Università degli Studi di Padova

Department of Economics and Management

Master Program in Business Administration

A STUDY OF ENTREPRENEURIAL RESILIENCE IN THE CONTEXT OF SMES

Supervisor Alessandra Tognazzo

Candidate Beatrice Pozzobon
ID Number 1180071

Academic Year 2018/2019

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INTRODUCTION & SUMMARY

THE REASON OF MY DISSERTATION – The purpose of my dissertation is the study of entrepreneurial resilience considered the relevance this topic is gaining within our society. Indeed, individuals, at least once in their life, go through difficult periods that require the exertion of resilient behaviours in order to be overpassed. The capacity to face adversities, and jump back to the status antecedent the crisis, is particularly important for entrepreneurs and managers, as their conditions reflect on the performance of their organizations. Furthermore, they are the promoters of the financial success of their firms, and consequenlty responsible for the wellbeing of their employees and the economical stability of the contexts in which they operate.

Nowadays, many sources of uncertainty seem to affect the normal activity of organizations, and therefore, resilience plays an increasingly important role. Among these sources of volatility can be named the global warming, the political instability and the technological disruptions. As a consequence, business leaders have to deal with these environmental changes, steering their firms through processes of adaptation and renewal. Moreover, the most resilient entrepreneurs are able to exploit these challenges as opportunities to understand the main organizational weaknesses and improve.

FIRST CHAPTER – THE CONCEPT OF RESILIENCE AND ITS APPLICATIONS – In this initial chapter, the main goal is defining the general concept of resilience and its applicability to different contexts as organizations, individuals and societies. Indeed, resilience is a big topic largely discussed by the literature of the most varied fields of research. As this thesis has an economic purpose, the particular case of entrepreneurial resilience is studied, and its characteristics analysed in order to understand more about its importance in the everyday routine of companies. At first, the resilience of individuals was considered as a stable personality trait, while now it is interpreted as an evolving quality that mutate over the years according to life and working experiences. Once understood the complexity and relevance of this matter, the current most approved tool to measure resilience, the Connor-Davidson Resilience Scale©, is presented, and some of its applications discussed.

SECOND CHAPTER – ENTREPRENEURIAL AND MANAGERIAL RESILIENCE IN DIFFERENT CONTEXTS – This chapter opens describing the main features of small-medium enterprises and their relationship with the concept of resilience. After this initial overview about SMEs, the dissertation continues proposing the study of some characteristics of firms that can relate to the level of resilience of its workers. Thus, this chapter describes the main traits of the family firm, as well as its relationship with organizational and personal resilience. Afterwards, the same topic is discussed in relation to gender with the purpose of detecting if clear differences are identified and, therefore, if the gender of the leadership may relate to the personal resilience of its members. Then, the literature review's focus is moved towards the association of organizational and personal resilience to financial results. The chapter continues with the development of two main hypothesis, aimed at investigating, through an empirical analysis, the relation existing among leaders' resilience, their gender and their inclusion in the context of a family firm, as well as the presence of a link between entrepreneurial resilience and firm performance.

THIRD CHAPTER – EMPIRICAL STUDY – This chapter opens with the explanation of the data used to support the literature review contained in the previous chapter. Indeed, this section sees the development and application of statistical models in order to verify if the suppositions on personal resilience, leadership gender, family business status and firm performance are significant or not. As first, the sample used is described in detail, considering the most interesting information for the study. Then, the principal descriptive statistics are measured and reported graphically.

This initial part is followed by two regressions models. The first has been created to test the hypothesis that links the personal resilience of leaders to their gender and the family business status. The second model, instead, shows the relation between the personal resilience and the firms' financial performance, controlled by gender and family firm status. Results are graphically represented and compared to the pertinent literature. Lastly, the findings are discussed together with the limitations of the study and the future prospects that this type of analysis has.

1. CHAPTER ONE

THE CONCEPT OF RESILIENCE AND ITS APPLICATIONS

1.1 Introduction

The terms "Personal Resilience" and "Entrepreneurial Resilience" are two applications of the broader concept of resilience that generally indicates the capacity of systems to bounce back to normal functioning after they have experienced trauma (Mitchell, 2013). At the moment, there are many different definitions of this term, but all of them agree on two elements that must be included in the specification: the exposure to an adversity and the positive tolerance and reaction to it (Bonanno, 2012).

Starting from the physics of materials, the term resiliency has then been adopted by the psychological research as well as the social sciences one (Bonanno, 2012). The psychological studies, that initially defined personal resilience as a set of traits that characterize only some individuals, moved to the conception of it as a complex array of behaviors that people develop during their lifespan (Richardson, 2002). These behaviours are usually activated when risk factors manifest, endangering the quiet of individuals. In front of these adversities, people react using the biological, personal and systemic resources they have at their disposal. The personal factors are qualities like optimism, self-efficacy and flexibility, while the systemic factors are all the social groups that offer positive sustain to people (Herrman et al., 2011).

One of the contexts where individuals continuously test and strengthen their grade of resilience is the workplace. There, they are continuously subjected to challenges they must manage in order to keep working efficiently (Duchek, 2018).

The working environment is populated by managers and entrepreneurs that, from what the literature on entrepreneurial resilience explains, are characterized by some specific qualities considered the leading positions they occupy. Their resiliency is determined by three different elements: the inter-personal factors; the intra-personal factors and the contextual elements (Lee & Wang, 2017). Passion, optimism and determination are some of the qualities that push the entrepreneurial and managerial spirit, and help to overcome the difficulties that, especially nowadays, endanger businesses with a certain grade of frequency (Miller, 2015).

Moreover, it has been shown that resilient leaders have a positive impact on their followers and that's an aspect that heighten the importance of the research in the field of entrepreneurial resilience (Seville et al., 2015).

For carrying on this line of research, the Connor-Davidson resiliency scale can be used, as it is considered a validated instrument. This scale has been created by two psychologist for valuing the resilient capacity of people, and it demonstrated to perform effectively in many fields of research, including the entrepreneurship one (Manzano-García & Ayala-Calvo, 2013).

1.2 What's the meaning of Resilience?

The term "Resilience" is used to indicate how well systems can stand threats and dangers, but also how quickly they come back at their initial state after they had suffered perturbation. This word comes from the latin "resilire" that means "jump back", or, like the Japanese would say, is the term that better represents the bamboo, the plant "which bends under the weight of winter snow, but stands tall again when come springtime" (Mitchell, 2013).

Resilience can be characteristic of human collectives like families, organizations and societies, but can be applied also to individuals, regions, cities, ecological systems and networks, assuming each time a different meaning (Madni & Jackson, 2009).

In the field of social sciences, it refers to the positive ability of systems and companies to adapt to the consequences of crisis and failures. Moreover, this term describes the way in which entities such as firms, communities and governments respond to catastrophic events like natural disasters (Masten, 2009).

Resilience is usually triggered by situations of crisis, defined as low probability but high impact events that endanger the normal course of life and require an immediate reaction. In the worst cases, these adversities are called "disasters", namely unexpected and potentially traumatic events that are delimited in time and caused by humans, natural or technological factors. Examples are hurricanes, floods, earthquakes, industrial accidents and terroristic attacks (Van Der Vegt et al., 2015).

1.2.1 The origin and development of the concept

The concept of resilience takes origin from the physics of materials that describes it as the capacity of elements to absorb shocks that come from the environment without breaking (Bernard & Barbosa, 2016).

In the 1950s this concept expanded to the field of psychology and afterwards to the social sciences one. Since then, many different definitions of resiliency have been developed and this still causes a lack of consensus about one unique specification of the term. Nevertheless, the majority of the academics agree on two essential conditions that must be included in the definition of resiliency, and these are: the exposure to a context of adversity and the consequent positive adaptation to it (Bonanno, 2012).

From the 1980s onwards, some large-scale disasters such as Chernobyl happened, generating great interest about their causes and consequences. Because of these extreme episodes, the attention of researchers moved from the investigation of external accidents that compromise the normal functioning of organizations, to the study of failures in the intra-organizational processes that can shock the external environment (Linnenluecke, 2017). Consequently, the literature of those years emphasized the safety and reliability of the organizations that faced in the better way these critical events, trying to determine the most successful and resilient practices that permitted them to recover faster than others (Linnenluecke, 2017). Afterwards, with the terrorist attacks of 2001 the resilience research moved its attention towards investigating the importance of response strategies under conditions of environmental uncertainty. The literature that corresponded to this period focused on the importance of building and reinforcing organizational resiliency by leveraging on employees' strengths, flexible business models and well-structured supply chains. Both these research streams were born in different times as attempts to understand the causes and consequences of the adverse events happened, and for generating some guidance about how organizations should deal with hostile circumstances (Linnenluecke, 2017).

The assumption of resilient behaviours don't guarantee an easy solution to all the problems that could manifest, but causes a sort of "ordinary magic" that drives organizations and people towards a positive adaptation to a new and changed environment (Masten, 2001).

For the future literature research it is likely a focus on recent critical events and dangers such as climate change, political instability and financial crisis (Linnenluecke, 2017).

1.2.2 The impact of culture on resilience

Resilience means doing better than expected when facing situations of crisis, but relates also to the moral, social and political elements that constitute the culture inside which an individual has grown or a company has been built. Moreover, all these cultural aspects support the health and wellbeing of people (Panter-Brick, 2014).

When adverse circumstances manifest, resilient behaviours take place in order to transform the critical situations into turning points from where to start again. To intervene effectively, the systems and people facing challenges should leverage on the resources that are more culturally relevant and helpful for them (Panter-Brick, 2015).

For bringing some examples, the term resiliency is associated with dignity and family honor in Afghanistan, with justice and adherence to land in Palestine, and with respect and money in the United States (Panter-Brick, 2014).

More in specific, for Palestinians, resilience is interpreted as the willingness to survive and sustain the community networks and education. On the other hand, for Afghans, the adherence to cultural values, like respectability and social prominence, make the concept of resilience assume a perverse meaning. In fact, for reaching the results considered optimal for their culture, Afghans sometimes have to bear suffering, like the pre-defined weddings of women (Panter-Brick, 2014).

Even if different cultures and traditions influence the concept of resilience, there are some common aspects that can be detected. The seven cross-cultural elements that enable the manifestation of resilient behaviours are: access to material resources; access to supportive relationships; development of a desirable personal identity; experiences of power and control; adherence to cultural traditions; experiences of social justice and experiences of a sense of cohesion with others (Ungar et al., 2007).

1.3 The concept applied to individuals

Personal resilience is defined as the ability of an individual to maintain a stable level of psychological and emotional functioning despite the exposure to unfavourable or traumatic events (Eicher et al, 2015).

Many different disciplines like psychology, psychiatry, genetics, epigenetics, endocrinology and neuroscience are studying this topic with the purpose of discovering why some people are better able than others to react positively to challenges (Herrman et al., 2011).

What normally happens is that an adversity manifests, forcing the individual that has been shocked to use some personal resources and capabilities in order to face this challenge and recover from it. The positive reply and fast adaptation of the individual to the new situation measures his grade of resiliency. This level of personal resilience is boosted by resources, capabilities and environmental elements (like the family) that facilitate their capacity for adaptation and bounce back in the face of adversity (Windle, 2011).

1.3.1 From the trait approach to the developing model

The concept of personal resilience takes origin from the studies conducted on individual psychology and child behaviour, and that defined it as the ability of people to withstand stress and recover after experiencing traumatic events (Masten & Monn, 2015).

Until the 1990s, the most influential literature adopted the trait approach for defining the term "Personal Resiliency" (Fletcher & Sarkar, 2013). This first current of scholars has been guided by the question: what are the characteristics that distinguish people who will thrive in the face of risk factors from the others? (Richardson, 2002).

This means that resiliency, initially, was considered as a set of features and capabilities that characterize just some people (Bonanno, 2012). Moreover, it was considered rare and extraordinary, assumed that the majority of people manifest stress disorders after having experienced traumatic events (Eicher et al, 2015).

The trait approach suggests that resilience is generated by some personal qualities that enable individuals to overcome difficult situations (Ong et al., 2006). Alternatively, it can be defined as a personal set of factors that people exert in order to protect themselves from negative emotions and life adversities (Roth & Von Collani., 2007).

This first wave of research, that helped in defining the resilient qualities that people use in order to recover from difficulties, has been followed by a second wave, focused on resiliency intended as an ongoing process. In this case, the research was guided by the question: how are the resilient qualities acquired? (Richardson, 2002).

This question has been answered by the studies subsequent the 1990s because, in these years, researchers moved away from the trait approach and conceptualised personal resilience as a dynamic capacity that can change and develop over time. This new concept addresses resilience as a positive psychological inclination towards challenges that can be enhanced. Indeed, literature sustains that people can learn from their past experiences and mistakes, understanding time after time how to address problems in a more effective way (Luthans et al., 2006). In other words, resiliency can be thought as a set of ongoing behaviours that people exert and modify over time, depending on the situations of crisis faced during their lives (De Vries & Shields, 2006).

Lastly, a third wave of research has been followed for understanding from where people get the energies for reintegrating resiliently. The source of this energy seems to lay on the motivation that characterize individuals themselves and on the type of experiences that are able to activate it (Richardson, 2002).

In the field of psychological research, academics sustain that resilient personal behaviours arise from two sources: protective factors and risk factors (Masten, 2001). The latter group of factors refer to abuses that, on one side, tend to reduce the possibilities for a positive development of the individual but, on the other side, are necessary for strengthening resilient behaviours. On the other hand, the protective factors are families, networks and people that help the individual under stress to overcome the difficult period and stay psychologically healthy (Masten, 2001). The protective factors are also defined as assets, resources or strengths crucial for achieving resilience and that, thanks to their interplay, permit positive responses to the crisis (Richardson, 2002). Assets include the personal competencies that characterize the individual, while the resources come from the external environment, and can be easily influenced by the context, the family, the community and much more (Windle, 2011). The competence consists on the motivation that allows the individual to effectively use the resources at his/her disposal in order to adapt to the new situation, and is considered an essential component for the personal resilience experience (Windle, 2011).

The protective factors are also characterized for functioning at three levels: individual, social and community. The individual level consists on the psychological capital of the person, the social level refers to the family cohesion, and the community level pertains institutions, politics and economics (Masten, 2001).

Personal resiliency builds since childhood, hence it can be enhanced by the positive support of families, communities, schools or social policies (Zautra et al., 2010).

For demonstrating what just mentioned, the psychologist Emmy Werner conducted a study on 700 Hawaiian children, following their lives over 40 years. She discovered that the thirty percent of the children under analysis grew up in a difficult environment but, despite this, one third of them developed as competent and self confident. The reason behind this lays on the presence of some protective factors that helped them to overcome the difficult challenges reserved by life. For the author, these children developed a good grade of personal resiliency thanks to some innate qualities, like optimism and self-confidence, but also because of supporting families, neighbors and teachers (Werner, 1995).

The old trait approach is now outmoded considered that resiliency, since many years, is interpreted as the result of the interaction of individuals with the external environment. Certainly, the positive and innate inclination of people towards overwhelming challenges is still considered an important variable that promotes self protection.

1.3.2 Sources of personal resiliency

The sources of personal resiliency can be divided in three main categories: personal factors, biological factors and systemic factors.

The personal factors comprehend all the personality traits such as openness and extraversion, but also self-esteem, optimism, cognitive flexibility, adaptability and much more. Furthermore, these factors include also the demographic ones like age, gender, ethnicity (Herrman et al., 2011).

About the biological factors, it should be stated that harsh environments, especially if experienced in the early childhood, affect the brain structure and the functioning of the neurobiological system (Cicchetti, 2015). The physical changes that happen at the level of the brain can affect the capacity of individuals to moderate negative emotions and behave resiliently in comparison to others (Herrman et al., 2011).

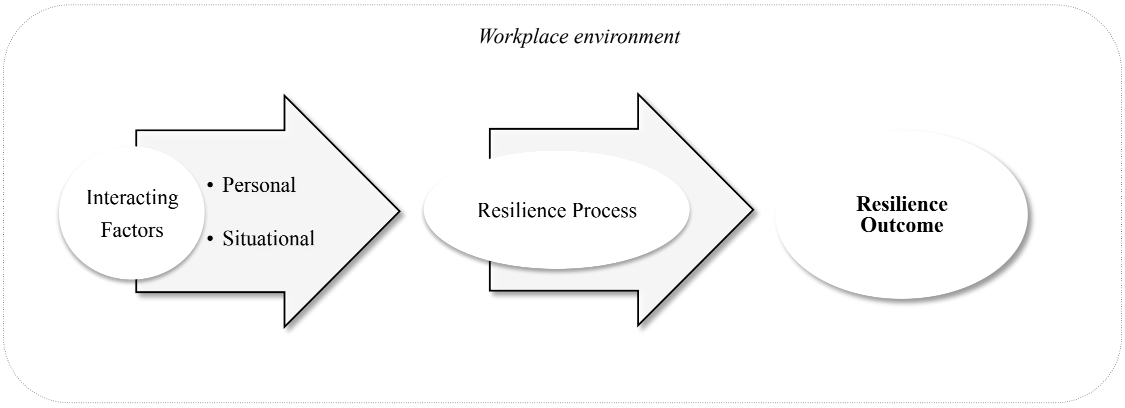
The environmental and systemic factors are the above described "protective factors" and consist on the social support that families, friends and community offer to individuals. The close attachment to parents and relatives brings to fewer behavioural disorders and to a higher level of personal resiliency. The same happens thanks to positive community factors, like good education, but also thanks to cultural elements, sports or religion, that contribute in enhancing resilient behaviours (Luthar & Cicchetti, 2000). Social relationships strongly relate with resilience, but in a variable way. In fact, while some of them are relevant across the lifespan, others are important only during some stages of life. In sum, good environmental conditions, and the lack of abuses or mistreatment, allow people to live more peacefully and build a stronger capacity to deal with the adversities of life (Herrman et al., 2011).

1.3.3 Psychological capital and resiliency in the work context

The workplace resilience consists on a combination of personal characteristics, social support and self-regulatory processes that individuals use in order to overcome difficult working situations and maintain a good level of performance (McLarnon & Rothstein, 2013). People, in their workplace, are subjected to pressure and stress, and should constantly deal with it. Though the importance of this topic is recognized, the studies that examine the dynamic processes that take place within the firm, and that impact on the resilience of its leaders and workers, are still limited in number (Youssef & Luthans, 2007). Anayway, some authors focused in deepening this subject, and demonstrated that hope, optimism and resilience are positively related to job satisfaction and work happiness. Therefore, a potential positive impact of employees' psychological capacities on work-related outcomes may be detected and further analyzed (Youssef & Luthans, 2007).

The resilient behaviours of workers are the outcome of an interaction between individual factors, situational factors and resilience processes. The individual factors, as personal characteristics, interact with exogenous variables, as external support, and give life to the resilience process. This process consists in applying and expanding the already existing personal resources of resilience. Lastly, the resilience outcome manifests, consisting on the workers' capacity to stay resilient in face of uncertainties and confident about the possibility to manage new challenges (Duchek, 2018).

Figure 1 Workplace resilience framework



source: Adapted from Duchek, (2018)

The individual factors that a worker is better to possess in order to manage the stress surrounding the working environment, without loosing in performances, have been grouped in four categories: confidence, purposefulness, adaptability and social support. Confidence refers to personal characteristics like positive emotions and optimism; purposefulness means also capacities of self-control and conscientiousness; adaptability comprehends skills like intelligence and problem solving; self support implies capabilities like sociability and self-awareness (Duchek, 2018). The social support, that is defined as a situational factor, is a critical element of resiliency as collaborative relationships and trust increase the possibility for a positive solution to problems (McLarnon & Rothstein, 2013).

The resilient processes that take place within the workplace differentiate between: affective, behavioral and cognitive. The first processes are the mechanisms useful to control and regulate emotions, while the second group of processes are necessary in order to control and regulate behaviors. As last, the cognitive processes control and regulate thinking patterns (McLarnon & Rothstein, 2013).

The positive attitude of workers, and their capacity to overcome difficulties in the working place, permit to extend the term “Human Capital” to “Psychological Capital” (Luthans et al., 2007). The psychological capital characterizes people with attributes like self-efficacy, optimism, perseverance and resilience. Self confidence allows workers to succeed in challenging tasks, while optimism means looking at new scenarios with positivity and without getting discouraged. Moreover, perseverant behaviors permit workers to reach the goals they set, no matter the difficulties they find along their path. Lastly, resiliency intervenes when things don't go as planned and there's the need, for the workers, to bounce back to their previous, stable, psychological state (Luthans et al., 2007).

Therefore, resilience composes the big picture of psychological capital, being an indispensable component of it. In the working context, resiliency plays a fundamental role, permitting workers to manage both negative and positive events like the promotion or the assumption of bigger responsibilities (Luthans et al., 2006).

In the workplace are easily found teams, that consist on small groups of individuals working on a common project. Teams, likewise single employees, have to face daily challenges, but differently from them, team members should also stay cohesive in order to perform efficiently. However, researchers demonstrate that assembling a team of resilient workers don't improve the overall level of resiliency, because disputes and misunderstandings can anyway emerge and have a negative effect on it (Alliger et al., 2015).

The positive thinking of workers and teams is facilitated when the environment around them is favorable and they are rightly involved and empowered. That's why some researchers has focused on possible practices that the HRM could apply in order to enhance the employees' resilience and their positive attitudes towards changes. These practices are expected to lead to better outcomes for both the individuals and the organization. Based on literature review, the HRM practices that can be exerted for enhancing the employees' resiliency are the following: social support at work, flexible work and benefits systems, work-life balance, safety systems, assistance programs, resiliency training for employees, crisis management systems and diversity management (Bardoel et al., 2014).

Considered that adversities are unavoidable events also within the working context, the question to investigate is not "if", but "when and how" resilient processes should be exerted by organizations and individuals. So, further studies about the factors that shape resilience at work, as well as additional research about the mediator and moderator elements that influence the outcome, are critically important (King et al., 2016).

1.4 Entrepreneurial Resilience

The concept of resilience can be applied also to entrepreneurs as they frequently have to deal with unexpected events that endanger the performances or even the survival of their firms. Setbacks happen because environmental disasters, financial crisis, new competitors or disruptive innovations upset the strategies, and consequently the usual performances of firms (Duchek, 2018).

Resilience is an essential quality for entrepreneurs as it helps them to face difficult periods or working failures, allowing for the possibility to start over stronger than before (Hayward et al., 2010).

The idea of entrepreneurial resilience takes origin from the combination of three different sources of literature. The first source is the contribution of economic researchers that studied the role of entrepreneurs in the development of the economy. The second source consists on the psychological research, subject that investigated the typical traits and characteristics that distinguish entrepreneurs from the others. The third, and last source, is the social and behavioural research that stresses the importance of environmental influences on the attitudes of entrepreneurs (Hedner et al., 2011).

1.4.1 The drivers of entrepreneurial resilience

It happens quite often that entrepreneurs perceive their business as their own life, a big source of happiness rather than a job they must do for a living. Founders and entrepreneurs usually establish a strong bond with their own firms, and because of this are the main responsible for their performances (Coelho et al., 2004). Founders, indeed, are recognized as innovators and visionaires, that centralize on themselves a variety of roles that combining create a complex figure (Hoang & Gimeno, 2010).

Some studies have found that the accumulation of multiple roles has a positive effect on the personal resilience of individuals. This is due to the fact that, by experiencing many different positions, individuals might gain much knowledge they can afterwards exploit when facing hard times. Indeed, past experiences generate a sort of buffering effect that helps people to overcome difficulties in the proper way (Hoang & Gimeno, 2010).

This aspect brought researchers to apply the concept of resilience to entrepreneurs and investigate its drivers. The first studies that focused on the entrepreneurial bouncebackability, initially assumed this quality to be a distinguishing trait of entrepreneurs rather than a capacity they can learn. This approach changed towards a more modern idea of entrepreneurial resilience as the evolutionary capacity of entrepreneurs to bounce back to normal business activity after experiencing difficult times (Hedner et al., 2011). This ability for fast and constructive recovery is influenced by both good and bad experiences that have served them as teachings (Duchek, 2018).

The entrepreneurial resilience is now defined as a complex construct of intra-personal, inter-personal and contextual factors, and it evolves over time (Lee & Wang, 2017). The inter-personal factors are family, friends, working teams and networks that offer an effective support to the entrepreneur. All the relationships that provide care, trust and encouragement are beneficial for building resilience (Hedner et al., 2011). Afterwards, the contextual factors that impact on the resilience of the entrepreneurs are: the availability of resources, the culture, the industrial regulations but also the stage of economical and political development of countries (Acs, 2010). Lastly, for what concerns the internal drivers of resiliency, the literature speaks about many personal qualities that contribute to it, and some of these are: energy, need for achievement, independence, autonomy, dominance and self-assurance (Miller, 2015). Nevertheless, the most prominent traits that researchers claimed as typical of the entrepreneurs are: passion, positive emotions, self-efficacy and positivity. Passion involves strength and courage, hot feelings that stimulate entrepreneurs to remain engaged on their businesses, no matter the obstacles they find (Cardon et al., 2009). This element guides their everyday life and gives them the motivation they need in order to pursue and reach their ambitious goals. Entrepreneurship requires significant economical and psychological investments, and consequently generates strong emotions as uncertainty or happiness (Cardon et al., 2012).

Considered this, the ability to feel positive emotions is necessary for entrepreneurs as it affects the way in which opportunities and threats are interpreted, but it also influences the capacity of leaders to deal with stress or changes (Cardon et al., 2012). These emotions, like self-confidence, are not a given, but emerge during the course of life thanks to good reactions to adversities and interim victories. Positive emotions, in case of failure, decrease its negative impact and cost, but serves also to accelerate the process of recovery (Hayward et al., 2010).

Moreover, entrepreneurs need to be positive about their possibilities of succeeding as they naturally tend to take risky decisions that could bring to high outcomes as well as bad losses. Positivity is not measured by an absolute value but is more like a continuum, ranging from an extremely high level to a more restrained one. At the bottom of this scale there are the pessimists, individuals that tend to have negative feelings about the future, but this is a personal inclination far from the one that successful entrepreneurs usually have (Neil & Gudmundsson, 2011).

Another fundamental quality of entrepreneurs is the self-efficacy, that consists on believing they have the ability to take the most appropriate decisions for their own companies, both in hard and good times. Moreover, self-confidence brings entrepreneurs to develop new aspirations and see opportunities where others can't (Bullough & Renko, 2013).

