interaction with customers offered the opportunity to promote the advantages of their products and understand consumers' purchasing priorities and limitations (maximum price willing to pay). Accordingly, such information could shape the operational strategy of MSEs, including the pricing strategy, marketing campaign, and product development, among other operational domains. On a relevant point, Daft et al. (1988) suggested that when there is a high level of strategic uncertainty, a firm's management tends to shape its opinion based on direct contact with important sources in the environment. Branicki et al.'s (2018) findings also highlight the value of social contacts in establishing an unofficial channel of support for SMEs. Likewise, Ates and Bititci (2011) argued that SMEs could further strengthen their connections with important stakeholders (e.g., clientele, competition, suppliers) as part of a proactive course of actions to anticipate change in their environment. Indeed, CY15 explained that: *We regularly monitor the market trends and attempt to align with them. For example, the current trend is to use super fruits (e.g., raspberries, blueberries, etc.) for jams.*

In reference to the selected organisational responses to the deteriorating business conditions, MSE owners/managers chose to ***diversify their product/service on offer***, among other actions. Based on interview comments, MSEs mitigated the decline in sales by expanding the range of products/services allowing them to remain operational. For instance, GR27 explained that: *In the past, 80 percent of our sales focused on ferries ticketing. The drop of sales in that market segment made us extend the range of our services and include trips, cruises, and other similar services.* Nevertheless, survey responses validate that MSE owners/managers made equal efforts to ***improve the quality of any products/services*** on offer. The ***use of technology*** also proved a useful tool in supporting different operational needs. Based on past findings from SMEs (Gunasekaran et al., 2011), the use of technology is believed to facilitate market intelligence (collect information) and reduce operational responsibilities, among other possible benefits. As an additional measure, ***innovation*** and ***creativity*** proved to be effective solutions for addressing numerous problems and operational constraints (e.g., limited assets). Specifically, innovation involves implementing an idea to a real product that generates value (Vrontis et al., 2022). While the interviews revealed that innovation was a prominent activity, the quantitative results indicate a rather average performance in this area. Such an outcome highlights that not all participating MSEs managed to highly respond to the turbulences following the 2008 GFC. However, the cluster of MSEs that were able to respond well to post-GFC turbulences evidently exhibited a greater aptitude for innovation (table 8.5).

8.3.4. Financial resourcefulness and management

Financial resourcefulness and management were identified among the top MSE management's priorities once the effect from the post-2008 deteriorating business conditions fully emerged in Greece and Cyprus. In response to the daily operational challenges and significant local volatile events (2013 bank haircut in Cyprus, 2015 capital controls in Greece), MSE owners/managers ***adjusted their pricing strategy*** and focused even more to efficiently ***manage and reduce their operating costs***. As an immediate response to the deteriorating business conditions, MSEs reduced their prices, and implemented discounts and various bundle offers to stimulate sales. In the case of Cypriot SMEs, official data (CBC) confirm that such initiatives generated sufficient financial reserves to carry out their daily tasks (Charalambous and Polemidiotis, 2017). According to interview data, MSEs' ownership also decided to absorb any newly imposed state tax increases to further support customers and uphold their trust and loyalty. For instance, GR80 confirmed that: *I always make special deals and discounts depending on the items. Also, I try to absorb any newly imposed taxes when possible.* Among other implemented

measures, MSE owners/managers decided to decrease personnel and other operating expenses (electricity). In the period between 2008 and 2014, it is estimated that approximately 700,000 jobs were lost in Greek SMEs (KEPE, 2015). In the context of Cyprus, SMEs predominantly attempted to reduce staff expenses either by cutting down the number of full-time employees or by further reducing wages and other benefits (bonuses) (Charalambous and Polemidiotis, 2017). Attempting to address the limited access to credit (Lyberaki and Tinios, 2017; Charalambous and Polemidiotis, 2017), Greek and Cypriot MSE ownership also emphasized on *managing cash efficiently*.

Despite any possible benefits resulting from reactive financial management and resourceful related actions after a certain shock fully emerges, highly resilient MSEs also adopted proactive strategies to secure financial management versatility. Based on the interview findings, MSEs with *no past debts* were more flexible than indebted firms to quickly respond to developments at their operating environment (VAT tax increase) (coping capacity) through implementing price adjustments and reducing operating costs. On a relevant note, contemporary findings from Greek SMEs over the period of 2009-2013 support the claim that businesses without short-term debts were better equipped to deal with challenging operational conditions (e.g., limited credit availability) (Lemonakis et al., 2017). Such a finding highlights the importance of owners/managers choosing effective strategies in many aspects of their business (e.g., financial), due to the direct impact on the longevity of the firm (Conz et al., 2017).

8.3.5. Overview of antecedents influencing MSE resilience in the case of Greece and Cyprus after the 2008 GFC

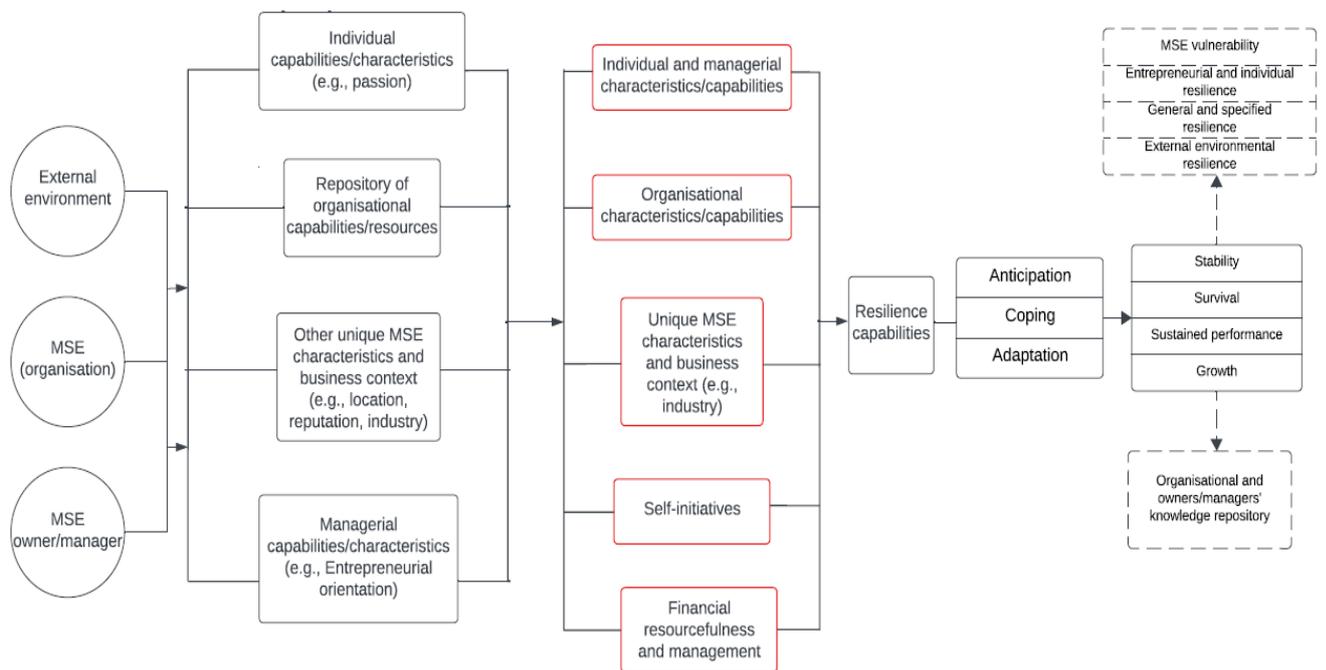
In line with the identified findings, it is possible to have a more complete view of the factors and capabilities determining Greek and Cypriot MSEs' resilience capacity (figure 8.4). First, it is clear that the availability of *organisational resources* and *capabilities* impacts, directly or indirectly, all resilience phases. Specifically, disposal organisational assets (tangible and intangible) influence MSEs' ability to scan their operating environment (anticipation), respond to turbulent events (coping), and implement operational adjustments amid new business conditions (adaptation). For example, having extra capital or safety stock (redundancy tactic) enhanced MSEs' response capacity (adding to agility) further enabling them to remain operational when local turbulences fully emerged (coping stage). However, resource availability does not guarantee or yield resilience outcomes unless complemented by other capabilities. Specifically, MSE ownership needs to efficiently utilise and combine, any

available assets and capabilities to maximise the resulting benefits. Accordingly, *managerial capabilities* played an important role at different resilience phases, often acting as a substitute in case of scarce resources. For instance, owners/managers' *cognitive capabilities* highly influenced MSE resilience performance through sense and decision-making activities; *human capital* (e.g., experience, expertise) assisted owners/managers to develop various solutions and implement operational adjustments (coping-adaptation phase); *social capital* (e.g., family members) supported MSE ownership to perform scanning activities before, during, and after turbulences occurred, among other. In the context of family firms, social capital significantly influences financial capital availability at turbulent periods through any established relationships, while human capital supports firms with the identification of new assets and reduction of expenditure (Mzid et al., 2019). The gradual accumulation of diverse assets, both tangible and intangible, with no set plan of use is also an essential requirement for bricolage activities (Duymedjian and Ruling, 2010), which contribute to adaptation including other benefits (Vanevenhoven et al., 2011). On a different note, the level of Greek and Cypriot MSEs' *absorptive capacity* (AC) could have a detrimental effect on the resilience outcome. Specifically, collecting and integrating knowledge (potential AC) predominantly reflects the anticipation resilience stage, while altering and capitalizing on the acquired knowledge (realised AC) relates to the coping and adaptation resilience phases. However, Greek and Cypriot MSE owners/managers continued the data collection and merging during (coping) and after (adaptation) the main turbulence emerged. In agreement with this study's findings, AC tends to be displayed via an owner's or staff passion, expertise, and advancement (Gray, 2006), and further supports creativity (Todorova and Durisin, 2007; Daghfous, 2004).

Among other emerging options, Greek and Cypriot MSEs demonstrated capabilities associated with *organisational agility*. Consistent with relevant literature focusing on agility (Sharifi and Zhang, 1999), MSEs in Greece and Cyprus manifested *responsiveness* (realise and respond to market alterations), *competency* (quality products, being lean), and *flexibility* (develop a series of products, achieve diverse targets), among other behavioural characteristics based on a mix of different capabilities (cognitive, absorptive, etc.). A firm's *social capital*, when combined with other capabilities, also played a crucial role in all resilience stages, promoting dynamic rather than static resilience practices (experience) (e.g., Brito et al., 2022). As an example, having high level of support from family and friends counterbalanced MSEs' scarce resource availability and assisted Greek and Cypriot ownership with environmental scanning (anticipation), reducing operating costs (coping), and implementing operational adjustments

(adaptation). On a relevant point, *organisational learning* played an important role for MSEs' ability to anticipate (notice alterations), cope (reflection), and adapt (apply changes). Furthermore, MSEs in Greece and Cyprus exhibited both reactive and anticipatory *adaptive capacity*, complementing their previously recognised skills. The highlighted capabilities contribute to different performance outcomes, namely stability, robustness, or growth. Following the highlighted resources and capabilities, further focus should be placed on specific activities employed at each resilience stage.

Figure 8.4- Overview of antecedents of resilience performance for Greek and Cypriot MSEs

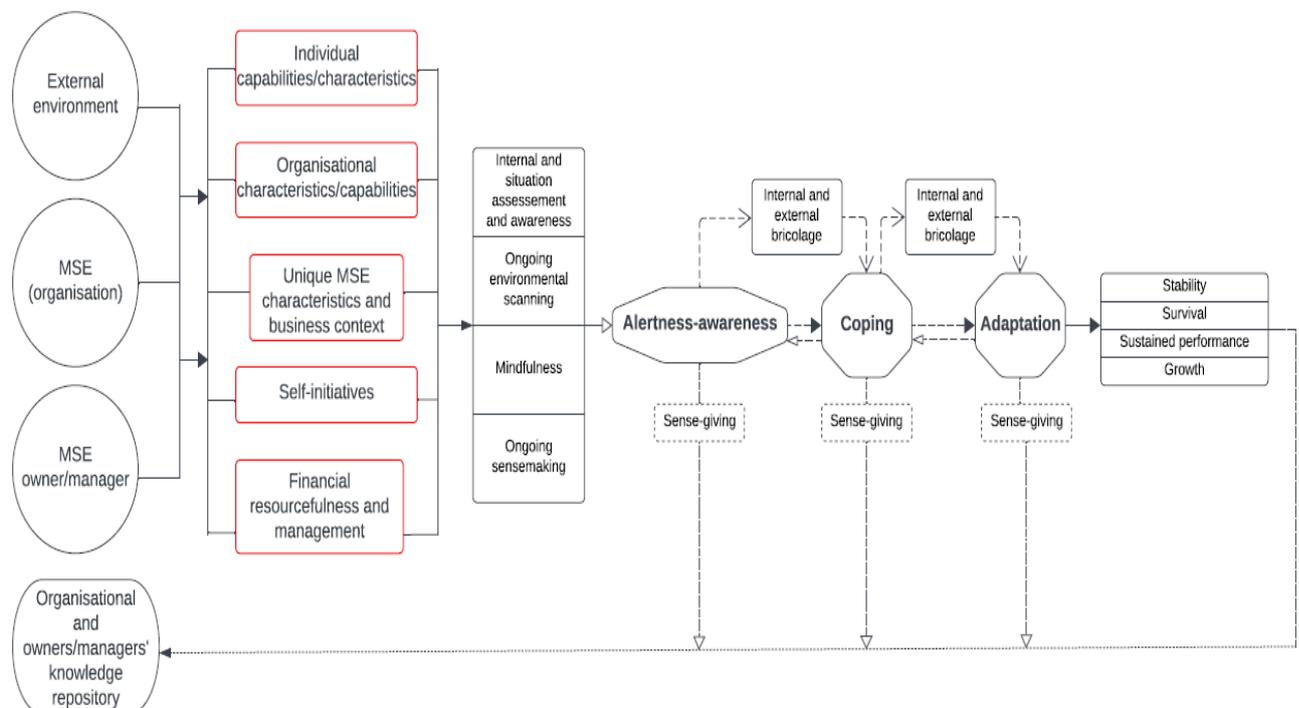


8.4. The resilience process in the context of Greek and Cypriot MSEs: cognitive and behavioural actions before, during, and after exposed to a turbulence(s) (RO 4)

The integration of empirical qualitative and quantitative findings allows to draw more complete inferences about the cognitive and behavioural actions required by SMEs across different industries before, during, and after they get exposed to internal and external shocks. Based on the identified meta-inferences, *cognitive and behavioural actions* at each resilience phase (e.g., anticipation) are determined based on (directly or indirectly) a) *a mix and degree of organisational resources/capabilities*, b) *a mix and degree of individual/managerial capabilities*, and c) *MSEs' unique operational and external environment characteristics (e.g., cluster/regional resilience)* (figure 8.5). From the perspective of organisational characteristics, quality products/services, resource availability, and market reputation, among other factors,

determine (directly or indirectly) the result of resilience at different phases (anticipation, coping, adaptation). At a personal level, the cognitive capacity of owners/managers influences both a) the result of each resilience phase and b) the overall resilience outcome (e.g., survival, growth), through the ability to ‘make sense’ (sensemaking) of environmental developments. The impact and contribution of organisational resources and capabilities (e.g., VRIO framework) on resilience outcomes are determined by the owner/manager's ability to effectively use and combine these assets. On a similar reasoning, Teece (1998) argued that the essence of the concept of Dynamic Capabilities lies in its application. The effective use of organisational assets and competencies is particularly crucial in the context of SMEs, since they are constrained by limited resources (Branicki et al., 2018). In addition, entrepreneurial capital at a human (knowledge) and social (family, friends) level influences the development of resilience before, during, and after a turbulent event emerges. A mix of organisational resources-capabilities combined with individual-managerial capabilities (cognitive and human-social capital) shapes the actions, both cognitive and behavioural, at each resilience stage.