All these drivers are far from being fixed personality traits as they are influenced by exogenous factors and can improve with the encouragement of mentors, training or education. More in specific, a survey conducted among 500 entrepreneurs demonstrated that their resiliency has been enhanced thanks to: trainings for business development; the participation at networking activities, lectures and events; active entrepreneurial initiatives with the request of critical feedbacks (Bullough & Renko, 2013).

By increasing their personal resilience, entrepreneurs improve also in flexibility, optimism, motivation and perseverance that are distinctive qualities for successful entrepreneurship (De Vries & Shields, 2006).

Usually, resilient people are more flexible than others as they look at obstacles as creative challenges, and apply innovative strategies in order to deal with them. Entrepreneurs are also extremely motivated and this means that they always search for new reachable targets. In these cases the strongest motivation of entrepreneurs comes from intrinsic elements as pride, rather than extrinsic motivators like money (De Vries & Shields, 2006). The many goals that entrepreneurs set for their companies require a lot of perseverance and determination, specifically when difficulties appear. If these difficulties put in danger the normal activity of the business, the optimistic entrepreneur don't get discouraged but works harder and reacts positively in order to turn the drama into a new chance (De Vries & Shields, 2006).

1.4.2 Entrepreneurial experiences and failure

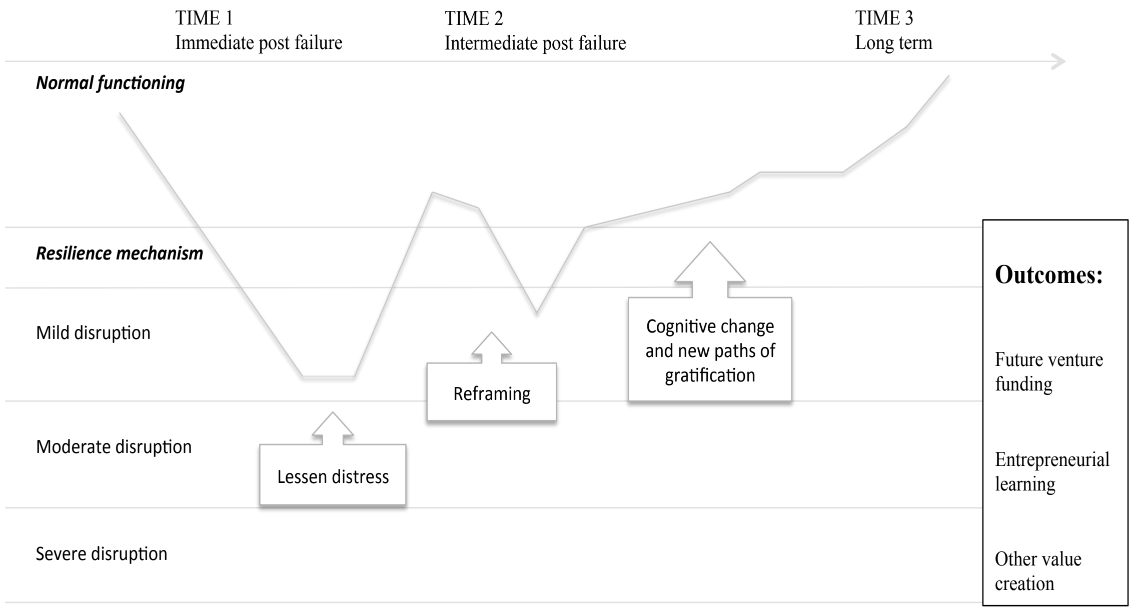
Not all the businesses succeed, and sometimes this is caused by owners and managers that lack some foundamental skills instead necessary for leaders. Some other times the positive characteristics of entrepreneurs, like optimism and self efficacy, are brought to their extreme, turning negatively into overconfidence, narcissism, aggressiveness, mistrust, suspicion, indifference to others and much more. In the worst cases, these feelings can cause poor performances but also the failure of the business activities (Miller, 2015). Indeed, overoptimism can lead entrepreneurs towards excessive risk taking that could mean undertaking dangerous decisions for the business. It is also considered as one of the main reasons behind the failure of new ventures, as it brings entrepreneurs towards irrational and harmful choices (Neil & Gudmundsson, 2011).

Sometimes, after a failure, entrepreneurs lose their motivation while, in some other cases, they grow stronger and learn the best way to behave in order to make their companies flourish. The degree of acceptance of failure is defined by the personal resiliency of the entrepreneur, that is the positive inclination of an individual to overcome or adapt to new and adverse situations (Corner et al., 2017).

The model below has been constructed with data collected interviewing a sample of entrepreneurs, and shows the path and emotional states experienced right after the moment of entrepreneurial failure. On the left side it is showed the extent of the damage suffered by the individual during the first period after failure, that could be of mild, moderate or severe entity. In the immediate moment post failure, the entrepreneur is focused on lessening the distress suffered, while during the intermediate period post failure is concentrated in reframing himself as entrepreneur. Finally, in the long term, that corresponds to the third period, the entrepreneur searches for new paths of gratification and experiences a cognitive change (Corner et al., 2017).

As the image shows, the resilience path is characterized by some fluctuations because the process that entrepreneurs follow is not linear but influenced by many situational factors and feelings. In the end, thanks to these adjusting mechanisms, the entrepreneurs composing the sample overcome failures and reach positive outcomes such as the founding a of a new venture, the entrepreneurial learning or the creation of new value (Corner et al., 2017).

Figure 2 Emotional and psychological functioning of entrepreneurs after failure



source: adapted from Doyle Corner, Singh and Pavlovich, (2017)

Around the world, entrepreneurial failure is lived in different ways because culture influences its perception significantly. For example, in the United States there is an higher acceptance of failure as it is considered an experience from where to learn in order to build a stronger future success. On the other hand, the entrepreneurial failure is considered as a social stigma both in Japan and Europe (Hedner et al., 2011).

1.4.3 Resilient entrepreneurship nowadays

Business activities are continuously fraught with risk and uncertainty, no matter their sector, dimension or entrepreneurial orientation. Indeed, the great challenge they are facing is the one of accepting the responsibility to do whatever it takes in order to overcome adversities that can endanger the survival of their businesses and the welfare of many employees (Ledesma, 2014).

Companies and leaders are constantly subjected to dangers that they should arginate, but their capacity to succeed in this is less predictable in today’s scenario (Fleming, 2012). In fact, globally speaking, there are many different sources that nowadays generate difficult challenges for entrepreneurs. Among the principal elements of the external environment capable to originate such hurdles there are: recession, political instability, global warming, technological change, modification of regulations and laws (Bullough & Renko, 2013).

For example, the great recession started in 2008 has negatively affected the confidence of business leaders and aspiring entrepreneurs as many of them closed their businesses or fired many of their own employees (Bullough & Renko, 2013).

More recent is the concern for climate change, as ecological catastrophes that cause setbacks to business activities are becoming more frequent (Wedawatta & Ingirige, 2012). One example comes from the automotive sector. In the late 2011 important companies like Toyota and Honda suffered great decreases in production as some of their Thailandese suppliers were struck by floods, and consequently couldn't ship their products to Japan. Another example comes from 2012 when the hurricane Sandy flooded New York causing the explosion of an electric substation that forced Manhattan to four days of blackout (Winston, 2014). All these adversities caused important setbacks to firms and required organizations to undertake reviving plans under the directives of their influential leaders (Bullough & Renko, 2013).

Technological innovations, climate volatility, political instability and many other events can bring companies towards crisis, arising the need of leaders for responsiveness and resiliency. The capability of entrepreneurs and organizations to deal with uncertainty increases their chances of survival, as well as their competitiveness in the market (Seville et al., 2015).

In order to reach this outcome, companies should focus on seven principles that are useful for enhancing their resilient performances. Firstly, firms should leverage on their adaptive capacity, that is a mix of intelligence, flexibility and readiness to change. Afterwards, companies should develop the image of leaders that workers want to emulate because of their resilient and positive behaviours. Then, it is important to become a learning organization, that implies evolving overtime in response to the environmental changes and challenges. Enterprises should also build social capital, intended as the resources and networks available to workers thanks to the relationships they develop with the colleagues. Additionally, they should also practice resilient attitudes as sport teams do. Lastly, companies should leverage on operational excellence in order to face adversities effectively, and develop positive attitudes towards risks in order to see the opportunities beyond that threats (Seville et al., 2015).

1.5 The effect of resilient leaders on organizations

As far, the attention has been paid only to entrepreneurs, as they are the engine of the economy and promoters of industrial progress (Miller, 2015). Nevertheless, managers and common workers are fundamental for the flourishing of firms because they are the gears that permit the entire organization to function (Van Der Vegt et al., 2015).

Everyone inside a company has to face daily problems and needs to overcome them in order to reach good results and avoid to endanger the organizational functions. To deal better with adversities and changes, employees could be fully educated about procedures that should be followed during the times of difficulty (Van Der Vegt et al., 2015). This is fundamental because employees, if not able to manage stress, changes and unexpected events, could use all their resilient capabilities for preserving themselves, leaving out their work and performing poorly (Van Der Vegt et al., 2015).

The qualities of employees that define their level of resilience are intelligence, self-efficacy, emotional stability, openness to experience, social support, flexibility and self-discipline. The more the tools and qualities they have, and the more they can withstand difficulties, with the further possibility to exploit those challenges for finding new opportunities (Page, 2014).

The relationships that exist within organizations, between employees, managers and owners, determine the way in which the company is able to cope with adversities. Good internal relationships increase the personal resiliency of workers as they can count on the capabilities and support of others (Carmeli et al., 2013). Therefore, it can happen that during times of crisis workers help each others and engage in extra-role activities for filling the voids left by the colleagues (Van Der Vegt et al., 2015).

Among the elements useful for increasing the resilience of employees, emerges the figure of leaders, intended as optimistic and self-confident entrepreneurs and managers (Seville et al., 2015). These chiefs are able to inspire and influence their workers, becoming a model they want to follow and learn from. This inclination contributes in making them, as well as the entire organization, more resilient. The author expressly says:

> « To be effective and inspire others to achieve organizational objectives, leaders need to find ways to engage those around them in the resilience conversation» (Seville et al., 2015).

The everyday actions and interactions that happen among the organizational members underpins the emergence of the firm's collective capacity for resiliency. That's why the more the employees, managers and owners are resilient, and the more they can influence and spur eachothers to undertake resilient behaviours (Lengnick-Hall et al., 2011). It has been demonstrated that subordinate's resilience can be influenced in a positive way by the behaviours of their leaders, as the latter can help them to deal with stress and working adversities (Harland et al., 2005).

1.6 Measuring personal resiliency: the Connor & Davidson scale

1.6.1 Its origin and characteristics

The broad research about resilience demonstrated its multidimensional nature, influenced by demographic variables like age, gender and culture but also contextual elements like time and place. People is always disturbed by internal and external stressors that ruin their initial state of homeostatic balance, described also as "biopsychospiritual equilibrium" (Connor & Davidson, 2003).

The response of individuals to the disruptions that perturbate their quiet lead to four possible outcomes: first, people can increase their resilience and consequently reach a higher level of homeostasis; second, people can come back at their baseline level of homeostasis; third, the recovery causes a loss that reduces the level of personal homeostasis; fourth, self-destructive behaviors are undertaken and homeostasis isn't reached anymore (Connor & Davidson, 2003).

Many instruments have been created in order to measure personal resilience and these can be divided in two groups. On one hand, the first group of instruments is based on the self-evaluation that individuals give to their past responses to challenges, requiring them to recollect their memories about these experiences. On the other, there are the instruments useful to measure the subjective factors that determine resilience (Scali et al., 2012).

The Connor-Davidson Resilience Scale is part of the first group of instruments and is the only one that gained wide acceptance among the researchers (Scali et al., 2012).

The model has been created using different sources of literature that studied the main characteristics of resilient people. Some of them are: commitment, patience, optimism, strengthening effect of stress, sense of humor, tolerance of negative affect (Connor & Davidson, 2003).

The scale has been initially developed in order to assess the response to medical treatments of clinical patients and is composed by 25 statements that people should evaluate on a scale that ranges from "not true at all" (0) to "true nearly all the times" (4). The amount of resilience can go from a minimum of 0 to a maximum of 100.

Considered that the scale is protected by copyrigth, only some examples of its statements are here reported: I am able to adapt to change; I can deal with whatever comes; I am in control of my life; I can handle unpleasant feelings; I have close and secure relationships (Connor & Davidson, 2003).

The purposes of the authors for contriving the scale are the following: create a reliable tool for measuring personal resilience; establish reference values of resiliency for the population and for clinical samples; evaluate how patients' resilience changes as a result of clinical treatments (Connor & Davidson, 2003).

For testing it, the two psychologists focused on the general population as well as on clinical patients. The sample comprehended 806 individuals, 65% of whom were women and 77% white. The results of the investigation have been factor analysed, and the following five factors have been detected: Factor 1 stays for personal competence, high standards and tenacity; Factor 2 represents the trust in one's instincts, tolerance of negative affect and strengthening effects of stress; Factor 3 relates to secure relationships and the positive acceptance of change; Factor 4 corresponds to control; and Factor 5 measures the spiritual influences lived by the individuals (Connor & Davidson, 2003).

The major findings obtained by the study of these psychologists are the following: resiliency can be quantified and is influenced by the health status of the individual under test; resiliency can change and can improve with medical treatments (in the case of clinical patients); great improvements in resilience lead to high levels of global improvements. Nevertheless, the authors underlined the presence of some limitations on their study intended to validate the scale. In fact, the scale has been tested through the use of not objective measures. Moreover, they recognized the possibility for individuals to perform more resiliently in some areas, like work, and less positively in others, like interpersonal relationships (Connor & Davidson, 2003).

1.6.2 Applications of the scale

The Connor-Davidson resilience scale can be applied to different areas and populations as it showed good psychometric properties and hasn't been developed for one specific group. For example, it can be applied to studies that regard the biology of resilience, then it can find application in the field of clinical practices, and lastly it can be used for studies aimed at identifying the way in which people deal with stress and adversities (Connor & Davidson, 2003).

This scale has been applied by different researchers to different groups: general population, teenagers, graduate students, young adults, young women, older women, earthquake survivors, nurses and much more. It has been validated also on a sample of Spanish entrepreneurs in order to assess the grade of resilience that characterizes them (Manzano-García & Ayala-Calvo, 2013).

Entrepreneurs generate work and economic activities by exploiting new technologies, products, markets and processes. Their work, surrounded by stress and uncertainty about the future, leads them towards risky decisions that endanger their business. To deal with these situations and possible misjudgement, they should keep updating their strategies to continue projecting themselves and their firms in the future (Manzano-García & Ayala-Calvo, 2013). These reasons motivated some Spanish researchers to apply the model to a sample of 783 entrepreneurs and demonstrated its applicability and validity in the field of entrepreneurial resilience research (Manzano-García & Ayala-Calvo, 2013). Other researchers applied some modifications to the scale of Connor and Davison and demonstrated that resilience can be effectively assessed also with a subset of the original scale composed by only 10 of the original 25 items (Campbell-Sills & Stein, 2007). This 10-item scale is designated as unidimensional version of the original scale as the factor-analysed items group in just one factor (Wang et al., 2010). The validity of this restricted scale has been proved by many studies. One of them focused on measuring the resilience of Chinese people after they had suffered an earthquake, and another studied the resiliency of adult women affected by breast cancer (Wang et al., 2010; Scali et al., 2012).

1.7 Discussion

The chapter proposes an overview of the resiliency topic and its application to individuals and entrepreneurs. It explores what are the personal characteristics that make some people more resilient than others, but discusses also about the relevance that external support has on their wellbeing and capacity to face challenges.

The study of entrepreneurial resilience is assuming importance as the environment in which companies perform is becoming more and more hostile. Moreover, entrepreneurs represent the landmark of their companies and this means that economic performances are dependent on their choices (Coelho et al., 2004). The more the leaders are resilient and the more their followers will be positively influenced and encouraged to cope effectively with adversities (Lengnick-Hall et al., 2011).

Financial crisis, climate change, aggressive competitors are just some of the sources of uncertainty with which entrepreneurs have to deal frequently. That's why further investigations about the theme of entrepreneurial resiliency are desirable and potentially helpful for the flourishing of organizations (Manzano-García & Ayala-Calvo, 2013).

2. CHAPTER TWO

ENTREPRENEURIAL AND MANAGERIAL RESILIENCE IN DIFFERENT CONTEXTS

2.1 Introduction

Considered the importance that SMEs cover within the European territory, it is critically important to guarantee their functioning and resilient initiatives also in face of adverse scenarios. However, not only the organizational resilience, but also the personal resilience of its entrepreneurs and managers is worth investigation as they are the fundamental and most influencing actors within these firms (Zellweger, 2017).

As the majority of SMEs are family firms, it is important to understand how the family, that controls all the activities of the firm, can influence the resilience of its actors. The familiar environment and atmosphere should guarantee stronger and more direct bonds among individuals, but also more protection and support that contribute to their self-confidence and positiveness (Mzid et al., 2019). Moreover, owners and family members are concerned about keeping intact their socioemotional wealth, and to do so they must behave resiliently and overcome the threats that can otherwise turn into losses (Zellweger, 2017).

From the literature it emerges that the resilience of firms depends on the resilience of the people that work in it, and therefore it is worthy to study if the presence of the family can strengthen the individuals' resilience, and consequently the resilience of the company (Bhamra et al., 2011). On the heels of this, it could be investigated also the role played by the gender of the leadership. As significant gender differences at the individual level don't emerge, the literature on this topic is not conclusive and doesn't take a clear position (Ayala-Calvo & Manzano-García, 2014). Therefore, it can be studied if some more differences emerge at the group level and how the characteristics of these groups can increase or diminish the resilience of their members.

The attributes “family business” and “leadership gender” can interact and have a combined effect on the resilience of individuals. Indeed, it is quite obvious to imagine that inside organizations, both if they are family or non-family firms, there is the predominance of one gender among the influential people.

In the end, it can be supposed that the personal resilience of entrepreneurs and managers contributes at improving the firm’s performances as it guarantees fast and effective responses to crisis and environmental disasters. Literature demonstrates that the organizational resilience affects positively the financial performances as it helps the firm to stay strong and performing also after the manifestation of adversities (Awotoye & Singh, 2017).

2.2 Resilience in the context of small-medium enterprises

2.2.1 The main features of SMEs

The 99% of the European firms have micro, small or medium size and constitute the backbone of the economy, as they are the main sources of employment and economic growth (European Commission, 2018). Moreover, many of these enterprises are family businesses. This tendency is verified all around the world as researchers demonstrated that the sector of family firms is dominated by SMEs, and particularly by micro enterprises that employ less than ten workers (Zellweger, 2017).

Some studies proved that approximately the 20% of the SMEs close within five years after they have been affected by a natural disaster, while others indicate that the small businesses run by women and minorities have a higher probability to succumb (Schrank et al., 2013; Marshall et al., 2015). However, the small-medium family firms are more likely to survive during hard times because they can leverage on a mix of familiar and organizational resources (Haynes et al., 2011).

The financial crisis started in 2008 shocked the worldwide economy, and therefore also the stability of SMEs. This negative event called companies to reaction in order to over-take the crisis and adapt to the new set-up of the economy. Between 2008 and 2017 the number of SMEs has increased by 13,8% contributing significantly to the recovery and subsequent expansion of the European economy after the recession. In this period the SMEs not employed in the financial business sector accounted for the 47% of the total increase in the value added generated, and for 52% in the cumulative increase in employment. For the current year, European SMEs that are not in financial business are expected to grow around 4.3% in value added and around 1.3% in employment. In 2016, the 36.1% of all the goods exportations by European enterprises came from SMEs and these companies represented the 88.3% of all the European companies exporting goods (European Commission, 2018).

In the past 10 years, European SMEs have been subjected to two opposing forces: the Small Business Act and the weak domestic economic conditions of European countries. The Small Business Act is the “headlight” initiative of the European Union that sustains SMEs, pushing for their growth by supporting their entrepreneurial orientation. This act is based on ten principles aimed at guiding the formulation and execution of politics to back the development of the small-medium enterprises located in the European area (Tunisini et al., 2014). On the other hand, the crisis and consequent recession of the last decade affected negatively SMEs, slowing down their growth and decreasing their entrepreneurial spirit (European Commission, 2018).

2.2.2 Resilience in SMEs

The capacity for recovery of SMEs after the financial crisis of 2008 has been influenced by their financial, managerial and organizational structures. In fact, while some features of SMEs promote fast recovery, some others establish the opposite effect. On one hand, the main traits of SMEs that affected negatively their capacity to bounce back to the performances antecedent the crisis are: the limited access to resources, the narrow customer base, the low bargaining power and the lack of planning for crisis (Smallbone et al., 2012). The short-termism and the tight financial possibilities of SMEs don’t permit them to invest significant amounts of money on activities that are useful to manage uncertainty. Because of this, SMEs focus especially on reactive plans rather than on the development of long-term strategies to face proactively internal weaknesses or external threats (Ates & Bititci, 2011). On the other hand, the main strengths of SMEs, identified as rapidity and agility, can be leveraged in order to improve their capabilities to deal with uncertainty (Sullivan-Taylor & Branicki, 2011). The limited number of employees, the undercapitalization and their restrained dimensions make SMEs’ more dynamic and consequently faster than the heavily structured companies in adapting to natural accidents, sabotage, equipment defects and all the other sources of failure (Herbane, 2019). These characteristics of SMEs can shorten the chains of decision-making and also quicken the time for response to crisis (Branicki, 2018). The small-business enterprises constitute the economic fabric of European countries and contribute to their financial stability. Consequently, their capacity to deal with interruptions through resilient behaviours and initiatives is fundamental to guarantee the economical sustainability (Herbane, 2019).

From a series of interviews conducted on a sample of entrepreneurs of small-medium companies, it emerged that their most prominent attributes are: flexibility, motivation, holistic positivism and perseverance. Flexibility is the quality that guarantees a fast adaptation to a new and unexpected situation caused by turbulence and discontinuities (Bhamra et al., 2011). Afterwards, the holistic positivism stays for the strong focus these entrepreneurs have on pursuing their ambitions and future goals. Then, motivation refers to the continuous search for new achievements, and perseverance contributes to a strong work ethic and acceptance of personal sacrifices (De Vries & Shields, 2006).

As SMEs consist on a group of individuals, it is reasonable to assess that the resilient qualities possessed by them characterize the organization itself, considered that the activities of the business can't be separated from its actors. Therefore, the four resilience enhancing qualities explained before can be used to describe entrepreneurs and managers as well as organizations (Bhamra et al., 2011).

Many literary sources support the assumption that the attributes of entrepreneurs, managers and employees effect directly the resilience of organizations. Other researchers claim that individuals influence the business resilience also indirectly, by creating the culture and climate that permeate all the aspects of the organization (Branicki, 2018).

The four major organizational characteristics that contribute to resilience are: diversity, efficiency, adaptability and cohesion. The diversity attribute refers to the different behaviours that distinguish the members of the organization, and lays on the assumption that heterogeneity arises many ideas about how to handle problems; efficiency indicates the avoidance of waste; adaptability means change and reaction in response to pressures; and cohesion shows the linkages between people and the different parts of the organization (Fiksel, 2003). Cohesion is fundamental because businesses are articulated systems that require high levels of information exchange, communication and coordination in order to function (Bhamra et al., 2011).

Another review of literature shows six factors able to positively affect the potential of organizational resilience. These are: the perception of risks by organizational managers; the extent of the information gained about potential risks; the organizational structure; the participation at community planning activities; the continuity of operations planning; and the professional accreditation of the department engaged in managing the environmental crisis (Danes et al., 2009).

2.3 Entrepreneurial and managerial resilience in family firms

2.3.1 The main characteristics of the family firm

The family and non-family firms don't differentiate for size or for the public or private hold, but for the familiar control that characterize the one but not the other. The family, inside the family firm, is the dominant coalition of individuals that influences all the business choices that are taken (Zellweger, 2017).

Many different definitions exist, each of them focusing on particular aspects like: the family ownership; the family management; the transgenerational focus; and the family control beyond the foundation. All this considered, Zellweger combines two typical features in order to describe the family business. Therefore, the definition of the author sounds like this:

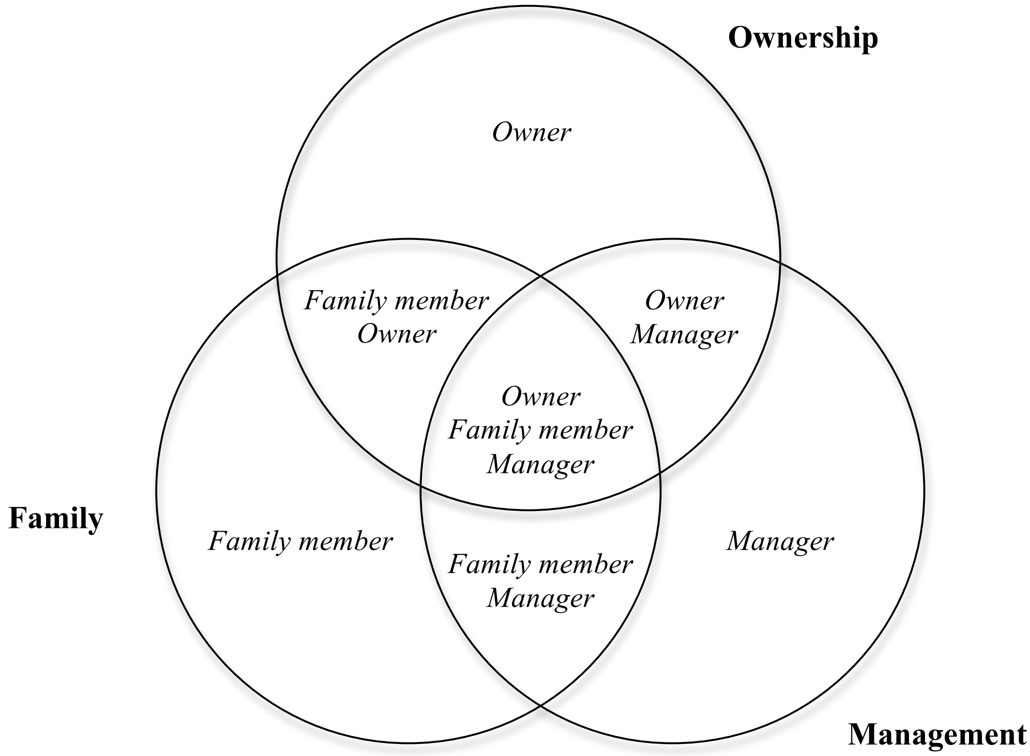
> « A family firm is a firm dominantly controlled by a family with the vision to potentially sustain family control across generations» (Zellweger, 2017).