Figure 8.5- Overview of the resilience process (Adapted from: Ducheck, 2020)



Apart from any organisational and personal factors, the external environment also impacts at multiple stages the resilience capacity for MSEs and other firms. At a cognitive level, external agents (e.g., suppliers, officials) could influence mental actions at each resilience phase through

the activity of sensemaking (collective approach). From a behavioural perspective, the resilience capacity of external stakeholders (e.g., competitors) and the level of cluster resilience (regional resilience) could influence MSEs' action repertoire at different time periods (pre-during-post turbulence). As an example of external interventions at the resilience process, the supply chain disruptions after the 2008 GFC created serious operational challenges to many MSEs and further deteriorated their position amidst local volatile developments. For instance, GR44 explained that almost all of his Greek suppliers terminated their operation in the post-GFC period. Therefore, GR44 had no alternative but to search and establish new partnerships with different suppliers abroad (China). On a relevant point, the level of cluster/regional resilience proved another influential factor at the coping resilience stage, at least for MSEs operating in specific industries (wineries). It is worthy to remember that firms do not operate in isolation from their operating context but as inter-dependent agents of an inter-connected macro-environment. On a relevant point, Porter and Kramer (2011) note that "No company is self-contained. The success of every company is affected by the supporting companies and infrastructure around it" (p. 12). In the context of this study's focus, resilience is unattainable when organisations or other agents operate detached from their environment (Seville et al., 2006). For example, firms rely significantly on their clientele and prominent suppliers for their operational longevity (Seville et al., 2006). From the perspective of this study, GR34 explained that the major glass bottle manufacturers, both at local and national geographic range in Greece, gradually seized operation many years before the 2008 GFC. As a result, local wineries, and other type of businesses, had no alternative but rely on importing bottles from other countries (e.g., Italy), hence increasing their vulnerability to future crises. Due to experiencing bottle shortages (shipping delays) at various periods during the pre-GFC period, GR34 decided to always reserve a safety stock of critical ingredients for the production process (bottles and alcohol) in anticipation of future turbulences (redundancy tactic). As a result, GR 34 was able to maintain the production flow almost uninterrupted after the first few weeks of the 2015 capital controls set at the Greek banking system and the imposed restrictions to local and overseas financial transactions. Likewise, Conz et al. (2017) argue that a firm's resilience capacity would highly depend on the ownership/management capacity to select and employ appropriate resilience tactics that are dynamic and reflect the regional adaptive progression and characteristics.

From a different viewpoint, the availability of financial capital per se does not guarantee coping with turbulences. Based on the example noted by GR 34, there was available capital for the purchase of material, but the company was unable to actually utilize it due to the capital control restrictions; hence a different pro-active approach was required. Having access to extra finance indeed offers more options and makes the coping process smoother but does not secure coping or survival. Among other external environmental factors (e.g., technology, politics), any government and other national policies introduced to support local businesses could be another crucial factor influencing MSEs' resilience and the whole business environment per each country. For instance, the type and timing of measures employed at each country as a response to the 2008 GFC, or even COVID-19 and other crises, could impact the resilience outcome for different businesses. From the perspective of the current study, interviewees from Greece noted that not all sectors had the same tax rates; hence, having lower tax bands could enhance the business performance and resilience capacity for firms operating across various sectors.

Based on the fluid and constantly changing business environment, organisational resilience should be approached as an interplay between different sub-systems of the business environment (system). On a relevant point, Seville (2009) argued that a firm's resilience capacity is contingent upon the resilience of different stakeholders and agents (e.g., staff members, clientele, regions). Attempting to identify and understand how MSEs could develop resilience without considering the resulting impact from other members of the operating environment presents a restricted view of the dynamics that shape a firm's resilience capacity. Specifically, MSEs and other type of firms, do not operate isolated or quarantined at their operating market but represent parts of a much wider business environment (the equivalent of an ecosystem). Along with considering and focusing on the repertoire of resources/capabilities and adopted responses from the focal point of a specific MSE, it is equally important to reflect on the responses and practices employed by other competing firms and other institutions and regulatory bodies (e.g., governments). For every measure actioned by an MSE or any firm, there could be a response or reaction from rival firms. Therefore, it is pertinent for MSE owners/managers to continually engage within their business environment to make informed decisions and responses. Based on the highlighted principles, the concepts of situation awareness, sensemaking, and mindfulness could be rather beneficial. The following sections focus on the different resilience stages highlighting both proactive and reactive activities employed by MSEs, relevant capabilities, and theoretical concepts that contribute to the efficient completion of each stage.

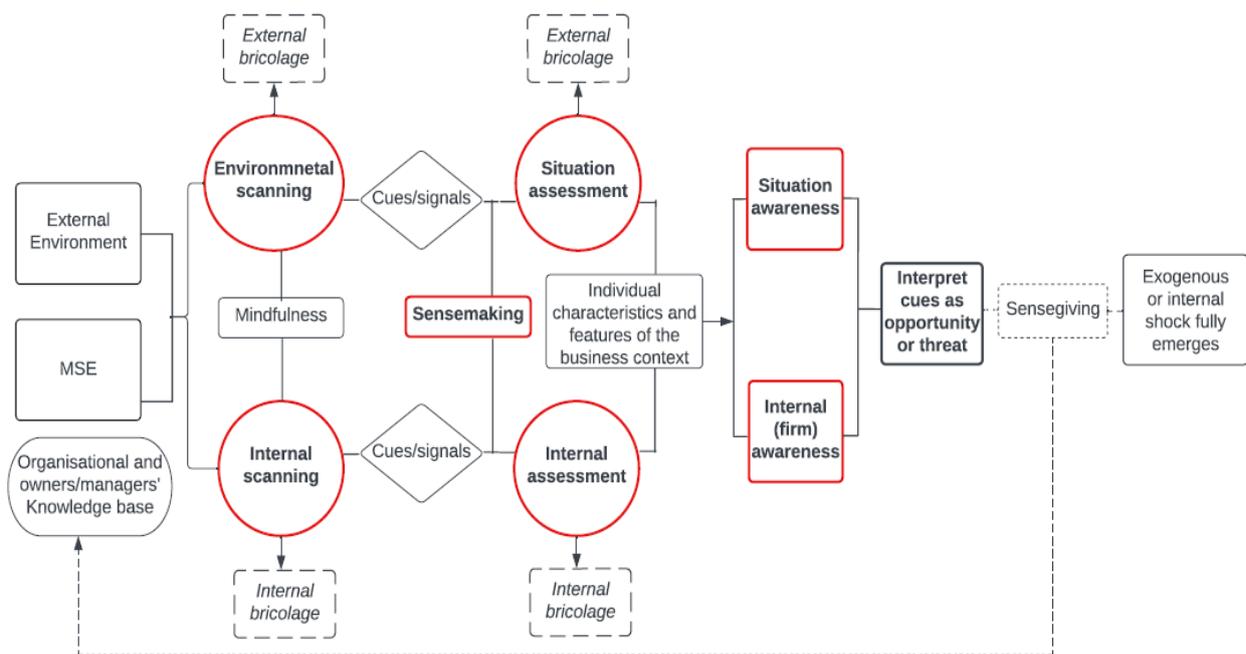
8.4.1. Anticipation resilience phase

The first resilience stage reflects cognitive and behavioural activities before a turbulence emerges (figure 8.6). Based on the interview findings, Greek and Cypriot MSE owners/managers were fully surprised by the 2008 GFC event and its further development, both internationally and at locally. In the context of Greece and Cyprus, MSEs were unable to anticipate the local turbulent events in the post-GFC period (2013 private deposits bank levy in Cyprus, 2015 capital controls in Greece). However, highly resilient Greek and Cypriot MSEs fostered a proactive strategy to be alerted and developed a good level of awareness both internally (organisation) and externally (local operating industry, national and international advancements). On a relevant note, managing unexpected events has been associated with the activities of “alertness, awareness, perception, and conception” (Weick and Sutcliffe, 2015, p. 150). From an internal organisational perspective, MSE owners/managers directly engaged in multiple, if not all, business areas due to a limited resource availability (e.g., staff) but also a genuine interest and passion for their business. For instance, MSE ownership actively pursued frequent contact with important stakeholders (clients, suppliers), which allowed them to have an in-depth understanding of the strengths and weaknesses of their company and the products/services on offer (internal assessment). The generation of any information contributes to the existing organizational knowledge pool (internal bricolage) and functions as a possible source of resilience (potential resilience).

At the same time, MSE owners/managers consistently scanned and monitored their business environment to follow any external developments, both at local and international level (situation assessment). As an example, owners/managers consistently attended professional exhibitions, networked with other professionals to have different perspectives on relevant business issues, and read reports or checked on other publicly available information. Specifically, GR80 pointed out that: *I attend exhibitions in Athens to check various type of products, talk with suppliers and producers, and also purchase some items. It is important to talk to other professionals and get the feeling of the market along with new ideas.* Among other possible outcomes resulting from scanning the environment, CY15 reported that: *We identified the new trend for gluten free products and were one of the first local companies to fill the gap in the market.* Due to certain operating limitations (scarce resources), MSE owners/managers relied on family members and friends covering their daily duties to perform any of the identified sensing actions (network bricolage; the use of social capital). Based on interacting with different stakeholders, MSEs were also able to further grow the reservoir of contacts from

their operating environment (external bricolage). CY21 explained that: *It is essential to have people who know you to support the business, especially in such a small island like Cyprus.* In reference to the significance of internal and situation assessment, Pal and Altay (2023) link both assessment types with a firm’s ability to efficiently exploit its competences, among other elements. On a different point, the adopted activities reflect the notion of collective sensemaking. Sensemaking practises are valuable for noticing specifics and comprehending their actual meaning and are regularly initiated by individuals to successfully guide within an ambiguous environment (Barton et al., 2015). Weick and Sutcliffe (2015) further explain that decision making assumes prior sensing, knowledge, and plausible stories, hence sensemaking processes. Focusing on group intelligence rather than individual, the concept of ‘wisdom of crowds’ (Surowiecki, 2004) assumes that collective sensemaking enables an improved assimilation of information and more efficient learning and actions (McCann and Selsky, 2012). However, groups do not provide correct solutions or advice at all times just superior to the ones a single person could produce (Surowiecki, 2004). In the context of this study, Greek and Cypriot MSE owners/managers attempted to make sense of the business context and inform their decision-making process (situation awareness; see Seville, 2009) as a way to maximise the results from any adopted actions. For instance, GR83 explained that: *I try to travel to experience what type of olive oil and olives people aboard prefer or can find, and also discuss with other professionals. Accordingly, I can set my long-term plans.*

Figure 8.6- Anticipation resilience phase (Adapted from: Ducheck, 2020; Burnard and Bhamra, 2011)



In reference to any preparations prior the 2008 GFC, or at least highly volatile local events in Greece and Cyprus (e.g., capital controls), empirical evidence from Greek and Cypriot MSEs did not highlight any planned arrangements in response to the deteriorating economic climate worldwide. However, MSEs demonstrated some level of pre-turbulence organising mostly associated with entrepreneurial characteristics (e.g., human-social capital). Specifically, MSEs strategically aimed to forge strong relationships with key stakeholders (clientele, suppliers) and establish a network of acquaintances (relatives, colleagues, suppliers), a reservoir of contacts (external bricolage) that could prove useful if ever required (potential resilience). As an example, CY18 explained that: *I have a large network of professionals to assist with various services (e.g., taxi drivers, other restaurateurs). It is essential to know many people who might be needed at some point.* From a financial perspective, highly resilient MSEs had no or limited debts increasing the range of possible responses (agility) during unfavourable business conditions. On a relevant point, depending on the owners/managers' business experience, any prior exposure to a specific type of problem or daily handling of operational issues could trigger some form of preparations or redundant tactics (specified resilience). Indeed, resilience capacity develops over a long period of time and does not simply reflect the response following a certain crisis or turbulence. Specifically, Weick and Sutcliffe (2003) explain that resilience builds gradually through constantly dealing with hazards. Lengnick-Hall and Beck (2005, p. 752) also argue that "resilience capacity is learned"; they further clarify that "It is composed of organizational subroutines and characteristics that are developed and honed over time as a firm encounters unexpected challenges" (Lengnick-Hall and Beck, 2005, pp. 752-753).

In line with the identified characteristics, the employed activities from Greek and Cypriot MSEs reflect the characteristics of a 'desultory anticipation strategy' (see Marcazzan et al., 2022). For instance, MSEs in Greece and Cyprus did not follow a formal planning approach but focused on monitoring the internal and external environment and reviewing information from multiple sources (official authorities), along with any established organising based on individual and entrepreneurial capabilities (past experiences). Although this study's findings do not indicate any particular MSE activities in anticipation of external shocks (e.g., 2008 GFC, local turbulent events in Greece and Cyprus), it is possible that SMEs are able to sense or even anticipate and appropriately respond to various internal shocks, but also less serious exogeneous events.

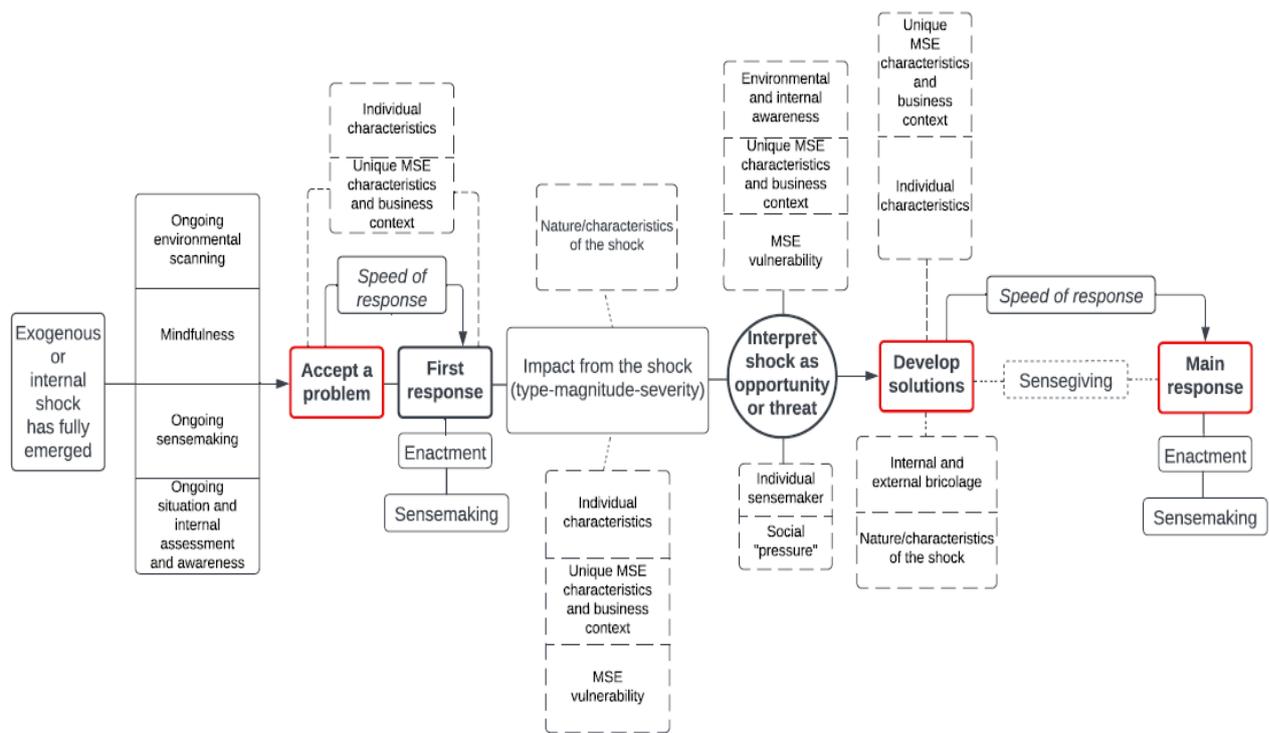
8.4.2. Coping resilience phase

After a turbulent event fully emerges, MSEs attempt to cope with challenging operating conditions (figure 8.7). Following the 2008 GFC outburst, business conditions deteriorated worldwide. In the case of Greece and Cyprus, the most challenging consequences resulting from the crisis would become fully evident at a later point. Specifically, the 2015 capital controls at the Greek banking system and the 2013 bank levy in Cyprus represent the peak of the crisis in both countries. Based on the unprecedented nature of the developments, the level of individual resilience and entrepreneurial self-efficacy played a crucial role over the first days after the shocks emerged. Until the local political and economic systems were once again stable, MSE ownership required to maintain their composure and have faith in their ability to deal with stressful situations (self-efficacy). Based on contemporary evidence from Greek micro-firms, owners/manager's self-efficacy level determines how extrinsic events are perceived (e.g., threat, a challenge to overcome) and the conviction to overwhelm them (Kornilaki et al., 2019).

Despite being highly experienced in their respective industries and possessing relevant expertise, MSE owners/managers attempted to make sense of the developments in their environment through an ongoing engagement with different stakeholders (clientele, suppliers) within their environment (individual and collective sensemaking). On a relevant point, Barton and Sutcliffe (2009) argue that *generic expertise* should not be confused with *situational knowledge*, further explaining that it is rather doubtful for an individual to possess all required knowledge to deal with challenging and volatile occurrences regardless any prior experience or training. Weick (1996, p. 148) further clarifies that “in a fluid world, wise people know that they don't fully understand what is happening at a given moment, because what is happening is unique to that time”. By seeking out different opinions, MSE ownership demonstrated an “attitude of wisdom” (Weick, 1993, p. 641), also described as “situated humility” (Barton and Sutcliffe, 2009, p. 1344), a parallel belief and doubt (Weick, 1996). When experiencing highly turbulent events, Coutu (2002, p. 4) explains that “rose-colored thinking can actually spell disaster”. Individuals who approach situations with humility and curiosity are more inclined to renew and adapt their perception of a certain situation taking into account information and signals that could have been overlooked (Barton and Sutcliffe, 2009). On a related note, Weick and Sutcliffe (2015, p. 121) explain that “action is contingent on variations in the situation”. Based on the concept of *contextualized engagement*, an active interaction of organisational actors with their business context to explore and assign meaning to likely turbulences yields

improved performance (Barton et al., 2015). Bartscht (2015) also argued that a firm's management needs to constantly explore its business environment to gain situational understanding and make appropriate choices (e.g., timing and market selection). As a result of understanding well the dynamics of their operating industry, hence “being aware of context” (Langer, 1989, p. 138) (mindfulness), and any available organisational and individual capabilities, SME management introduced tentative measures to remain operational and respond to the new business reality (see Sheffi and Rice, 2005). These first reactions were important since any initial employed action could shape the course of the shock (see Weick, 1988).