Worldwide speaking, the majority of companies are family firms. Their percentage usually range between the 70% - 90% depending on the country under analysis and the breadth of the definition of family firm adopted. Globally, family firms employ a large portion of the workforce and contribute in different but really positive percentages to the Gross Domestic Product (Zellweger, 2017).

From some studies it emerges that the longevity of family firms don't exceed the three generations as the first is supposed to found the company, the second to consolidate, while, in the end, the third to squander the capital and sinks the business (Bégin & Chabaud, 2010). Nevertheless, literature claims that the average life of family firms is remarkable because these businesses are meant to be transferred to successors in order to remain in the hands of the founding family (Chrisman et al., 2011).

Family firms are characterized by the interplay of three different social subsystems: the family, the ownership and the management. The three-circle model, introduced by Hoy and Verser in 1994, crosses these three subsystems identifying seven different roles that individuals cover inside a family business. This model received wide acceptance because it disentangles the logic at the basis of the subsystems, but it also enables the discussion about the roles covered by the individuals and the interests that move their actions. Moreover, speaking about roles, the three-circle model helps in understanding their complexity because people, inside family firms, can cover different and sometimes disputable positions (Zellweger, 2017). As the figure 3 shows, the individuals that compose the articulated structure of the family firm can be just owners, family members or managers, but they can also represent more than one category simultaneously. Therefore, people that are employed in family businesses can be the same time: owners and managers; family members and owners; family members and managers; or owners, family members and managers.

Figure 3 The three-circle model



Source: adapted from Tagiuri and Davis (1996).

The main concern for the family members is the togetherness and cohesiveness as the family is usually the main source of love and support for them. Contrary, the principal motives and interests for owners are the financial performances and success that guarantee them dividends and wealth, even though sometimes they don't contribute actively to reach these results. Then, managers are motivated by the possibility to obtain commercial success, and consequently a good retribution for it. When these roles overlap two or three times on one individual, the different concerns just mentioned combine (Zellweger, 2017).

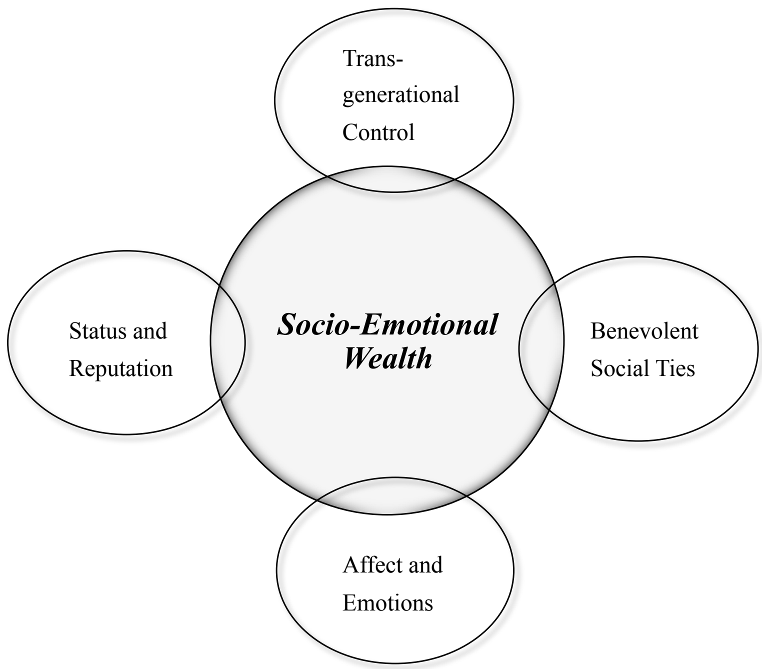
The logic that underpins the family system is defined by some pillars like tradition, emotion, irrationality, nepotism, long-term perspective and non-financial values. On the other hand, the logic of the firm revolves around values that are contrastant with the ones that characterize the family. Examples of this are: rationality, meritocracy, renewal, short-term perspective, and focus on financial values. In a family firm these two systems combine and with them also their contrasting logics (Zellweger, 2017).

This mix of familiar and business features gives life to particular strengths that distinguish the family from the non-family business. Among these are named: the fewer conflicts of interest, the efficient leadership, the resource advantages, the long-term orientation, the culture of commitment and the care for reputation. The fewer conflicts of interest are due to the fact that frequently the owners are also the managers of the business, and therefore they undertake activities that satisfy their interests on both sides. The efficient leadership is a consequence of the powerful position covered by the family members. It reduces the agency costs, allowing for a parsimonious and cost-conscious administration of the company. Furthermore, the family influences also the resource base at disposal of the firm, that has financial, social and human origin. The financial capital, in the context of family firms, assumes a more patient and loyal connotation as it is in large part guaranteed by the owners themselves. The knowledge of the manager-entrepreneurs about markets, products, technologies and clients is developed through years of experience and builds the firm's human capital. The social capital, instead, is the network that family firms develop with their suppliers, clients and community leaders (Zellweger, 2017). Another strength of family firms is their long-term orientation, a characteristic that has three components: the futurity, the continuity and the perseverance. The futurity dimension consists in planning the consequences of the decisions taken for the business; the continuity consists in understanding the value associated to the company's assets; the perseverance is the persistency of commitment and strategy across the years (Chrisman et al., 2011). The futurity of family firms can be enhanced by anticipating the future of the company; the continuity is augmented by the heritage, the wisdom, and the history of the family and business; lastly, the perseverance, is ensured by the self-control (Le Breton-Miller & Miller, 2011). Then, the culture of support and benevolence creates strong bonds among the family members, but enhances also the commitment of non-family employees, creating an atmosphere of trust and mutual support that increases the firm's resilience and that is absent in many non-family firms. The concern for identity and reputation regards everyone, the family members, the owners, and the managers, that contribute in performing efficiently for keeping high the name of both the business and the family (Zellweger, 2017). Again, family businesses are focused on continuity in the future, and this orientation is supported by a strong culture based on harmony, commitment and benevolence, but also by the concern for the familiar reputation as it influences the stability and performance of the company itself (Zellweger, 2017).

Likewise, family firms are marked by specific weaknesses that endanger their stability. These are: the dependence on family, the agency costs caused by altruism (also called "nepotism"), the succession challenges, the resource constraints, the declining entrepreneurial orientation of successors and the role ambiguity (Zellweger, 2017).

Family firms are also characterized by the pursuit of non-financial goals. The term used to define this phenomenon is "Socioemotional Wealth". The socioemotional wealth, or SEW, is the total amount of affect that the family invests in the firm (Gomez-Mejia, et al., 2007). The SEW is composed by four different sources of non-financial value that family members derive from being also the owners of the business.

Figure 4 The dimensions of SEW



source: adapted from Zellweger, (2017).

The transgenerational control represents the benefit that the family gets by controlling the company with the scope of passing it to the next generations. The benevolent social ties measure the relationship of goodwill, loyalty and mutual support that establish among family members. Affect and emotions are the pleasant feelings that owners can experience thanks to their association with the business. Lastly, the status and reputation regard the value that a family member extracts from his/her self-identification with the company (Zellweger, 2017).

When making decisions, family firms consider their economical wealth as well as their socioemotional one. Thus, when the entrepreneurs have a higher socioemotional attachment they will increase the family benefit by continuing with the business and therefore they will be more inclined to undertake actions in order to protect the business from losses (Gomez-Meja et al., 2018).

2.3.2 Resilience in Family Firms

The family business resilience refers to its capacity of continuous reconstruction that permits to face the unexpected shocks that happen in the lifespan (Bégin & Chabaud, 2010). It is also defined as the ability of the firms to absorb, reply to and capitalize on environmental disruptions, or as the stock of individual and familiar resources that cushion, thanks to the collective creativity, the family firm against disruptions (Danes et al., 2009).

The concept of resilience assumes an important meaning inside the context of family business as these type of organizations are characterized by the familiar attribute that is a source of strengths, but also the cause of instability that alters their normal functioning. Moreover, as family firms are embedded in the territory where they operate, through their resilient initiatives and behaviors they can become critical elements able to enhance the community resilience (Basco, 2015).

As stated in the previous chapter, organizational resilience implies the proper allocation of resources in order to facilitate the process of recognition and detection of potential issues, able to endanger the survival or performances of the firm (Mzid et al., 2019).

The longevity of a family business is not a guarantee of its resilience, as this specific condition can be due to many other reasons. However, researchers have demonstrated that family firms can survive and prosper also in face of long lasting problems that threaten the normal activity (Chrisman et al., 2011).

To better explain resilience in the context of family business, it can be used the Sustainable Family Business Theory. This theory, also known as SFBT, builds on the assumption that the business' future sustainability is a function of both the firm's success and the family's cohesiveness. The SFBT defines the configuration of capitals and resources that are built by companies during their period of stability and that serves for adapting during the challenging times (Mzid et al., 2019). By storing capacity for resilience during periods of calm, families would be able to use their store of creative problem solving and trust when adversities manifest (Danes et al., 2007).

Disruptions that endanger the economic sustainability of both family and non-family firms happen quite often. However, the family business can be particularly susceptible to situations of crisis as the “family” component can bring out some specific problems that sum to the ones that normally affect the organizations. As previously discussed, family firms, due to their familiar dimension, are marked by some strengths, but also important weaknesses (Zellweger, 2017). For example, the strong dependence on the family can cause the organizational paralysis when owners-managers implement unethical behaviours, or when an influential individual gets sick or dies suddenly. Furthermore, the family firms are characterized by the practice of nepotism that favours the family members to the non-family ones, even though these individuals are not able to fulfill the positions they are given. This practice, faulty by the adverse selection problem, brings to inappropriate decisions that demotivate the external and more deserving workers (Zellweger, 2017). The succession process is another possible source of business instability. Indeed, the transfer of ownership inside a family firm combines the logic of the market, that is based on opportunism, maximization of profits and self interest, with the logic of the family, that consists on unconditional support, love and loyalty. Therefore, succession frequently involves conflicts, power struggles and discussions about justice and fairness (Zellweger, 2017).

Familiar conflicts can be an important source of instability, and because of this, companies should strengthen their familiar bond in order to build enough resilience to make it through the hard times. By sharing a robust history, members of the entrepreneurial family will have something valuable to lose in case of conflict, and therefore will behave more carefully in order to preserve it (Baumoel & Trippe, 2018). In addition to this, with the passing of time and the succession of generations, the entrepreneurial spirit of owners and managers could decrease, endangering the persistence of the familiar attribute. Heirs are usually less motivated than the founders, and maybe less capable and talented than the managers crowding the market of managerial labour (Mehrotra et al., 2010). Moreover, as the three-circle model displays, inside the family firms there can be some roles overlap that cause confusion, frustration and conflicts among the actors of the company (Zellweger, 2017).

Although family firms are vulnerable to these threats, in addition to the ones due to financial and human capital restraints, they have a unique advantage in developing and using the family capital to deal with them (Gedajlovic & Carney, 2010). The family capital consists on the familiar resources that are at the disposal of the business. This capital is used in order to overcome shocks, exploit new opportunities and capitalize on the past experiences. Moreover, the social capital of family firms allows them to maintain their normal functioning also in periods of crisis, ensuring the stable flow of resources that contribute in building resilience. Consequently, the strong social capital permits the company to improve its financial capital, which serves to enhance the potential for adaptive, renewal and appropriation capacity, and thereafter the organizational resilience (Mzid et al., 2019).

The just named capacities are important dimensions of organizational resilience that increase the chances to face proactively and positively adversities. These three improve the ability of companies to: face pragmatically the reality without being over optimistic; create a strong system of shared values to interpret the challenges; grow ingenious and create new effective ways to solve problems (Bégin & Chabaud, 2010). The capacity of absorption can be defined as the ability of family businesses to recognize and assimilate the external stimuli an then use them as resources to deploy in cases of crisis (Bauweraerts & Colot, 2014). It is also defined as the capacity to avoid failures using the appropriate resources thanks to the willingness of family entrepreneurs to continue their activity (Bégin & Chabaud, 2010). The capacity of renewal allows the company to act and adopt innovative solutions to face the unexpected events. As last, the capacity of appropriation consists in the learning post crisis that permits the company to face more effectively the future events (Bégin & Chabaud, 2010). It is also defined as the activity of family firms that leverage their past experiences to better prepare for the future by developing plans to face situations of crisis (Altintas & Royer, 2009).

All this considered, it appears that the family social capital is a fundamental resource that helps family firms in dealing with challenges of any type as it continuously attracts new human and financial capitals. In sum, the resilience of family firms results from the positive internal relationships and the guaranteed access to resources (Mzid et al., 2019).

Other sources of literature claim socioemotional wealth as the most important concept that helps in building organizational resilience. The justification for this statement lays on the assumption that the family priorities and motivations explain the proactiveness, risk propensity and courage that organizations exert when affected by adversities they must overcome to survive (Llanos-Contreras & Jabri, 2019).

The SEW is the non-economic wealth that family firms try to maintain untouched through their lifespan. Nevertheless, if the shocks are really serious, like natural disasters, family businesses are asked to engage in risky entrepreneurial actions that can potentially endanger the SEW. By doing so, the company shifts preferences, giving up a little of their SEW in order to protect the financial performances (Zellweger, 2017).

Some researchers studied the after-crisis situation of a sample of family firms, and demonstrated that the ones with a higher SEW were more willing to take risky actions in order to face the economic losses caused by adversities. This propositive spirit increases the capacity for adaptation and resilience, and thereby improves the post-disaster performances (Alonso-Dos-Santos & Llanos-Contreras, 2019). Pursuing longevity, the family firms must deal with the trade-offs of continuity and adaptability, being flexible and resilient both in their business activities and familiar relationships. Therefore, the long lifes and success of many prominent family businesses has prompted the idea that the family firm is a particular type of resilient organization (Campopiano et al., 2019).

2.3.3 Does the family business context influence the personal resilience?

As far, the focus has been posed on understanding how the concept of resilience is interpreted in the context of family firms, but no comparison with non-family businesses has been made. Not many authors detected this topic, but some of them demonstrated that family business focus more than non-family business on resilience, while the opposite happens when speaking about the financial performance (Kachaner et al., 2012).

Some researchers studied the economic results of family and non-family firms across the business cycles from 1997 to 2009, in different european and non-european countries. What they found out is that, during these years, the average financial performances of family firms were higher than the ones of non-family firms. The justification they gave to this is that family business forgo the excess returns of the good periods to increase their social and familiar capital and then improve their chances of survival during bad times (Kachaner et al., 2012).

Within the context of family firms, managers are frequently also owners or family members, hence they are influential individuals interested in keeping the family's name in the company. To do so, they build strong relationships with their external partners in order to enhance the social capital of the company that helps increasing resilience (Mzid et al., 2019).

The executives of family businesses receive financial incentives, but they are also subjected to familiar obligations that could lead to very different strategic choices. In fact, they tend to invest with a time horizon of 10-20 years with the intent to benefit the next generation (Kachaner et al., 2012). Other researchers state the same, saying that family firms, in face of a situation of crisis, achieved a stronger resistance than their counterparts as they recovered faster and enjoyed higher performances (Amann & Jaussaud, 2012; Bauweraerts & Colot, 2014).

The familiar atmosphere, as discussed in the first chapter, is considered a protective factor that helps the individual to grow more resilient. The family is usually associated with the values of love, trust, support and benevolence that are supposed to increase the personal self-confidence and optimism, two critical elements for building a strong personal resilience. However, problematic families and difficult environments can endanger the psychological equilibrium of individuals and brake their ability to face difficult challenges (Zautra et al., 2010). Indeed, in the context of family firms, the presence of internal conflicts due to roles ambiguity, behavioural frictions or complicated successions, is quite well spread. These problematics can ruin the internal and familiar relationships, making the environment hostile and of little support for the development of optimism and self-confidence (Memili et al., 2015).

A study conducted on a sample of successful entrepreneurs demonstrated that the individuals grown up inside the context of a family business (because their parents were entrepreneurs themselves) learned the entrepreneurial mindset from them. The success of their parents stimulated their entrepreneurial behaviours, while the failures teached them that adversities can be overtaken and sometimes leave space to a brighter future (Duchek, 2018).

Additionally, from the current literature it emerges that companies can't be separated from the people that run and own them, hence it could be stated that resilient family firms are like this because crowded by resilient individuals (Bhamra et al., 2011). Moreover strong and supporting relationships within the working context build a stronger personal resilience for all the employees (Lengnick-Hall et al., 2011).

In conclusion, entrepreneurs of family firms are motivated to keep the firms under the familiar control to protect its SEW and pass it down to heirs over the years. In order to carry out this mission, entrepreneurs are willing to do anything that is necessary. This perspective shows that entrepreneurs are extremely resilient, and that the context of the family firms increases this inclination as there aren't just the financial performances to protect, but also the familiar capital and the socioemotional wealth (Alonso-Dos-Santos & Llanos-Contreras, 2019). All these considerations taken together lead to the formulation of the following statement:

Hypothesis 1a: The family firm status is related to leaders' personal resilience.

2.4 Entrepreneurial and managerial resilience by gender

2.4.1 Personal resilience by gender of the entrepreneur

The resilient tendencies of entrepreneurs are originated by external factors, but their intensity depends on demographic characteristics like age, ethnicity and gender (Connor & Davidson, 2003). Even though these traits have been identified as relevant for detecting the level of entrepreneurial resilience, the research examining them is still limited. That's the case of the studies deepening the topic of gender differences in resilient behaviours (Karairmak & Figley, 2017).

While the research on entrepreneurial success demonstrated that the personal characteristics of men and women can influence the performances of businesses, the literature that investigates the relationship existing between resilience and gender is not conclusive, therefore an univocal conclusion on this topic isn't reached (Ayala-Calvo &

Manzano-García, 2014; Karairmak & Figley, 2017). This is due to the fact that some authors claim there aren't clear differences that distinguish the resilient behaviors of men from the ones of women, while others sustain that some odds, instead, exist. Among the researchers of this latter group, some sustain that women, on average, display a lower level of resilience when compared to men (Campbell-Sills et al., 2009; Bonanno et al., 2007).

The Connor-Davidson Resilience Scale has been used on a sample of 836 people living in the metropolitan area of Memphis with the intention to discover the demographic elements that mostly affect their resilient propensity. What the authors found out is that gender, education level and income contributed to improve their personal resilience. The justification to the fact that men display higher resilience than women can lay on the assumption that women, generally, report higher levels of neuroticism (Campbell-Sills et al., 2009). Neuroticism is inversely related to resilience as it captures the individual susceptibility to stress and negative emotions (Schmitt et al., 2008). Also the studies that concluded there are no differences among men and women used the CD-RISC, as, at date, it is the most reliable tool created to measure personal resilience (Burns & Anstey, 2010; Karairmak, 2010).

Some other studies concluded that, among female and male entrepreneurs, there are differences in just some of the resilience dimensions measured by the Spanish version of the Connor-Davidson scale, and that are: resourcefulness, hardiness and optimism. Indeed, it has been demonstrated that women and men entrepreneurs don't differ for resourcefulness, although they do in terms of optimism and hardiness. Women, in fact, show lower levels of optimism, and higher of hardiness in comparison to men (Ayala-Calvo & Manzano-García, 2014). Consequently, as women are less optimistic than men, they will be less optimistic also in face of adversities and, because of this, grow their businesses less than men. As resilience means survival in face of adversities, the missed growth of companies can be due to a restrained capacity to build and use this quality (Ayala-Calvo & Manzano-García, 2014). Nevertheless, also this statement isn't conclusive as other researchers demonstrate that the attitudes of entrepreneurs when approaching financial risks don't change depending on their gender (Belás et al., 2015).

Moreover, additional studies demonstrated that women entrepreneurs or managers are less risk lovers than their male counterparts that, consequently, are more likely to pursue value destroying operations (Young et al., 2017). However, this has been classified by some authors as overconfidence of men rather than risk aversion of women (Huang & Kisgen, 2013). As discussed in the previous chapter, self-confidence helps in increasing personal resilience, but its extreme, the overconfidence, leads individuals towards bad decisions that can endanger them and their firms (Miller, 2015).

In sum, male entrepreneurs are considered more self-confident and self-efficient than women, and therefore characterized by stronger capabilities of control over situations of stress and crisis. The lower efficacy of women can be due to the activation of gender stereotyping that make them feel uncomfortable in leading positions (Sweida & Reichard, 2013). Gender discriminations of this type happen also in cases of failure, when women are less supported and more blamed in comparison to men. These external pressures assume a different grade of intensity depending on the social context considered because, while some societies interpret failure as an unfortunate accident that don't compromise the future business activity, others consider it a social stigma (Simmons et al., 2019).

The conceptualization of entrepreneurship is different among males and females and depends on their personal focus, that consists on results for men and relationships for women. In fact, males are more interested in productivity, innovation, networking and recognition, whereas females are more concerned about contributing to the family income and to the community. This finding is supported by different studies, especially in the context of family firms, where the management style of females is considered as capable to strengthen the firms' and employees' resilience (Danes et al., 2009).

Studies of this type motivated some authors to claim women entrepreneurs more resilient, and consequently more involved than their male counterparts in increasing the community resilience and the welfare of people around them (Bakas, 2015).

This literature review don't allows for a clear formulation of what's the relationship between personal resilience and gender because, as some sustain that the feminine qualities permit higher levels of personal resilience, others claim the opposite. However, the majority of the researchers demonstrated that among men and women there are more commonalities than differences, especially for what concerns resilience, and therefore the behaviors they display during adverse situations are similar (Goktan & Gupta, 2015).

2.4.2 Do the masculine and feminine environments influence personal resilience?

Companies and management teams are usually composed by many individuals, and depending on the amount of females and males they have, they tend to assume feminine or masculine connotations (Bao et al., 2014).

As the literature sustains, the mixed management team is the configuration that permits the best performances as it leverages on the specific qualities of both men and women. The gender diversity in the management team improves its efficacy because heterogeneous individuals have different past experiences and points of view that allow for more comprehensive and qualitative solutions to problems (Dezso & Gaddis-Ross, 2012).

The heterogeneity of the management team leads to more efficient decision making in turbulent environments, while the homogeneous teams are more effective during quiet times because the similarities of its members make the decision processes faster. Within heterogeneous teams there usually are more conflicts, as they are composed by managers with different and sometimes opposing ideas and attributes (Dezso & Gaddis-Ross, 2012).

However, gender balance in the working context is not always possible, and this is true also for the managerial positions that are often spoilt by stereotyping (Sweida & Reichard, 2013). Consequently, organizations, as well as other working contexts, can be characterized by the predominance of the gender that suits in the best way the activities that have to be performed. The dominant gender has specific features that permeates and influences the way risks are interpreted and strategic decisions for the future are taken (Young et al. 2017).

In fact, according to the upper echelon theory, the organizations' strategies depend on the reflections and values of its powerful actors (Carmeli et al., 2013). This perspective assumes that the top managers, together with entrepreneurs, are responsible and account for what happens inside and to the organization. In turn, to understand why firms do the things they do, and why they perform that way, who should be studied are the top managers (Goll & Rasheed, 2005). Furthermore, it can be sustained that also the firm's resilient behaviours, as other aspects of the company, are influenced by the characteristics of the entrepreneurs and members of the top management team.

As previously stated, females and males contribute differently to their working tasks because of their specific gender qualities. Women are said to encourage collaboration and cooperation, displacing a more democratic management style that contributes in increasing the self confidence and autonomy of the workers around them (Dezso & Gaddis-Ross, 2012). Furthermore, it emerges that women are more relationships oriented, while males are associated with ambition, toughness and assertiveness (Goktan & Gupta, 2015). Masculinity involves getting the job done and win, whereas femininity is characterized by concerns on welfare of others, harmony, adaptability and flexibility. The feminine environment is usually characterized by these last attributes, recognized as capable to reinforce the personal resilience as well as the organizational one. Femininity is also associated with better social relationships and therefore stronger bounds with other people that serve as cushions in case of failure and crisis (Goktan & Gupta, 2015).

Male and female decision makers perceive the likelihood of disasters differently, and therefore females, that are more susceptible to it, tend to invest more in practices aimed at enhancing the resilience of the workers and the enterprise (Young et al. 2017). Their emotional skills contribute in strengthening the relationships within the team and with the customers (Broadbridge & Simpson, 2011). On the other hand, women display some characteristics that decrease resilience. In fact, in comparison to men, women tend to ruminate more over problems, and this doesn't help them in taking fast decisions to face challenges (Boardman et al., 2008).

Literature doesn't take a clear position about the intensity of personal resilience that characterize males in comparison to females, and consequently can't claim one gender more resilient than the other (Ayala-Calvo & Manzano-García, 2014). Assumed this, it is impossible also to state that groups of men are more resilient than groups of women, and the other way around. Applied to the context of enterprises, it is also out of question to state that female entrepreneurs or managers are more or less resilient than their male counterparts. Findings support the conclusion that gender diversity leads to different approaches to resilience but there is not agreement about which gender allows for higher resilient practices (Goktan & Gupta, 2015).

As literature claims, firms are made of their own employees, and as a result, if they improve their personal resilience the company improves too (Bhamra et al., 2011).

Literature states also that employees, managers and entrepreneurs influence each others, hence the emulation of the most resilient individuals can be beneficial to everyone working in the company (Lengnick-Hall et al., 2011). In turn, individuals identify with their teams, internalizing their values and homologating with their attitudes and behaviors. In accordance with this, the emotions of the team members can converge and create a collective resilient mood (Meneghel et al., 2016).

Considered that the environment is able to influence the personal resilience of people that are there inserted, it could be supposed that the feminine or masculine context, that is defined in this way considering the amount of males and females covering leading positions, can influence the personal resilience of its members in a different way. As no conclusions about the resilience of feminine and masculine environments are found in literature, and considered what the studies say about resilience and gender, the following hypothesis can be formulated:

Hypothesis 1b: The leaders’ gender is related to their personal resilience.

2.5 The compound effect of leadership gender and family firm status on entrepreneurial resilience

Companies can be under the familiar control, and therefore can be guided by just one manager-entrepreneur or by a group of internal or external managers. The internal managers are members of the family and owners themselves, while the external managers are hired from the market of labour and aren’t part of the family (Zellweger, 2017).

The management team, depending on the predominant gender of its members, assumes the masculine or feminine traits that are also responsible for the organizations’ and entrepreneurs’ reactions towards the changed environment. In fact, the cognitive and decisional processes of the upper echelons change depending on their demographic features like gender (Bao et al., 2014).

Inside the context of family firms, men focus on autonomy and the self differentiation from their predecessors, while women are more concerned about intimacy and continuity, in order to pass the family traditions and history to the next generations

(Danes et al., 2005). Moreover, in this context, men and women combine two cultural identities that are the business and the family. On one side they must take decisions that sustain the company development, while, on the other side, they must protect the family cohesiveness (Danes et al., 2005).

That's the reason why it can be assumed that the predominant gender within the organization can moderate the relationship between the family business status and the personal resilience of entrepreneurs and managers. This moderation permits to understand how the differences among genders operate in family firms, influencing the way in which entrepreneurs and managers build their personal resilience. All this considered, the following statement can be proposed:

> Hypothesis 1c: The family firm status has a different relationship with personal resilience depending on leaders' gender.

2.6 The effect of personal resilience on firm performance

The concept of entrepreneurial resilience refers to the capacity of entrepreneurs to remain optimistic in the face of difficult situations and unexpected challenges that endanger their companies. The qualities that compose the entrepreneurs' personal resilience permit them to overcome difficult circumstances and adapt to changed environments (Ayala-Calvo & Manzano-García, 2010).

According to some authors, the entrepreneurs are the individuals that make the difference inside the business as they set the conditions that bring it to success or failure (Van Praag & Versloot, 2007). The strong psychological connectedness of entrepreneurs to their company brings them to invest significant amounts of time, energy, and resources in practices aimed at guaranteeing its survival. Moreover, their personal resilience lowers the negative effects that disruptions can have on the firm's performances. Therefore, it exists a strong link between the resilience of the entrepreneur and the success and survival of his/her firm (Awotoye & Singh, 2017).

The resilient attribute of entrepreneurs can be transferred to the managers and employees of their firms in order to affect their attitudes towards adversities, but also their inclination towards perseverance and optimism. Resilient leaders can spread their positive beliefs and feelings contributing in increasing the personal resilience of the workers around them (Santoro et al., 2018).

The actions and interactions that take place inside a company can build organizational resilience as managers, entrepreneurs and employees influence and teach each others (Cooper et al., 2017). As a consequence, individual and organizational resilience appear as strongly correlated among them, especially in the case of small businesses. In fact, in the context of smaller enterprises, where the hierarchical structure is less accentuated, the entrepreneur has a closer relationship with the workers and is able to affect them directly (Santoro et al., 2018).

Resilience is a critical factor that helps entrepreneurs to sustain their business, and therefore it has been studied and demonstrated that a positive relationship between this attribute and the firms' performance exists (Ayala-Calvo & Manzano-García, 2014). Thus, entrepreneurial resilience has been proved to be positively related both to firm survival and firm success (Awotoye & Singh, 2017).

Additional studies on personal resilience demonstrated that successful entrepreneurs tend to have higher levels of AQ, better defined as Adversity Quotient, in comparison to the not successful ones. This quotient has been used as a measure of entrepreneurial resilience and has been found more accentuated in the entrepreneurs leading small enterprises. This result is not surprising as the entrepreneurs of smaller companies deal with clients and suppliers personally, contributing not only with economical resources but also with experience and trust relationships (Ayala-Calvo & Manzano-García, 2010).

Anyway, not all the researchers are unanimous in concluding that the resilience of entrepreneurs can play a role in defining the firms' performace. Indeed, some studies verified that this relation doesn't exist as business success has a different scale compared to the micro scale that distinguish the individuals (Bergström & Dekker, 2014). This position and result is shared also by the studies that used the Connor-Davidson scale to measure the behaviors of entrepreneurs (Fisher et al., 2016).

All this considered, the evidences in favour of a positive relation between entrepreneurial resilience and firm performance seem to exceed the ones that support the contrary. Thus, the entrepreneurial resilience can be interpreted as a defining variable of performance, and their relation can be formulated in the following manner:

Hypothesis 2: The leaders' personal resilience is related to the firm's financial performance.

2.7 The theoretical framework

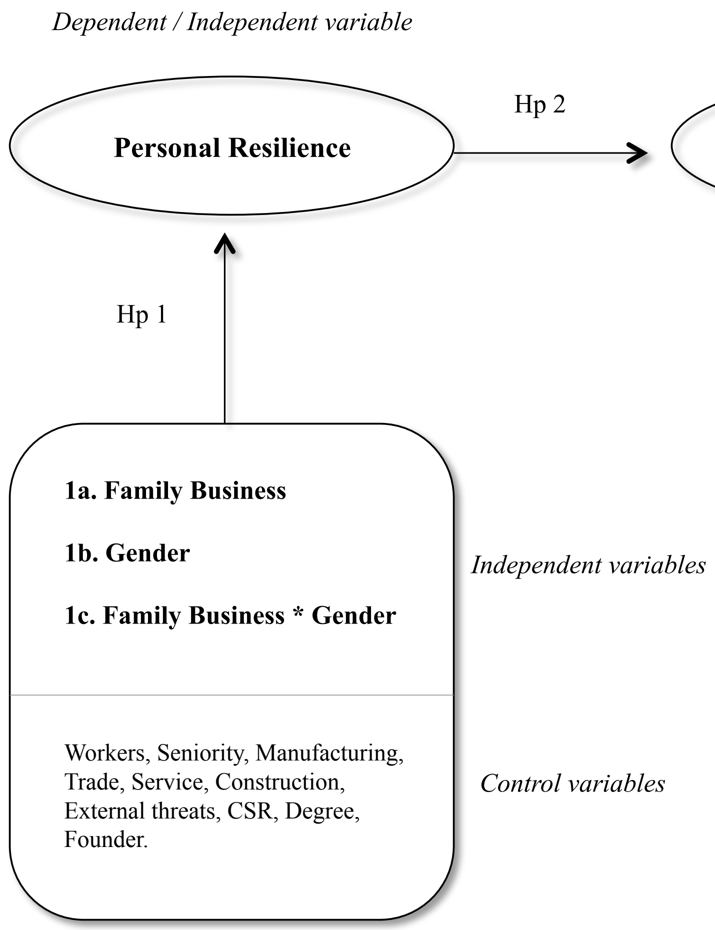
This theoretical framework has been realized on the basis that personal resilience is not considered a stable personality trait, but a quality that can be enhanced and developed through the years, thanks to both good and bad experiences (De Vries & Shields, 2006). Thus, it is reasonable to bid that the environment and the exogenous events can influence the capacity of individuals to jump back to their state of equilibrium after they have suffered a situation of crisis (Windle, 2011). Additionally, the positive contexts, as could be the family, can back the development of individuals' capacities, also in terms of resilience (Masten, 2001).

Consequently, considering the context of the enterprise, it could be supposed that both the family business status and the leadership gender can be related to the resilience displayed by its actors. However, this doesn't mean that the familiar status defines the resilience of entrepreneurs, managers and workers, neither that the female or male leadership set the way in which they face adversities. Indeed, what could be stated is that the familiar atmosphere, characteristic of the family firm, and the gender of the enterprise could be linked to the individual resilience of their most influential actors.

In addition to this, the resilience of entrepreneurs and managers can be linked to the financial performance of their businesses as, especially in the context of small-medium enterprises, they identify with their own company.

The following theoretical frame depicts the hypotheses developed by reviewing the literature concerning these issues, and will be empirically tested in the third chapter through the use of adequate statistical tools and data.

Figure 5 The hypotheses frame



2.8 Discussion

After this literature review, it can be asserted that researchers have widely focused on studying the drivers and characteristics of resilience, both at the individual and organizational level. Many investigated resilience in the context of family firms as well as the role that gender plays when assessing the self-confidence and optimism of people. However, as some demonstrated that family firms tend to be more resilient than non-family firms, many others demonstrated that there is not accordance about the gender that displays better resilient qualities (Ayala-Calvo & Manzano-García, 2014).

Thus, reviewing the literature on resilience, it can be assumed that the atmosphere and values of family firms allow entrepreneurs and managers to improve their personal resilience (Alonso-Dos-Santos & Llanos-Contreras, 2019). Additionally, it can be supposed that also the leaders' gender can impact on their personal resilience because the masculine and feminine environments enshrine different consequences on the relationships and behaviors that establish within the organization.

Moreover, as organizational resilience influences positively the firms' performances, it can also be stated that resilient entrepreneurs and managers, by helping the business to face hard times, push it towards the financial success (Awotoye & Singh, 2017).

3. CHAPTER THREE

EMPIRICAL STUDY

3.1 Introduction

This third section is intended to test the set of hypotheses developed at the end of the second chapter after an in-depth analysis of the current literature on of the concept of personal resilience by gender, by family firm status and by financial performance.

However, before the hypotheses testing, a broad description of the study and dataset used in this empirical section is performed. As first, the sample, the questionnaire and the purpose of the study have been described in detail. Afterwards, some descriptive statistics have been performed in order to understand the main features of the companies and entrepreneurs under analysis. With these statistics, it has been analysed the firms' financial performance, their management composition, their CSR initiatives, but also some demographic information about respondents, and their resilience.

Successively, the variables used for testing the empirical model have been selected and described in detail, as well as the correlations existing among them.

Then, the different regressions on resilience and performance are reported, and the significant relationships, together with the not significant ones, underlined and justified with the pertinent literature. What follows is the graphical representation of the hypotheses with the regressions' results, and its discussion.

As last, some practical implications, of theoretical and managerial nature, are presented, together with the limitations of the study and its future prospects.

3.2 The Research

3.2.1 Sample Description

The data used in support of this thesis come from the Business Resilience Study, an investigation about resiliency of small-medium enterprises financed by JP Morgan and conducted in four European cities: London, Frankfurt, Paris and Milan.

The University of Padua was in charge of carrying on this study in Milan, and commissioned the interviews to an institute specialized on scientific and statistical researches. Data collection lasted two months, January and February 2019.

The aim of this research is detecting the main challenges that Italian SMEs could be facing during their lifetime, and the way in which they tend to react in these situations. Another relevant aspect of the study is the investigation about the prevalence of women or ethnic minorities in the ownership and management of SMEs.

The companies contacted were 7,319 but only 600 of them decided to take part in this research and complete the interview. Therefore the response rate is 8.2%. These firms have been selected randomly from a list of companies located in the metropolitan area of Milan and employing minimum 3 and maximum 99 people. In addition to this, they all had to be for-profit and privately owned.

To properly conduct this study on resilience, researchers established some quota and the relative interviews' targets. These quota and targets regard three characteristics of the companies in the sample: the area in which they are registered, the profiles of the managers and the number of employees.

First of all, the metropolitan area of Milan has been divided in two subgroups considering the average per capita income of the resident in all the cities located in this territory. The cities in which the income per capita of resident was below 23,000 € were categorized as "disadvantaged". On the other hand, the cities with an average income per capita between 23,000 € and 25,000 € were defined as "medium disadvantaged".

Consequently, the first principal quota set for the study is: Disadvantaged and Medium disadvantaged areas. The other principal quota concerns the management profiles of the companies selected, and the categories are: predominantly feminine, predominantly not feminine, predominantly ethnic minority and predominantly not ethnic minority. Finally, the control quota divides the sample in groups considering the number of employees of each company.

Table 1 Principal quota for neighbourhood

Quota for neighbourhood	***Definition***	***Target interviews***
Disadvantaged	*Baranzate, Morimondo, Cinisello Balsamo, Ozzero, Rozzano, Turbigo, Corsico, Cologno Monzese, Pioltello, Buscate, Grezzago, Nosate, Besate, Cesano Boscone, Motta Visconti, Solaro, Bubbiano, Pieve Emanuele, Senago, Canegrate, San Giuliano Milanese, Pero, Mesero, Castano Primo, Trezzo sull'Adda, Garbagnate Milanese, Ossona, Dairago, Villa Cortese, San Zenone al Lambro, Cuggiono, Liscate, Arconate, Vanzaghello, Truccazzano, Zibido San Giacomo, Busto Garolfo, San Colombano al Lambro, Cerro Maggiore, Cesate, Robecchetto con Induno, Paullo, Vittuone, Vaprio d'Adda, Lacchiarella, Albairate, Settala*	300
Medium disadvantaged	*Sedriano, Casarile, Bollate, Locate di Triulzi, San Giorgio su Legnano, Sesto San Giovanni, Melzo, Magnago, Pozzo d'Adda, Binasco, Vernate, Mediglia, Abbiategrasso, Cormano, Cassano d'Adda, Bareggio, Pantigliate, San Vittore Olona, Zelo Surrigone, Trezzano Rosa, Rosate, Calvignasco, Arluno, Pozzuolo Martesana, Carugate, Nerviano, Pregnana Milanese, Pessano con Bornago, Pogliano Milanese, Casorezzo, Inveruno, Paderno Dugnano, Masate, Vignate, Rescaldina, Colturano, Rho, Santo Stefano Ticino, Basiano, Cornaredo, Parabiago, Bresso, Melegnano, Carpiano, Magenta, Gudo Visconti, Boffalora Sopra Ticino, Inzago, Robecco sul Naviglio, Bernate Ticino, Bellinzago Lombardo, Corbetta, Noviglio*	300

Table 2 Principal quota for management

Quota for management profile	***Definition***	***Target interviews***	
		Disadvantaged	***Medium***
Predominantly feminine	The 50% + of the owners/managers are women	150	150
Predominantly not feminine	Minus than 50% of the owners/managers are women	150	150
Predominantly ethnic minority	The 50% + of the owners/ managers are foreigners (not Italian)	75 (minimum)	75 (minimum)
Predominantly not ethnic minority	Minus than the 50% of the owners/ managers are foreigners	225 (maximum)	225 (maximum)

Table 3 Control quota and targets

Quota for dimension	***Target interviews***	
	Disadvantaged	***Medium***
3-4 employees	76	73
5-9 employees	86	86
10-19 employees	69	67
20-99 employees	69	74

The respondents were required to be the owners or the managers of the company, provided that they were involved in taking strategic decisions for the business.

The company in charge of collecting the data performed all the interviews by phone, closing the call if the main requirements on the number of employees, the location of the company and the type of business were not satisfied, as well as when the target quota were already reached. The estimated time for each interview was 15 minutes.

The sample that composes the database was built interviewing 600 companies that registered their activity in the metropolitan area of Milan. They operate in different sectors and they necessarily had to have a small or medium size.

This study is focused on understanding how these companies perceive the internal and external threats to their business, but also the way in which they tend to react to them. The results of this investigation are useful in order to identify what are the possible instruments that can make institutions more effective in supporting companies that face situations of crisis or challenge.

As previously stated, all the companies in the sample have small or medium size, characteristic that was essential in order to be included in this research performed at European level. In Italy, not differently from what stated for the other European countries, SMEs are critically important for maintaining occupation stable, increase the GDP and exports (Tunisini et al., 2014).

In conclusion, this research has been conducted inside national contexts that recognize SMEs as the most important players for their economies. This aspect makes important the study of resiliency and its drivers, considered the many threats that can endanger those companies and, consequently, the economy of many countries.

3.2.2 Questionnaire Description

The questionnaire used for carrying out the interviews is divided in sections, and the number of questions subjected to the different companies has depended on the answers provided by the respondents.

Firstly, some general information about the respondents and the companies were asked in order to perform an initial screening and classification of the sample. During this phase particular attention has been posed on understanding if there were women or ethnic minorities in the ownership or management of the company. The second and the fourth part of the interview focus on the characteristics of the companies that usually affect their history and future prospects as well as their current performances, strategy and organization. As last, the topic of business resilience is faced in the third part of the questionnaire. Those are the most important questions of the investigation because they study how SMEs behave in situations that endanger their normal activity or, even, their survival.

Questions are structured in different ways depending on their purpose for the study. Some of them provide the yes or no answer, while others are quantitative open questions that require the respondent to know some of the numbers of the company. Other questions ask the interviewed to decide what is the preferred/right answer among the different options proposed by the interviewer. In some other cases the respondent is asked to give a personal evaluation of certain statements in a scale that ranges from 1 = never/not important at all, to 5 = always/really important. The questions of this type regard the behaviours that companies adopt in difficult situations but also the respondents' personal way of perceiving and facing these moments of crisis.

All the scales used in this study are validated; this means that the questionnaire has been realized with tools that are supported by the literature. Connor and Davidson (2003), have contrived the scale used in this research for valuing the personal resiliency of the respondents. Their resiliency scale is composed of 25 items with a 5-point range of responses that carry the following meaning: not true at all (0), rarely true (1), sometimes true (2), often true (3), true nearly all the times (4).

For the purpose of the Business Resilience Study, this scale has been modified; the dimensions of resiliency subjected to evaluation have been reduced from 25 to 10, while the evaluation scale takes the minimum value of 1 and the maximum of 5.

3.3 Data and Descriptive Statistics

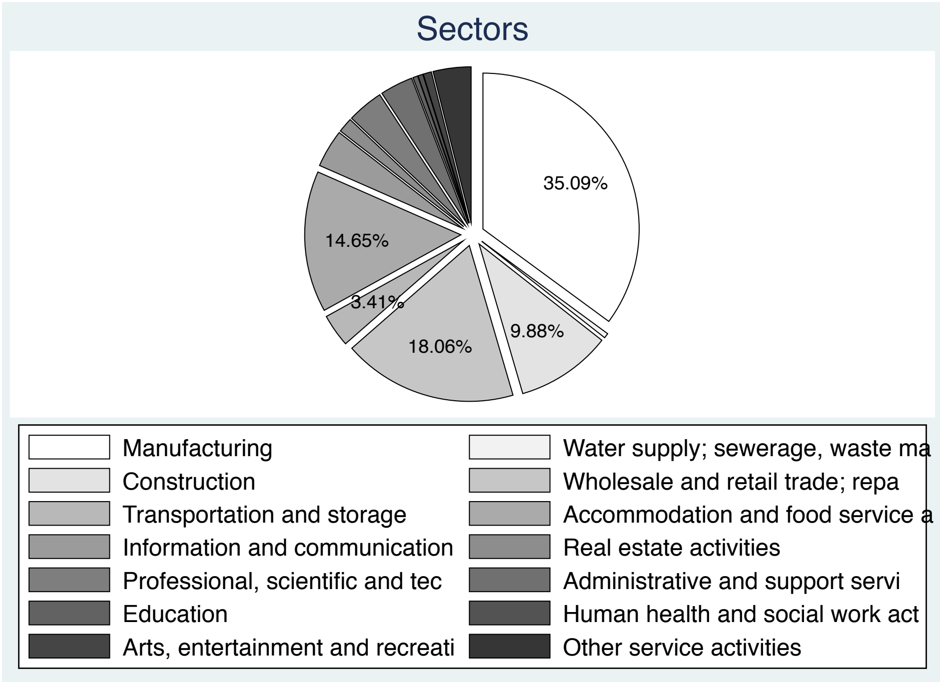
For analysing and studying all the data collected with the interviews it has been used the support of Stata 14.1. Moreover, the database has been enriched with data from AIDA in order to make it more complete for the scope of the research. AIDA is a database created and distributed by Bureau van Dijk S.p.A, and it contains balance sheets, personal data and products classifications of all the italian companies, both active and bankrupt, but with the exclusion of banks, insurances and public entities. Therefore, for the purpose of this study, the firms' information added to the initial database are: the financial performances, the Ateco classification, companies' addresses and ownership. This section will describe the sample, starting with the proposal of some information about the firms, as their management composition, their CSR initiatives and their financial performance. Afterwards, some general information about respondents and their personal resilience are given. The majority of the data here discussed have been included in the empirical model discussed in the next paragraphs.

3.3.1 General data about the firms

In order to better understand the composition of the sample, and its main characteristics, some basic statistics have been studied.

Thanks to the support of AIDA it has been possible to group companies depending on their two-digit Ateco classification. Therefore, it has been possible to divide the sample in fourteen major groups considering their sector of activity identified by the two initial digits of their Ateco codes. However, these groups of activities are not equally represented, and four principal sectors of activity can be detected. Manufacturing, trade, service and construction are the principal sectors that, all together, represent the 77,68% of the companies in the sample (N=587). The majority of the small-medium enterprises interviewed, in percentage the 35.09 % of them, operate in the manufacturing sector, the 18.06% work in the trade sector, the 14.65% perform service activities, the 9.88% perform construction, and, finally, the remaining 22.32% perform in the other 10 sectors identified in the sample by applying the two-digit classification. Moreover, it is possible to state that there aren't significant differences among females-lead and males-lead companies, as the percentages of activity in each sector are more or less the same. Instead, looking at the family and non-family firms more differences can be spotted. As the family firms compose the majority of the companies in the sample, their percentages correspond to the ones just mentioned. The non-family firms are instead the 29.83% of the total sample and work in slightly different percentages in manufacturing (27% in comparison to the 38.5% of the family firms) and service (18.97% instead of 12.83%).

Figure 6 The sectors of activity

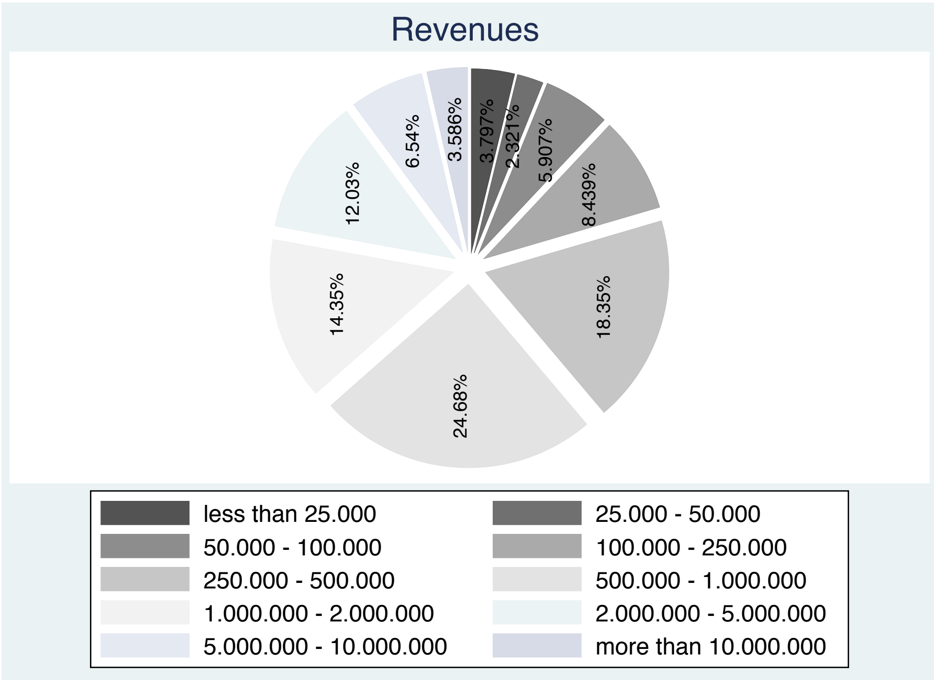


Additionally, from the database, it is possible to infer some demographic information, like the firms' seniority. So, it can be showed that the 39.73% of the firms composing the sample have been founded more than 20 years ago, and this percentage grows to the 62.12% if the attention is moved to the companies that have been founded more than 10 years ago.

Moreover, the sample reports also dimensional data like the amount of revenues, the number of employees and the number of managers. As a consequence, it has been analysed that the majority of these companies have from 3 to 20 employees, from 2 to 5 managers/owners, and revenues between 500.000€ and 1.000.000€ (N=474). Moreover, an important pie of these companies, in specific the 70.17%, declared to be a family business, and the 33.50% claimed their company takes part in networks of enterprises like Confindustria and Confartigianato.

From the questionnaire it has also been possible to gather some information about the financial performance and prospects of growth of the companies. More in specific, respondents were asked about the revenues generated by their firms in the previous year, but also about the future outlook their businesses have in terms of revenues, export and employment growth. The graph below has been created with the answers provided by respondents, and shows the percentages of companies within each category of revenues. As already stated, the biggest pie of the firms generate revenues between 500.000€ and 1.000.000€.

Figure 7 The revenues



3.3.2 The management configuration

The number of the owners/managers of the 600 companies composing the sample varies from many to a single one. In the case of many managers it has been calculated the percentage of females and males in order to establish if it was a women lead company or not. As the prerequisite for the investigation was selecting a sample where men-lead companies and women-lead companies balance, their percentages are really close. The 50.83% of the companies have more than the 50% of the managers that are men and in the remaining 49.17% of the cases we find more women than men fulfilling leading positions.

When applied to family and non-family firms these percentages change slightly. In fact, family firms tend to be managed in the 51.07% of the cases by females, while, in the case of non-family firms, this percentage falls to 44.69%. Moreover, it has been noticed the presence of 178 companies run by one single individual, and in the 35.39% of the cases it was a woman.

The overall composition of the management is the following: the 31.67% of the companies in the sample are run, predominantly, by a group of males; the 38.67% are run by a group of women; the 10.5% of the companies are managed by one female; and the 19.17% are managed by a single male manager.

By comparing the family and non-family firms, it is possible to notice that the percentages of single managers, both of female and male sex, are more or less the same. Instead, a little difference emerges when considering the companies run by a group of females or males executives. Indeed, in the case of non-family firms, the 36.87% of the companies are managed by a group of males and the 33.52% by a group of females. However, this trend inverts considering the family firms, as the prevalence of female executives is found in the 40.86% of the cases, while the prevalence of males in the 29.45%.