Figure 8.7- Coping resilience phase (Adapted from: Duchek, 2020; Burnard and Bhamra, 2011)



After reviewing the conditions in place (opportunity or threat), SME ownership developed and executed several approaches to cope with the challenging business conditions. The adopted actions were based on making use of any available organisational resources (e.g., finance, network) (external bricolage) and owners/manager's personal knowledge and experience (internal bricolage) (Vanevenhoven et al., 2011). Similar to other contemporary findings from Greece (Kottika et al., 2020), MSEs primarily employed static resilience responses focusing on financial management through a range of downsizing tactics (reduce operating expenses) to cope with the declining business performance (reduced sales/profit). For instance, CY18

acknowledged that: *We reduced the prices and our profit margin since 2013. We needed to send a message to locals and tourists, they can still dine or stay to our business with their reduced budget.* As part of a proactive strategy, having limited or no past debts and some available resources in case of emergency (e.g., extra capital) (redundancy tactic) eased the extent of required financial related adjustments (adding to robustness), but also enabled MSEs to swiftly respond (agility) to various developments at their business environment. Specifically, GR36 admitted that: *We were fortunate not to have any loans or payables to suppliers/companies. Such a position enabled us to review the whole situation more relaxed and adapt within the new reality.* At the same time, such endowments further enhanced MSEs' capacity to offer a wide range of possible solutions (e.g., customized instalment payments) in reaction to the deteriorating business conditions (adding to flexibility). Based on the identified behavioural repertoire, Greek and Cypriot owners/managers actively prompted to reduce the impact caused by the worsening economic environment (fight response approach; see Connelly and Shi, 2022). A prime business location also proved valuable for MSEs to maintain a close relationship with their clientele and other important stakeholders (suppliers). For instance, GR48 noted that: *Our location is close to the harbour and the main square of the city. Basically, we are located just 5 minutes away from the 'heart' of the city, next to hundreds of shops, restaurants, cinemas, etc.* Among other beneficial organisational characteristics, the high quality and unique range of products and good reputation in the market supported MSEs retain the trust and loyalty of their clientele during times of declining purchasing power (contributing to robustness). For example, CY3 recognised that: *The business operates for many years in the local market, has established a very good reputation, and benefits from its good brand name.* As a supportive element, MSE ownership maintained a primarily in-person communication with its clientele attempting to educate consumers about the product/services qualities and draw information (purchasing priorities).

The entrepreneurial characteristics and capabilities (individual and managerial) also played a critical role at the selection and application of any adopted actions. For instance, having the support from family members and friends (social capital) enabled MSE owners/managers to drastically reduce personnel expenses. Additionally, MSE ownership's experience running a business proved valuable to promptly identify and effectively implement resourceful approaches to minimise other operating costs (utilities). Based on the principles of bricolage, Weick (1993) explains that bricoleurs are able to maintain their creativity when experiencing duress as a result of regularly operating in erratic situations and properly dealing with them

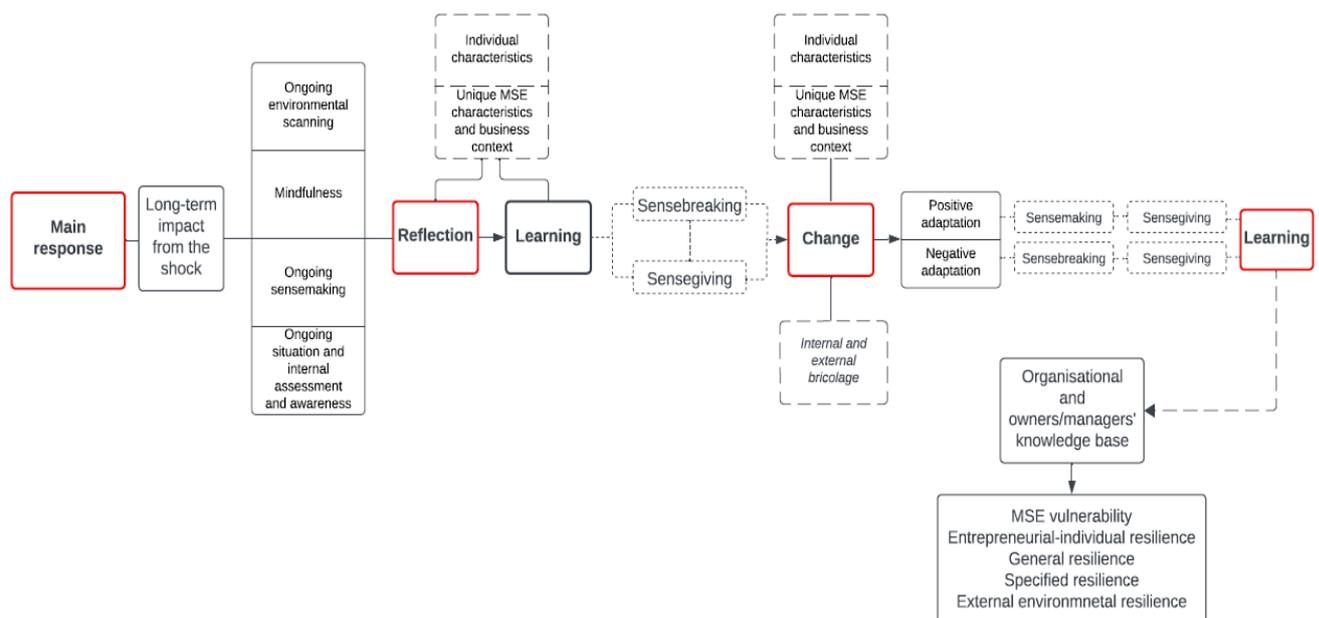
using any available assets. Attempting to reduce the operating expenses, GR35 explained that: *We modified our oil boiler to reduce the consumption since the oil price has risen again.* Apart from any adopted cost-cutting measures, owners/managers invested additional time in their firms attesting their passion, vision, and drive for the business success and products/services on offer. From a managerial perspective, Greek and Cypriot MSE participants managed time efficiently, prioritized tasks in order of relevance/urgency, focused on short-term priorities, and adopted an informal decision-making process. In reference to identifying possible solutions, sensemaking impacts both creativity and innovation (Maitlis and Christianson, 2014), among other factors. Following the sensemaking principles, any employed measures enacted the business environment and influenced the resilience capacity of several external stakeholders (clientele, suppliers, competitors). For instance, the decision to absorb any imposed VAT increases could put pressure on competitors to imitate the same strategy, hence affecting their resilience capacity and vice versa.

8.4.3. Adaptation resilience phase

The final resilience stage reflects the capacity for MSEs to adapt to the new business reality (figure 8.8). After implementing various coping measures (downsizing tactics), Greek and Cypriot MSEs reflected the resulting outcomes. As evidence of collective sensemaking practices, MSE ownership continued to network with key stakeholders (e.g., clientele, suppliers) and monitor the latest environmental developments. For instance, GR73 highlighted that: *We try to attend professional exhibitions and get updates about the developments in our sector or what some businesses in big cities do to cope with the challenging conditions.* However, any adopted networking activities were not part of a formal resilience planning but a personal entrepreneurial choice to interact with environmental agents. Driven by their personal passion and vision for their company, MSE owners/managers persisted in seeking new business opportunities, having support from family members and friends (network bricolage) as a way to find sufficient time to explore and exploit possible business options. Accordingly, MSE ownership was able to draw conclusions about the effectiveness of the adopted coping actions (learning) and further consider any needed and/or possible adjustments to strengthen its market position. Specifically, MSE owners/managers relied on innovation and creativity to improve their business performance amidst challenging conditions. Among other approaches, MSEs primarily resorted to different types of innovation, and specifically efficiency (produce the same product at a lower cost) or sustaining innovation (improve the product quality) (Vrontis et al., 2022).