Figure 8 Gender of managers in family and non-family firms

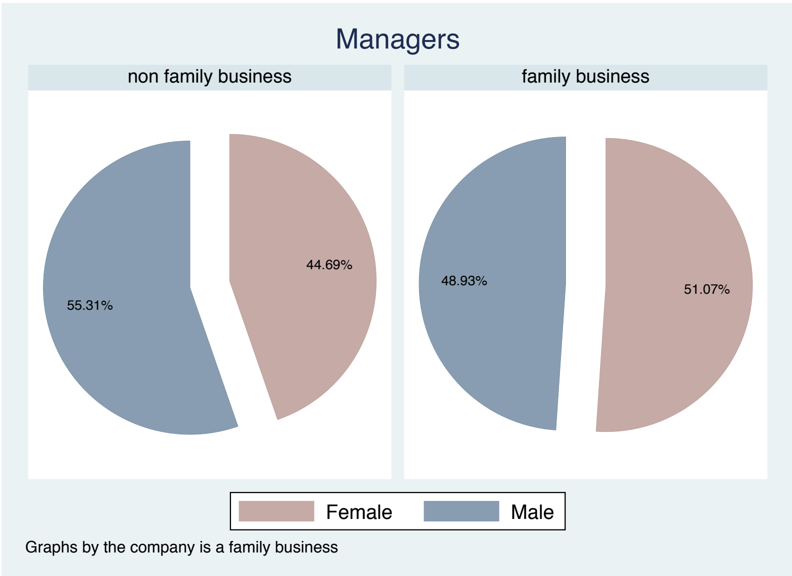


Figure 9 Composition of the management teams

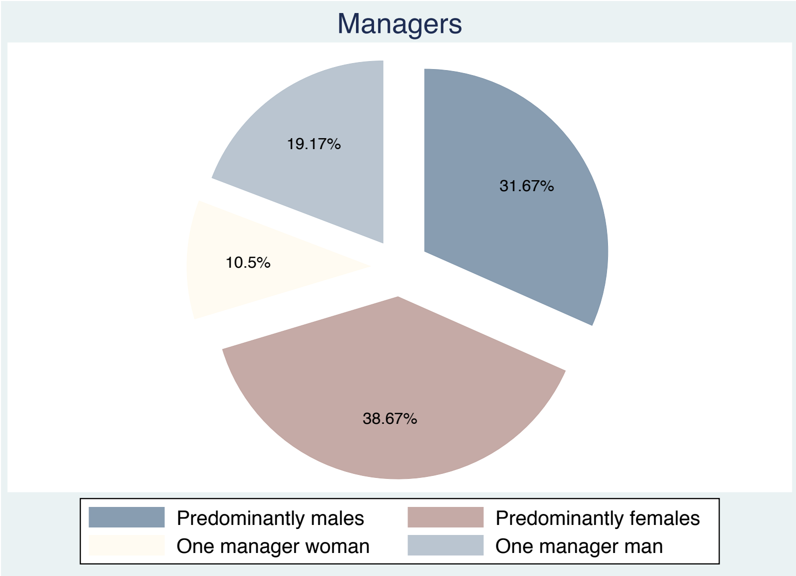
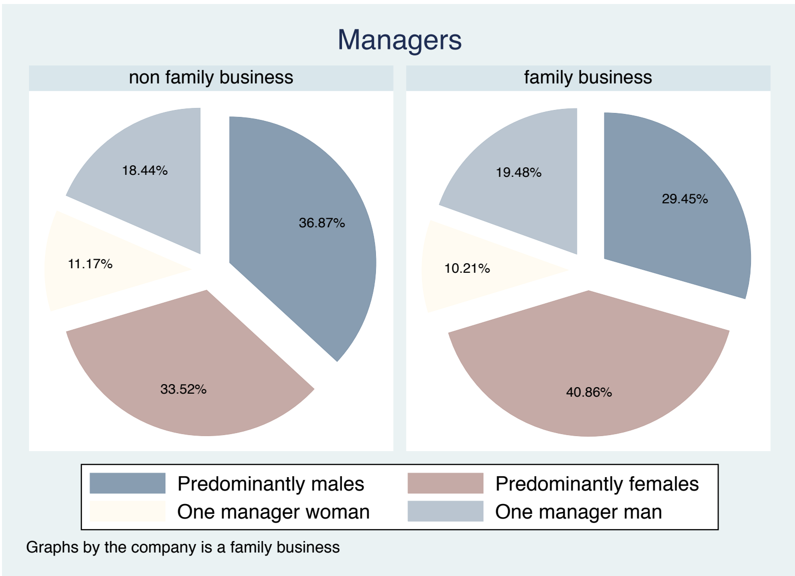


Figure 10 Composition of the management teams in family and non-family firms

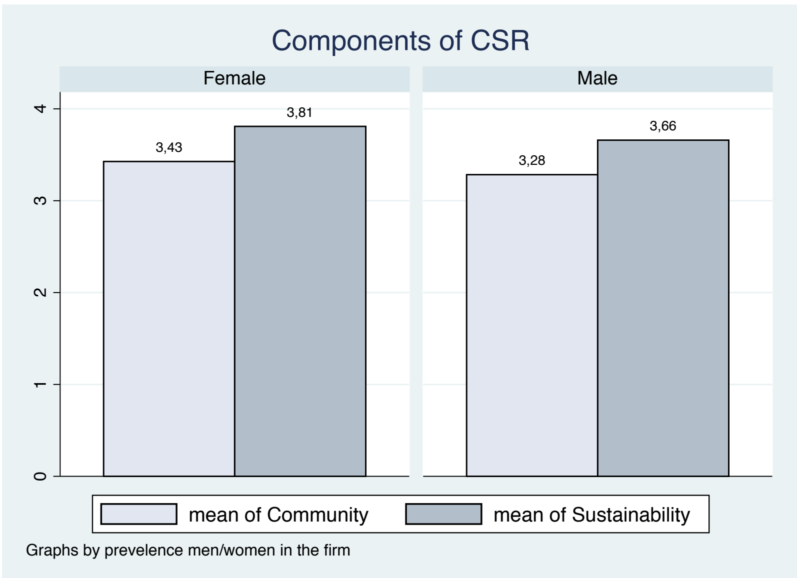


3.3.3 The firms' CSR initiatives

As approximation for the value of Corporate Social Responsibility it has been used the mean of two variables, graded on a scale that goes from 1= "not important at all" to 5= "extremely important". The respondents were asked to give this evaluation to statements regarding some objectives they could have set for the following three years. These statements were: bring a contribution to the local community (renamed "Community"); improve the social and environmental sustainability of the company (renamed "Sustainability").

Results show that the variable Sustainability (N=595) is considered more important than Community (N=593) by both male and female companies. Their relative scores are: 3.43 in "Community" and 3.81 in "Sustainability" for women; 3.28 in "Community" and 3.66 in "Sustainability" for men. The average CSR for female companies is slightly higher than the CSR evaluation of their counterpart as they are, respectively, 3.62 and 3.47 (N=592).

Figure 11 The components of Corporate Social Responsibility variable



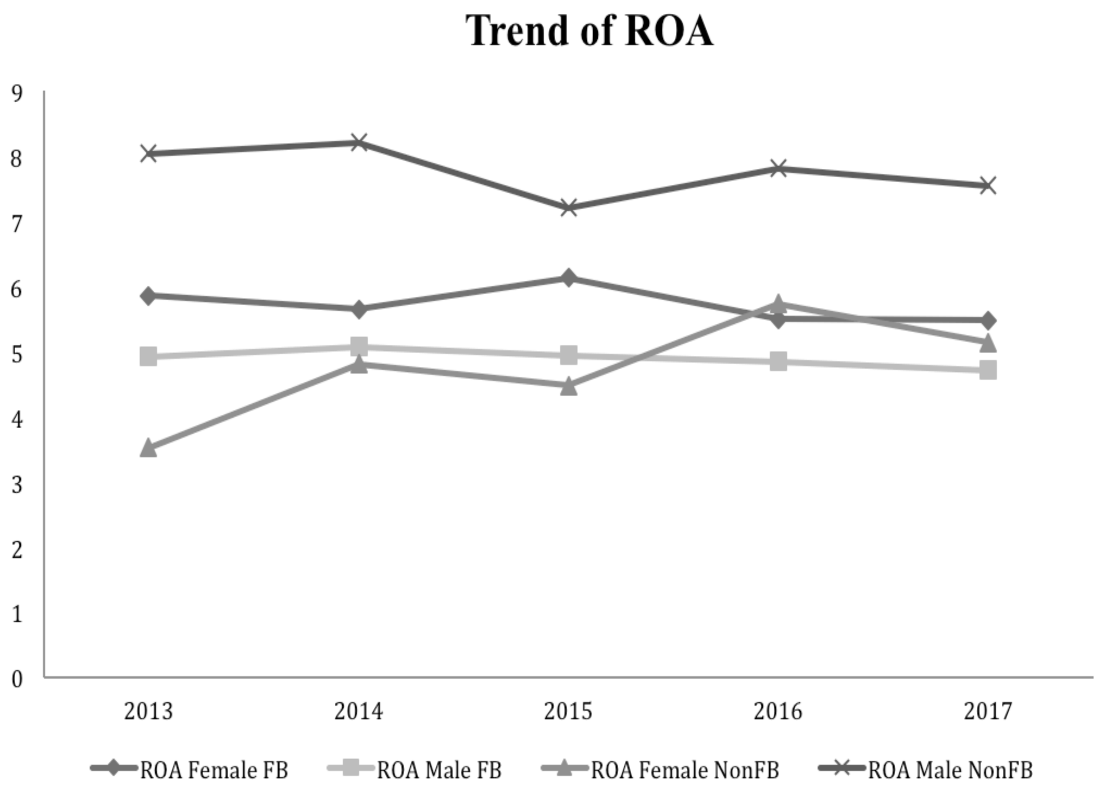
3.3.4 Financial performance of the firms

The financial information added to the database from AIDA permitted the calculation and graph of the trends that ROA had through the past 5 years, from 2013 to 2017. The first graphic representation considers ROA data from 2017 (N=439), 2016 (N=432), 2015 (N=417), 2014 (N=398), and 2013 (N=383). The analysis stops in year 2013 as the sample would have otherwise reduced too much.

The sample has been divided in four subgroups depending on the types of leadership and ownership of the companies, and eliminating the outliers. In fact, for grouping them it has been considered the predominant gender of managers and owners as well as the presence of a familiar leadership. In order to graph the values, it has been supposed that these two characteristics, the gender and the familiar trait, remained unchanged for every company through the 5 years analysed.

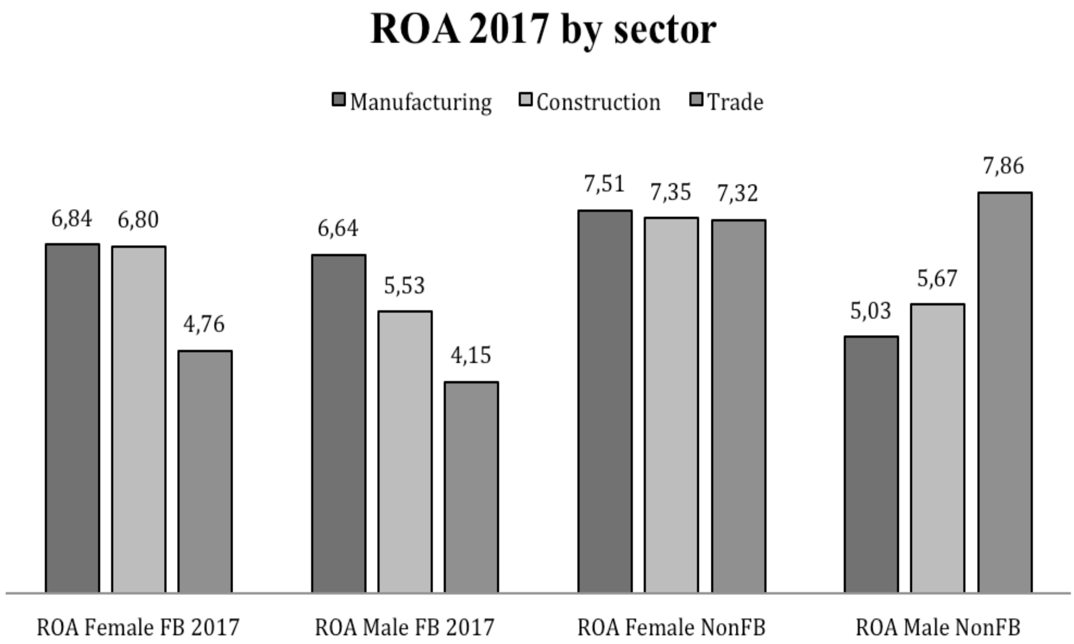
What emerges from the graph is the presence of four subgroups: the female family business, the male family business, the female non-family business and the male non-family business. The trends show quite clearly that the male non-family business overperformed the other types of organizations and that the female non-family firms are the companies that suffered stronger variations in ROA performances. Comparing results in pairs, it appears that male non-family firms perform better than female non-family firms but that this trend inverts when speaking about the family firms. In fact, family firms with female leadership perform a bit better than the male family firms, though their performances are really close during the period considered. This analysis is quite superficial as it doesn’t consider the different sectors in which companies perform, as well as the other influential variables that can determine their financial performances.

Figure 12 The trend of ROA



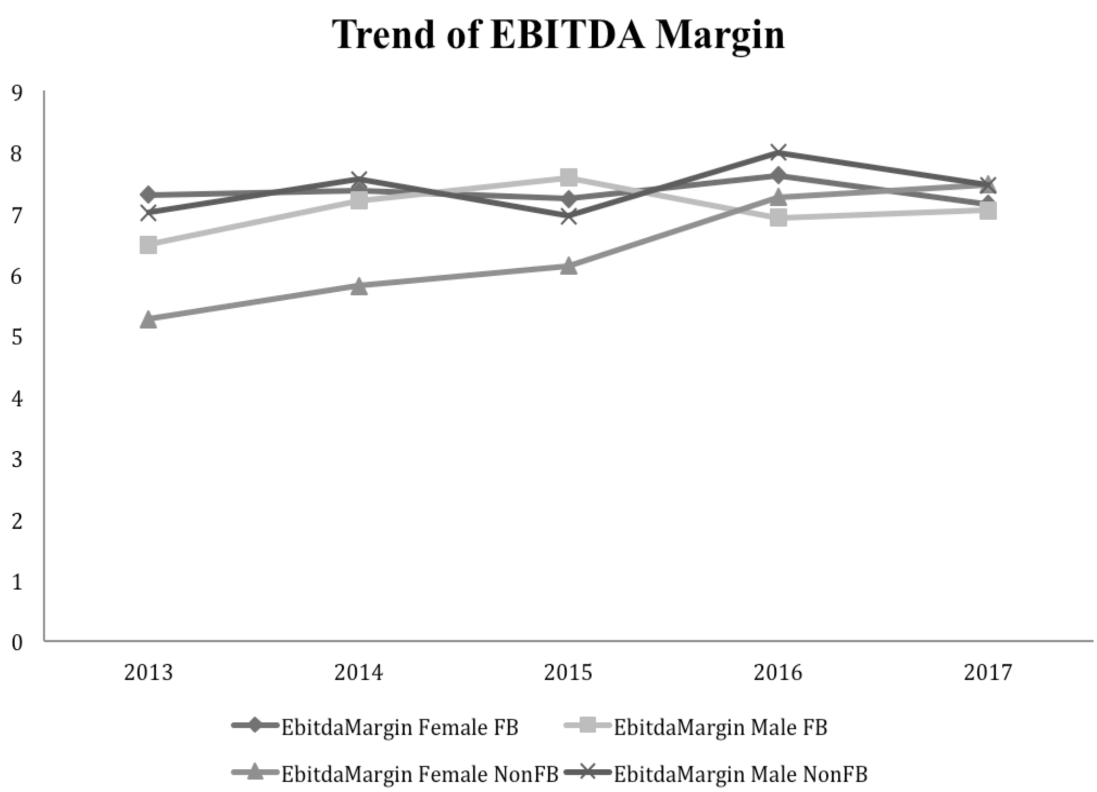
As ROA is stongly dependent on the sector of activity, it has been applied a similar analysis for the ROA of the year 2017 in the major sectors identified in the sample. The sectors considered are Manufacturing, Construction and Trade, while Service hasn't been included because of the restrained amount of observations. For what concerns the relationship between family businesses with female or male leadership, it has been found the same result as before, that is: female family businesses display better ROA than the male family businesses. For what concerns the other subgroup, the non-family businesses, only the Trade sector displays values of ROA that are consistent with what previously stated, namely that male non-family businesses overperfrom female non-family businesses. This analysis, in comparison to the previous, is more restricted in terms of observations, as it considers companies of only three sectors, that means the 61.67% of the original sample.

Figure 13 ROA by sectors of activity



The same evaluation has been performed for the EBITDA margin in the 5-years period 2013-2017. Also these performance indexes have been attained in AIDA, but not for all the 600 companies composing the sample. Moreover, the observations decrease year after year and go from 439 in 2017 to 430 in 2016, 414 in 2015, 396 in 2014 and 381 in 2013. Also in this case the outliers have been erase in order to make the estimates less flawed. As for the case of ROA, the EBITDA margins for the female family firms are higher than the margins of the male family firms, except for the year 2015. The female non-family businesses, instead, underperform their male counterparts but not in the year 2017, when these two groups obtained really close results.

Figure 14 The trend of EBITDA margin



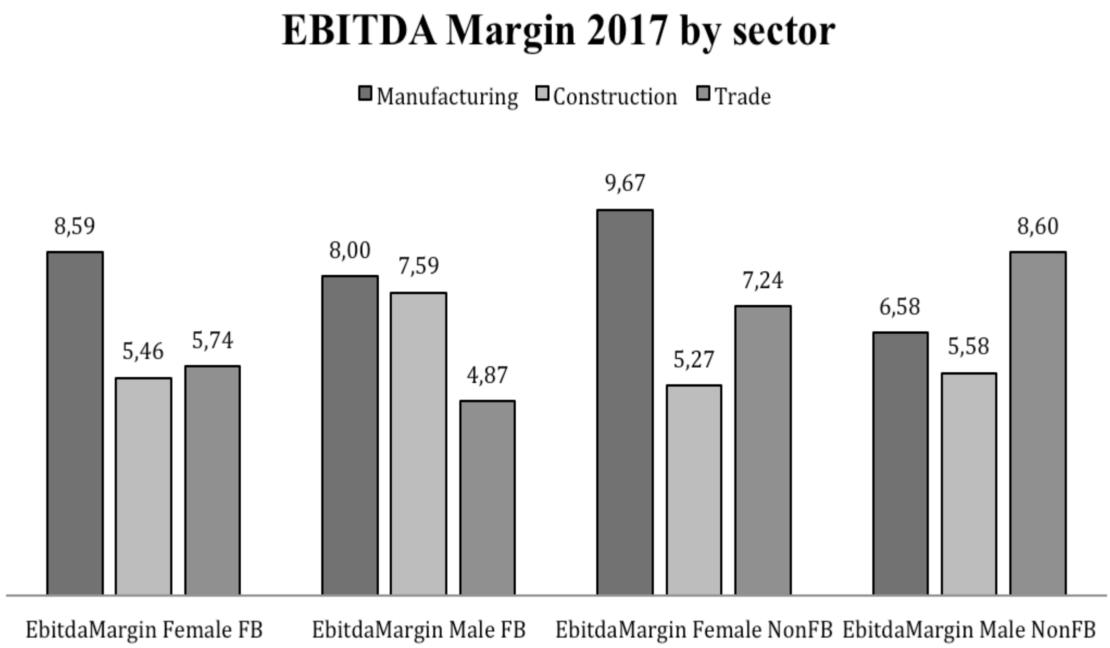
EBITDA margin, like ROA, is strongly dependent on the sector in which the companies work, and therefore the graph above is an appriximation that comprehends the majority of the firms in the sample, but that don't consider the activities they perform.

For the year 2017, companies have been grouped depending on their two digit Ateco classification and their EBITDA margis graphed in order to see if the main trends described before are met also within sectors. Also in this case the observations are more restricted because only the three most represented sectors have been considered.

For the manufacturing and trade sectors are found better performances of female family businesses in comparison to their male couterpart, while for the construction sector the result inverts. For what concerns the non-family businesses, the males' ones overperform the females' in trade and construction but not in manufacturing.

In conclusion, the EBITDA margins by sector of activity seem to respect, in the majority of the cases, the general trend that depict the female family firms as more performant than the male family firms, and the male non-family firms stronger than the female non-family firms.

Figure 15 EBITDA margin by sectors of activity



3.3.5 General data about respondents

All the respondents declaired to be owners or, at least, influential people that take important decisions for the organization. The majority of them are between 40 and 60 years old. Additionally, the 26.67% of them have achieved a bachelor degree, a master or a PhD, the 55.85% have the high-school diploma, and the remaining 17.39% have a professional certificate or no certifications at all. Moreover, the 47% of the respondents were also the founders of the companies under analysis. As last, the 34.17% declaired that, in their past, they have owned or managed other activities, while the remaining 65.83% stated they didn't have past experiences of this type.

3.3.6 The personal resilience evaluation

Among the companies interviewed (N=597), only the 22.83% declared that their surviv-al has been threatened by some events in the last 5 years. Moreover, only the 41.15%, in the last 12 months, turned to banks, consultants, associations, friends or public administration for getting some external support and advice.

Their feelings towards possible challenges are different, and also their way of organizing themselves to face them. The 20.10% of the interviewed stated that they don't think about risks until they emerge and they decide how to handle them only in that moment. The 31.16% claimed that they sometimes think about risks but don't have a structured plan to face them. Instead, the 34.67% of the companies are more active and declared that they regularly think about risks and formulate precise plans for dealing with these issues. The minority of the interviewed, the 14.07%, are particularly concerned about situations of crisis and because of this have a formalized plan of risks that is constantly kept under control for revisions.

In order to measure the personal resilience of the managers and owners interviewed, the approved "Connor & Davidson Resiliency Scale ©" has been used. The restricted version of the scale, composed by only 10 questions, has been submitted to the respondents for understanding how certain statements, intended to measure resilience, are important to them. As already stated, the evaluation scale goes from 1= "not true at all" to 5= "true the most of the times". The minimum score the respondents can get is 10, that accrue from 10 statements that are not true, while the maximum score is 50 when the respondents find the statements absolutely true. Normally, using the traditional 10-items Connor-Davidson scale, the personal resilience of individuals assumes values that go from a minimum of 0 to a maximum of 40.

The questions used for testing the personal resiliency of the respondents are 10, but protected by copyright and therefore they can't be reproduced here. Generally, they are statements that respondents evaluate in order to assess their capacity to manage stress, difficulties and change, but also their determination and self-confidence.

The first graph represents the personal resilience of respondents by the gender of the context in which they work. The results show that the respondents working in the female enterprise have an average score of 42.24, while the ones of the male enterprise have an average score of 41.16 (N=542). In the second graph is reported the amount of personal resilience considering the familiar and non-familiar trait of the firms they manage. In this case the non-family business shows managers and entrepreneurs with a level of resilience slightly higher than the one stated by the individuals working in the family business. As last, the third graph groups the respondents depending on the fact they work in a family or non-family firm with female or male management. As the graph shows, the scores for female enterprises, both if they are family or non-family firms, are more or less the same. Indeed, the average scores are 42.29 for the female family business, and 42.11 (N=542) in the case of female non-family business. On the other hand, a more significant difference can be detected looking at the male enterprises that display a grade of resilience of 41.82 in the case of non-family business and 40.85 in the case of family business (N=542). To report these measures to the usual scale 0-40 it is enough to remove ten points from the results just discussed. The first subgroup, the female non-family business is composed by 65 companies, the second, the male non-family business, by 89, the third, which is the female family business, by 197 and the last by 191 companies.

Figure 16 The personal resilience by leadership gender

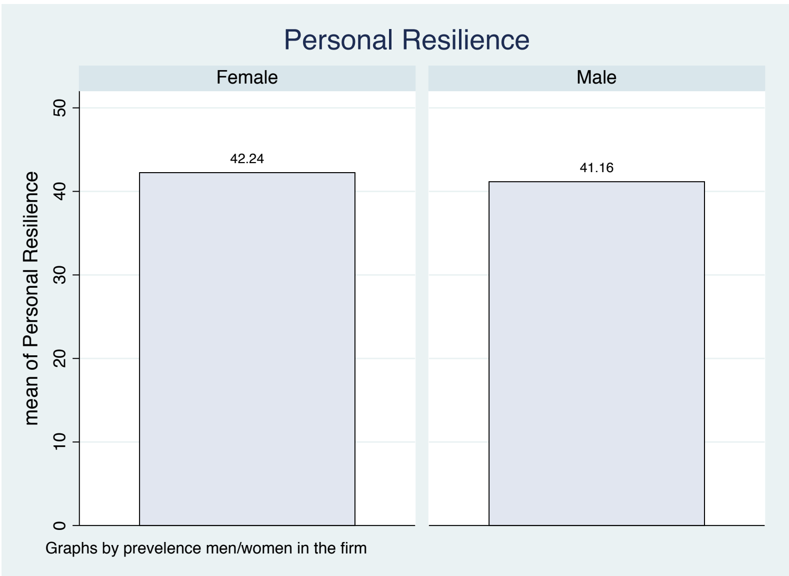


Figure 17 The personal resilience in family and non-family firms

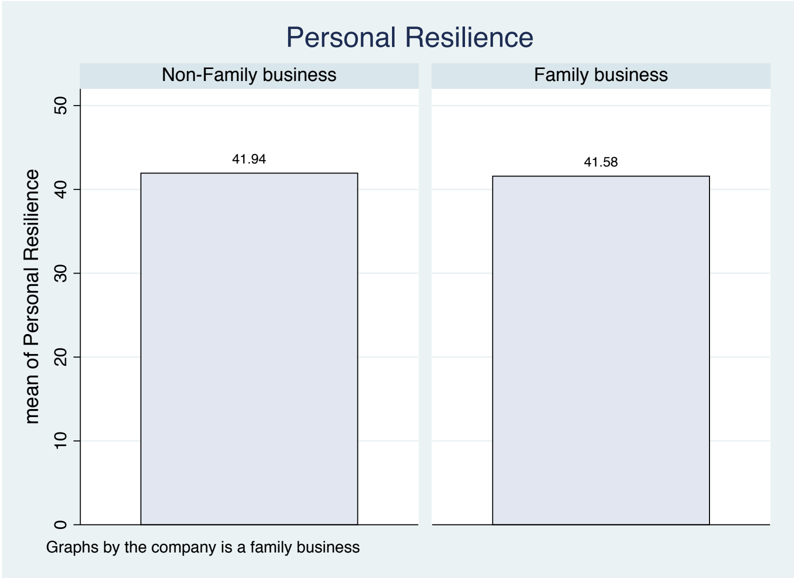
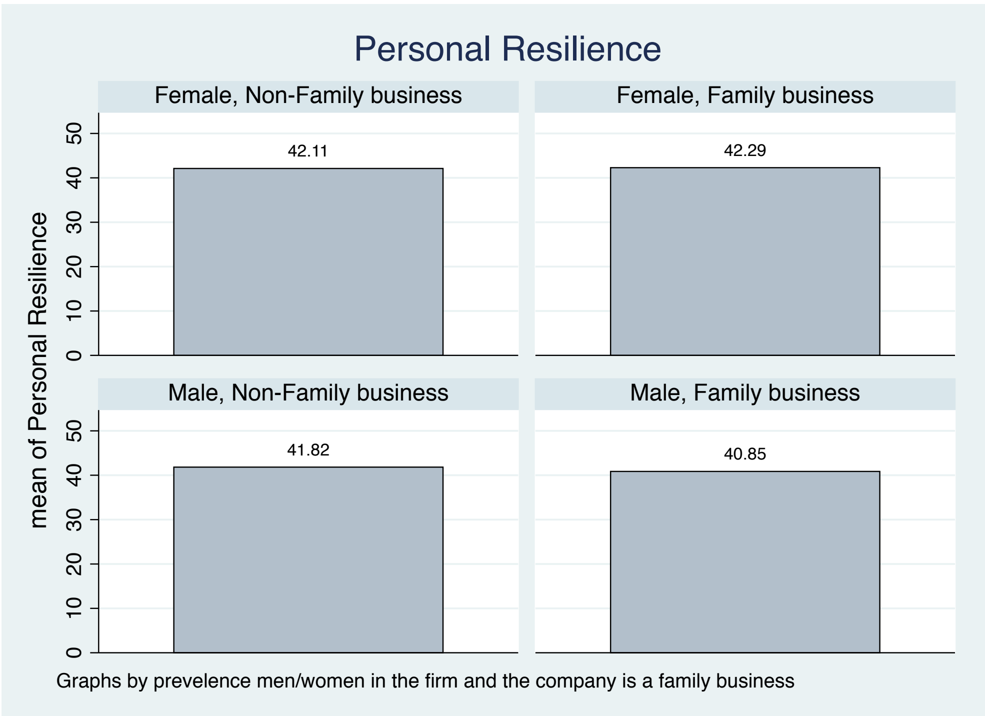


Figure 18 The personal resilience by leadership gender and family firm status



3.4 Methods

In order to test the hypotheses developed in the second chapter, it has been used the support of Stata 14.1. The methods used are the classical robust regression and the robust regression “rreg”. Robust regressions are designated to overcome some limitations that affect the ordinary least squares method when its underlying assumptions are not true.

The ordinary least squares is the most used method, and works by minimizing the sum of the squares of the differences between the observed dependent variables and values predicted with the linear function. However, the OLS method is said to be “not robust” to violations of its assumptions and, in particular, it is highly sensitive to the presence of outliers. Therefore, when the assumptions of the model are not supported, and there is a high suspicion for heteroscedasticity, the best regression models to apply are the robust ones (Hoechle, 2007).

The robust regressions models have been chosen because the residuals of the multiple linear regression weren’t normally distributed and the sample was affected by significant outliers. The robust regression “rreg” is a variant of the traditional linear regression and its application involves the following steps: firstly it performs the traditional OLS regression, then it drops the observations with Cook’s distance bigger than one and calculates the weights for each observation based on their residuals. As last, it performs weighted least squares regression using these weights (Verardi & Croux, 2009). In other words, rreg initially fits the OLS regression and screens the values based on the Cook’s distance, eliminating the gross outliers. Thereafter rreg works interatively performing the regression and calculating weights from the absolute residuals. Afterwards, these weights are used to regress again. Weights derive from one of two weight functions, the Huber weights and the biweights. In Huber weighting the observations with small residuals get the weight of 1, while, for the rest, the larger the residual and the smaller the weight. With biweighting, all the cases with a non-zero residual get downweighted at least a little. The Huber weights are used until convergence, and after this, the biweights are used until convergence. These functions are used together as both of them show some problems: the first deals hardly with severe outliers, while the second sometimes fails to converge (StataCorp, 2019).

3.5 The Variables of the study

3.5.1 Independent Variables

The independent variables used for the study are *Family_business* and *Female_leadership*, coded as dummy variables and taking values 0-1. The family firms composing the sample are 421, and, in these cases, the variable *Family_business* assumes the value 1, while in the remaining it assumes the value 0. The variable *Female_leadership,* as well, assumes the values of a dummy 0-1. This variable identifies if the predominant gender among the managers and owners of the companies is male or female. Considering the data at disposal, and the purpose of the study, it has been decided to focus the attention on women. Thus, the dummy variable indicating the gender of the firm has been coded 1 to indicate the firms where the majority of the inlfuential individuals are females and 0 to indicate the ones with more men than women at leading. Gender, consequently, has been renamed *Female_leadership*.

As the initial assumption when collecting data was to create a balanced sample of male and female companies, the variable assumes value 1 in 295 cases and 0 in the remaining 305 cases. Moreover, these two dummy variables have been combined in order to detect if they were moderating their effect on the dependent variable. Therefore, the interaction among these two dummy variables gives life to four subgroups of the small-medium enterprises that compose the sample: the famale non-family business, the male non-family business, the female family business and the male family business. The first subgroup is composed by 80 companies, the second by 99, the third by 215 and the fourth by 206.

3.5.2 Dependent Variables

The dependent variables used for testing the hypotheses developed in the previous chapter are two: *Personal_resiliency* and *ROA*. Both these variables are continuous.

The values assumed by the *Personal_resiliency* variable have been obtained from the 10-item Connor-Davidson scale. As discussed previously, the total score obtainable by individuals that undergo this scale is, by literature, 40, but in the sample used for this research they reach the maximum of 50 because the answers of respondents take values from 1 to 5. Considering that the questions submitted to respondents were 10, it has been necessary to group the answers in one single item by factor analysing the initial results. The Cronbach's alpha for the factor obtained is 0.81, really good and therefore acceptable for supporting the empirical part of the study. The Cronbach's alpha tests have been developed by Lee Cronbach in 1951, in order to measure if multiple-question Likert scale surveys are reliable. This value tells the researchers if the tests they have designed are measuring the variable of interest in a precise way. The rule of thumb for interpreting the results is the following: $\alpha > 0.90$ is an "excellent" value; $0.90 > \alpha > 0.80$ is defined "good"; and from 0.80 downwards it is defined "acceptable", "questionable", "poor" or "unacceptable" (Tavakol & Dennick, 2011).

The second dependent variable used in this empirical study is the firms' ROA for the year 2017, that is used as a measure for companies' performance and is labelled *ROA*. This measure of performance has been detected in AIDA, but only for 439 companies out of the 600 composing the sample. ROA is preferred to revenues as measure for performance because the latters can easily fluctuate and be influenced by volatile and short lasting events.

3.5.3 Control Variables

The control variables used for this empirical study refer both to characteristics of the firms and features of the individuals that fulfilled the questionnaire. Therefore, the control variables used in this empirical study are the following: *Workers, Older_20years, Manufacturing, Trade, Service, Construction, External_threats, CSR, Degree, Founder.*

The variables *Older_20years, Manufacturing, Trade, Service, Construction, Degree* and *Founder* are dichotomous variables, while *Workers, External_threats and CSR* are continuous variables. *Workers* is the variable that represents the number of people employed by the companies and that, by assumption, could be minimum 3 and maximum 90. This variable is used as a proxy for companies' dimension, and together with the sectors and the seniority, it helps in shaping the main characteristics of the businesses under analysis. *Older_20years* identifies the companies that have been founded more than 20 years ago, and therefore have a quite long history behind them. Because of this, it can probably be supposed that, at least once, they have exerted resilient behaviours in order to overcome the difficulties found along their lifespan. Through the support of AIDA it has been possible to attribute the Ateco classification to all the companies in the sample, and afterwards these have been grouped by their two initial digits. The four sectors considered are the most represented within the sample and assume the values of a dummy variable 0-1. The companies that perform neither *Manufacturing*, *Trade, Service* or *Construction,* are coded 0 and operate in the other sectors. As previously discussed, these four sectors represent the 77.68% of the sample. These variables are worth consideration as different sectors of activity frequently imply different levels of performance and employment, and could also influence the attitudes of managers and entrepreneurs. *External_threats* is a continuous variable obtained from a scale of 16 items intended to measure the grade of dangerousness of potential future threats. These 16 sources of business crisis have been valued by the respondents on a scale that goes from 1= "it is not a threat at all" to 5= "it is a real threat". These answers have been factor analysed and resulted in three different factors. The first has been renamed *External_threats* and displays a Cronbach's alpha of 0.81, the second has been renamed *Transactional_threats* and has a Cronbach's alpha of 0.72, and the third has been renamed *Internal_threats* and its Cronbach's alpha amounts to 0.68. Even though all the factors have an acceptable alpha, only the variable *External_threats* has been included in the regressions as it is the only one improving their F-statistic and displaying a "good" alpha (Tavakol & Dennick, 2011). This variable represents the main threats that the businesses fear, and that, from what stated by respondents, have mainly exogenous origin. This varibale is worth being controlled as it represents a threatening situation against which organizations, managers and entrepreneurs must react exerting resilience. *CSR* is a variable created looking at the valuation that respondents gave to two questions about the initiatives they will undertake for their businesses in the next three years. These two statements, evaluated on a Likert scale ranging from 1 to 5, are: "bring a contribution to the local community" and "improve the social and environmental sustainability of the firm". Differently from the other variables obtained from a Likert scale, this one hasn't been subjected to the factor analysis. Therefore, the variable *CSR* is the mean of the scores that the two statements named above got. This variable is strictly connected to the *External_threats* variable as it represents the importance that companies and respondents gave to activities in protection of the environment and the social community. As studied by many researchers, the topic of resilience is gaining much importance in today's scenario also because of the ecological catastrophes happening worldwide (Wedawatta & Ingirige, 2012). The care for the environment can somehow be related to the organizational resilience, and, consequently, to the personal resilience of the firms' actors. Therefore, organizations can improve their CSR is order to reduce their impact on the environment and, consequently, contain the ecological disasters. By doing so, they increase their chances of survival, which can turn in improved resilience. *Degree* is a dummy variabe coded 0-1 and that assumes value 1 when the respondent has a bachelor or master degree, as well as when he/she has a PhD. In all the other cases it assumes the value 0. As last, the *Founder* variable considers if the respondents are also the founders of the businesses under analysis. These two dichotomous variables are important in the study of resilience as they define the level of past experiences lived by the people interviewed. As the literature demonstrates, personal resilience is not a personality trait, but rather a quality that is influenced throughout their life (Herrman et al., 2011). In specific, many studies have focused on the capacity of entrepreneurs to learn from past events, included failures, and grow stonger in their own resilience (Duchek, 2018). As experiences are collected through the years, it is quite obvious to assume that older individuals have also lived and overcome more difficult situations in comparison to young people. Therefore, as they have probably experiences a higher number of adversities, they also resisted maladaptation and kept their equilibrium more times (Herrman et al., 2011). The founder of a business usually finds it difficult to dissociate from it, especially if it is a family business. The high involvement and the not monetary objectives that usually steer their behaviours imply high levels of combativeness, determination and resilience (Bertrand & Schoar, 2006).

3.6 The correlation matrix

As the table shows, there are many correlations among the variables considered in this study. Starting with the most significant ones, the matrix shows several correlations with a p-values<0.01, which means that the relationship is significant at the level of 1%. The correlations with a strong significance are presented and analysed here below.

Starting with the EBITDA margin, it is found a strong correlation with ROA (r=0.74***, p=0.00), which is quite normal considering that both are measures of firm's performance. Moreover, personal resilience is positively related to ROA (r= 0.14***, p=0.01), which means that the firms with higher ROA for the year 2017 are managed or owned by the respondents that displayed higher levels of individual resilience. The familiar connotation, justified by the family firm status, is instead negatively related to the variable workers (r= -0.14***, p=0.00) meaning that the family businesses are smaller than the non-family firms. Indeed, the variable workers is a quantitative measure that approximates the size of the business. On the other hand, the family firms are positively related to seniority (r=0.21***, p=0.00) and this means that the family owned companies have a longer history and tradition in comparison to the non-family firms. As described above, the seniority variable is a dummy that identifies the companies that have been founded more than 20 years ago. Moreover, manufacturing is positively related to the family business characteristic (r= 0.11***, p=0.01) that means there is a link between being a family business and working in the manufacturing sector. The personal resilience of managers and entrepreneurs is positively related to CSR (r= 0.23***, p=0.00), which implies that the respondents with higher personal resilience are the managers or owners of the companies with higher initiatives in protection of the society and the environment. The variable founder is positively related to personal resiliency (r=0.15***, p=0.00), which means that the managers and entrepreneurs interviwed, if also founders of the businesses in which they are involved, are strongly resilient. The variable founder is also significantly related to the family firm status (r=0.12***, p=0.00), and this is due to the fact that the founders of family enterprises usually defend the familiar ownership through the years in order to leave it as a legacy to their successors. The seniority of the companies, is positively related to the size of the firm that is proxied by the number of its workers (r=0.16***, p=0.00). This means that the older companies in the sample are also the bigger ones. Manufacturing is positively related to workers (r=0.13***, p=0.00) meaning that the companies that have the larger size work in the manufacturing sector. Manufacturing is also positively related to the seniority of the enterprises (r=0.34***, p=0.00) and this can be due to the fact that, by being the bigger companies in the sample, as previously said, they are also the most historical. Degree is positively related to the size of the business (r=0.19***, p=0.00) and this is probably due to the fact that among the bigger companies with many workers it is easier to find graduated managers or entrepreneurs. However, the variable founder is negatively related to the size (proxied by the number of workers) (r= -0.20***, p= 0.00), that means the founders interviewed own and manage the smaller firms in the sample. On the other hand, service is negatively related to seniority (r= -0.31***, p=0.00) as these companies are probably the youngest in the sample. The variable measuring the relevance of the external threats is negatively related to the seniority (r= -0.21***, p=0.00) because the oldest companies are probably the most stable and less susceptible to exogenous shocks. Degree is positively related to the older companies (r=0.12***, p=0.00) as the senior companies are the biggest and consequently the ones with higher probability for graduated managers and owners. However, the seniority is negatively related to founders (r= -0.25***, p=0.00), which means that the founders interviewed own the youngest companies in the sample. Trade, service and construction are negatively related to manufacturing (r= -0.33***, p=0.00; r= -0.30***, p=0.00; r= -0.24***, p=0.00), moreover, service and construction are negatively related to trade (r= -0.19***, p=0.00; r= -0.15***, p=0.00) and construction is negatively related to service (r= -0.13***, p=0.00). In addition, manufacturing is negatively related to external threats (r= -0.16***, p=0.00) as these businesses are the bigger and probably also the more stable and less concerned about exogenous shocks. In addition, manufacturing is negatively related to founders (r= -0.17***, p=0.00) because, as said before, being the manufacturing companies the biggest and most historical in the sample, they have probably changed their ownership structure, replacing the founders. External threats (r= 0.32***, p=0.00), CSR (r=0.12***, p=0.00) and founder (r= 0.11***, p=0.01) are positively related to the service sector, while degree is negatively related to service (r= -0.18***, p=0.00) meaning that the businesses operating in this sector have less instructed managers and owners. CSR is positively related to external threats (r=0.21***, p=0.00) as the initiatives in protection of the community and the environment take place predominantly when firms feel these as real dangers for their future stability. Degree is negatively related to external threats (r= -0.13***, p=0.00), which means that people with a lower level of instruction are more concerned about the exogenous shocks. The same relationship exists between founder and degree (r= -0.15***, p=0.00) showing that, in this sample, the entrepreneurs that founded the firm in which they are currently involved are the less instructed.

The table displays many other correlations significant at the level of 5%, which imply a p-value<0.05. Among them, ROA is negatively associated to the external threats (r= -0.11**, p=0.02), and the justification for this could be that the most sensitive companies behave in this way because already affected by disruptive events, and, as a consequence of this, perform less brilliantly than the other companies. Trade is negatively related to the EBITDA margin (r=-0.10**, p=0.04), meaning that the companies working in this sector perform less brilliantly than the others. Additionally, personal resilience is positively related to the female leadership (r=0.10**, p=0.01), and this can be justified by saying that the feminine environment helps individuals to feel more confident and grow their own resilience. Anyway, female leadership is negatively related to the number of workers, that is a proxy for the firms' dimensions (r= -0.08**, p=0.04). This means that the female management teams are predominant among smaller enterprises. CSR is negatively related to manufacturing, which implies that the businesses in this sector have less significant initiatives for the CSR (r= -0.10**, p=0.02). Instead, degree is positively related to manufacturing, meaning that in these companies, that are also the bigger and the older, there are more managers and owners with a degree (r= 0.10**, p=0.01). External threats are negatively related to the construction sector (r= -0.10**, p=0.01), which means that this problematic is not accentuated in this sector. Moreover, also degree is negatively related to the construction sector (r= -0.10**, p=0.02), meaning that the managers and owners employed in this sector dislpay lower levels of instruction.

Lastly, there are also correlations with significance levels of 10%, that means p-values<0.10. Personal resilience is positively related to the EBITDA margin (r=0.09*, p=0.06), meaning that a relationship between the resilience of managers and entrepreneurs and the performances of their businesses exist. The EBITDA margin is also positively related to the manufacturing sector (r=0.09*, p=0.06), and this could be justified by the fact that the companies belonging to this sector are the bigger in the sample, and consequently the most profitable. Personal resilience is positively related to the trade sector (r=0.08*, p=0.08) but negatively to construction (r= -0.08*, p=0.05). This is justified saying that the entrepreneurs and managers of the companies active in the trade sector are more resilient, while the ones of the companies employed in construction are less resilient. The family business status is negatively related to the service sector, and this implies that within the companies that work in this sector few family businesses are found (r= -0.08*, p=0.06). The female leadership is positively related to CSR (r=0.07*, p=0.09), but negatively to degree (r= -0.07*, p=0.07). These values mean that female firms perform more initiatives in order to protect the social community and the environment but that their relationship with degree is negative, meaning that they have less graduated managers and owners. Lastly, it emerges from the matrix a positive relation between founder and external threats (r= 0.07*, p=0.09), which implies that the owners and managers that are also the founders of the businesses under analysis are more concerned about exogeous shocks. This finding can be justified saying that founders are usually more attached to the firms they personally create, and therefore are more concerned than others about their wellbeing.

Table 4 *The correlation matrix*

	Mean	S.D.	Min	Max	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. ROA	5.98	9.46	-43.02	49.03	1.00														
2. EBITDA Margin	7.19	9.77	-73.87	59.01	0.74***	1.00													
					(0.00)														
3. Personal_resiliency	3.17	1	-5.62	1.52	0.14***	0.09*	1.00												
					(0.01)	(0.06)													
4. Family_business	0.70	0.46	0	1	-0.04	-0.02	-0.02	1.00											
					(0.39)	(0.73)	(0.59)												
5. Female_leadership	0.49	0.50	0	1	-0.06	0.00	0.10**	0.06	1.00										
					(0.23)	(0.96)	(0.01)	(0.15)											
6. Workers	12.67	12.42	3	90	0.03	0.04	0.02	-0.14***	-0.08**	1.00									
					(0.50)	(0.45)	(0.64)	(0.00)	(0.04)										
7. Older_20years	0.39	0.49	0	1	-0.00	0.06	-0.01	0.21***	-0.03	0.16***	1.00								
					(1.00)	(0.23)	(0.79)	(0.00)	(0.40)	(0.00)									
8. Manufacturing	0.34	0.48	0	1	0.06	0.09*	-0.05	0.11***	-0.02	0.13***	0.34***	1.00							
					(0.25)	(0.06)	(0.28)	(0.01)	(0.57)	(0.00)	(0.00)								
9. Trade	0.18	0.38	0	1	-0.01	-0.10**	0.08*	0.03	0.02	-0.05	-0.04	-0.33***	1.00						
					(0.86)	(0.04)	(0.08)	(0.54)	(0.69)	(0.24)	(0.30)	(0.00)							
10. Service	0.14	0.35	0	1	-0.05	-0.04	0.03	-0.08*	0.05	-0.05	-0.31***	-0.30***	-0.19***	1.00					
					(0.27)	(0.45)	(0.45)	(0.06)	(0.18)	(0.27)	(0.00)	(0.00)	(0.00)						
11. Construction	0.09	0.29	0	1	-0.00	-0.05	-0.08*	0.04	-0.04	-0.06	0.06	-0.24***	-0.15***	-0.13***	1.00				
					(0.99)	(0.25)	(0.05)	(0.32)	(0.33)	(0.14)	(0.14)	(0.00)	(0.00)	(0.00)					
12. External_threats	1.27	1	-2.23	2.76	-0.11**	-0.06	-0.02	-0.04	-0.00	-0.05	-0.21***	-0.16***	0.04	0.32***	-0.10**	1.00			
					(0.02)	(0.22)	(0.58)	(0.31)	(0.95)	(0.22)	(0.00)	(0.00)	(0.36)	(0.00)	(0.01)				
13. CSR	3.55	1.06	1	5	0.02	-0.04	0.23***	-0.00	0.07*	0.04	-0.06	-0.10**	0.05	0.12***	-0.04	0.21***	1.00		
					(0.74)	(0.36)	(0.00)	(1.00)	(0.09)	(0.37)	(0.16)	(0.02)	(0.22)	(0.00)	(0.29)	(0.00)			
14. Degree	0.27	0.44	0	1	0.00	-0.06	-0.01	-0.01	-0.07*	0.19***	0.12***	0.10**	-0.03	-0.18***	-0.10**	-0.13***	-0.02	1.00	
					(0.96)	(0.20)	(0.77)	(0.80)	(0.07)	(0.00)	(0.00)	(0.01)	(0.43)	(0.00)	(0.02)	(0.00)	(0.71)		
15. Founder	0.47	0.50	0	1	0.02	-0.01	0.15***	0.12***	-0.01	-0.20***	-0.25***	-0.17***	-0.01	0.11***	-0.03	0.07*	-0.03	-0.15***	1.00
*p<0.10, ** p<0.05, *** p<0.01					(0.72)	(0.88)	(0.00)	(0.00)	(0.79)	(0.00)	(0.00)	(0.00)	(0.86)	(0.01)	(0.53)	(0.09)	(0.41)	(0.00)	

3.7 The empirical analysis

The empirical model of this study has been developed in the second chapter, by reviewing the literature focused on the topic of personal resilience. The hypotheses developed are two: the first concerns the role that the gender of leadership and the family firm status play in defining the personal resilience; the second regards the relationship existing between the personal resilience of leaders and the firms' performance. These hypotheses have been developed in order to detect the existence of some relationships rather than the presence of causal effects.

As first, before performing the regressions, the dependent variable *Personal_resiliency* has been subjected to a test intended to detect if differences among the mean results of two groups, regarding the assessment of this measure, were significant. Therefore, the dependent variable *Personal_resiliency* has been subjected to the two-group mean-comparison test by the leadership gender and by the family firm or non-family firm status.

3.7.1 Two-sample t-test on personal resilience

This operation, known as T-test, performs a test on the equality of means of two groups. In this specific case, it compares the means of *Personal_resiliency* for the groups "male" and "female", that stand for the predominant gender among managers and owners. The aim of this test is checking if a significant difference among groups exist. The same procedure has been performed with the groups "family business" and "non-family business". Considering this last procedure, it appears that there aren't significant differences in terms of personal resilience comparing the family business and the non-family business contexts. Therefore, the owners and managers employed in the familiar and non-familiar firms have, on average, the same level of resilience, and therefore the H_0 : difference = 0 can't be refused. This finding is in line with the results on personal resilience by type of business reported in the paragraph dedicated to descriptive statistics. Indeed, the graph 17 shows a really restrained difference among family and non-family businesses in terms of personal resilience of its actors.

On the other hand, as the table shows, the mean of the personal resilience of the manager/entrepreneur working in the female context differs significantly from the resilience measured in the male context. In turn, this test shows that entrepreneurs and managers of female-lead companies have higher levels of individual resilience in comparison to the ones working in the male-lead companies. Consequently the H_0 of equal difference is refused, while H_a : difference <0 is accepted. Indeed, the descriptive statistic about resilience in female and male enterprise, reported in figure 16, shows a difference of more than one point among the individuals working in these two contexts.

Furthermore, the same analysis has been performed for the performance varible ROA, but no statistic significances have been detected. However, considered that the focus of this thesis is not the investigation of significant differences in performance among family and non-family firms or female and male-lead companies, the results haven't been reported in this thesis.

Table 5 *T-test on personal resilience by leadership gender*

Group	Obs	Mean	Std.Err.	Std. Dev.	[95% Conf.Interval]	
Non-Family_business	**154**	**.0367292**	**.0732441**	**.9089348**	**-.107971**	**.1814294**
Family_business	**388**	**-.0145781**	**.0525279**	**1.034679**	**-.1178538**	**.0886976**
Combined	**542**	**3.17e-09**	**.0429537**	**1**	**-.0843764**	**.0843764**
Diff		**.0513073**	**.0953035**		**-.1359037**	**.2385182**

diff = mean(**Non-Family business**) - mean(**Family business**) t = **0.5384**
Ho: diff = 0 degrees of freedom = **540**

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = **0.7047** Pr(|T| > |t|) = **0.5906** Pr(T > t) = **0.2953**

Table 6 *T-test on personal resilience by family firm status*

Group	Obs	Mean	Std.Err.	Std. Dev.	[95% Conf.Interval]	
Male	**280**	**-.100931**	**.0628743**	**1.052088**	**-.2246992**	**.0228373**
Female	**262**	**.1078651**	**.0575241**	**.9311083**	**-.0054052**	**.2211355**
Combined	**542**	**3.17e-09**	**.0429537**	**1**	**-.0843764**	**.0843764**
Diff		**-.2087961**	**.0855638**		**-.3768749**	**-.0407173**

diff = mean(**Male**) - mean(**Female**) t = **-2.4402**
Ho: diff = 0 degrees of freedom = **540**

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = **0.0075** Pr(|T| > |t|) = **0.0150** Pr(T > t) = **0.9925**

3.7.2 Hypothesis 1: family business status, female leadership and personal resiliency

In order to test the first hypothesis developed in chapter two, the multiple linear regressions model has been used. The set of regressions on hypothesis 1 have firstly been performed without entering the dichotomous independent variables (M1). Afterwards, the independent variable *"Family_business"* has been inserted in model 2 (M2), while the independent *"Female_leadership"* in model 3 (M3). As last, in the fourth model, it has been included the interaction of these two dummies. This interaction generated four different categories out of the initial sample, and that can be interpreted as subgroups of it. The first subgroup is a family business with female leadership in which the two dummy variables assume the following values: *Family_business*=1 and *Female_leadership*=1. The second subgroup is a family business with male leadership with the following values: *Family_business*=1 and *Female_leadership*=0. The third is a non-family business with the male leadership, and therefore defined in this way: *Family_business*=0 and *Female_leadership*=0. In the end, the fourth subgroup is a non-family business with the female leadership that assumes the following values*:* *Family_business*=0 and *Female_leadership*=1. Additionally, it has been calculated the margins of the interaction term of model 4 in order to understand the marginal effect that each subgroups has on the dependent variable *Personal_resiliency*.

Table 7 Personal resiliency regression

VARIABLES	(M1) Personal_resiliency	(M2) Personal_resiliency	(M3) Personal_resiliency	(M4) Personal_resiliency	Margins
Workers	0.003	0.002	0.003	0.003	
	(0.004)	(0.004)	(0.004)	(0.004)	
Older_20years	0.079	0.101	0.100	0.089	
	(0.102)	(0.107)	(0.106)	(0.106)	
Manufacturing	-0.019	-0.009	-0.011	-0.009	
	(0.122)	(0.122)	(0.121)	(0.122)	
Trade	0.180	0.187	0.176	0.171	
	(0.123)	(0.124)	(0.124)	(0.123)	
Service	0.033	0.036	0.015	0.005	
	(0.140)	(0.140)	(0.141)	(0.141)	
Construction	-0.269	-0.261	-0.251	-0.257	
	(0.196)	(0.194)	(0.192)	(0.192)	
External_threats	-0.097**	-0.097**	-0.091**	-0.093**	
	(0.045)	(0.045)	(0.045)	(0.045)	
CSR	0.218***	0.220***	0.214***	0.220***	
	(0.048)	(0.048)	(0.047)	(0.047)	
Degree	-0.019	-0.019	-0.006	-0.015	
	(0.094)	(0.094)	(0.094)	(0.094)	
Founder	0.323***	0.335***	0.341***	0.326***	
	(0.093)	(0.095)	(0.094)	(0.095)	
Family_business		-0.098	-0.108	-0.245*	
		(0.098)	(0.098)	(0.134)	
Female_leadership			0.170**	-0.056	
			(0.085)	(0.154)	
NonFamily_business# Male_leadership				0.000	0.084
				(0.000)	(0.106)
NonFamily_business# Female_leadership				0.000	0.028
				(0.000)	(0.115)
Family_business# Male_leadership				0.000	-0.162**
				(0.000)	(0.076)
Family_business# Female_leadership				0.309*	0.092
				(0.186)	(0.069)
Constant	-1.001***	-0.950***	-1.015***	-0.923***	
	(0.230)	(0.230)	(0.235)	(0.241)	
Observations	511	511	511	511	511
R-squared	0.090	0.092	0.099	0.104	
Adjusted R-squared	0.072	0.072	0.077	0.080	

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The first model shows that the control variables *CSR* and *Founder* are significant with a p-value < 0.01, while *External_threats* displays a p-value <0.05. Moreover, these variables maintain significance also after introducing the two independent variables and their interaction (models 2, 3 and 4). *CSR* and *Founder* are significant at 1% in all the four models, and the same happenes for *External_threats*, but at the level of 5%.
Moldel 2 tests the hypothesis 1a, developed by studying the literature on resilience and family firms. It states that the family firm status could influence the personal resilience of its actors. The t-test in table 5 shows that no significant differences in terms of resilience emerge among the respondents working in the family firms and the ones working in the non-family firms. The same result has been reached after having performed the multiple regression, as no significance is identified for the variable *Family_business*. As a consequence, the hypothesis 1a is not supported, and no relationships between the familiar context and the individual resilience seem to exist. This finding is controversial considered that the literature review seems to back the supposition that the family business actors are more resilient than the non-family business ones, as they have to protect the socio-emotional wealth in addition to the firms' financial performance (Alonso-Dos-Santos & Llanos-Contreras, 2019). Additionally, the close relationships based on trust and love, that usually establish within family owned companies are supposed to improve the self-confidence and self-efficacy of its actors, leading to higher levels of personal resilience (Lengnick-Hall et al., 2011). However, it must be specified that studies that approach this topic in the same way it has been done in this thesis aren't found in literature.
Model 3 tests the hypothesis 1b, which states the existence of a relationship between the individual resilience of respondents and the gender of the most influential people within the organization. As the regression shows, the variable *Female_leadership* is significant at 5% (β= 0.170**, p= 0.048), and therefore it seems that the resilience of leaders could be related to the leadership gender. This result is in line with what reported in table 6, that is a significant difference among the personal resilience of the respondents working in feminine and masculine environments. Therefore, the hypothesis 1b is supported, and in line with the part of literature that claims women as more resilient than their counter-part. Indeed, women, both inside and outside the working context, seem to create a more collaborative climate that helps people improving their own self-confidence

(Dezso & Gaddis-Ross, 2012). However, this finding seems in contradiction with the studies that demonstrated that clear gender differences, in terms of personal resilience, don't exist. Indeed, many researchers that studied the resilient behaviours by gender showed that significant distinctions among males and females aren't spotted, though they are supposed to approach and face the situations of crisis differently because of their peculiar features (Ayala-Calvo & Manzano-García, 2014; Goktan & Gupta, 2015). Moreover, this finding seems to oppose to the authors that concluded males as generally more resilient than women (Campbell-Sills et al., 2009; Bonanno et al., 2007).

Model 4 tests the hypothesis 1c that supposes the existence of a relationship among the individual resilience, the family business status and the leadership gender. The interaction term introduced in the fourth regression assumes significance at the level of 10%, displaying a coefficient $\beta = 0.309$ and a p-value= 0.06. Therefore, from the table emerges that the female family business may have a positive relationship with the personal resilience of its actors. In specific, the hypothesis 1c might be supported saying that the female family business seems, analysing the regression, linked to the personal resilience of its managers and entrepreneurs. This finding is in line with what the literature says about females in the working context. Indeed, women are better able than men to build strong and trustful relationships with colleagues (Broadbridge & Simpson, 2011). Moreover, women are more flexible and adaptable, two qualities that help shaping resilience (Goktan & Gupta, 2015). Additionally, it shows that the family business context, thanks to the presence of a female leadership, can influence the personal resilience of its principal members as discussed by some authors (Duchek, 2018). However, in model 4 the variable *Family_business* assumes significance at 5% (β= -0.245**, p= 0.067), and seems to have a negative relationship with the dependent variable. This result could have been expected considering that figure 17 shows that leaders of family firms display lower levels of personal resilience in comparison to the leaders of the non-family firms. Despite this difference has been shown as not significant with the t-test of table 5, after its inclusion in the model it assumed significance. This is due to the fact that regressions' variables are influenced by the presence of the other dependent variables as well as the control variables.

In any case, there aren't findings in literature that witness this relationship, neither there are studies that focused on researching this specific relation among leadership gender, family firm status and personal resilience. Therefore, this result seems particularly interesting as there seems to be no previous analysis or findings of this type in the current literature.

In order to better understand the model 4, that incuded the interaction term between *Female_leadership* and *Family_business*, the margins of all the interactions have been calculated. This function permits to graph the trends of personal resilience that characterize the female and male leadership, considering they are located within a family or non-family firm. This calculation is a post estimation operation that calculates the predicted values for all the subgroups in the sample, that, as previously said, are four and generated by the interaction of two dichotomous variables.

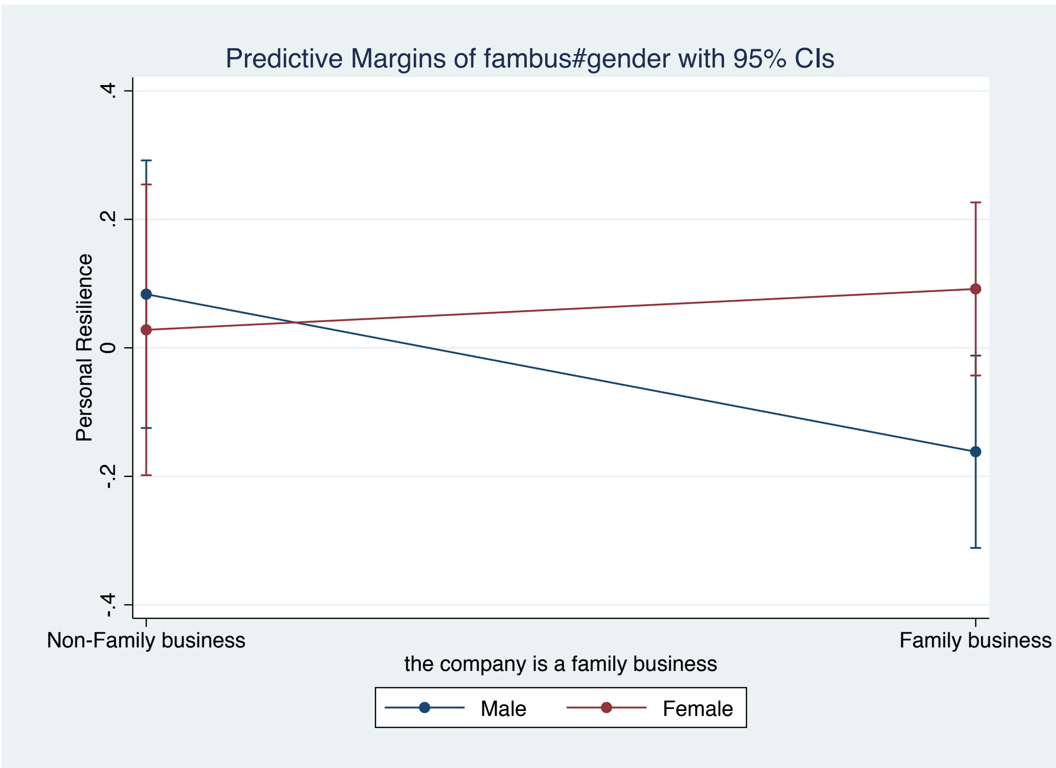
As depicted in figure 19, in the context of non-family firms the male leadership seems to lead to higher levels of personal resilience, but this trend inverts when the attention is moved to the family firms. Without introducing the interaction among the two variables it would have been impossible to reach the conclusion that the family business status seems to play a role in influencing the individual resilience of managers and owners.

In the last column of the regressions table have been included the margins calculated for the interaction term of the fourth model. The margins of the different groups are obtained by adding to the constant coefficient, also called "baseline" (because in this situation all the dummies assume value zero) the coefficients of the dummy variables that assume interest from time to time. Depending on the margin that has to be calculated, both, no one or just one of the independent variables' coefficients will be added to the baseline. In the case of this study, the margin of male non-family business implies no addition to the baseline of the *Family_business* or *Female_leadership* coefficients. In the case of the female non-family business only the coefficient of *Female_leadership* is added, while in the case of female family business also the *Family_business* coefficient is added. As last, for calculating the margin of the male family business only the coefficient about the familiar ownership has been added to the baseline. Furthermore, margins are attributed a significance level, like the variables included in the regression models.

Moving the attention to the graph with margins it is possible to see how, within non-family firms, the personal resilience of respondents, both if employed in a female lead or male lead company, was really close and positive. Conversely, the personal resilience

of respondents in the context of males family firms drops significanlty, assuming a negative value. The female lead companies, instead, keep a positive value of personal resilience also when the company is a family firm. In conclusion, clear distinctions on personal resilience among the female non-family firms and the male non-family firms can't be made, but, when considering family firms, this specification seems possible. It might be possible that gender differences don't emerge for non-family firms, but they emerge when the variable of familiar control is added. Therefore, the leaders of the female family business seem to display higher levels of personal resilience in comparison to the leaders of the male family business. Furthermore, the female leadership seems to exalt the positive characteristics that define the family business.
The results obtained testing the hypothesis 1c are also in line with the two-sample t-test on the gender of the leadership that show a significant difference in personal resilience among female and male lead companies (table 5). Additionally, it is also in line with the graph 18 that depics higher resilience scores for the leaders of the female family firms.

Figure 19 The margins of the interaction term



3.7.3 Regressions' diagnostics

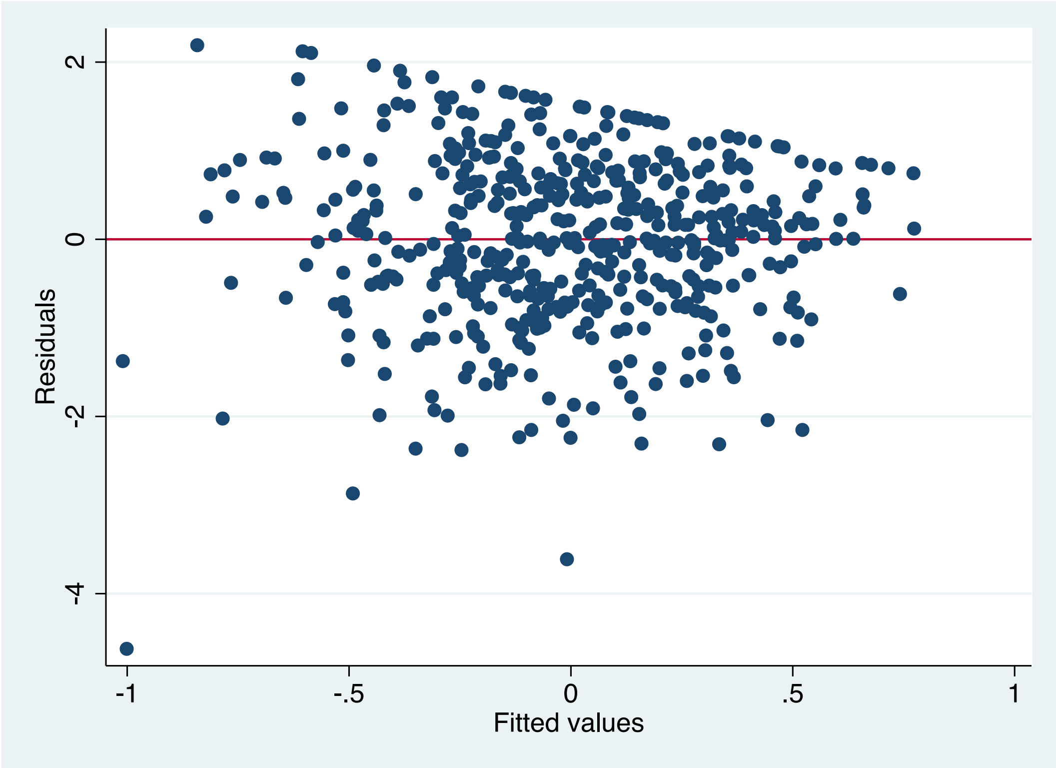
The validity of regressions is assessed through different tests, aimed at detecting particular weaknesses that can negatively affect the model. Therefore, this section tests: multicollinearity, normality of residuals, homoscedasticity and the good specification of the model.

Multicollinearity is spotted when a linear relationship exists among two or more variables, and this causes wrong variables' signs and large standard errors that make the coefficients unreliable (Alin, 2010). In order to test the presence of multicollinearity it has been estimated the variance inflation factor, commonly known as VIF. Multicollinearity doesn't seem to affect this model as its value, in the case of this regression, amounts to 1.83 and the usual cut-off value for VIF is 10.

Afterwards, in order to test the normal distribution of residuals, which is one of the basic assumptions for linear regressions, it has been performed the Shapiro-Wilk test. The coefficient of W is equal to 0.98, and its p-value to 0.00, meaning that the null hypothesis of not normal distribution of residuals can't be rejected, and therefore residuals seem to be distributed not normally.

Homoscedasticity describes the situation in which the error terms are constant and it has been tested through the rvfplot graphical test, which shows that the residuals and fitted values of this model are uncorrelated. Therefore, there seems to be homoscedasticity though in the upper part of the graph the residuals seem to follow a descendent pattern.

Figure 20 Rvfplot for personal resiliency regression



As last, for the good specification of the model, it has been performed the Link Test. The general assumption about good specification is that a regression is properly specified if no additional independent variables are found significant, except by chance. The Link Test calculates two new variables, *_hat* and *_hatsq*, to refit the model. For assessing the good specification of the regression model, only the variable *_hat* should be significant (StataCorp, 2019). In the case of this regression, *_hat* is significant (p-value = 0.00), while the *_hatsq* is not (p-value = 0.739). This result proofs that the specification of the model is accurate.

The R-squared of the four models is quite low, between 9% and 10.4%, and diminishes with the calculation of the adjusted R-squared. Indeed, these values are estimated between 7% and 8%, but this is physiological in the studies of social sciences, as the variables used frequently measure subjective dimensions that are marked by great volatility. However, the residuals improve by adding the independent variables and the interaction term, underlying their relevance for the model.

Additionally, the regression sees the sample decrease in observations from 600 to 511, and this is due to the lack of a complete set of observations for all the variables in the study. However, the observations that don't fit in the model haven't been subjected to further analysis and tests, though their relevance, in the case of future and more in depth studies, is recognized.

3.7.4 Hypothesis 2: personal resilience and financial performance

The second hypothesis supposes the existence of a relationship between the personal resilience of managers and entrepreneurs and their firms' performance. This hypothesis has been tested through the regression function "rreg".

This regression, aimed at testing the hypothesis, 2 keeps the same control variables of the regressions on hypotheses 1a,1b and 1c, but controls also for the female leadership and the family business status. The regression is firstly performed on the control variables and afterwards it has been performed adding *Personal_resiliency* as independent variable. In the first regression the sample drops to 416, while in the second to 399 because AIDA don't have the availability of the financial information for all the companies in the sample. Also in this case, further tests on the dropped observations are desirable in the case of future studies on this topic.

Table 8 *Financial performance regression: ROA*

	Model 1	Model 2
VARIABLES	ROA	ROA
Workers	-0.020	-0.022
	(0.024)	(0.025)
Older_20years	-0.780	-0.808
	(0.658)	(0.684)
Manufacturing	1.158	1.273
	(0.816)	(0.839)
Trade	1.656*	1.780*
	(0.978)	-1.008
Service	-4.554**	-3.168
	-2.197	-2.354
Construction	1.474	1.674
	-1.103	-1.158
External_threats	-1.175***	-1.185***
	(0.353)	(0.373)
CSR	0.591**	0.529*
	(0.282)	(0.302)
Degree	0.436	0.296
	(0.682)	(0.703)
Founder	1.060	0.947
	(0.663)	(0.692)
Family_business	-0.806	-0.829
	(0.716)	(0.754)
Female_leadership	0.572	0.305
	(0.623)	(0.653)
Personal_resiliency		0.574*
		(0.324)
Constant	2.215	2.658*
	-1.442	-1.538
Observations	416	399
R-squared	0.069	0.074
Adjusted R-squared	0.041	0.042

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

From the regression it appears that three control variables are significant both in the first and second model, and these are: *CSR, Trade* and the *External_threats*. *CSR* is significant at 5% in the first model and 10% in the second, while *Trade* and *External_threats* maintain the same significance in both models, the first displaying a p-value<0.10 and the second showing a p-value<0.01.
With regards to the independent variable, the regression detects significance at the level of 10%, with a coefficient β= 0.574 and a p-value<0.10. Therefore, it seems that among the personal resilience of respondents and the performances of the firms they manage or own, there is a relationship. Consequently, the hypothesis 2 is supported, saying that there could be an influence of personal resilience on the firms' performance.
This finding is in line with the literature that claims the existence of a link between entrepreneurial resilience and firm financial performance, as entrepreneurs invest a significant amount of passion and energy in their businesses in order to keep them performing also in times of crisis (Awotoye & Singh, 2017). However, this result is in contradiction with the findings of other authors that sustain the inconsistency of comparisons among firms and entrepreneurs, as their scales are too different. Therefore, in the view of these researchers the resilient behaviours of entrepreneurs can't explain or justify their firms' financial results (Bergström & Dekker, 2014).
As the significance of personal resiliency on ROA is quite low, the same regression has been conducted considering another measure of performance in order to show that the result previously obtained is not due to chance. Thereafter, the EBITDA margin for 2017 has been regressed as dependent variable, keeping the same control and independent variables of the regression on ROA.
This regression shows that the personal resiliency variable, in comparison to table 8, increases its significance from 10% to 5%, obtaining a coefficient β= 0.706.
Consequently, it can be stated that also in this regression, reported in table 9, the individual resilience of managers and entrepreneurs seems to be related to the firms' performance. Also this conclusion is in line with the literature that demonstrated the existence of a positive relationship between entrepreneurial resilience and firm's ability to gain positive financial results (Ayala-Calvo & Manzano-García, 2014).
Conclusively, two regressions have been performed in order to support the hypothesis 2, which states that the resilience of managers and entrepreneurs can influence the firms'

performance. Nevertheless, both these models present low R-squared and adjusted R-squared. The model that considers ROA as dependent variable has an adjusted R-squared of 4.1% that increases to 4.2% adding the independent variable. On the other hand, the model on EBITDA margin has an adjusted R-squared more restrained, of 1%. As previously explained, these low R-squared are quite normal for the studies that analyse data characterized by high volatility.

Table 9 Financial performance regression: EBITDA margin

	Model 1	Model 2
VARIABLES	EBITDA_Margin	EBITDA_Margin
Workers	-0.001	-0.002
	(0.024)	(0.025)
older_20years	-0.064	-0.195
	(0.660)	(0.675)
Manufacturing	0.101	0.133
	(0.818)	(0.829)
Trade	-1.473	-1.641
	(0.981)	(0.996)
Service	-3.048	-2.137
	-2.204	-2.325
Construction	-0.751	-0.698
	-1.107	-1.143
External_threats	-0.642*	-0.592
	(0.354)	(0.368)
CSR	0.343	0.277
	(0.283)	(0.298)
degree	-0.293	-0.284
	(0.684)	(0.695)
Founder	0.648	0.509
	(0.665)	(0.683)
Family_business	-0.546	-0.151
	(0.718)	(0.744)
Female_leadership	0.367	0.226
	(0.625)	(0.645)
Personal_resiliency		0.706**
		(0.320)
Constant	6.022***	6.098***
	-1.447	-1.520
Observations	416	399
R-squared	0.028	0.040
Adjusted R-squared	0.01	0.01

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

3.8 The moderated mediation model

The hypotheses developed in the previous chapter suit also the moderated mediation model, which implies an initial relationship of mediation that is moderated by the introduction of a new variable. A mediation model implies the existence of three variables, X, Y and M and three paths of relationship: a, b and c. What happens in this model is that the mediator variable (M) totally or partially eliminates the influence of the variable X on Y (path c). On the other hand, the moderation model entails the introduction of a moderator variable (Z) that alters the strength of the causal relationship between X and Y (that in this study is identified by M). The models, considered the variables of interest of this study, are represented as follows.

Figure 21 Mediation model

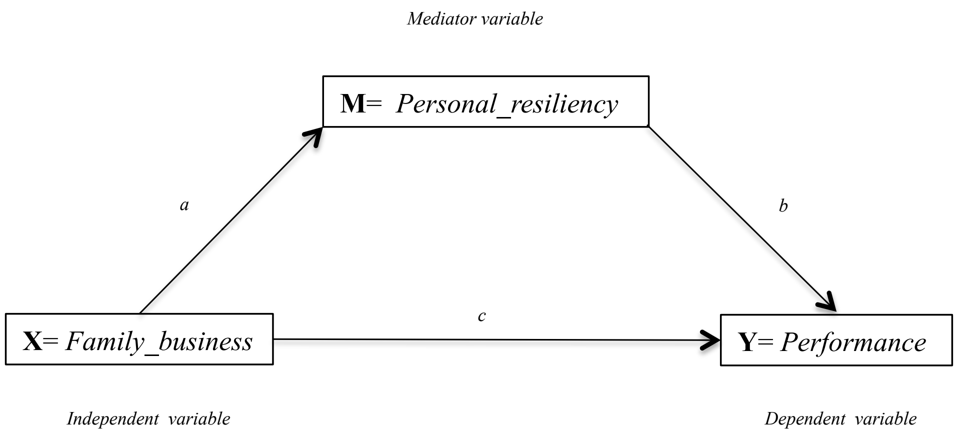
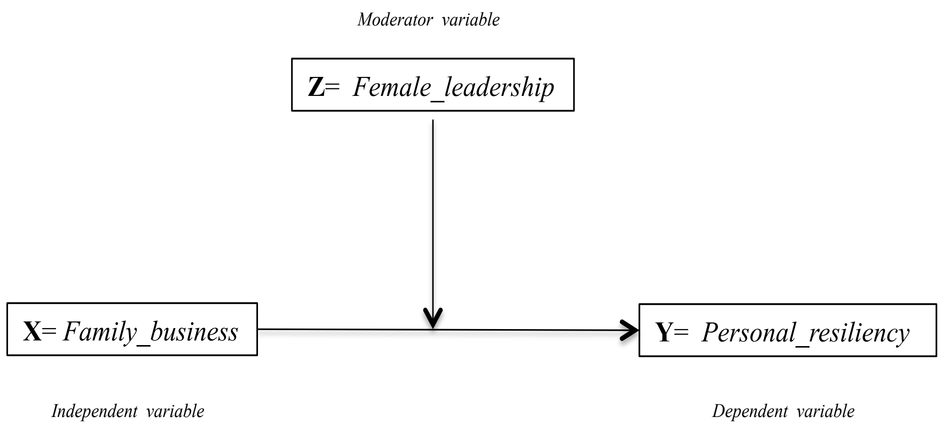


Figure 22 Moderation model



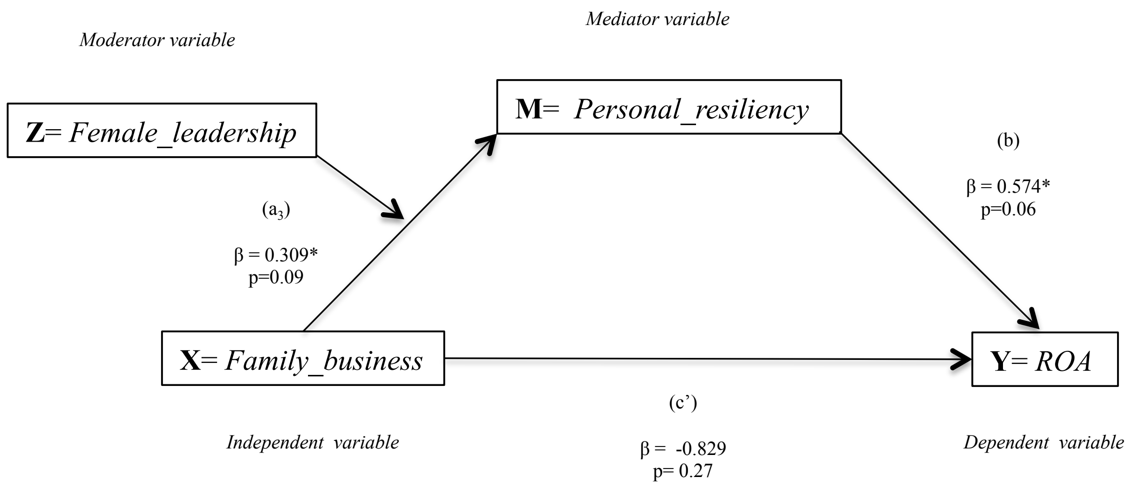
This study, considered its variables of interest, includes both a mediator variable (*Personal_resiliency*) and a moderator variable (*Female_leadership*). As from literature, these two models can be analytically integrated in one single model. Therefore, the model assumes the shape of a first stage moderated mediation as the initial mediation relationship is moderated by the introduction of a new variable (Z) that moderates the relationship between the variable X and the mediator M. In the specific case of this analysis, the moderated mediation could explain the causal relationship between the four variables under analysis (Bucy & Tao, 2007). Using the regression analysis, the model is estimated in the following way:

$$M = i_M + a_1 X + a_2 Z + a_3 XZ$$

$$Y = i_Y + c'X + b\, M$$

The inclusion of Z and XZ in the model allows the direct effect of X on Y to be fully moderated by Z (Hayes, 2018). In order to verify the model, the patterns that should be simultaneously significant are a_3 and b (Muller et al., 2005). The model, with its coefficients and p-values, is the following:

Figure 23 Moderated mediation model



As the figure shows, and from what reported in the regressions' tables above, it can be stated that the moderated mediation model might fit the relationships existent between the personal resilience, the leaderships' gender, the family firm status and the performance.

Indeed, the moderation effect of the gender on the relationship between the familiar status and the personal resilience is significant, as well as the relation between this latter variable and the firm performance. Additionally, as the theory on full mediation implies, the relationship between the independent and dependent variables should be eliminated, and this actually happens as the path c' isn't significant. The performance is measured with ROA, but the same result would have been reached using the EBITDA margin. However, the moderated mediation model implies the existence of causal relationships among the variables, and this doesn't suit the type of variables considered and the final purpose of this study.

If instead the existence of causal relationships among these variables is admitted, the model would assume the following meaning: the family firm attribute, together with the leadership gender would determine the level of resilience of its most influential members. Consequently, their resilience defines the financial performance of firms, and therefore the more the leaders are resilient and the more their firms will be successful. Therefore, even if this model seems to function, the assumptions at the basis of its application are too strong because they imply that the independent varibles cause the values and behaviors assumed by the dependent variable. Consequently, for the purpose of this study, and for the variables it considers, the theoretical model developed in chapter 2, and based on the investigation of possible relations among the variables of interests, seems more adequate than the moderated mediation model.

3.9 Discussion and conclusions

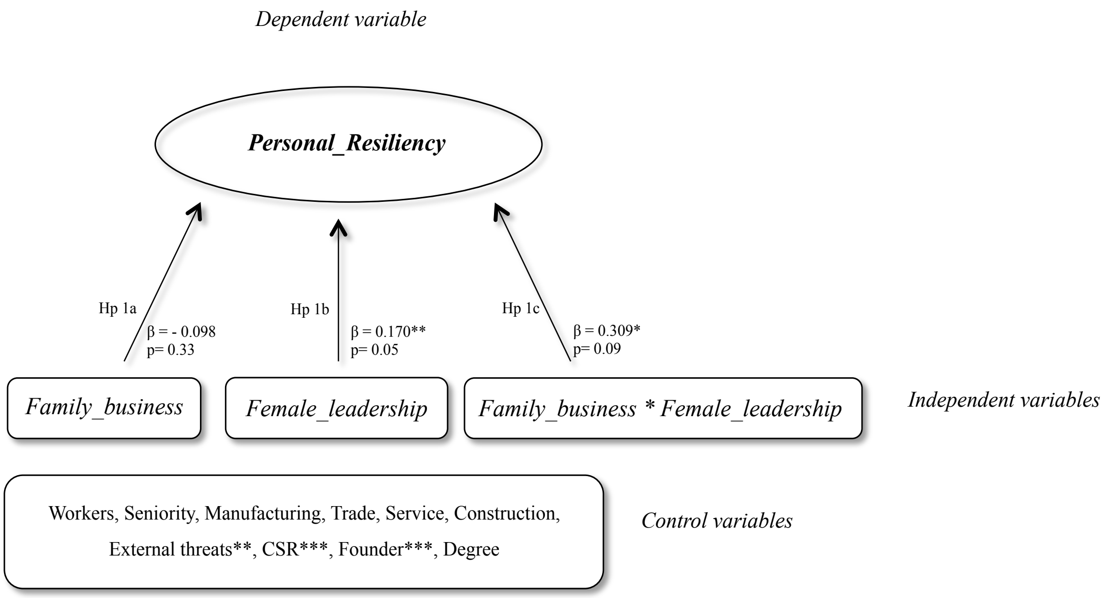
This empirical study has been developed thanks to the support of the dataset on resilience financed by JP Morgan in 2019 and entitled "Business Resilience Study". This dataset includes interviews to 600 small-medium enterprises located in the metropolitan area of Milan, the half of which working in disadvantaged cities and the other half in medium-disadvantaged cities. Moreover, half of them are female enterprises, which means that they have, in proportion, more women than men fulfilling leading roles. The questionnaire used for this study is intended to measure the organizational and personal resilience of respondents, in order to draft some general conclusions about this topic for the SMEs located in the metropolitan area of Milan.

The variables considered in this empirical study are many, and all of them, excluding the financial information, selected from the database on resilience. The most relevant are: the respondents' personal resilience, measured by the Connor-Davidson resilience scale, the family firm status, the managerial gender and the firm performance, measured both by ROA and EBITDA margin. Moreover, many other information obtained from the database have been included as control variables in the multiple linear regressions.

The model has been structured in order to test if the family business status and the female leadership are related to the resilience that characterize the managers and owners themselves, but also if these three variables are related to the firms' performance. As previously explained, this model doesn't investigate causal effects, but rather the existence of simple relations.

The graphs below report the variables that, after having performed the regressions, assumed significance. One star (*) implies a p-value < 0.10, two stars (**) a p-value < 0.05 and three stars (***) a p-value < 0.01. The smaller the p-value, and the more significant the hypotheses. The model testing the hypotheses 1a, 1b and 1c is represented in the figure 24.

Figure 24 *Personal resiliency regressions' results*



As represented, and discussed previously, hypothesis 1a is not supported while 1b and 1c seem to be verified by the regression models. The hypothesis 1a investigates if a relationship between the family firm status and the personal resilience of the managers and entrepreneurs exist. This hypothesis is not supported as the variable *Family_business* is not significant, diaplaying a p-value = 0.33. This finding is quite in contraddiction with what the literature says about the relationship among the familiar status and resilience. However, literature focused on the study of family businesses' organizational resilience rather than on the study of the personal resilience of its actors. Indeed, the studies that investigate the personal resilience of entrepreneurs are limited in number, and the ones that employ the Connor-Davidson scale are even more rare. Therefore, this finding is not firmly opposing to the studies investigating the personal resilience of the leaders of family firms as, by literature, clear findings on this particular topic aren't found. Working in a family business, rather than a non-family business, seems not to impact on the level of optimism and self-confidence of individuals though good familiar relationships are demonstrated by many studies as positive elements for the good development of personal resilience. The insignificance of this variable could be justified by the fact that within the firm it is more difficult to perceive the presence of the familiar affect and support that, contrarily, it is easier to feel within the walls of the household. Moreover, this result could be justified by the difficult relationships that sometimes exist within these contexts because of familiar disputes.

The second model tests the hypothesis 1b, that assumes significance with a p-value = 0.05, meaning that the female leadership seems to be related to the individual resilience of managers and entrepreneurs. This finding is in line with the studies that claim women better able to adapt to changed environments thanks to their higher flexibility and stronger orientation towards relationships of mutual support. Indeed, differently from males, females tend to create stronger relationships with people, and this evidence is found also in the working context. This more accentuated flexibility, care and interest for the social relationships might justify the fact that entrepreneurs and managers working in the feminine contexts feel more confortable and, because of this, improve their self-confidence and optimism.

The hypothesis 1c is significant with a p-value = 0.09, and therefore seems to back the assumption that the female family business is related to the personal resilience of its actors. The fact that the female gender is positively related to resilience has been shown by the hypothesis 1b, while the role of the family business status seemed to be unrelated to resilience for the hypothesis 1a. However, when joint, they assume significance, meaning that the specific case of the female family business might influence the resilience of its members. In this specific case, the positive attributes of the family business, before not significant, seem to assume relevance. Additionally, looking at figure 8 it is possible to understand that this more positive result for the family firms is due to the fact they tend to have much more women at leading in comparison to the non-family firms. Indeed, on average, the percentage of females in non-family firms amounts to 44 %, while, in family firms, it amounts to 51%.

In sum, for the hypothesis 1c, the resilience of the companies' leaders is influenced by the stronger social ties that women build and by the interest on the protection of the familiar values. Indeed, stronger ties allow people to feel protected and supported by the others, therefore well integrated and at ease. These feelings permit to improve the self confidence and the commitment of workers that, in turn, implies do whatever it takes in order to overcome difficulties. Additionally, in a context of this type, people might feel they can always count on the support and help of others because of the closer social relationships they are able to establish. The leaders of the family business, in comparison to the ones of the non-family business, are more motivated to maintain their status, as it implies the safeguard of the familiar values and prestige connected to the firm. Consequently, in order to reach this objective, they have to behave resiliently in face of adversities of any type, that include also personal problems like disease or personal failures.

After having presented the possible existence of a relationship between the female family firm and the leaders' personal resilience, the marginal effects for all the subgroups of the initial dataset have been calculated. In this case the findings show that the personal resilience of the male leaders worsen when considering family firms. This result can be justifiable considered that the masculine environment is usually characterized by higher competition and strenuous orientation towards results. In contexts of this type, the personal success is put before the mutual support and the care for others, and therefore, only the stronger individuals are able to emerge by displaying high levels of resilience, while the others, overwhelmed by the competitive climate, end up disheartened.

The hypothesis 2 has been tested through two models in order to show that the results obtained in the first regression (table 8) were not due to chance. Findings show that, in both models, the independent variable *Personal_resiliency* assumes significance. Its p-value is equal to 0.06 when ROA is considered as dependent variable, and to 0.02 when the dependent variable is the EBITDA margin. These findings support the idea that the firms' performance can be related to the personal resilience of its most influential players. As firms are governed and run by their owners and managers, it seems logical to assume that the performance of organizations are linked to the capacity of these individuals to face adversities and lead their companies, efficiently and with optimism, even through the darkest periods.

Considered that the leaders of the female family firms display higher levels of personal resilience in comparison to their male counterpart, and that the personal resilience seems to be related to financial performance, it could be supposed that the difference in performance among these two types of family firms is due to the personal resilience of its leaders. This satement regards the figure 12, which demontrates how the family firms with female leadership overperformed, in terms of ROA, the family firms with male leadership throughout the period 2013-2017. The same trend has been found also for the EBITDA margin, reported in figure 14.

In conclusion, it can be stated that the personal resilience of entrepreneurs, as current literature sustains, reflects on the companies' activities, and it is one variable to consider when studying the more complex topic of organizational resilience. The organizational resilience, that takes origin also from the resilience of its actors, is the firms' capacity to recover or adapt to the changed environment, still maintaining good performances.

Figure 25 ROA regression results

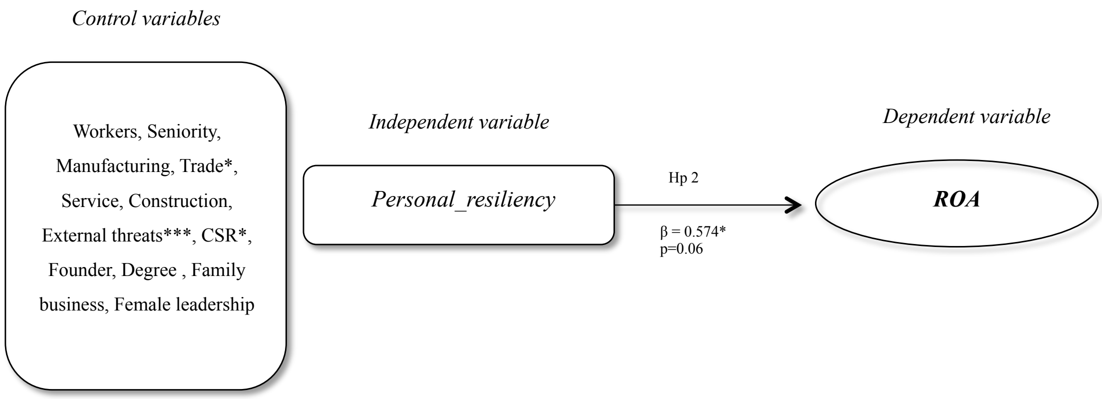


Figure 26 EBITDA margin regression results

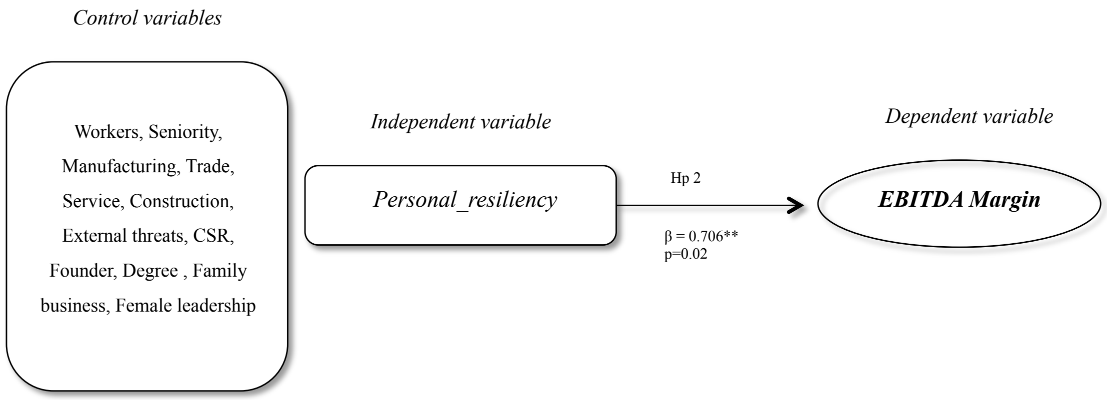
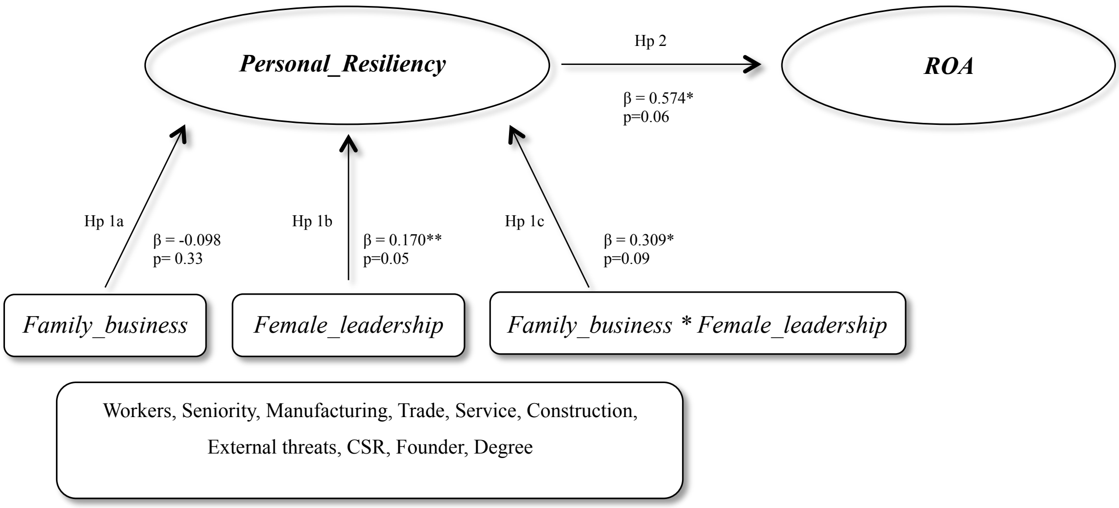


Figure 27 *The complete framework of hypotheses and results*



3.10 Practical implications

3.10.1 Theoretical

Theoretically, this model contributes to the literature investigating the role that the family firm status covers in shaping the personal resilience of its entrepreneurs. Moreover, it adds to the literature that studied the gender's differences in personal resilience, and to the studies that search for relations among entrepreneurial resilience and financial performance. In addition, all of this contributes to the literature on small-medium enterprises as, all these empirical analysis have been conducted on a sample of companies of this type.

More specifically, this thesis has considered the application of the Connor-Davidson resilience scale to entrepreneurs and managers owning and working in family and non-family firms, as well as in female or male enterprises. This scale has been largerly applied to study the personal resilience of medical and psychiatric patients, nevertheless, its application in the field of entrepreneurial research is still limited.

However, the database used for this study has been constructed to detect the resilience of the organizations in the sample, as well as the personal resilience of its leaders. Therefore, the Connor-Davidson resilience scale has been the key point for the accomplishment of this thesis, as its results, after its application to business owners and managers, has been considered among the principal variables of the empirical model. Consequently, it could be assessed that this thesis contributes to the literature on personal resilience or, more specifically, to the literature on entrepreneurial resilience. Moreover, it expands the use of the Connor-Davidson scale in the field of socio-economic research because, as far, few academics have applied this tool for conducting studies of this type.

As previously anticipated, this work aims at adding to the studies that investigate the topic of resilience in the context of family firms. Though the evidence of a relationship between the family business status and the individual resilience is found only for the women-lead companies, it could anyway be stated that this investigation is worth a deeper analysis and that the presence of the family within a business can play a role in shaping the capacity of the organization, and its actors, to deal with adversities.

Another important finding of the study is the positive relation existent between the female leadership and the personal resilience of managers and entrepreneurs. In relation to this, it could be stated that this work enriches the literature investigating the resilience's differences due to gender, and backs the studies that claim female leaders as more flexible and resilient than their male counterpart.

With regards to the financial performance, this work finds out a positive relation among this variable and the personal resilience of the firms' leaders. This is in line with the literature claiming that higher levels of resilience contribute to the financial performance, as the decisions and behaviors of entrepreneurs directly reflect on their companies.

The studies focused in understanding the relationship existent between the organizaional resilience and the firms' performance are many and conclusive in saying that this relationship has a positive sign. However, the topic of individual resilience, as already stated, is less investigated also in relation to financial performance, as it implies putting in relation one single characteristic of the entrepreneur or manager with the complex set of elements that distinguish and determine the success of the organization.

Additionally, this work contributes to the literature investigating the resilience in the working context, and the literature on small-medium enterprises, and in specific, to the studies that analyzed the concept of resilience in these businesses. SMEs have been studied in depth by many authors all over the world, as they represent the most common type of organization. However, also for this case, studies that deepen the topic of personal resilience are few and not so conclusive because of the many limitations that this type of analysis implies.

3.10.2 Managerial

The managerial implications that can be deducted from this work mainly have the human resource management origin. Indeed, as literature sustains that the personal resilience of managers and entrepreneurs can be enhanced, companies' can set some policies aimed at improving the self confidence and optimism of these individuals. Their personal resilience, as it emerges from the statistical results obtained, can be related to the firm performance. Hence, by improving their personal resilience they can positively influence the firms' financials, which, in turn, could imply more longevity and sustainable performance for their firms. Of course, when assessing this it should be considered that the business' success comes from the union of many factors, and isn't simply due to the resilience of its leaders.

However, if improvements in personal resilience are needed because believed important for improving performance, the human resources management can set some initiatives targeting this scope. For example, the suggested policies can be aimed at improving the internal relationships among leaders, as, by literature, the environments characterized by stronger internal bounds lead to higher levels of personal resilience. This is the specific case of the female business that, being more relationships oriented, allows its members to feel more protected and supported, developing, as a consequence, a good capacity to overcome difficulties. This improved resilience can be due to the fact that the workers of these contexts know they can find the help they need in their colleagues. Moreover, each worker, to feel confident and perform at best, should be located in the position that better suits his/her characteristics.

All this considered, it could be supposed that stronger internal bunds are beneficial for both people and firms, as good relationships permit the business' actors to work well and bring the company to success. Therefore, managers and entrepreneurs can be teached they are the responsible of their own success, as well as the responsible for the firms' success. In this way, understanding they can't control the bad events that normally happen, they would feel more motivated to find the key behaviors that permit to handle them.

However, this managerial implication is limited in its applicability as many small-medium enterprises, that are the focus of this study, don't have an HRM office or employee. Indeed, the majority of SMEs are owned and managed by one single individual or a restrained group, and therefore can't count on the experience and support of their internal HRM. Considered this, the companies that fall into this category, and that spot some problems in facing personal and organizational adversities, can call on external consultancy.

In addition to this, another managerial implication suggests the reflection about the role of women inside the business. As it seems that women tend to create stronger social relationships that help the personal development of individuals, it could be suggested the proper balancing of women and men within a business, especially in the leading positions. As the people working in the female firms displayed higher levels of personal resilience, it could be supposed that the introduction of more women with leading roles can positively influence resilience. Additionally, higher personal resilience has been noticed in the most successful firms, though more women could imply also better financial performances.

3.11 Limitations and future prospects

Though the findings of this thesis are interesting and maybe worth further investigation, its limitations are many and significant. Despite this, the work presented can still stimulate future research.

As first, the personal resilience of the managers and entrepreneurs interviewed has been measured just once, therefore it can't be estimated the personal change they lived through the years. Indeed, the database is cross-sectional, which means that variables, as the personal resilience of respondents, have been measured in one specific year. Hence, this variable seems to represent a personality trait rather than a quality able to evolve and improve consequently to past experiences. This first limitation is really important, though it is overcome by the fact that this thesis investigates the presence of relations and not causal effects among variables.

Additionally, the CD-RISC, that is the scale used to measure the personal resilience of firms' leaders, doesn't assess resiliency objectively, as it has been developed with the purpose of making respondents evaluate themselves. As a consequence, it is plausible to imagine that respondents couldn't evaluate their own resilience objectively, because of a biased image they have of themselves or because they wanted to appear different from what they are. However, this limitation can't be overcome as the only way to do so implies a constant and critical observation of individuals by external agents, afterwards able to give an objective evaluation to the level of resilience displayed by the people under analysis.

Moreover, the Connor-Davidson scale has been measured in 2019, while the financial data of companies date 2017. Despite this, considering that this study looks for relations rather that causal effects, it could be stated that this limitation, though still relevant, doesn't nullify what has been done so far.

Another important limitation of the study is the use of two dummies as independent variables, the family firm status and the female leadership. Additionally, regressions hold many other dichotomous control variables that are frequently not signifcant. Nevertheless, these control variables were included in the model to guarantee its good specification, and because the studies of this type generally require their inclusion.

The reduction of the sample, because of a lack of information about the financial performance for all the firms in the sample, is another important limitation. Indeed, the regressions on the financial performance of companies see the number of observations drop, but this problem could't be fixed because the financial information of some companies wasn't available.

A further limitation of this empirical study is the development of hypotheses on the basis of studies that are not always specific about the topic addressed. Thus, the empirical model could have been speficied not clearly because developed from a literature that is not really focused on the topic of personal resilience by family firm status and leadership gender.

As last, this empirical research, by searching for relations instead of causal effects, can't claim that extremely significant results have been reached, but rather serves to enhance the attention towards the topic of personal resiliency in the different contexts of the family and non-family firm with female or male leadership. Moreover, this sample, by including only companies located in the metroplolitan area of Milan, doesn't take in consideration cultural differences that might be significant when assessing the personal resiliency variable. Therefore, the findings of this thesis can't be generalized and considered true for all SMEs because of a geographical focus that limits the size and heterogeneity of the sample.

The topic of personal resilience can be further analyzed by future studies, maybe considering its progresses. This means analysing the resiliency of firms' leaders over some years in order to see if positive and negative events or experiences can have some sorts of impact on it. Moreover, it could be interesting to use this model in order to see if, changing the context of work, the resilience of employees modify. This could imply using variables as the gender of the management and the family firm status in order to see if they can actually influence the self confidence and optimism of its workers, as it seems from this study.

Future studies can expand the application of the CD-RISC to leaders of different countries in order to compare the results obtained and understand how entrepreneurial resilience is lived and interpreted in different cultural contexts.

Additionally, the use of the resilience scale can be expanded also to the less influential individuals in order to see if the environmental characteristics, as gender and familiar context, influence also them and not only managers or entrepreneurs. By doing this, it would be possible to draft a more complete frame about the concept of resilience within companies.

Furthermore, future well structured studies on organizational resilience can include the personal resiliency variable, as it can actually play a role in shaping the overall resilience of a firm. This study can also be expanded by submitting the sample under analysis to some HRM policies intended to enhance their personal resilience, and thereafter monitor if these activities were effective and how they improved the resilience of the individuals.

From the results obtained, a future focus on CSR and its relationship with financial performance and resilience is desired. Indeed, this variable assumed significance in the regression models on personal resilience and ROA, showing that a relationship with these elements exist. However, though the CSR variable has been obtained calculating the average marks of only two statements, it is still worth deeper analysis, especially for what concern its strong relation with the personal resiliency variable. In fact, clear findings on this topic aren't spotted in the current literature, but considered the relevance of sustainability in our society, its investigation can assume importance.

The other relationship that is not largely discussed by literature, but worth focus, is the relationship between resilience and foundation as, in the statistical model here presented, it seems to assume strong significance.

Another spark for future investigation is the results obtained graphing the financial performances of companies through the period 2013-2017. Indeed, the findings obtained depict female family firms as better performing than their male couterpart for the whole period, but a clearer justification for this trend should be searched. The different levels of resilience displayed by the actors of these organizations, as emerged from regressions, can be an explanation for the finding, but further investigation are necessary. In conclusion, some theoretical and managerial contributions, as well as many interesting suggestions for future research, emerge from this study on resilience.

ACKNOWLEDGEMENTS

Come to the end of this work, I would like to express all my gratitude to my supervisor Alessandra Tognazzo for the proactiveness exhibited in supporting me in the fulfillment of this thesis. Without the attentive and accurate guidance of Professor Tognazzo I would have not worked at this thesis with the same passion and involvement.

I would also like to thank Professor Diego Campagnolo for the availability of the data used in the empirical section of this thesis. Indeed, without the access to the Business Resilience Study, financed by JP Morgan and conducted by the University of Padua under his supervision, the realization of this work would have been impossible.

My gratitude goes also to the University of Padua, institution that firstly formed me as bachelor student of Economics, and afterwards as master student in Business Administration. Thanks to the University of Padua I also had the opportunity to attend two international programs that I currently still consider the best experiences of my life.

Finally, my warmest thanks go to my family and friends because their love and support has been the principal source of my motivation and happiness.

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