Due to the limited resource availability, owners/managers combined any disposal resources (asset bricolage) and used their personal expertise (internal bricolage) to implement novel ideas or solutions. For instance, GR8 designed and built a crepe machine to improve product consistency and volume, while CY37 improvises and tailors products based on customer needs. Product diversification was another example of adaptive endeavours aiming to realise prior learning and create new revenue streams. As an example, CY22 confirmed that: *We had an additional income stream by producing our own beer in the premises of another brewery.* Similar to findings from past studies (Gunasekaran et al., 2011), the use of technology was also employed to further support the business operation (efficiency), but also as a tool to increase the distribution channels (online sales). The identified actions reflect Greek and Cypriot MSEs' attempt for a 'strategic repositioning' through primarily relying on expertise-experience, innovation, an established network (professional and personal), and organisational alterations (see Mayr et al., 2017), among other endeavours. Due to lack of any formal planning, Greek and Cypriot MSEs demonstrated an *ad hoc* resilience capacity, hence were quite adaptable to the recurring conditions with limited or no pre-scheduled practices (see Vargo and Seville, 2011).

Figure 8.8- Adaptation resilience phase (Adapted from: Duchek, 2020; Burnard and Bhamra, 2011)



In reference to factors influencing the adaptation stage, MSE ownership continued to actively engage with multiple stakeholders from its wider business context (e.g., customers, colleagues) to exchange views about environmental developments as a mean to complement its

environmental understanding and further inform its decision making. In line with such endeavours, Weick (1996) explains that a combined belief and doubt (attitude of wisdom) enhances adaptability through enabling better decision making. On a relevant point, MSE owners/managers with previous industry experience used their knowledge to implement solutions faster (agility). Social capital, together with other supportive factors, served as an additional source of resources and facilitated owners/managers in implementing their adaptive actions. Nevertheless, owners and managers dedicated additional time to their firms in an effort to offset the limited workforce and financial resources, among other constraints. Similar to the coping stage, having no or limited debts facilitated MSEs' adaptive pursuits through increasing the range of possible options (adding to flexibility). Although transformation, or else 'pivoting' (see Morgan et al., 2020), was considered as a possible resilience outcome, Greek and Cypriot MSEs as part of this study's sample did not exhibit business transformation. However, it is possible that such a behaviour could result under more extreme and volatile environmental conditions. In the case of the recent Covid-19 crisis, the inability to predict the timeline of the turbulence led several organisations to modify their business offer (e.g., products, services) or even operating environment (e.g., industry, clientele) (Morgan et al., 2020).

8.5. Summary

Following the analysis of qualitative and quantitative findings, several meta-inferences demonstrate the post-2008 operational conditions and key factors influencing resilience capabilities for MSEs in Greece and Cyprus. MSE owners/managers described their business environment as unstable and unfavourable for entrepreneurial activities, while business performance and challenges varied among industries and regions. As an outcome of the continuously deteriorating operating climate, Greek and Cypriot MSEs experienced reduced profit primarily due to clientele's diminishing purchasing power, though various state led tax and legislation policies added pressure to the already severely affected local firms. Among the predominant agents shaping resilience capabilities, various entrepreneur's led initiatives (e.g., work extra hours, innovate) and personal or business-related advantages (e.g., expertise, family support) proved highly valuable. In relation to the range of selected responses, MSEs primarily resorted to financial resourcefulness attempting to cope with the difficult business conditions, whereas adaptive measures primarily involved diversification of the product offer.

Conclusion

9.1. Overview of the chapter

Following the integration of qualitative findings and quantitative results and discussion of the resulting meta-inferences, the conclusion chapter summarises and evaluates this study's key research practices and findings. The first section presents the project aims and objectives with a review of the key findings. In line with the research goals, the next section reviews this study's main contributions at a theoretical and practical level. The last part considers the limitations of the current exploration and possible opportunities to address them in the future.

9.2. Research aims and objectives: review and fulfilment

The aim of this study was to explore how firms develop resilience and cope with turbulent events. Based on the challenging business conditions established worldwide after the 2008 GFC, a special focus was placed on businesses that are more exposed to disturbances. Accordingly, this study explored how SMEs develop resilience despite experiencing various operational limitations (e.g., restricted resources). The geographical context of Greece and Cyprus was selected due to the critical role SMEs pose for both national economies (e.g., employment) and various ongoing challenges local firms still experience making them exposed to future turmoil. Specifically, this study attempted to identify how SMEs in Greece and Cyprus respond to internal and external turbulences and what specific factors contribute to their resilience capacity. Therefore, the current investigation attempted to reveal any actions taken before (pre-crisis resilience), during, and after (post-crisis resilience) a shock (2008 GFC adversities). In line with the multifaceted and dynamic nature of resilience, a mixed-methods (MM) approach deemed appropriate to answer this study's research questions and to shed light to the multiple parameters contributing to different stages of the resilience process and associated outcomes. Specifically, the reasoning for the selection of a MM approach was "to understand more fully, to generate deeper and broader insights, to develop important knowledge claims that respect a wider range of interests and perspectives" (Greene and Caracelli, 1997, p. 7). In fulfilment of the research aim(s), the use of both qualitative and quantitative data supported the implementation of this study's research objectives (RO).

Attempting to better understand organisational coping and responding when exposed to turbulent conditions, this study sought to uncover the main challenges resulting from the 2008 GFC legacies and the level of impact on Greek and Cypriot SMEs' operation (RO1). The initial

research goal was to collect data from all type of firms representing SMEs, namely micro, small, and medium sized businesses. However, the data collection process did not yield any data from medium sized enterprises. Therefore, this study's findings only reflect Greek and Cypriot micro and small firms (MSEs), which is among the limitations of the current investigation. For accuracy purposes, the acronym MSEs is used to present any findings emanating from the targeted business population at both countries. As part of face-to-face interviews, MSE owners/managers in Greece and Cyprus were asked to reflect on the post-GFC operating conditions in their market and describe the business environment reality and likely impact for their businesses. Based on participant comments, the operating environment in both countries significantly deteriorated after 2008 even though the escalation of the crisis manifested at different time-periods and local events. As an aftermath, local MSEs encountered a wide range of problems including financial (low sales) and supply chain disruption, among other. Survey responses also confirmed the declining business performance at key indicators (revenue, net-profit), but also reported improvement at other areas (customer satisfaction).

In line with the research aim(s), the study also attempted to identify any employed responses by Greek and Cypriot MSEs to cope with the identified challenges (RO2), but also the main factors that influence the development of their resilience capacity (RO3). Based on MM findings, MSEs predominantly resorted to downsizing tactics (reduce operating expenses) attempting to cope with the declining business performance and unstable operating conditions. Among various organisational characteristics, having no prior debts, the business location, and quality/unique range of products further supported MSEs endure multiple challenges and remain operational. Individual and managerial capabilities/characteristics, along with other determinants, proved equally important elements of the resilience process shaping MSEs' resilience capacity through cognitive and behavioural actions. For instance, self-efficacy and entrepreneurial bricolage could be rather instrumental for the completion of different resilience stages (e.g., coping, adaptation).

The study builds upon contemporary research in the field of organisational resilience (Koronis and Ponis, 2018; Linnenluecke et al., 2012; McManus et al., 2008), and approaches resilience as a three-phased process with the interdependent stages of anticipation, coping, and adaptation. Following relevant organisational resilience frameworks (Duchek, 2020; Burnard and Bhamra, 2011), the study illustrates the actions adopted by MSE owners/managers at each resilience phase (RO4). As a way to contribute to the existing literature and expand available frameworks, this study assumes Weick's concept of *sensemaking* as a critical element for the

implementation of each resilience phase. Complemented by the notions of *environmental scanning*, *situation awareness*, and the cognitive state of *mindfulness*, sensemaking and relevant concepts (sense-breaking/giving) influence the cognitive and behavioural actions at each resilience phase (e.g., anticipation), hence determine the resilience outcome (e.g., survival, growth). Based on MSEs' operational characteristics (e.g., small size) and acknowledged limitations (e.g., restricted resources), sensemaking activities could impact the effective use of available resources before, during, and after a turbulent event emerges. In an attempt to build on existing frameworks (e.g., Ducheck, 2020; Burnard and Bhamra, 2011), the presented framework considers the notion of *transformation* (positive or negative) as a possible outcome of the adaptation stage subject to the business conditions and organisational capabilities.

9.3. Contributions

9.3.1. Contribution to knowledge

Based on fulfilling the research aim(s) and objectives, the study makes various contributions at a theoretical level. From the perspective of knowledge gaps, the current investigation responds to calls to further clarify the factors that contribute to organisational resilience (Burnard and Bhamra, 2019) and how firms could develop resilience in anticipation of future crises (Linnenluecke, 2017). A special focus is placed on the most vulnerable organisations in times of crises. Specifically, micro and small firms, as part of SMEs, are more exposed than other businesses during periods of distress due to various operational limitations (lack of resources). Despite the growing academic interest in the resilience subject, several studies argued that contemporary literature does not provide sufficient evidence how SMEs can build resilience (Branicki et al., 2018), hence the subject area is still under-researched with inconclusive findings (Conz et al., 2017).

Attempting to respond to acknowledged research gaps, this study provides empirical evidence from Greek and Cypriot MSEs. Although several studies focused on Greek and Cypriot SMEs' post-GFC performance and survival (Kottika et al., 2020), it is unclear how local firms could promote resilience capabilities to endure ongoing challenges after the 2008 GFC and future turmoil. Accordingly, the collected data from MSEs in Greece and Cyprus validate past findings (impact for local firms at the post-2008 period) but also expand the resilience literature offering new information within the specified geographical context (e.g., possible performance outcomes for firms nurturing resilience capabilities). Specifically, the study's findings

complement the contemporary literature with empirical evidence about the range of responses employed by micro and small firms while managing disruptions stemming from distinct origins, with a different duration (longer in Greece than Cyprus), and culminating in unique events per each country (Greece: capital controls in 2015; Cyprus: bank levy in 2013). The comparable findings at both contexts reflecting specific organisational and individual characteristics/capabilities and behaviour at ownership/management level highlight a pattern of actions and factors influencing MSE resilience capacity, at least at an analytical level, that could relate to more members of the targeted population and elsewhere. From a different perspective, the study's methodological choices render another contribution. Specifically, the use of a mixed methods (MM) approach combined with dialectical pluralism as the philosophical foundation promotes the discussion of mixing different paradigms and favours the advancement of MM to be on par with other traditional research methodologies.

On a different note, the study attempts to contribute to the further development of an overarching framework of organisational resilience (Duchek, 2020) and its practical application (Moser et al., 2019). Based on contemporary resilience literature and frameworks (Duchek, 2020; Linnenluecke et al., 2012; Burnard and Bhamra, 2011; McManus et al., 2008), the study illustrates the antecedents of resilience capabilities and actions employed by MSE ownership/management before, during, and after they get exposed to shocks. Due to various acknowledged MSEs' operational characteristics and limitations (e.g., scarce resources), emphasis is placed on owners/managers' cognitive actions (sensemaking) that further shape their decision making and effective coordination of any available assets, hence influencing a firm's capacity to develop resilience. In line with the role commonly attributed to sensemaking when considering resilience capabilities (e.g., sensing, coping), the study adopts the highlighted points but also expands the application of sensemaking across all resilience phases and assumes related concepts (sense-breaking/giving) as important activities further complementing the different resilience stages. Specifically, the study assumes that sensemaking and relevant notions (sense-breaking/giving) are essential for the effective implementation of all resilience stages and could be among the primary reasons why some firms manage to cope better with a wide range of challenging conditions resulting from internal and external shocks. The finalised framework represents only a modest step towards accurately capturing how micro and small firms, among other types, operating across different environments build resilience capabilities and cope with varied turbulences that require diverse responses. However, rather than arranging a model based on fluctuating resource-based

capabilities depending on the nature of the shock each time, the study attempts to focus on possibly the most important property for micro, small, and medium sized enterprises, namely the owners/managers and the cognitive actions that further influence their decisions, among other factors.

9.3.2. Practical contributions

The highlighted theoretical contributions also resonate various implications on a practical level for various stakeholders. As an example, the study's research outcomes could provide guidelines to MSE proprietors in Greece and Cyprus about establishing a mix of measures (proactive, reactive, adaptive) to prepare for turbulent events and enhance their firm's resilience capacity amid new business conditions. Specifically, the study could inform Greek and Cypriot ownership/management about the needed skillset and capabilities to effectively respond to future turbulences. On a personal level, accumulated knowledge/experience, expertise, and soft skills proved extremely important as the operating conditions dramatically deteriorated in Greece and Cyprus. For instance, innovation and creativity enabled MSE owners/managers make the best possible use of any available resources to solve problems (e.g., reduce costs), and identify and implement novel ways to diversify their product/service offer. Among other key organisational characteristics, establishing and maintaining good reputation and a relationship of trust with key stakeholders (consumers, suppliers) was essential during the coping and adaptation resilience stages. Despite the decline in purchasing power, interviewees explained that their long-term clientele expressed their appreciation in practice and supported their firms at the most critical time to help them survive. Having the capacity to respond in times of crises also proved a crucial antecedent of resilience. Depending on the characteristics of each industry, MSE ownership/management should consider ways to build resource slack as a contingency plan to help firms remain operational for a certain period after exposed to crises until further operational adjustments are put in place. From a financial perspective, having no past debt (being lean) contributed to organisational flexibility allowing Greek and Cypriot firms implement operational changes (e.g., adjust pricing strategy) and swiftly respond to challenges in their respective industries. Accordingly, MSE owners/managers should attempt to strategically borrow at times when favourable terms are on offer and limit the burden of excessive debt to external institutions.

The study's research outcomes could also be useful to policy makers and principal decision makers at regional and national level in Greece and Cyprus. In line with the identified factors influencing MSE resilience capacity, local authorities in Greece and Cyprus could update the provision of supportive schemes to local firms. Even though not as part of a formal strategy, MSE owners/managers engaged in networking with key stakeholders (professional, suppliers, customers) as an ongoing attempt to scan their business environment and be aware of the latest developments at their operating industry (anticipation stage). Following the post-2008 deteriorating business conditions in Greece and Cyprus, engaging with consumers and other business actors supported MSE ownership/management to make sense of the newly established business reality and inform its decision making and action repertoire (coping and adaptation stages). Due to MSEs' limited resource availability, Greek and Cypriot officials and chambers of commerce could further aim at regularly organising networking events and meetings, both at local and national level, and offer incentives to participating firms. As an additional action, local administrators could revise the offer of training programmes and educational forums specifically tailored to the needs of micro and small ownership/management. According to the study's findings, human capital significantly influences the resilience outcome in the context of Greek and Cypriot MSEs. For instance, an owner's/manager's expertise could impact any attempts to innovate and offer solutions to problems, hence affecting the coping and adaptation resilience phases. Therefore, authorities in Greece and Cyprus could review their offer of training opportunities and support local owners/managers to upgrade their knowledge and skillset, particularly in the subject area of financial management but also with the use of technology. In line with the study's empirical evidence, managing efficiently cash and operating costs has a tremendous impact on MSEs' coping and survival when operating under serious economic volatility, like the business environments of Greece and Cyprus following the 2008 GFC period. Among other alternatives, individual training schemes could focus on cognitive and behaviour learning processes (Battisti et al., 2019). As part of a wider national campaign focusing on MSEs' viability, policymakers in Greece and Cyprus could take legislative initiatives to create a more business friendly environment for MSEs reducing red tape and shielding them against larger firms.

9.4. Limitations

Despite the highlighted contributions, this study is not free from limitations. First, the data collection took place well before the COVID-19 crisis erupted. As a result, this study's findings reflect antecedents of coping and adaptive behaviour in the aftermath of the 2008 economic crisis and not a turbulence with the characteristics of COVID-19. Therefore, it is possible that different factors influence the development of resilience capabilities in the case of COVID-19, and other adversities. Given the unique features of each shock, a completely different type of responses might be appropriate employing a different mix and degree of resources and capabilities. Due to the fluctuating conditions, the study focuses on the owner's/manager's capacity to 'make-sense' any pre and post turmoil business conditions through sensemaking activities and efficiently use any available resources. The second limitation of the study relates to the sample population and size and the chosen sampling techniques. The study initially targeted all type of firms clustered as SMEs in the geographical context of Greece and Cyprus. However, the data collection process only produced empirical evidence from micro and small enterprises (MSEs). Although such an outcome is compatible with the characteristics of SME population in both countries (predominantly based on micro and small firms), future studies could explore how Greek and Cypriot medium sized businesses manage to deal with various turbulences and the factors shaping their resilience capacity. In relation to the sample size, even though appropriate measures were set to ensure an accurate representation of the population in focus, still the responses captured at this study portray a very small portion of micro and small firms in Greece and Cyprus. Therefore, any identified drivers of resilience might not truly reflect the whole population of MSEs in Greece, Cyprus, and elsewhere, hence findings should be treated with caution and require further validation. However, the sample size reflects common research techniques and concepts for both qualitative (e.g., sufficiency, saturation, information power) and quantitative (minimum threshold based on mathematical formulas) methods and is comparable to other contemporary studies focusing on Greek SMEs (Kottika et al., 2020). In addition, it is important to remember that SMEs represent a heterogeneous population with unique characteristics and challenges. As discussed in previous chapters, resilience frameworks should consider the distinctive nature of SMEs and focus on the overarching antecedents of organisational resilience, namely the ability to prepare, respond, adapt, and learn (Koronis and Ponis, 2018).

9.5. Opportunities for future research

Despite the contributions of this study and the growing popularity of the resilience subject in academia, there are still many unclear areas that need to be further explored. First, future studies could attempt to enhance our understanding about the role of ownership/management shaping SME resilience capacity. For instance, subsequent projects could explore how it is possible to further grow or sustain entrepreneurial resilience (Chadwick and Raver, 2020), and the association between intrinsic and extrinsic motivations through the enterprising stages as well as review entrepreneurial creativity and resilience capacity through different settings (Nisula and Olander, 2023). On a relevant point, it could be valuable to further review the role of sensemaking and other associated cognitive related actions (e.g., sense-breaking/giving) in determining a firm's resilience outcome. In that context, researchers could explore the concepts of sensemaking and sense-giving messages across a range of industries to determine how comparable organisational cultures established in various sectors might necessitate different approaches (Sherman and Roberto, 2020). There is also scope to further assess the measurement of SME resilience by focusing on key performance indicators (KPIs), as well as other options. Another possible research stream could investigate the association between cluster/regional resilience and SME resilience capacity. For example, researchers could review whether the level of regional resilience impacts the capacity of SMEs to develop resilience capabilities only under specific operating contexts. Another research enquiry could compare the coping and adaptive measures employed in the context of the 2008 GFC and COVID-19 to enrich our understanding about SMEs' response repertoire in cases of turmoil with distinct characteristics. A comparison between findings stemming from different geographical and operating contexts could identify commonalities about the factors influencing SME resilience capacity and further contribute towards developing an overarching theory of organisational resilience. Among other research avenues, and in line with contemporary literature focusing on resilience (Walker and Salt, 2012), business transformation could be another possible outcome under extremely fluctuating and volatile environmental conditions. From the perspective of this study, Greek and Cypriot SMEs employed various adaptive practices (e.g., product diversification) to align with the post-GFC reality yet no business transformation was highlighted. Future studies could explore whether transformation is among the likely resilience outcomes for SMEs operating under extreme business conditions or various acknowledged operational limitations (lack of resources) restrict such an option. In line with the highlighted limitations, future studies could explore how Greek and Cypriot medium sized businesses

manage to deal with various turbulences and the factors shaping their resilience capacity. On a relevant point, the collection of longitudinal empirical evidence from Greece and Cyprus, and elsewhere, could offer a more conclusive overview how SMEs manage to deal with the lingering effects of diverse shocks.

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Appendix A

LIVERPOOL JOHN MOORES UNIVERSITY CONSENT FORM



Title of Project: "Resilience and coping behaviour among micro, small, and medium sized enterprises in times of economic crisis: A mixed-methods exploration of Greek and Cypriot firms".

Name of Researcher: Nikolaos Sakellarios

School/Faculty: Business School / Arts, Professional, and Social Studies

1. I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation in an interview is voluntary and that I am free to withdraw at any time, without giving a reason and that this will not affect my legal rights. If I complete the interview, however, it will be understood that I have consented to the project.

3. I understand that any personal information collected during the study will be anonymised and remain confidential.

4. I agree to take part in the above study and agree to participate in an interview.

5. I understand that the interview will be audio recorded and I am happy to proceed.

6. I understand that parts of our conversation from the interview may be used verbatim in future publications or presentations but such quotes will be anonymised.

Name of Participant

Date

Signature

Name of Researcher

Date

Signature

Name of Person taking consent

Date

Signature

Appendix B

PARTICIPANT INFORMATION SHEET

Liverpool John Moores University



Title of Project: “Resilience and coping behaviour among micro, small, and medium sized enterprises in times of economic crisis: A mixed-methods exploration of Greek and Cypriot firms.”

Name of Researcher and School/Faculty: Nikolaos Sakellarios, Business School/Arts, Professional, and Social Studies

You are being invited to join a research project by participating either in an interview or completing a questionnaire. Before you decide whether you would like to take part or not, it is important that you understand why the research is being done and what it involves. Please take time to read the following information. Please do not hesitate to ask any questions, if there is anything that is not clear or if you would like more information. Please take time to decide if you want to take part or not.

1. What is the purpose of the study?

The aim of the project is to understand the main challenges that Greek and Cypriot micro, small, and medium sized enterprises (SMEs) face, and understand ways to cope under periods of turmoil or economic crisis.

2. Do I have to take part?

No. It is up to you to decide whether or not to take part. If you decide to participate, you will be given this information sheet and asked to sign a consent form. You are still free to withdraw at any time and without giving a reason. A decision to withdraw will not affect your rights. Also, you are free to decline to answer any questions at any point in the interview or any section of the questionnaire.

If you complete the interview/questionnaire, however, it will be understood that you have consented to participate in the project and consent to publication of the results of the project based on certain conditions; your anonymity will be preserved and you will not be identified as a respondent in any way.

3. What will happen to me if I take part?

If you decide to participate, you will be involved in an interview or asked to complete a questionnaire. In this questionnaire, questions will be asked concerning, for instance, demographic information of yourself and your firm, effects of the 2008 global financial crisis on your business, if any, and how your firm has responded to the crisis. Similarly, the interview questions will cover demographic aspects related to your organisation, effects of the 2008 global financial crisis on your business, if any, and how your firm has responded to the crisis. The interview will last approximately one hour and will be audio-recorded; the questionnaire will require about 15 minutes for completion.

4. Are there any risks / benefits involved?

No risks are involved by taking part in the interview or filling the questionnaire. No personal or sensitive questions will be asked. Findings could be quite beneficial, for your own business and your industry. Possible outcomes will include new strategies able to support business performance during challenging economic periods.

5. Will my taking part in the study be kept confidential?

Yes. All information collected through the interview/questionnaire will remain confidential; data will also be processed and reported without in anyway identifying yourself. Your confidentiality is secured during and after the completion of the study. Therefore, you will not be asked to write your name or any identifying information on the questionnaire. Similarly, pseudonyms will be used in transcripts from interviews and reports to help protect your identity and that of your firm.

This study has received ethical approval from LJMU's Research Ethics Committee (16/LBS/018-12/12/2016).

Contact Details of Researcher : Nikolaos Sakellarios, Ph.D. Candidate, Liverpool Business School, Redmonds Building, Liverpool John Moores University, E-mail:, Telephone:

Contact Details of Academic Supervisor : Dr. Abel Duarte Alonso, Senior Lecturer, Liverpool Business School, Redmonds Building, No. 330, Liverpool John Moores University, E-mail:, Telephone:

Thank you very much!

Best Regards,

Nikolaos Sakellarios, M.Phil./Ph.D. Candidate

If you any concerns regarding your involvement in this research, please discuss these with the researcher in the first instance. If you wish to make a complaint, please contact researchethics@ljmu.ac.uk and your communication will be re-directed to an independent person as appropriate.

Appendix C

Letter/Email of invitation-Liverpool John Moores University



Name and address of the company

Re: Study on resilience and adaptation among Greek and Cypriot SMEs.

I would like to invite you to take part in a research project on resilience and adaptation of micro, small, and medium sized enterprises (SMEs). The project is part of my doctorate studies and it would be much appreciated if you could contribute with your participation.

The aim of the study is to understand the main challenges that Greek and Cypriot SMEs face and possible ways to cope under periods of turmoil or economic crisis. Specifically, findings will be quite beneficial, for your own business and your industry. Possible outcomes will include new strategies able to support business performance during challenging economic periods.

Your participation would involve giving me a face-to-face interview with an approximate duration of 60 minutes. I would like to record this interview to ensure accuracy in transcripts and comply with international research standards; however, only if you grant your permission. In return for your participation, a copy with all results will be available after the completion of the study.

I would like to emphasize that your participation in the project is entirely voluntary; you may withdraw at any time without offering any reasons and without any consequences. If you complete the interview, however, it will be understood that you have consented to participate in the project, and consent to publication of the results. All information collected through the interview will remain confidential; data will also be processed and reported without in anyway identifying yourself. Your confidentiality is secured during and after the completion of the study.

If you would like additional information about the research project, please refer to the attached participant information sheet. Once you have read the participant information sheet, please email me (please see below) in case you would like to participate. I will then contact you, either by telephone or email, to arrange the details for the interview (e.g., place, date, time).

Yours sincerely,

Nikolaos Sakellarios, Email address: