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"THE IMPORTANCE OF RESILIENCE. AN EMPIRICAL ANALYSIS OF SMEs IN THE METROPOLITAN CITY OF MILAN "

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Executive Summary

The era in which we live is characterized by continuous economic crises, stress, changes and revolutions in social relationships that have repercussions in everyday life. And in this social turmoil, the need to resist, to cope with the unexpected, to adapt to renewal emerges with ever greater force. However, to survive in such a dynamic environment, it is no longer enough to consolidate a resistance to adversity, but it necessary to develop an adequate level of resilience.

Resilience falls into those terms that everyone has heard at least once, wondering what its true meaning is, striving to understand it and grasp its essence. Now a key factor in determining the success or failure of a company, resilience has managed to attract attention in the organizational literature after being analyzed in the most disparate areas. If the ancient Romans were struggling to get back on the overturned boats, in recent years entrepreneurs and companies have fought and still struggle against unexpected shocks by developing a skill that allows them not to be overwhelmed, but rather to seize the new opportunities generated. After all, there is no resilience without crisis, understood not as a negative event that can mark the end of the enterprise, but rather according to its Japanese meaning that refers to the practice of *kintsugi*: as goldsmith masters repair broken ceramic objects through the use of liquid gold, in the same way entrepreneurs have the opportunity to embellish, enrich and develop their company towards a higher economic and social level.

Therefore, resilience presupposes both the capacity for prevention, aimed at avoiding, or at least reducing the traumatic impact of a potential harmful event, and the reactive and adaptive capacity in the face of the occurrence of such an event, which allows to return to an acceptable level of performance in a reasonable time, or even to overcome it thanks to the development of new skills.

With all this in mind, the paper embarks on a journey to discover the theoretical and practical aspects of organizational resilience. The first part of the thesis focuses on the multiple nature of the term, investigating its use in various fields and how literature has systematically adapted it to different themes. This will allow to understand the key concepts behind the term and to sense its potential use in an organizational context.

Then, the central section is dedicated exclusively to the correlation between resilience and business organization. The growing phenomenon of organizational resilience will be explored starting from the origin of the term, to then move on to the specific analysis of its drivers, commenting on the main organizational strategies used to undertake a resilient path.

Particular attention will be devoted to the individual, intended as an element of the organizational entity and as the real starting point in the path towards resilience; finally, the final route will be drawn with a focus on the possible tools for measuring resilience within an organization.

The final chapter is devoted instead to the purely more practical aspects of the latest research that have seen the resilience as main topic: thanks to the research project *"Building Better Business Resilience"* conducted in Milan by Department of Economics and Business "M. Fanno" of the University of Padua, it was possible to photographs the current situation of SMEs in correlation with resilience levels and crisis. Additional findings were offered by comparing the results with the twin projects by the Enterprise Research Center conducted in Spain and in the United Kingdom.

CHAPTER 1

Understanding what Resilience is and its role

Resilience is an ancient term which today shines with new light thanks to its adaptability in the most diverse areas of study. Starting from its Latin etymology, the first part of the chapter aims to define the term resilience analyzing its purest meaning, framing it through general and specific definitions. After identifying the most important determinants from which it characterized, the second section embarks on a journey through literature, exploring the different declinations of resilience in the main areas of study in which it appears to be applied. Finally, the analysis focuses particularly on the relationship between resilience and risk, explaining the interconnection and the characteristic concepts, and applying them to the organizational context. The first hints about organizational resilience are given in order to pave the way for upcoming scientific investigations in following chapters.

1.1. Resilience: Meaning and Definitions

When life overturns our boat, some drown, others struggle strenuously to climb back up (Trabucchi, 2007). In the ancient times, to describe this situation Romans used the term *resiliens,* from the verb *risilire,* meaning literally *to bounce, to jump back*. Indeed, the Latin verb portrayed the scenario in which sailors in open water after storms desperately attempted to climb up again on the overturned boat, struggling to regain the previous safe condition. Nowadays, the term resilience generally refers to the action of moving forward without surrendering to adversities, and to the ability to recover from an unexpected event, to be breakage resistant dealing with different drawbacks that occur throughout the life cycle. A more scientific definition is offered by the American Psychological Association, which defines resilience as "the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress"; while this definition is useful, it does not reflect the complex nature of resilience, whose determinants include a host of biological, psychological, social and cultural factors that interact with one another to determine how one responds to stressful experience (Southwick et al., 2014).

According to Professor Cantoni, resilience has to be considered therefore as a competence, present in every individual or organization, which enables to not succumb to adverse events, but instead to react and reach, or bounce back to, an equilibrium state. Thus, resilience is a “dynamic and volitional competence”, required to act in certain contexts which are characterized by high instability and sudden changes, and at the same time it is the main weapon in order to counteract the possible crisis in which every individual or organization may incur. In this light, the raising of a problem or, simply, failure forces the subject to leave its comfort zone, creating the concrete opportunity to progress and even improve (Cantoni, 2014). Hence, as volitional, resilience means the ability to cope with the onset of adversities with tenacity and cunning, first taking shelter from the potentially destructive effects and subsequently reorganizing it all from the failure state, seizing the new available opportunities and learning from it. As dynamic, resilience means the capacity to go beyond difficulties during time, a dynamic adaptation process of a generic entity related to the various contingencies which tend to occur during life cycle, and aimed to the definition of efficient coping strategies, or rather a set of mental and behavioral strategies implemented by the individual or organization in order to face unfavorable situations (Luthar et al., 2000). However, it is not enough defining resilience as a *process* understood as “the mutation and mutual influence that is created between the various risk and protection factors”, but it is primary defining it as *result*, understood as “physical and mental element which is not affected by adversities” (Kaplan, 1999). Kaplan deepens further by identifying two main elements behind resilience:

- *risk factors*, variables present at each systemic level (personal, familiar, community, company) able to announce the hypothetical advent of subsequent problems;
- *adaptation capacity,* explained by the presence of protection factors able to counterbalance the effect of risk factors.

Therefore, in defining resilience it is clearly important specifying if it is considered as a personal trait, a process or an obtained result, so to decline it according the due characteristics and to interpret the real meaning also depending on the circumstances.

Nevertheless, it is necessary to provide a series of technical definitions that have occurred over time and are essential to thoroughly outline the temporal evolution of the concept of resilience. The term is born during the first decades of the 20th century, spreading to a large number of sectors, such as ecology, psychology and physics.

Hence, it has its roots in the field of metallurgy, where resilience is intended as the capability of a metal to withstand the impact of forces applied to it, proving not to be a fragile one as a resilient person proves to be the opposite of a vulnerable one.

In engineering it is instead defined as the ability of a material to withstand dynamic forces until a voltage is reached capable of permanently deforming the material.

In sociology, resilience is instead identified with the ability to face change without precluding changes, but at the same time preserving one's own ideologies, uses, traditions and history.
In finance, banks capable of withstanding the crises caused by speculative finance are defined as resilient. Indeed, resilience is a key concept at the base of the banking union in Europe.
In ecology, resilience is defined as the ability of a system to absorb change or resist perturbations and other stress factors, in such a way as to allow the system to reach its final balance: it describes the degree to which the system is able to self-organize, learn or adapt.
In psychology, it is considered as the ability to deal with events that can be stressful, overcome these events and continue to maintain a constant development of themselves, improving in quantity their resources by organizing life optimally.
From these first definitions and interpretations, it is clear how the concept of resilience can be applied to various scientific fields and, depending on the field of application, it can take on different meanings in relation to the subject treated.

1.2. The role of resilience in literature

Although the concept of resilience has long been used solely in reference to physical, engineering and ecological sciences, and has been applied in disciplines such as psychology and organizational sciences, it has also recently attracted the attention of analysts and economists. Analyzing the path on the evolution of the concept and on everything that goes around it is necessary to better understand its landing in the economic field.

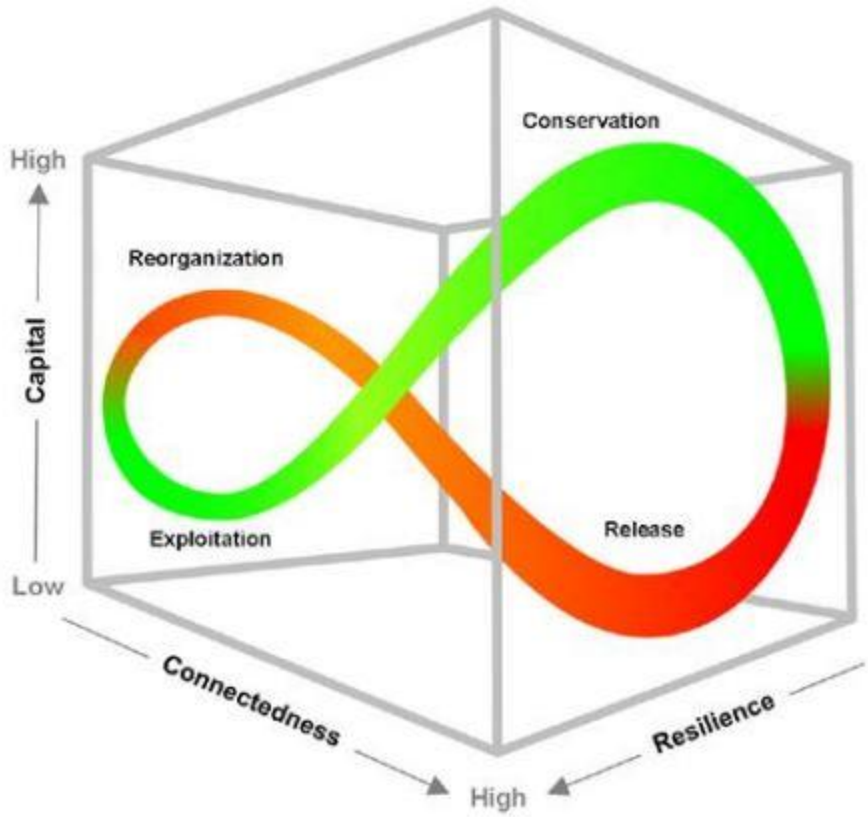
1.2.1 Resilience in ecology and ecological systems

In 1973 Crawford Stanley Holling, one of the founders of the ecological economy, introduced for the first time the term *resilience* talking about ecological system and its possible aspects depending on the stability of the system itself. In particular, he emphasized these aspects, focusing on the distinction between efficiency and persistence, between constancy and change, between predictability and unpredictability; thus, he defined stability as the persistence of a system close to a state of equilibrium, indicating, on the contrary, being resilient as the typical behavior of dynamic systems far from equilibrium. Therefore, Holling defines resilience in two different ways: the *engineering resilience*, from a traditional point view based on efficiency, constancy and predictability, "concentrates on stability near the equilibrium steady state, where resistance to disturbance and speed of return to the equilibrium are used to measure the property"; the *ecosystem resilience*, based instead on persistence, adaptiveness and unpredictability, as "the magnitude of disturbance that can be absorbed before the system changes its structure by changing the variables and processes that control behaviour" (Holling & Gunderson, 2002).

Subsequently, the Canadian ecologist set up the analysis on resilience starting from the study of landscape and social-ecological systems, intended as the complex interrelations that exist between the environment and human activities. In order to explain the evolutionary and dynamic nature of systems in time and space, Holling used the term *panarchy*, which describes the evolution of social-ecological systems according to evolutionary cycles characterized by numerous phases. With the essential objective of rationalizing the interaction between change and persistence, the predictable and the unforeseeable, Holling formulated the theory of adaptive cycles.

Evolutionary cycles develop using three dimensions: *capital*, intended as the availability of accumulated resources; *connectedness*, intended as the system's ability to control its own destiny; lastly, *resilience*, which decreases when the system settles into a stable condition and increases during reorganization and growth periods, allowing the system to start a new cycle.

Figure 1. The Adaptive Cycle of Renewal



L.H. Gunderson & C.S. Holling, 2002

As shown in Figure 1, the theory of adaptive cycles goes through four phases:

1) *Exploitation*, initial period of rapid growth and exploitation of resources;
2) *Conservation*, slow period of resource's accumulation, specialization and conservation of structures and functions;
3) *Release*, following a disturbance, the capital accumulated up to the conservation phase is released and made available again;
4) *Reorganization*, the capital released is reorganized.

These four phases of ecosystems provide the basis for a more in-depth explanation of resilience.

First, change is not to be considered a continuous, gradual or chaotic event; it is rather episodic but inevitable, with periods of slow accumulation of natural capital, crossed by sudden releases and reorganizations. Secondly, the spatial and temporal attributes are not uniform and invariable; indeed, models and processes are clear and discontinuous. Finally, the policies and the management that apply fixed rules to obtain constant returns, independent of the scale and the changing context, lead to systems that lose more and more resilience; in other words, to systems that break suddenly in front of disturbances which previously could be absorbed. Therefore, management must be flexible and operate on scales compatible with those of the critical ecosystem and social functions (Holling & Gunderson, 2002).

In conclusion and in reference to ecological systems, resilience corresponds to the ability of a system to absorb changes or resist perturbations and other stress factors, thus returning to a state of equilibrium. In particular, when resilience increases, a social-ecological system acquires a greater ability to tolerate disturbing events and, therefore, a lesser chance of plunging into a qualitatively different state, characterized by a different set of processes and greater uncertainty. On the other hand, the reduced resilience increases the vulnerability of a system, exposing it to small disturbances that previously could have been easily addressed. However, even in the absence of disturbances, the conditions of gradual change can exceed the threshold levels, causing a sudden and extemporary response of the system.

Thank to this analysis, the ecological sciences have built the foundations to apply the concept of resilience to a socio-economic context within a vast and heterogenous system.

1.2.2 Resilience in engineering: the Resilience Engineering

After being mentioned even by Holling, *Resilience Engineering* has become a multidisciplinary field of study, essential for understanding and managing security in complex systems as the financial system, the aeronautical system, the energy production system or the transport system; all systems in which there are a large number of interdependent elements whose mutual interaction could lead to unexpected and potentially harmful results from an economic, social and human point of view.

Resilience engineering initially defined resilience as the ability of a system to maintain and regain a state of dynamic equilibrium, which allows it to function properly, after an accident or in a situation of continuous stress (Hollnagel et al, 2006).

Then Hollnagel has extrapolated two different visions connected also to the concept of risk management (Hollnagel, 2014):

- *safety I*, where safety is defined as the condition which minimizes the number of negative outcomes. In this case, the goal of risk management systems is therefore to reduce the number of accidents, and consequently the causes that lead to their occurrence;
- *safety II*, where safety is defined as the condition which anticipates and prevents the risk. In this case, resilience represents the intrinsic capacity of a system to modify its functioning before, during and after a change or perturbation, in such a way as to be able to continue the operations necessary for the regular performance of the organizational activities, both in expected conditions and in unexpected ones.

Resilience engineering therefore becomes a valid alternative to traditional risk management approaches, based on aftermath acquired knowledge and classic risk assessments. In this context, Hollngel has identified four qualities necessary to define a system or an organization as a resilient (Hollnagel et al., 2008):

1. the ability to respond to various disturbances and to regular and irregular threats. It is important to be flexible, the organization must be able to apply the prepared response such that it matches the current conditions both in terms of needs and in terms of resources. In this way, the organization is enabled to cope with the *actual*.
2. the ability to monitor flexibly what is going on, including the system’s own performance. With a monitoring assessed from time to time, it enables the organization to cope with that which is, or could become, *critical* in the near term.
3. the ability to anticipate disruptions, pressures and their consequences, in order to consider what may happen in the medium-long term. It means the ability to deal with irregular threats and unexampled events, enabling the organization to cope with the *potential*.

4. finally, the ability to learn from experience, which means not only analyze past data, but also how the learning operation should affect the organization procedures in the future. It enables the organization to cope with the *factual*.

In conclusion, in the engineering field safety management and resilience are strictly interconnected: resilience is achieved both by dumping variability that may lead to adverse events and by reinforcing variability that may have positive outcomes; at the same time, an increased availability and reliability of functioning on all levels will therefore not only improve safety, but also enhance control, hence the ability to predict, plan and produce in an efficiently way (Hollnagel et al., 2008).

1.2.3 Resilience in psychology: resilience in the individual

Given the nature of psychology as a science that concerns the analysis of the individual's cognitive processes and the relationships between the subject and the environment, it is easy to guess how the concept of resilience is inextricably linked to human's ability to recover from negative shocks that characterize its existence.

Psychological resilience can be defined as the ability of an individual to successfully adapt to daily activities in the face of a situation of social disadvantage or highly adverse conditions; here it returns the original meaning of "bouncing back", where the individual succeeds in rejecting a negative experience, in turn acquiring a competent functioning to better face a similar event in the future. Moreover, as an ability, resilience can be learned and developed by anyone, as it must be considered as a process of individuation aimed at the gradual discovery of personal and unique traits, such as autonomy, social competences, problem solving skills or the sense of purpose.

As mentioned above (Luthar et al., 2000), psychology science focused on the identification of so-called protective factors and on the understanding of the process by which individuals overcome adversities; the researchers' goal was to discover the degree to which the protective factors attenuate the negative effects on the subject's psyche deriving from a given unfavorable event.

More recent studies (Bonanno et al., 2008) have instead observed that the majority of people experience at least one potentially traumatic event during their life, managing to distinguish between individuals who were overwhelmed by the problem and individuals who on the contrary react positively. In 2004 always Bonanno had already highlighted how the majority of individuals, albeit being exposed to potentially traumatic losses or events, continue to have positive emotional experiences, showing only minor and transient disorders in relation to the negative experiences faced. Indeed, resilience represents a trajectory distinct from the recovery process, offering instead multiple paths to be taken so that an individual can reach a state of balance (Bonanno, 2004).

In conclusion, for psychology resilience would be the result of the interaction between risk factors and protective factors; interaction that causes the development of resilience itself, intended as the process by which individuals react to adversities. It is crystal clear how these psychological studies, starting from the analysis of the single individuals, have helped to understand the response capacity of a larger entity, such as an organization, to the occurrence of possible issues.

1.2.4 Resilience in economics: economic and social resilience

As mentioned formerly, resilience represents an important interconnection between economic and social spheres of study. Indeed, if social resilience is defined as the ability of groups or communities to cope with external stresses and disturbances as a result of social, political and environmental change (Adger, 2000), then it is clear how the notion of resilience is a fundamental topic in the study of an economic system's dynamics and in the way which the economic system responds to disturbances and adversities (Reggiani et al., 2002).

Starting from the concept that an economic system is equipped with targeted mechanisms that can be used to reduce the effects of adversities, it is possible to identify different forms in which resilience manifests itself in a given economic system:

- *adaptation*, understood as the actors present in an economic system and the different organizations react to changing situations (MacKinnon et al., 2009);
- *adjustment*, referred to all orthodox economic definitions and notions which deal with convergence or transition between the different states of equilibrium in an economic system (Sanna & Salvati, 2014);
- *renewal*, intended as a process in which the line of development that exists before the event *x* changes, adapts and evolves in relation to the contextual change of the economic system itself after the aforementioned event *x*, even providing the system with the possibility of reaching qualitatively evolutionary frontiers higher than its previous state of equilibrium (Chapman et al., 2004);
- *replacement*, when the characteristics of the system do not allow adequate and

functional identification in the renewal phase, the old system will be replaced with a completely new one, which will consequently have completely different functions that the previous one (Martin & Sunley, 2011).

On the basis of the four forms just described, it can be stated that for an economic system adopting a resilient approach to external disturbances means focusing on the skills and abilities that create or maintain resources in a sufficiently flexible, storable, convertible and manipulable form, which will allow then the system to deal successfully with the unexpected events and learn from the experience that can derive from it (Sutcliffe & Vogus, 2003).

Therefore today companies, organizations and institutions which make up an economic system find themselves facing continuous changes inside and outside their economic environment, having also the obligation to adapt and react; changes, such as natural disasters, do not allow the achievement of balance, rather a continuous search is needed to develop an economic resilience that constitutes the main defense against adversities (Simmie & Martin, 2010).

Indeed, from an economic point of view, in addition to possible human losses, a natural disaster fits perfectly into the category of adversity that causes perturbations in the functioning of the system, generating a consequently significant negative impact on goods, production factors, employment and consumption. In this context, the economic system is facing a loss in terms of welfare, as the disturbance leads to an immediate loss in term of assets and liquidity: liquidity reduced by the expenses necessary for the replacement or reconstruction of damaged properties; a reduction in output or, in general, in internal production; a consequent reduction in income and in employment level.

How can an economic system react to the occurrence of contingencies of this magnitude, seeking at least to mitigate its impact to a minimum? Indeed, the ability of an economy to minimize the loss of social welfare resulting in occurrence of a disaster of a certain size is often defines as *economic resilience* (Simmie & Martin, 2010).

The impacts on social welfare depend on the ability of the economy to deal with and minimize aggregate consumption losses, or, in other words, the sum of consumer spending of all households and businesses belonging to that economic system. As is it easily sensed, this capacity could best be defined as *macroeconomic resilience*, in which it is possible to distinguish two components: instant resilience, which consists of the ability to limit the amount of immediate losses for a given number of lost assets; and dynamic resilience, which concerns the capacity for reconstruction and recovery in a short time (Simmie &

Martin, 2010). The impacts on welfare also depend *microeconomic resilience*, defined by the distribution of losses, the vulnerability of individuals, quantified in pre-disturbance income, and in the ability to mitigate shocks over time, ensuring the proper functioning of the social system.

In this regard, in January 2005 a fundamental step in order to minimize, or, at least, soothe the impact of a natural disaster on a system was accomplished by United Nations thanks to the *Hyogo Framework for Action 2005-2015 (HFA)*, a detailed plan to make different nations more resilient against disasters. This document aimed to promote "an effective integration between sustainable development, planning and programming policies at all levels for the correct risk assessment", describing a strategic and systematic approach to reduce vulnerability and the risk of natural disasters. The HFA outlined five priorities for action, offering guiding principles and practical means to achieve resilience:

1) Ensuring the disaster risk reduction as a national and local priority with a strong institutional basis for implementation;
2) Identifying, assessing and monitoring disaster risks and enhancing early warning;
3) Using knowledge, innovation and education to build a culture of safety and resilience at all levels;
4) Reducing the underlying risk factors;
5) Strengthening disaster preparedness for effective response at all levels.

The HFA's objective therefore consisted in managing risks and developing resilience, substantially reducing the losses caused by disasters by 2015: this made it possible to achieve decisive progress on a regional, national and global scale regarding the importance of resilience and risk management, generating greater investments in prevention and development of resilience.

Following the trail drawn by Hyogo Framework, in March 2015 during the Third United Nations World Conference in Sendai a new framework was adopted for disaster risk reduction for the 2015-2030 period. The *Sendai Framework for Disaster Risk Reduction 2015-2030*, in addition to being the successor instrument for HFA, is a fifteen-year non-binding agreement that recognizes the primary role of the State to reduce the risk of catastrophes, but at the same time establishes how this responsibility should be shared with other interested parties, including the local government and the private sector, aiming to "the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries". To achieve that, the Sendai Framework outlined four specific priorities for action:

1) Understanding disaster risk;
2) Strengthening disaster risk governance to manage disaster risk;
3) Investing in disaster risk reduction for resilience;
4) Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.

Focusing on priority three, the framework intended to underline the role played by resilience in the phase of reaction following a catastrophe. Indeed, enhancing the economic, social, health and cultural resilience of persons, communities and countries is the essential goal to achieve through structural measures, so that investments in risk reduction reveal significant and effective. In addition to being innovation, growth and job creation drivers, "these measures are cost-effective and instrumental to save lives, prevent and reduce losses, and ensure effective recovery and rehabilitation".

In this perspective, it is now clear the economic resilience definition provided by the European Union, which depicts it as the capacity of an economic system to withstand, absorb or overcome an external economic shock that can be of various nature, such as natural disaster, climatic events or terrorist attacks, maintaining or returning to the pre-event state, which is usually on balance (ESPON, 2012).

To measure the effect of shock absorption or shock counteraction policies, different variables have been studied in order to understand which capture better these effects (Briguglio et al., 2008):

- *macroeconomic stability*, it relates to the interaction between an economy's aggregate demand and aggregate supply. If aggregate expenditure in an economy moves in equilibrium with aggregate supply, the economy would be characterized by internal balance, as manifested in a sustainable fiscal position, low price inflation and an unemployment rate close to the natural rate, as well as by external balance, as reflected in the international current account position or by the level of external debt. These can be considered to be variables which are highly influenced by economic policy and which could act as good indicators of an economy's resilience in facing adverse shock;
- *microeconomic market efficiency*, if markets adjust rapidly to achieve equilibrium following an external shock, the risk of being negatively affected by such a shock will be lower than if market disequilibria tend to persist. Indeed, with very slow or non-existent market adjustment, resources will not be efficiently allocated in the

economy, resulting in welfare costs, manifested, for instance, in unemployed resources and waste or shortages in the goods markets. These considerations have important implications for shock-absorbing resilience;

- *good governance*, it is essential for an economic system to function properly and hence to be resilient. Governance relates to issues such as rule of law and property rights. Without mechanisms of this kind in place, it would be relatively easy for adverse shocks to result in economic and social chaos and unrest. Hence the effects of vulnerability would be exacerbated. On the other hand, good governance can strengthen an economy’s resilience;
- *social development*, it indicates the extent to which relations within a society are properly developed, enabling an effective functioning of the economic apparatus without the hindrance of civil unrest. Social development can also indicate the extent to which effective social dialogue takes place in an economy which, in turn, would enable collaborative approaches towards the undertaking of corrective measures in the face of adverse shocks.

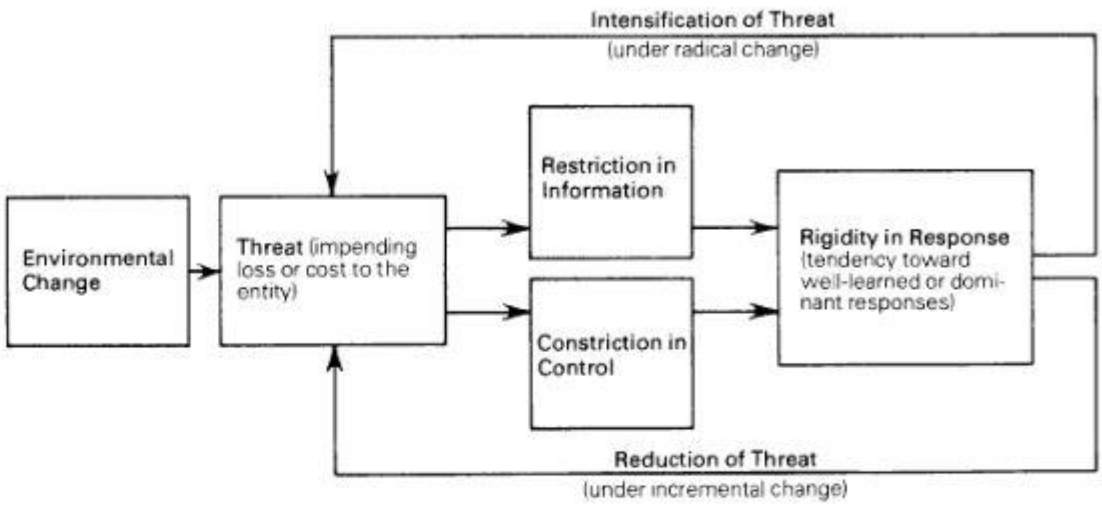
In conclusion, resilience has proven to be an underestimated economic tool rich of variables to be considered in its development; a tool to be used not only as an immediate response during sudden adversities, but above all as a prevention and protection method to guarantee a smooth recovery from an economic, social and cultural point of view.

1.2.5 Resilience in an organizational and managerial context

The origins of the concept of resilience in corporate and managerial literature can be traced back to two main authors, Staw and Meyer, who in the early 1980s with their articles investigated the mechanisms of selection, retention and subsequent variation in organizational positioning with reference to unexpected events.

In 1981 Staw focuses on why the onset of threats or adversities leads to a risk situation and unsatisfactory results due to an overall tendency in individuals, groups and organizations to emphasize and give credit to solutions already undertaken, already known, rather than try to achieve flexible and adaptable learning techniques in highly unfavorable situations. Indeed, as outlined in Figure 2, a threat to the vital interests of an entity will lead to forms of rigidity; furthermore, threat-rigidity effects could be maladaptive: when the environment has changed radically, flexibility and diversity in response have a survival value (Staw et al., 1981). Thus, maladaptive cycles are predicted

Figure 2. Threat-rigidity cycles



Staw B.M, Sanderlands L.E., Dutton J.E., 1981

to follow from threats which encompass major environmental changes since prior, well-learned responses are inappropriate under new condition; in contrast, when a threat does not involve major environmental change, rigidity in response may not be dysfunctional; a rigid, but previously successful response may in fact be appropriate to a threatening situation that does not involve major changes (Staw et al., 1981).

With the aim of extending the survey line drawn by Staw, in 1982 Meyer carries out an empirical study on nineteen hospitals to determine what responses to an environmental shock could be, contradicting the previous theory based on the hypothesis that an external threat could automatically place an organization at risk. Indeed, the results of the study suggested that organizations can express their adaptability in the form of two different type of answers: *retention*, when they absorb the impact of the environmental shock by undergoing first-order changes, extending in the present a content of experience that has just passed; *resilience*, when they adopt new practices or configurations, through second-order changes (Meyer, 1982). Therefore, Meyer has concluded that resilience is influenced by the strategy of an organization and its inadequate resources, while retention is influenced by intrinsic ideologies in the organization and it is often made mandatory by the presence of a particular organizational structure.

Furthermore, both authors stressed how the way organizations respond to external threats can trigger organizational processes which could lead to a functional or dysfunctional response, influencing the strategic positioning of the organization and, sometimes, its ability to survive.

As noted in the previous paragraph, unforeseen events and sudden changes surprise organizations: natural disasters interfere with the proper functioning of external processes; terrorist attacks upset the world and paralyze the financial markets; industrial accidents have important ecological and economic consequences that often damage supply chains, from raw materials to transports. Over time it has emerged that some organizations are more successful in responding to and surviving unexpected, sudden or extreme events rather than other in similar circumstances.

What makes some organizations more effective in addressing and responding to new challenges? As previously reported, according to Sutcliffe and Vogus, resilience is the quality which describes the intrinsic characteristics of those organizations that are able to respond more quickly to change, to recover more quickly from unexpected events, to develop different ways to remain or become efficient. In turbulent and constantly evolving market environments, only flexible, agile and dynamic organizations will be able to thrive; in fact, companies must often be able to go beyond mere survival, developing in complex, uncertain and threatening circumstances. Unstable environments create frequent challenges, but even relatively stable markets are subject to shocks or periods of turbulence. If these events are usually considered as negative ones, in reality for resilient organizations they can be an opportunity to make positive adjustments in difficult conditions: resilient companies prosper because they have faced and overcome complicated challenges, they have made great efforts to increase their strategic flexibility, thus succeeding in changing their strategic prospects in the short term, instead of abandoning themselves to rigidity, intended as the incapacity or the lack of will in change due to a deeply rooted organizational culture (Sutcliffe & Vogus, 2003).

Therefore, resilience in the organizational sphere can be interpreted in many ways:

- the organizational response to external threats;
- the adaptability of a company;
- the organization’s reliability;
- the strength of employees;
- the design models which reduce supply chain’s vulnerability and interruptions.

The strength of a company lies in recognizing certain types of resources which can contribute both to initiating a resilience process, and at the same time to developing new strategic skills, so as to achieve and implement better investment strategies. In this perspective, even investments in human capital, aimed at the development and growth of personnel, create a starting point for a resilience capacity that can be spread throughout the entire organization.

A company will be able to define itself as resilient when it is able to react positively to environmental stress, to adverse and unexpected situations, and will be convinced in embracing the development of new features combined with an extended and renewed capacity to keep up to change and to create new opportunities.

In conclusion, for a company that intends to develop an adequate organizational resilience, it is fundamental to trigger change on self-awareness, on its own characteristic values, on its own unique strengths: setting goals beyond immediate benefit projected towards future organizations and learning from experience, framing failures as necessary steps in a growth path, are the first step towards the development of a long-lasting organizational resilience capacity.

1.3. Resilience and Risk

In this previous purely analytical analysis of the resilience phenomenon, it was noted that is strictly linked to risk, understood as the scenario in which unexpected events that trigger resilience's need occur. As pointed out before, all countries, communities, organizations are subject to a whole series of ever-changing challenges and must constantly interconnect with non-homogenous contexts that require multiple adaptations (Bhamra et al., 2011). Indeed, unforeseen events often test one's recovery ability, but the difference lies in the way each subject manages uncertainty (Weick & Sutcliffe, 2007).

Organizations are built around the balance that exits between the human being's need of security and the uncertainty of the environment that surrounds it. The business world has continuously evolved, the pace of change has been incremental, causing continuous and rapid mutations, all this has influenced and practically forced the organizations to evolve, adapt, innovate and respond quickly and often exponentially to continuous external drivers. To achieve this, strategies have been put in place to better address uncertainty, bringing companies to the development of a real and new discipline, or rather *risk management.*

The concept of risk has evolved from the traditional notion of a negative and unavoidable event to the broader interpretation that intends it as a mirror of the uncertainty that a given event, be it positive or negative, can have various effects on a company's strategic objectives. If risk management is the ability to "be intelligent in seizing opportunities" (Hubbard, 2009), the real challenge for organizations lies in knowing how to determine an adequate response to these risk entailed opportunities.

To obtain the appropriate answers, it is necessary to distinguish two types of uncertainty

(Hillson, 2009): *risk*, understood as something that can influence strategic objectives, with responsibility of the management, it has an objective component based on facts and it arises randomly with defined probabilities; *intellectual curiosity* or *irrelevance*, intended as something without the power to invalidate goals, it cannot be managed, it belongs to the subjective realm of personal beliefs, it arises from an unknown probability of occurrence, it can be ignored because it does not have repercussions on the organization's objectives.

Therefore, risk management aims to reduce the number of threats that could turn into problems, and minimize the effect of those that occur. Failing to manage risks on projects will result in more problems, less benefits and a lower chance of project success: indeed, risk management represents a critical source of failure in projects without an effective management of risk; instead is critical success factor to ensure the success of the project (Hillson, 2009).

Once the risks are defined, the organization must develop a methodology to manage them. In 2012, Kaplan & Mikes focused their research on an organization's ability to identify risks and its flexibility in defining a response strategy. To recognize the most accurate method in risk management, they suggested a qualitative distinction between types of risk:

- *preventable risks*, internal risks arising from within the organization, that are controllable and ought to be eliminated or avoided. Companies should seek to eliminate these risks since they get no strategic benefits from taking them on, they just need active prevention to managed them, providing clarifying guidance on the company's objectives and its internal values;
- *strategy risks*, different from the first ones because they are not inherently undesirable, and they arise when a company voluntarily accepts some risk in order to generate superior returns from its strategy. Managing these risks is a key driver in capturing new potential gains, but in order to do that, companies need a risk management system designed to reduce the probability that the assumed risks actually materialize and to improve the company's ability to manage or contain the risk events should they occur;
- *external risks,* arising from events outside the company and beyond its influence or control. They include natural or political disasters and major macroeconomic shifts. Their management is focused on identification and mitigation of their impact.

Organizations should tailor their risk-management processes to these different categories: while a compliance-based approach is effective for managing preventable risks, it is wholly inadequate for strategy risks or external risks, which require a fundamentally different approach based on open and explicit risk discussions (Kaplan & Mikes, 2012).

Table 1. The Risk Framework

Category 1 Preventable Risks	Category 2 Strategy Risks	Category 3 External Risks
	Risk Mitigation Objective	
avoid or eliminate occur- rence cost-effectively	Reduce likelihood and impact cost-effectively	Reduce impact cost- effectively should risk event occur
	Control Model	
integrated culture-and- compliance model: develop mission state- ment; values and belief systems; rules and bound- ary systems; standard operating procedures; internal controls and internal audit	interactive discussions about risks to strategic objectives drawing on tools such as: • Maps of likelihood and impact of identified risks • key risk indicator (kRi) scorecards Resource allocation to mitigate critical risk events	"envisioning" risks through: • tail-risk assessments and stress testing • Scenario planning • war-gaming
	Role of Risk-Management Staff Function	
Coordinates, oversees, and revises specific risk controls with internal audit function	and revises specific risk controls with internal audit function Runs risk workshops and risk review meetings Helps develop portfolio of risk initiatives and their funding acts as devil's advocates	Runs stress-testing, scenario-planning and war-gaming exercises with management team acts as devil's advocates
	Relationship of the Risk-Management function to business units	
acts as independent overseers	acts as independent facilitators, independent experts, or embedded experts	Complements strategy team or serves as independent facilitators of "envisioning" exercises

Kaplan R.S. & Mikes A., 2012

Table 1 summarizes the three types of risk and the related management approaches: each category is linked to a precise model in order to provide results that positively influence the organization's objectives, to a precise guideline for the risk management leaders and staff, and to precise role of the relationship between the risk management function and business units.

Albeit this peculiar methodology, within an organization the main unexpected event could be triggered by the people who compose the organization itself. If man tends to vigorously support his own positions ignoring instead crucial information, so in organizations this kind of prejudice inhibit the ability of the management to discuss about risk and the possible relative failures coming from it. Risk management techniques are the fundamental tool for cubing people's prejudices and managing the unexpected efficiently. Indeed, resilience measures how much people are able to face an unexpected adversity and consequently their ability to recover after the event itself. However, there are organizations equipped with operational practices that reduce the effects caused by unexpected events and significantly speed up their recovery process: hospital emergency rooms, flight operations during landing or safety procedures conducted by firefighters are all example of good practices implemented by *high reliability organizations* (Weick & Sutcliffe, 2007). These organizations develop conscious infrastructures to manage unexpected risks, focusing on two lines of action: the ability to *anticipate*, avoiding categorization and operating with high awareness of the external context, it allows to understand the unexpected and to act before the problem become serious; the ability to *contain the unexpected*, it allows to prevent unwanted outcomes after an unexpected event, possible only if there is a high level of resilience and a strong degree of deference on skills (Weick & Sutcliffe, 2007).

On the other hand, an organization needs to be flexible not only to respond to context's stimulus, but also to improve the ability to make decisions that have a strategic purpose. When organizations fail to manage risks, their ability to become resilient falls dramatically; while the ability to anticipate risks allow companies to create a work culture that is able to embrace instability and accept adversities in a proactive way. Even when organizations are dealing with unpredictable risks, if they have included risks as part of their manageable competences, they will be better prepared to find efficient solutions to resolve or contain the unexpected (Weick & Sutcliffe, 2007).

In conclusion, on the path to becoming resilient, organizations must consider risk management as an important additional tool useful for anticipate, contain and counteract unexpected adversities, without forgetting the importance of people in the decision-making process that can influence the instrument itself with their attitudes and compromise the coveted resilience.

1.4. Conclusions

As can be seen from what has been observed in this first part, the concept of resilience is today examined in a wide range of contexts and disciplines, wandering from ecological sciences to the managerial and economic sphere, as well as in psychology and engineering. If in metallurgy a metal is resilient when it resists the impact of forces applied to it, even in the various field of application examined, the resilient being is understood as the individual, the organization or the system capable of reacting positively to external threats that sometimes conditionate their progress during their life cycle. The definitions given by the scholars help to understand the role and features of resilience, but at the same time the different contexts from which they were extrapolated show how difficult it is to frame resilience in a single discussion area. Even if definitions share common traits, each area has its particular declination with consequent ramifications in further research subfields. Dealing with this multi-area debate allows to outline the fundamental theoretical boundaries which determine the nature, the direction and truthfulness of any investigations and research on the subject. Even human attitudes like risk appetite turn out as crucial drivers in exploring resilience in relation to the organizational context. Indeed, the correlation between resilience and organization, as both group of individuals and singular entity, will be the argumentative pillar on which the following chapter will focus.

CHAPTER 2
Organizational Resilience

After the journey in the literature of the term, the predefined landfall could not be other than the company organization. Starting as usual from the ancient origins of the term, the first paragraph focuses on the nature of the organization and how resilience is now necessary for its survival. Subsequently, the analysis identifies the individual within the organization as a real starting point for a path that leads the organization to an optimal level of resilience. The third paragraph shows the necessary conditions for an organizational resilience, analyzing possible organizational strategies and drivers behind being resilient, all elements or obstacles to be assimilated and overcome during the company's growth path towards resilience. The fourth section is a focus dedicated to the close link between entrepreneurship and resilience, observing it both on the micro and macro economic level. Finally, an analysis of the possible tools identified so far to establish a level of resilience is presented.

2.1. Resilience within organizations

From the Greek *οργάνον*, which means *tool*, an organization is defined as a group of people formally united in order to achieve one or more common objectives that it would be difficult to achieve individually. Despite they are considered complex systems, organizations first present a high intrinsic fragility in their structure; over time they develop their own backbone and the strategies that allow them to manage the confrontation with competitors, thus being able to face the challenges dictated by environmental change: the ability to survive a sudden change represents the balance of power, or in other words, what makes it possible to distinguish a simple organization from a resilient one, since only the latter will tend to be at ease in a dynamic and changeable environment, characterized by continuous disruptive events. This interpretation under a Darwinian point of view is also confirmed by data (Gulati, 2009):

- during the last three periods of recession, about 60% of organizations managed to survive despite the time of economic contraction, the remaining part was instead forced to exit the market;
- 90-95% of the surviving organizations have concentrated most of their efforts on preserving their core businesses, cutting costs, giving up on growth, retaining their resources and weathering the storm in this way;

- only the remaining 5-10% of the surviving entities, rather than limiting themselves to mere survival, managed to turn recession into an opportunity to grow and detach competitors, gaining a considerable competitive advantage.

Therefore, being resilient, understood as the ability of an entity to exploit the opportunities hidden behind an unfavorable event, is precisely what organizations need to face global competition. However, possessing similar characteristics is very rare: most organizations are inclined to build up barriers in order to preserve their structures, creating a strong opposition to change and nonetheless to resilience. So how to recognize organizational resilience and what is its really meaning? To understand this, it is necessary to draw a brief historical excursus on the theory of strategic and organizational management.

If in 1948 for Selznick organization was "the arrangement of personnel for facilitating the accomplishment of some agreed purpose through the allocation of functions and responsibilities", at the end of the second millennium, it was observed that the field of corporate strategy oscillated like a pendulum from an internal perspective, focused on leadership and decision-making, towards an external perspective, guided by the Porter's classic paradigms of industrial economy, to then return to an internal one with the advent of the resource based view (Hoskisson et al., 1999). The research therefore focused on the evolutionary cycle of the company and on how resources and dynamic capabilities are managed through path dependence, according to which small events that occurred in the past, even if no longer relevant, can have significant consequences in times later (Eriksson et al., 2000). The concept of organizational resilience was then compared to the water flow of a river that slides along a series of paths, different from each other, through which the organization tries to adapt to the complexity, to the changes and to the uncertainty that his leadership is forced to face in very competitive market environments (Lamberg & Parvinen, 2003). The understanding on the adaptability of the organizations is progressed, trying to provide a complete picture of how strategic corporate management must adapt to change, and consequently to define organizational resilience: as a *process*, through which a manager ensures the long term survival and growth of a firm (Chakravarthy, 1982); as a *resultant* from two periods at the antipodes, those of momentum, in which the negative tendency of organizations to adapt is reversed or annulled since they are capable of reacting at best to any adverse exogenous events, or those most dramatic of revolution, characterized by a lower degree of resistance to change and of organizational resilience (Miller & Friesen, 1980). As already mentioned, speaking about HROs, organizational resilience was then understood as the ability to adapt, or to be able to bounce back adversities in a more strengthened and enterprising way. For this type of organization, the distinctive feature is undoubtedly the capacity for prevention: they focus on failures before a damaging event occurs, encourage a culture based on confrontation and dialogue so that it is possible to learn from situations characterized by marginal errors and adaptive strategies that allow the shifting of decisions towards the person with more experience in relation with the situation faced. HROs have successfully developed an organizational mindfulness model based on which they systematically preserve details, refine distinctions, create new categories, draw attention to the context and protect against evaluation errors (Weick & Sutcliffe).

Surviving is therefore very different with respect to improving own performance: some scholars support the need for a dual management mode in which the linear success criteria are applied in stable conditions, while the resilience criteria in turbulent ones; others conceive the resilience management as an attempt to continuously anticipate, or adapt, to the disturbances that can permanently compromise the company's profitability.

So, whether scholars refer to the survival of complex systems or to the adaptation, absorption of the disorder, robustness and the ability to bounce back and recover from adversities, organizational resilience is always and, in any case, considered as a positive concept or a desirable characteristic of the system.

However, literature offers two different interpretations of this concept:

1. for the first, it simply consists of the ability to bounce back, a return to homeostasis following stress and unexpected events. This view refers to the definition of resilience observed in relation to the physical sciences. Therefore, attention is generally placed on coping strategies, ie the ability of the company to resume the expected performance levels in the shortest possible time. The organizational efforts are thus made to re-establish a strong connection between the company and the new environmental reality, avoiding, or at least limiting, lasting dysfunctions;
2. the second approach takes a different perspective instead, focusing on the mere restoration of business activities, thus including the development of new skills and new opportunities. In this case, the organizational resilience represents a flowering able to capitalize at best the unexpected challenges and the changes: it becomes an indispensable factor as it allows the company to exploit its resources and capacities not only to solve the current problems, but also and above all to build a bright and successful future. According to this vision, organizational resilience is linked to the ability of a company to absorb complexity, to emerge from a stronger demanding situation and with a greater wealth of experience and skills.

In conclusion, it is now widely recognized that a higher level of resilience is achieved by those more far-sighted organizations whose ideology is based on well-defined values, as well as on cohesion and coherence among its members: for this type of organization, being resilient does not just mean being protected, but also to be reliable and quality-oriented.
Therefore, organizational resilience must be understood as “the ability of an organization to anticipate, prepare for, respond and adapt to incremental change and sudden disruptions in order to survive and prosper (Denyer, 2017).

2.2. From individual to organizations

“Organizations are groups of people, resources and coordinated relations in order to achieving a common goal. They are inserted in a defined environmental context, with which they interact continuously. Among the critical variables, people take on a central role, who with their skills and motivations, and with their behaviors significantly affect the concrete possibility of achieving organizational goals” (Costa et al., 2014). Indeed, the individual and the research carried out on individual resilience undoubtedly provide a useful starting point for defining the concept of organizational resilience, since the actions and interactions that develop between the individual members of an entity are inseparably linked to the emersion, and therefore to the establishment of a resilient organization.
According to Lengnick-Hall and Beck, a firm’s capacity for developing resilience is derived from a set of specific organizational capabilities, routines, practices, and processes by which a firm conceptually orients itself, acts to move forward, and creates a setting of diversity and adjustable integration. They argued that a capacity for resilience is developed from a unique blend of organization-level cognitive, behavioral and contextual dimensions (Lengnick-Hall & Beck, 2005) derived from a combination of individual level knowledge, skills, abilities and other attributes developed through a firm’s human resource management system (Lengnick-Hall et al., 2011):

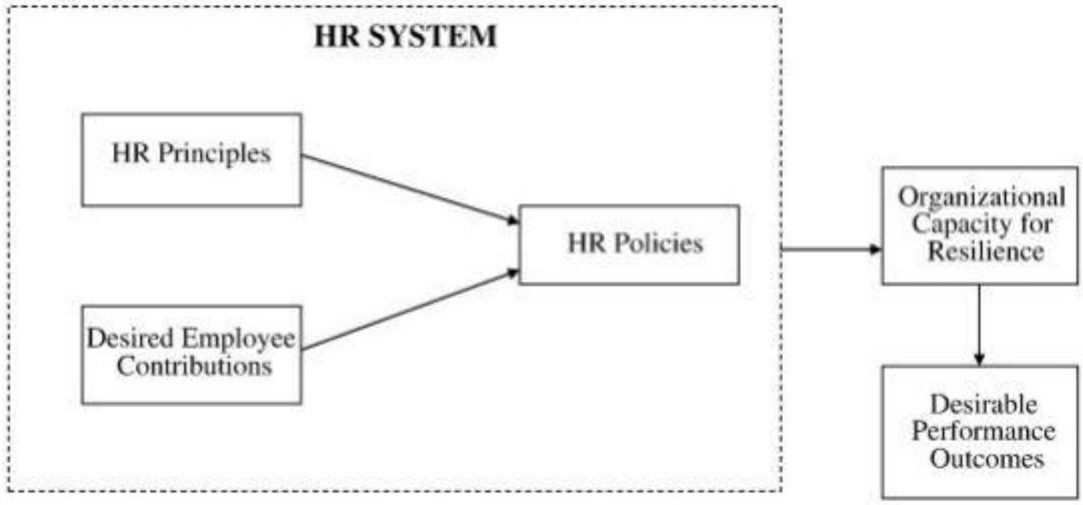
- on the *cognitive* level, firms can foster a positive, constructive conceptual orientation through a strong sense of purpose, core values, a genuine vision and a deliberate use of language. Constructive sensemaking enables firm and employees to interpret and provide meaning to unprecedented events and conditions. It is important to recognize that each situation contains unique features that may be quite subtle, but that can be incredibly powerful in shaping consequences, relationships and actions. Indeed, “organizational resilience depends on an ability to conceptualize solutions that are both novel and appropriate (Amabile, 1988);

- on the *behavioral* level, specified behavioral elements contribute to resilience. Learned resourcefulness, ingenuity, bricolage, intended as the imaginative use of materials for previously unintended purposes, are all related traits and characteristics that enable individuals and organizations to engage in the disciplined creativity needed to devise unconventional responses to unprecedented challenges. Resilience also relies on the development of useful, practical habits especially repetitive, over-learned routines that provide the first response to any unexpected threat. If this enables an organization to spot an opportunity, firms that have not developed the necessary behaviors before they are needed will jeopardize resilience because they were unable to capitalize on changes in technology, ideas or market conditions;
- on the contextual level, resilience is supported by contextual conditions relied on relationships within and outside an organization in order to facilitate effective responses to environmental complexities. Factors such as psychological safety, deep social capital, diffuse power and accountability combined together promote interpersonal connections and resource supply lines that lead to the ability to act quickly under emerging conditions that are uncertain and surprising. Contextual conditions are an integral ingredient enabling the kinds of behaviors and mental models that lead to resilience.

Therefore, developing a configuration of human resource management practices that are coherent and aimed at cultivating the cognitive, behavioral and contextual dimensions it is possible to form resilient individuals who in turn could support the creation of resilient organizations. The ability of a company to develop organizational resilience can be achieved through the strategic management of human resources in order to create individual skills among its employees that, once aggregated at an organizational level, allow the organization to effectively absorb uncertainty, to offer specific responses to threats its survival.

The human resource management system (HRM) can therefore be considered as a multilevel construct: it is in fact composed of general and transversal elements that provide a direction for the management of human capital; some mid-range elements that provide alternative approaches to align human resource management practices with the organization’s strategic objectives; and some elements of low range that reflect the real activities of human resources implemented in specific circumstances. Consequently, it will be useful to describe the elements of an HRM system that focus on developing a resilience capacity in the members of the organization.

Figure 3. Strategic human resource management system in developing a capacity for organizational resilience



Lengnick-Hall C.A., Beck T.E., Lengnick-Hall M.L., 2011

Figure 4 examines the characteristics of a human resource management system through a model consisting of three components:

- HRM principles, adopted essentially as guidelines and are aimed at aligning management policies and practices such as, for example, sharing information as widely as possible within the organization;
- HRM policies, alternative means to implement the guiding principles of human resource management, making it possible, nevertheless, for specific employees to achieve their goals;
- the desired contribution required of its employees, better defined as desirable contributions, they include a variety of attitudes, behaviors and outcomes related to one's business that allow employees to contribute to the implementation and achievement of strategic goals (Lengnick-Hall et al., 2011).

Therefore, to achieve organizational resilience, it will be necessary to have a strong system of human resource management that signals the expectations correctly interpreted and managed by the employees of the organization.

The model also suggests that a high resilience capacity is directly related to the particular HRM system adopted by the organization. The principles of HRM and the desired contribution determine the configuration of human resource management policies which more than others are appropriate for achieving organizational resilience. To obtain a complete picture, the three pillars of the model can be analyzed by associating them with the dimensions of resilience previously covered:

1. the desired employee contributions are not focused on the implementation of a series of specific strategic objectives, but on the development of cognitive, behavioral and contextual abilities, and of interaction patterns, so that an organization can exploit shocks and jolts rather than merely survive and rebound to a prior equilibrium state (Lengnick-Hall et al., 2011).
    - the desired contributions fundamental for the development of cognitive and collective skills useful for the organization resilience include expertise, opportunism, creativity, decisiveness despite uncertainty, questioning fundamental assumptions and conceptualizing solutions that are novel and appropriate;
    - from the behavioral point of view, they include devising unconventional yet robust responses to unprecedented challenges, combining originality and initiative to capitalize on an immediate situation, following a dramatically different course of action from that which is the norm for the organization, practicing repetitive, over-learned routines that provide the first response to any unexpected threat, and taking actions and making investments before they are needed to ensure that an organization is able to benefit from situations that emerge;
    - finally, employee contributions that create contextual conditions ripe for resilience focus on employee actions and interactions that enrich social and resource networks within and beyond the organization. They include developing interpersonal connections and resource supply lines that lead to the ability to act quickly, sharing information and knowledge widely, and sharing decision making widely.
2. Also, the HRM principles must be coherent, interrelated and interconnected with each dimension of organizational resilience in order to achieve it (Lengnick-Hall et al., 2011).
    - on the cognitive level, HRM principles include developing a partnership orientation with employees, localizing decision making power, creating fluid team-based work and job design, building relational rather than transactional relationships with employees, minimize rules and procedures, hiring to ensure a range of different experiences, perspectives, paradigms and competencies are available in the workforce, placing a high value on

pluralism and individual differences, investing in human capital, and using both formal and informal social integration mechanisms;

- on the behavioral level, HRM principles include developing a culture of organizational ambidexterity, creating a climate of open communication and collaboration, encouraging problem solving processes tied to organizational learning, encouraging knowledge sharing, enabling rapid deployment of human resources, emphasizing worker flexibility, encouraging individual hardiness, encouraging reflective practice, and eliminating organizational borders;
- on the contextual level, HRM principles include encouraging social interactions both inside and outside organization, nurturing a climate of reciprocal trust and interdependence, developing facilitative communication structure, developing self-management and self-leadership capabilities, emphasizing contributions and outcomes rather than task, encouraging an organizational orientation, reinforcing organizational citizenship, personal accountability and power based on expertise rather than hierarchical position, and creating broad resource networks.

3. Finally, it is possible to identify the HRM policies suitable to arouse in the members of the organization that collective spirit aimed at the pursuit of organizational resilience (Lengnick-Hall et al., 2011).
    - for the cognitive dimension, HRM policies include selective staffing, job security, cross-functional work assignments, broad recruiting sources, continuous developmental opportunities, teamwork, group-based incentives, and continuous socialization;
    - for the behavioral dimension, HRM policies include experimentation-freedom to fail, after action reviews/lessons learned, open office architecture, human resource and coordination flexibility, broad-based job descriptions, employee suggestions, and cross-departmental task forces;
    - for the contextual dimension, HRM policies include joint employee-customer teams and networks, empowerment, open communication, results-based appraisals, and user-friendly, accessible, integrated information systems.

Thus, in conclusion, it was possible to observe how the goal of the strategic human resource system is to influence individual attitudes and behaviors so that in the aggregate, the organization's capacity for resilience increases. Once these shared perceptions become distinctive and dominant in an organization, further similarities in attitudes and behaviors across employees are highlighted, thus creating a new organizational capability, ie a capacity for resilience (Legnick-Hall et al., 2011).

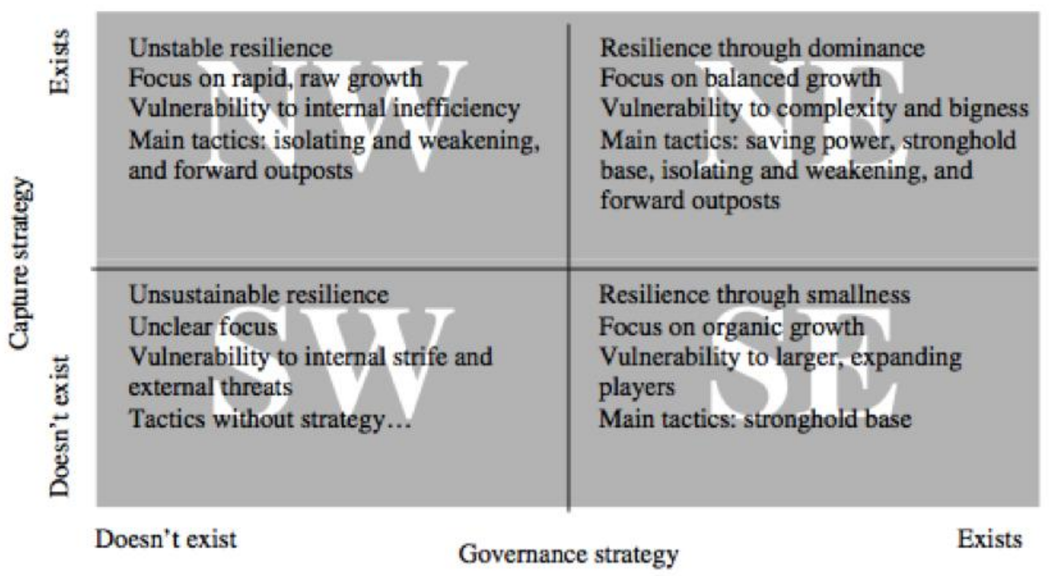
2.3. Drivers behind organizational resilience

It is now necessary to identify what is behind the concept of organizational resilience, what are the optimal strategies to achieve it, what are the drivers from which its main characteristics arise.

2.3.1 Capture-governance matrix

In 2011, Carmeli and Markman understood that there are two essential, but not sufficient, strategies for achieving organizational resilience: capture strategies, mainly linked to growth opportunities; governance strategies, referring to management and administration while implementing the previous strategies.

Figure 4. Capture-governance matrix



Carmeli A. & Markman G.D., 2011

As shown in Figure 5, the matrix represents a schematic view of the relationship between the two strategies, of the positive impacts on organizational resilience, of the main focuses and of the vulnerability.

Briefly, the SW quadrant suggests that organizational resilience is implausible; indeed, in the absence of explicit focus on capture and governance strategies, firms become vulnerable and their longevity quite temporary. This unsustainable existence would ensue even for incumbents that initially might have held strong positions because they lack critical competencies to manage, defend or sustain their favored position (Carmeli & Markman, 2011). In this category includes the famous case of iPod, whose technology, before making the fortune of Apple, had already been developed by companies that were not able to manage it correctly on the market.

Whereas, for organization that leverage on only one of the strategies, resilience is greater than it is for the firms in the first quadrant, but somewhat conditional nonetheless.

When a firm grows through capture strategy without governance strategy like the ones in NW quadrant, its growth is suboptimal and longevity moderately temporary. Such an organization might make sound acquisitions and capture attractive markets for a while, but because it would lack the critical competencies require to manage and integrate its acquisitions, the cost of growth would be higher than for firms that carefully combine growth with governance strategies (Carmeli & Markman, 2011). Enron was a glaring example of this strategy before facing bankruptcy.

When firms apply effective governance strategy without a capture strategy like the ones in SE quadrant, longevity is stronger than what is typically seen in the NW quadrant. A strong governance strategy could extend a firm's life span beyond the NE quadrant. Firms that expand organically extend their longevity no less, and perhaps even more, than those that grow through acquisitions, albeit organic growth is appreciably slower (Carmeli & Marman, 2011). Numerous historical family businesses such as Beretta in Italy or Brooke & Sons in United Kingdom fall into this category.

Finally, the NE quadrant depicts organizational resilience as a function of a both capture strategy and governance strategy. Organizations fitting this profile know how to acquire critical market positions and also how to integrate business units and manage resource flow (Carmeli & Markman, 2011). Multinationals firms such as GE and Cisco use this mixed strategy in their growth paths.

The matrix offers clear quadrants with straight demarcation lines, but in reality, these lines are less important than appreciating the system-wide view in which different permutations of capture-governance strategies stem from diverse growth points and understanding that both strategies are related to varying levels of vulnerability and resilience. Further, it is possible to individuate four reinforcing tactics, inspired by the military ones adopted in ancient Rome, which characterize the two strategies (Carmeli & Markman, 2011):

- *saving power*, understood as acquiring, capturing, and redistributing the resources of others, doing more at the expense of others to exploit own economy of scale and scope. This tactic is mostly present in the NE quadrant;
- *stronghold base*, means the ability to reinforce core competencies and exploit initiatives locally. Present respectively in the NE and SE quadrants;
- *isolating and weakening*, that is attenuate the strength and the threat of the other players in the field, to weaken rivals before the clashes and to modify the engagement rules to own advantage. This tactic is present in the NE and NW quadrants;
- forward outposts, it is intended to create expansion solutions, facilitate offensive attacks on rival weaknesses, establish multi-market contacts with rivals and monitor the moves of opponents in areas beyond their control. The dominant quadrants for this tactic are NE and NW.

In conclusion, the best strategy to adopt is that of merging the two capture and governance strategies to increase the growth and longevity of the company. As mentioned, the two strategies analyzed are essential but not sufficient, as they must be supported by the four tactics in order to sustain organizational resilience in the long term. There is therefore a clear perspective on the tangible and concrete actions that companies should implement to prolong their longevity and on the measurable result that can lead to an increase in knowledge in terms of organizational resilience.

2.3.2 Resilience's drivers

In 2014, Pirotti and Venzin have identified seven drivers as possible trends aimed at increasing the probability of obtaining durable, stable and positive long-term performances.

I. Authenticity

Starting from the interpretation of the philosopher Kierkegaard, according to which a person who believes in something wrong, but at least in an authentic way, has more chances to survive rather others, the concept of authenticity has spread to different areas, finding a fertile field in the economic one, especially in marketing. Indeed, if the attention has shifted to the customer and to the value for the customer, it is crucial for the market to prove to be consistent with what emerges from the customer's whishes or needs. Even through communication, it is necessary to transmit authentic messages that can be easily found once the product or service has been acquired. Giving up being authentic means compromising the survival of the organization within the market. There are two kinds of authenticity (Carroll, 2015):

a) *type authenticity*, it indicates that an object fits appropriately into a classification for which it has been assigned or someone has claimed for it. Therefore, if the company places its focus on a specific product or market segment, it will be considered authentic, thus emphasizing certain primary competencies consistent with the reference businesses. An exemplary case is that of Starbucks, able to recover authenticity after the 2008 crisis thanks to the introduction of a useful platform to better intercept the wishes and needs of customers.

b) *moral authenticity*, as defined in existential philosophy, it carries moral meaning about the values and choices embedded in an object. An organization is authentic to the extent that it embodies the chosen values of its founders, owners, or members rather than simply following convention by pursuing profits. Therefore, this authenticity can be reached if firm acts on the organizational culture, intended as "a structure of codes of meaning, expressed in a symbolic system, which directs the behavior of the organizational actors, both on the occasion of unique and extraordinary collective events, and on the occasion of daily activities and interactions" (Costa et al., 2014). As already mentioned, in terms of resilience the companies that have been able to define their value assets are those that will have a greater level of resilience.

II. *Customer centricity*

It is identified as the capacity by which companies consider the customer in first position with respect to other stakeholders. The quantitative parameters that identify the customer centricity of an organization are (Gummenson, 2008): number of new customers, level of customer retention, number of products used per household, level of customer satisfaction, number of customers who would recommend the company. To attract and put the customer at the center firms can choose between the path of customization or simplification: for the first one, it means the possibility of choosing the product and configuring it based on individual preferences; for the second one, it means conquering the consumer with a product that is easy to understand and use. Combining these strategies with an established ability to anticipate and understand the needs of consumers makes it possible to increase the company's resilience.

III. *Product focus*

Product focus is realized with the understanding of the level of diversification of the optimal product for the different companies. Diversification is a strategy for a firm growth through starting up of acquiring businesses outside the company's current products or markets (Kotler et al., 2015). Product diversification is closely linked to the concept of resilience as companies that focus on what they do best, simplifying the business structure and keeping the focus on primary skills, will have higher levels of resilience: if a company has a large product's portfolio, it can afford a strategy mistake, as the other products will fill the error, thus choices are taken less accurately; in contrast, when few products are available, decisions are take very carefully, since the error is not admissible. Product focus allows to be well defined in the minds of consumers, also recalling the concept of authenticity. In this way, the consumer increases his confidence levels, while the company realizes the importance of focusing on long-period performance and growth dynamics.

IV. *Geographical focus*

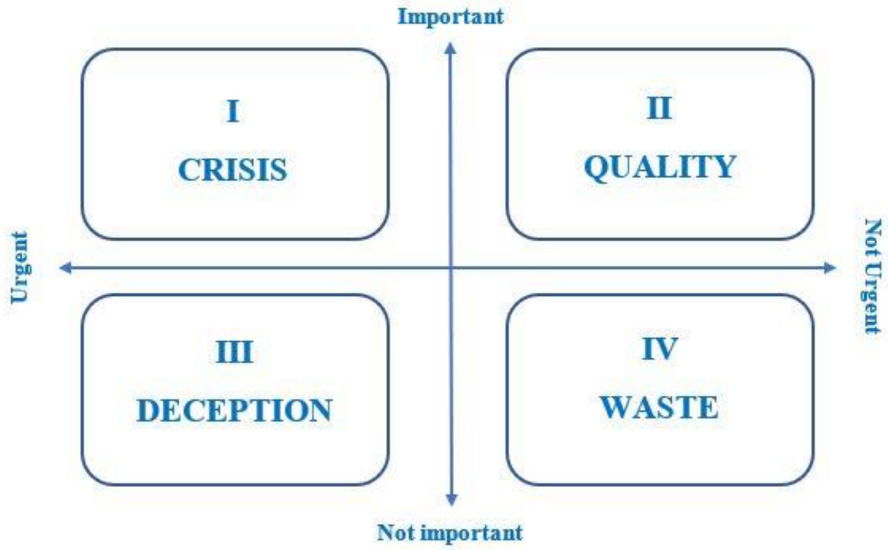
Diversification can also take place through expansion across national borders into different markets and regions. Facing with geographical focus, the firm's choice is between proceeding with standardization or adapting the product or service to different local situations (Kotler et al., 2015). Combining the concepts of international diversification and resilience, the most resilient organizations are those that make the choice to keep the focus on their home market by selecting specific geographical areas, considered strategic for their business (Pirotti & Venzin, 2014). Moreover, the companies that face the internationalization process in a less drastic way, concentrating on few markets, turn out to be more resilient. Long-term survival is linked more to the ability of companies to create focused and efficient strategies than to merely grow in terms of size; what matters is to establish itself as a leader in the reference market. A company should divide the world according to areas with common characteristics, keeping the domestic market as its central focus. Considering that investment in a foreign country is an important effort, companies should optimize it by trying to replicate in other countries, bearing in mind that cautious and well-considered choices will be those that lead to higher levels of resilience. In this process both the management of secondary establishments by centralized or autonomous decisions, and cultural integration in the chosen market are particularly important so as not to compromise the growth path.

V. *Long-term Orientation*

Decisions can be considered strategic only if they have a medium-term perspective.

The Eisenhower matrix, depicted in Figure 5, orders the strategic themes of a company according to its importance and urgency.

Figure 5. Eisenhower Matrix



Pirotti G.B. & Venzin M.., 2014

The possible situations that a company finds itself facing are presented: the attention falls on the first quadrant (elements of crisis) because it is urgent, and on the third quadrant (deception) because it is simpler. Despite this, if organizations do not give the right weight to the other quadrants, particularly in terms of quality, without looking carefully at the long-term goals and focusing only on short-term ones, companies will lose in resilience (Pirotti & Venzin, 2014). Even a successful company, in the event of a looming threat, risks not making timely changes in the organization's strategy if there is a high level of management rigidity inside it. Therefore, a company is resilient when it has the ability to disinvest and adopt an alternative strategy that replaces the disinvested one. Looking far ahead, aiming at a long-term horizon, also means identifying the ideal target audience, trying to understand which consumers and customers can be served by the company in the most efficient way. Finally, in identifying the right mix that can achieve long-term success, it is interesting to recall the concept of ambidexterity, usually linked to the new hybrid companies of the last decades: it deals with "complex organizational forms composed of multiple internally inconsistent architectures that are collectively capable of operating simultaneously for short-term efficiency as well as long-term innovation" (O'Reilly & Tushman, 2004). A dual function is envisaged: on the one hand, dealing with solving everyday problems, ie the execution phase; and on the other hand, focusing on development, ie the transformation phase. Therefore, companies should combine the novelty with the balance, with the aim of encouraging renewal and consequently the level of resilience.

VI. *The importance of making strategic decisions*

It is essential to make decisions quickly and stably in order to achieve positive performance over time. The trade-off between speed and quality of the decisions taken is proven by numerous researches, however companies that manage to combine successfully both factors reach higher levels of resilience (Pirotti & Venzin, 2014). Nevertheless, making decisions within an organization remains a complex process due to numerous elements:

1. Management too broad. An efficient team is around five to eight people, beyond this number it is easy to fall into disarray, resulting in a general slowdown;
2. Poorly specialized management. It means a team that has a lot ok knowledge in different areas, but little specific knowledge on the reference sector;
3. Difficulty in dealing with complexity. Manage structured and non-structured data cause constant difficulties in relation to the organizational context;
4. Too many short-term incentives. Greater concentration on short-term maturities, thus losing the perspective on the future;
5. Lack of method. There is often no management of the mode of action that involves a lack of method in carrying out activities and in the decision-making process;
6. Weak boards of directors. Frequently meetings without reference goals or with total lack of planning that compromise decision-making.

A further obstacle in the optimal decision-making process is represented by the errors of evaluation to which managers are subjected. There are six main biases (Pirotti & Venzin, 2014):

a. Anchor bias. In the case of incomplete or ambiguous information, manager tend to use the information immediately available as anchor point;
b. Availability bias. Often, instead of relying on the real possibility of a situation occurring, trust is places in memory and past experiences;
c. Representational bias. Frequently similar characteristics are attributed to similar objects, because they share certain characteristics or a random relationship;
d. Confirmation bias. Often, information is interpreted in order to confirm the opinion without having to make particular changes;
e. Sunk cost fallacy. It occurs when a manager continues with a negative investment as he hopes to achieve a positive return over time;

f. Status quo bias. It leads to love own routine without considering a possible or eventual change.

   Therefore, it is clear that to decide quickly is of fundamental importance to plan, and in order to do that correctly, it is advisable to break down all the processes into simpler parts. This will make it possible to compose a strategic agenda where priorities are highlighted, speed of execution is increased and consequently the level of resilience of the organization (Pirotti & Venzin, 2014).

VII. Leaderships styles

The concept of power assumes three connotations (Costa et al., 2014): charismatic power, or devotion to a behavior of a single subject, traditional power, based on tradition that there is a duty to obey who has the power, and legal power, or shared rules which define to whom the power goes and in which way. Leadership style is among the features that can influence power. Resilient organizations aim at simplifying the organizational structure, with a reduced number of stakeholders. The direct consequence of having a less bureaucratic and rigid organizational structure is that of being able to create forms of “clan control” (Ouchi, 1979). These depend on strong and direct relationships within the company and continuous communication between its employees. Businesses will increase resilience if the structure of the organization is simplified, with a reduction in the span of control and adoption of social control. If by span of control is intended the number of subordinates who report to a specific supervisor, social control involves the organization of companies in clans, which imply agreements on values and beliefs that control organizational behavior on the level of agreement between members leads to correct behavior and commitment by each member towards socially prescribed behaviors (Ouchi, 1979). The choices related to the organizational structure have a strong impact on the resilience of the companies; indeed, as seen, corporate people define whether or not it is resilient as they make decisions and why they achieve long-term goals. Therefore, the leaner and more flexible a company is, the higher its resilience levels.

In conclusion, all the drivers analyzed follow a single direction towards the *back to basic* approach: from the authenticity of the product or service offered, passing from product and geographical focus, to the streamlining of the decision-making process, all these factors are united by a need for a simplification, which turns out to be the keystone on the path to organizational resilience. It is necessary to manage companies in a simple, clear and coherent way, focusing on the customer to be satisfied, without ever losing sight of future goals to be achieved.

2.3.3 Resilience path

After examining strategies and drivers, it is possible to trace an ideal path that an organization can take to reach an optimal level of resilience. In this path four levels can be identified, each representing a different corporate perspective (Gulati, 2009):

1. *Inside-out*: the perspective that focuses on the centrality of the company, according to which the activities are centered on the creation of products and services that are then offered to the final consumer: the customer is therefore considered a passive target. It relates to the authenticity driver.
2. *Customer Segmentation*: in this case, the company perspective continues to be focused on the product but starting to sufficiently understand the needs of its customers. It will be divided into various segments, for each of which the company will develop specific strategies/products. It relates to the product focus driver.
3. *Customer Solutions*: the company begins to recognize itself not only as a seller of products, but as a solver for its customer's problems. In this perspective the organization will propose solutions focused on the creation of new value, as well as the satisfaction of its clients. This level highlights the decisive role of resilience in intercepting and satisfying customer needs. It relates to the customer centricity driver.
4. *Outside-in*: at this point the company understands that it cannot respond to the customer's problems only with internally established products and, in any case, not without changing their production processes from time to time. Thus, more and more often, partnerships are created with suppliers and even with competitors; core activities are restricted to increase efficiency; in the various segments, product specialists are introduced so that maximum customer support can be given. It relates to the drivers involved in decision-making process.

To advance along these specific levels, an organization must be able to take advantage of five levers, whose contribution allows the improvement of a corporate culture based on resilience (Gulati, 2009):

I. *Coordination*, related to tasks, information exchanges and activities of each member of the organization;

II. *Cooperation*, between management and employees, with a view to pursuing the same corporate mission;

III. *Sharing*, it means going in the same direction, collaborating in order to exercise decision-making power efficiently and based on strategic objectives;

IV. *Competence*, in addition to a greater knowledge of the product obtained through the growth path, it is necessary to introduce new horizontal skills that involve an improvement of the company know-how;

V. *Connection*, finally, to reach the maximum resilience level, it will be fundamental for the company to cross its borders by developing a dense network of collaborations with external entities, through which to dynamically orchestrate the services that the client shows to be most needed, thus obtaining a greater competitive advantage.

It was established that a resilient organization therefore reflects a system capable of reacting positively to negative events and that it is therefore able to develop resilience skills in its members. Once this path is completed, a resilient organization will tend to demonstrate very specific traits regarding the way it operates:

- *high strategic adaptability*, which gives the organization the ability to successfully manage changing circumstances, even if this means moving away from its core business;
- *flexible leadership*, which allows the entity to respond quickly and adequately to opportunities and threats, starting from its own managers;
- *robust governance*, which concerns the regulation of the entire organizational structure based on a culture focused on trust, transparency and innovation, ensuring at the same time to remain faithful to its corporate vision and values.

An ideal identikit of a resilient company was thus provided among traits, drivers and organizational strategies, therefore making it emerge that the best response to external threats and unexpected events is a simple organizational system, with such high flexibility as to be able to bend without breaking before the adversities of a turbulent environment.

2.4. Between entrepreneurship and resilience

According to Business Dictionary, entrepreneurship is “the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit”. Entrepreneurial spirit is characterized by innovation and risk-taking, and is essential element of a nation’s ability to succeed in an ever changing and increasingly competitive global marketplace. Indeed, entrepreneurship is frequently argued to contribute to the resilience of communities, regions, or economies and it is strictly linked to the figure of the entrepreneur. Scholars often use resilience synonymously with preparedness, hardiness, persistence, or self-efficacy to explain why some entrepreneurs and their firms perform better than their non-resilient peers do (Korber & McNaugthon, 2017). Cognitive and behavioral entrepreneurial traits and distinct forms of entrepreneurship such as social entrepreneurs are said to foster the ability of firms to adjust to new circumstances and to contribute to long-term sustainability through innovation. Based on these broad perspectives, Korber and McNaughton have identified six interconnections between entrepreneurship and resilience. Four of these focus on preparedness in the face of potential disruptions, resilience as an ex ante; the last two take a post-disruption view of resilience and explore what happens after a disturbance has occurred:

1. *Antecedents of entrepreneurial resilience*

   Entrepreneurial resilience is commonly understood as an ex ante condition that enables the entrepreneur or the firm to better manage potential crises, setbacks, or challenges. It assumes that resilient firms or individuals are better equipped to deal with disruptions, which in turn predicts entrepreneurial success, usually defined as the firm’s economic performance or survival. This perspective implicitly assumes that individual resilience contributes to higher levels of organizational resilience. Resilient entrepreneurs are thus portrayed as individuals who thrive despite restrictive social, cultural, and political norms or adverse conditions such as terrorism, war, natural accidents. This view is underpinned by a deterministic notion of causality: several antecedent conditions (psychological traits, organizational characteristics, or macro-level factors) are said to increase firm resilience, which in turn enhances the ability of entrepreneurial organizations to overcome future disruptions (Korber & McNaughthon, 2017). Entrepreneurial resilience is seen as a resource that firms can simply draw upon whenever disruptions occur.

2. *Resilience as a determinant of entrepreneurial intentions*

   At the micro level, inherent entrepreneurial resilience explains why some people start businesses while other do not. In this case, resilience is often treated as a synonym for self-efficacy or optimism. Aspiring entrepreneurs who believe in their ability to cope with stressful environments are significantly more likely to start a business. Thus, “resilience serves as a shield that protects intentions from negative impact of fear of failure” (Monllor & Murphy, 2017), and increases entrepreneurial intentions. However, resilience as conceptualized in this perspective might encourage overconfident entrepreneurs to engage in entrepreneurial activity that is doomed to fail (Korber & McNaughton, 2017).

3. *Entrepreneurial behavior as a determinant of organizational resilience*

   Here resilience refers to flexibility and transformability to new circumstances and is linked with innovation. Indeed, resilient enterprises can absorb the hostile situation, becoming aware of what is happening and thinking over what they need to do, and to realize about the activities of adaptive transformation to survive in the long period (Sabatino, 2016). Albeit it is portrayed as an organizational capability, entrepreneurial resilience is the ability to act entrepreneurially presumed to emerge from the entrepreneurial mindset, the entrepreneurial spirit or the entrepreneurial behavior of firm founders and employees (Korber & McNaughton, 2017).

4. *Entrepreneurship fosters macro-level resilience*

   This perspective is grounded in disciplines outside business management, such as economic geography or urban planning. It argues that entrepreneurship, besides contributing to economic growth, is integral to the resilience of cities, regions, industries and economies. It also assumes that entrepreneurial firms increase economic diversity and in turn the rate of survival or recovery of macro-level entities when disruptions occur (McIntyre, 2009). Indeed, if small firms are flexible and can therefore respond to external shocks, they are adaptable because they can incorporate changes brought about by shocks, and they can innovate to fit the new circumstances (Williams & Vorley, 2014), at the same way also large, well-established firms are more resistant to disruptions, particularly in financial terms. The mere existence of entrepreneurs increases the resilience of places.

In sum, these first four steams usually conceptualize resilience as a resource. They thus regard it as an inherent characteristics or trait of individuals, organizations, communities, or regions that reduces their vulnerability to some loosely defined disruptions (Korber & McNaurghton, 2017). In contrast, the last two perspectives focus more explicitly on actions and interactions after disruptions have occurred. In this way, resilience is conceptualized as a response to entrepreneurial failure, taking a processual view on resilience that sheds more light on the diverse sets of responses in the aftermath of disturbances.

5. *Resilience as a response to entrepreneurial failure*

   It recalls the concept of engineering resilience analyzed in the previous chapter. Indeed, this view is based on a mechanical notion of resilience that presumes a single stable state and measures the resistance to a disturbance and the speed of return to that equilibrium point. Entrepreneurial resilience connotes persistence or hardiness in the face of absent success or the ability to venture again after failures, just as resilient metals bend but do not break. This perspective depicts resilience as an inherently positive and almost heroic notion: entrepreneurs either continue their venture regardless of success or bounce back after failure because they are resilient (Korber & McNaughton, 2017).

6. *Adaptive resilience as a process of recovery and transformation*
   This vision is underpinned by a notion of adaptive resilience and thus focuses on the responses during and after disruptions. In contrast to the concept of adaptive capacity, adaptive resilience involves a process of continuous transformation and learning in the aftermath of disruptions, it is a dynamic process, not just a characteristic or property. It is consequently enabled by adaptive capacity, but implies a more dynamic perspective of how firms or individuals deal with disruptions and how they transform an ex ante capacity into action. Indeed, entrepreneurial thinking stresses out this point because lately has moved away from focusing on individual characteristics and intentions of entrepreneurs themselves, rather toward concentrating on their actions and outcomes (Aldrich & Martinez, 2001). Based on how founders' identities have influenced the ability to respond to adversities of their firms, it possible to distinguish two categories: the ones which opts for transformation, thus innovative strategies that change organizations to a new state, similar to the adaptive resilience view; and the ones which choose response, with the main goal of returning to the pre-disruption state without attempting to change skill sets or services, similar to the engineering resilience view. Anyway, an entrepreneurially led response to disruptions or crisis that revolves around constant innovation and learning enhances the inherent resilience of individuals, firms, and macro-level entities (Korber & McNaughton, 2017).

In conclusion, again the first four perspectives presented resilience as resource that predicts to what extent entrepreneurial individuals, firms, or macro-level entities will be able to master future challenges: while the first two argue mainly that resilience, as an amalgam of various antecedent conditions, has a positive effect on entrepreneurial endeavors, the second two essentially claim the reverse. They portray entrepreneurialism as a set of behavioral traits that underpin resilient firms or macro-level entities; those macro-level, socio-economic environments rely on the ability of entrepreneurial firms to explore and exploit opportunities innovatively and creatively (Korber & McNaughton, 2017). In contrast, the latter two explicitly focus on the period after a disruption and depict resilience as a response to various challenges: while the first one draws on the notion of engineering resilience in terms of an individual's set of psychological traits that enable bouncing back after failure or persisting through hardship, the second one focuses on adaptive resilience and thus on the strategies, practices or actions of entrepreneurial entities as they respond to disturbances and changing contextual parameters (Korber & McNaughton, 2017).

2.5. How to measure organizational resilience

If until now the analysis was focused on resilience purely in theoretical terms, in reality there are also tools that allow to quantify it, and, in some specific cases, even identify it.

Scholars have tried to theorize a model that incorporates analytical measurement tools, which allows organizations to identify their strengths and weaknesses, and to develop and evaluate the effectiveness of their resilience strategies related to investment. According to scholars, as a starting point, a principle for measuring and evaluating organizational resilience can contribute to four main organizational needs (Lee et al., 2013):

- the need to demonstrate progress toward becoming more resilient;
- the need for leading, as opposed to lagging, indicators of resilience;
- the need to link improvements in organizational resilience with competitiveness;
- the need to demonstrate a business case for resilience investments.

Organizations can struggle to prioritize and allocate resources to building resilience, given the difficulty of demonstrating progress or success (Stephenson et al., 2010). This is partly because emergency management and business continuity programs have to compete for resources against profit-driven activities for which there are metrics for evaluating whether they have produced financial growth or not (Kay, 2010). However, resilience focuses on more social and cultural factors within organizations that are more difficult to measure and to link financial outcomes.

Other scholars have reviewed scales developed to measure safety climate in high reliability industries and note that in recent years, operating companies and regulators have moved away from lagging indicators toward leading indicators of safety because these ones "may reduce the need to wait for the system to fail in order to identify weaknesses and to take remedial actions" (Flin et al., 2000). In the context of resilience, this is very important because leading indicators can provide organizations with information on their resilience strengths and weaknesses before a crisis happens. Indeed, in a competitive environment, an organization that is aware of its resilience strengths is more equipped to find opportunities out of a crisis situation (Knight & Pretty, 1997).

Other scholars have discussed competitive excellence and provide a model to illustrate the similarities and links between organizational resilience and competitive excellence.

Table 2. Organizational Resilience and Competitive Excellence

Feature of resilience	Features of competitive excellence
20/20 Situation awareness and effective vulnerability management	Knowing your competition and environment
Agile adaptive capacity	Being quick to respond when things change
World class organizational leadership and culture	Having outstanding leadership
20/20 Situation awareness and effective vulnerability management	A robust capital structure
World class organizational leadership and culture	A commitment to your customer that is extraordinary
World class organizational leadership and culture	A cohesive culture of quality, responsibility and service

Vargo J. & Seville E., 2010

Table 2 shows that elements of resilience and competitive excellence share many of the same features: for example, the organization's situation awareness, or its ability to interpret information about its business environment and understand what that information means for the organization now and in the future, is very similar to its ability to know its competition and environment (Vargo & Seville, 2010).

The link between crisis management and competitiveness or profitability is also emphasized by Mitroff, who argues "smart organizations practice crisis management equally in good and bad times; as a result, they experience substantially fewer crises and are substantially more profitable" (Mitroff, 2005).

One of the most interesting studies is the work conducted by McManus in 2008, in which, in order to explore organizational resilience, she conducted interviews with 10 case study organizations to assess their resilience qualities. After having proposed a definition of organizational resilience as "a function of an organization's overall situation awareness, management of keystone vulnerabilities and adaptive capacity in a complex, dynamic and interconnected environment" (McManus, 2008), she hypothesized a model where relative overall resilience (ROR) is composed of the three factors cited in the definition, adding also fifteen indicators of organizational resilience, five for each factors, as shown in Table 3.

Table 3. Factors and indicators of Relative Overall Resilience

Situation awareness	Management of keystone vulnerabilities	Adaptive capacity
Roles and responsibilities	Planning strategies	Silo mentality
Understanding and analysis of hazards and consequences	Participation in exercises	Communications and relationships
Connectivity awareness	Capability and capacity of internal resources	Strategic vision and outcome expectancy
Insurance awareness	Capability and capacity of external resources	Information and knowledge
Recovery priorities	Organizational connectivity	Leadership, management, and governance structures

McManus S., 2008

The first factor that is taken into consideration is situation awareness, defined as "being aware of what is happening around you and understanding what that information means to you now and in the future" (Endsley et al., 2003). Situation awareness is distributed across teams, groups, and organizations, as well as human and machine agents; it is an essential requirement for competent performance in dynamic environments, with inaccurate and incomplete situation awareness often leading to dangerous and life-threatening consequences.

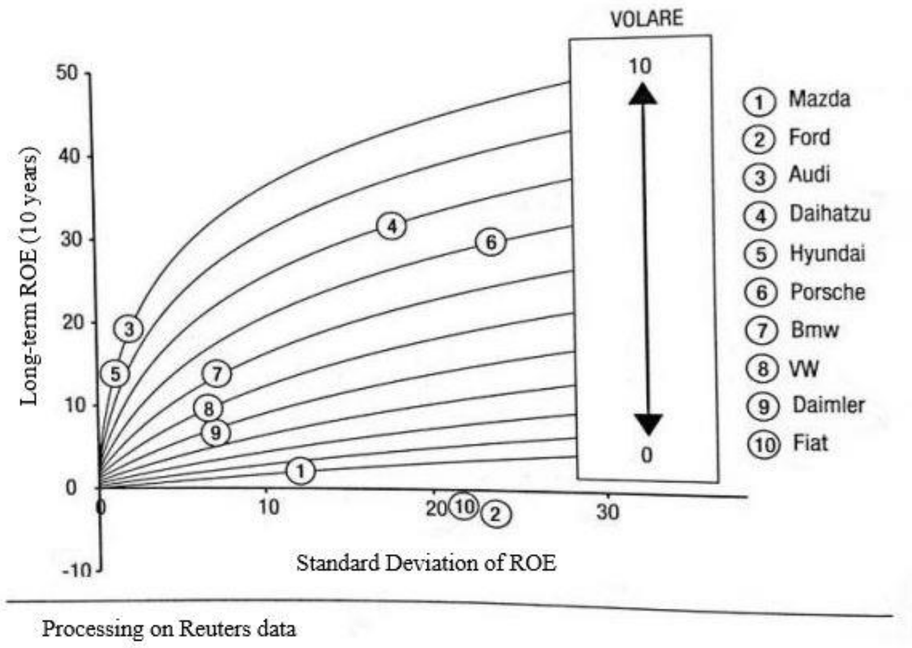
The second factor of the model is the management of keystone vulnerabilities. Several authors have focused on organizational vulnerability to technological disasters, emphasizing the role of organizational norms and values, trying to identify organizational vulnerabilities that gave contributed to organizational losses or failure during and after disasters of different nature such as earthquakes. In sum, keystone vulnerabilities are "components in the organizational system, which by their loss or impairment have the potential to cause exceptional effects throughout the system" (McManus, 2008).

The third and final factor is adaptive capacity, intended as the heart of organization's ability to display resilient characteristics. The idea of resilience as adaptive behavior is increasingly being applied to the business environment to help explain how organizations manage the balance between stability and change (Kendra & Wachtendorf, 2001).

Although this model can be brilliantly used as a basis for developing investigation tools to measure resilience, it is clear that the indicators identified through research are limited to the case study organizations. The measurement instrument should initially include all possible indicators of organizational resilience, then it can be refined during the analysis to find the most parsimonious model of organizational resilience, so that the tool can be applicable to as many organizations as possible (Lee et al., 2013).

Therefore, in order to increase organizational resilience, it is essential to know how to measure it on a medium-long term horizon; however, most of the indicators proposed and actually used refer to the short term. To measure the hidden resilience of an organization it is not enough to rely on purely economic indices such as ROE, ROA or EBIT, it is necessary to know resources, strategies and capabilities, all elements that are difficult to measure. Pirotti and Venzin (2014) theorized a model to measure the sustained superior performance (SSP), showing a company's ability to absorb a shock and achieve good results over the long term. In order for it to be valid, two conditions must be met: the company must be exposed to a complex external event or a crisis; the company must show above-average performance before, during and after the crisis. The SSP is measured with an indicator that combines volatility and ROE (called VOLARE), analyzing both the logic of long-term investment over a period of ten years, and the measure of risk inherent in the index itself. The choice of ROE is dictated by the fact that it is less dependent on expectations or market sentiments.

Figure 6. Top 100 Automotive Companies



Pirotti G.B. & Venzin M., 2014

As shown in Figure 6, through a diagram, where the highest long-term ROE values for a volatility range are identified and connected through a logarithmic regression, the level of business resilience is represented. The resulting curve will be called VOLARE 10 and the companies that will be on this curve will be the most resilient, while the most distant ones will have the lowest resilience levels (VOLARE 0). The curves, used to measure the different levels of the index, are plotted by lowering the curve by 4%; the areas of the index, on the other hand, are outlined allowing the long-term ROE to vary by +/-2% for the same standard deviation. Specifically, Figure 6 represents the application of this index in the automotive sector, showing how Audi and Hyundai are the companies with the highest level of resilience demonstrated, while Fiat and Ford do not even reach minimum levels.

In conclusion, this particular indicator proposes a method of measuring resilience in a different way from the previous ones, characterized by a short-term perspective; instead, aiming at a long-term horizon, this model allows companies to carry out ex ante evaluations and decide on the best allocation of resources.

2.6. Conclusions

In an increasingly dynamic and interconnected world from a social, technological and environmental point of view, fewer and fewer organizations are able to maintain competitive positions, or even survive and subsequently prosper, following unexpected events. The threats, which more and more often come down like a Damocles' sword on the various organizational entities, can be distinguished on the basis of gravity and frequency and can be both exogenous and endogenous with respect to the system itself. As seen, complex systems are often not able to withstand such shocks; it is therefore necessary that all efforts are based on making organizations robust but above all resilient. It is therefore necessary to outline increasingly suitable methods for achieving a status of resilience, to associate new models with the concept of resilient organization and to identify the various dimensions through the clarification of the components on which a company must necessarily invest in order to be ready for change, development and evolution. To do this it is essential to start from entrepreneurship, from the figure of the entrepreneur, from the decisive role played by small and medium enterprises in the capillary economic system of each country. As the change comes from the smallest element of the organization, the individual, so the social change must start from the small organizational realities which desire not only to survive, but to adapt to prosper.

CHAPTER 3
An empirical approach and study

The last stage of the journey in resilience abandons the theoretical aspects, present so far, to dive instead into the practical reality of an empirical approach. To better understand the possible practical findings, the first two paragraphs focus on the two themes behind the empirical analysis: the connection between small-medium enterprises and resilience, and emerging discussion about under-represented entrepreneurship. The third section illustrates the survey used in the reference empirical research and conducted in Milan, setting out the criteria and guiding principles, and then commenting the data collected. The analysis is then further extended by dedicating the next two paragraphs to the data relating to the Madrid and London surveys, which constitute crucial and valuable elements of comparison. Finally, the conclusive part is reserved for comparing the results obtained from the various surveys, and identifying possible future research questions.

3.1. Organizational Resilience in SMEs

According to OECD, small and medium-sized enterprises (SMEs) are non-subsidiary, independent firms which employ fewer than a given number of employees. This number varies across countries; the most frequent upper limit designating an SME is 250 employees, as in the European Union. For their nature as the backbone of the economy in many countries, the concept of resilience has been applied also to SMEs, which have shown a strong willingness to adapt despite being highly vulnerable in times of crisis and affected by the cascading and aggravating effects of several related problems and constraints, especially those regarding financial and human resources.

As already observed, resilience has already conquered a recent but disputed stream of literature in order to identify a heterogenous bundle of key enablers, conditions, organizational forms that favor the degree of resilience of small and medium firms:

- De Oliveira et al. (2013) proclaim that it is the innovation process and its management that forms the foundation of a resilient organization. The organizational innovation processes take three main forms: reactive, proactive and anticipatory innovators. It is from the latter that resilient organizations emerge; anticipatory firms achieve serial innovation, developing their resilience capability, by creating an internal environment in which four key dimensions are important: leadership, an open and trusting environment, the strategic planning process and, finally, making innovation a way of life;

- Bullough and Renko (2013) conducted a study of 400 business owners in order to understand what specific personal factors permit the pursuit of entrepreneurship, especially during periods of adversity, and how business leaders or aspiring entrepreneurs bounce back from uncertainty and start a business under challenging circumstances;
- Seville et al. (2015) defined seven principles for managing the unexpected and thus resilience: making adaptive capacity a core competency, becoming a learning organization, building social capital, practicing resilience as a team sport, designing resilience into operational excellence, looking beyond risks to see opportunities, embarking on the rough road to resilience;
- Gunasekaran et al. (2011) highlighted key enablers that determine not only resilience, but also the competitiveness of SMEs. These key factors are grouped as internal, such as organizational behavior or managerial characteristics, external, intended as globalization, and enabling, such as the use of technology or marketing. In order to create a resilient SME, proved to be important to anticipate the competitors and meet the changing global market needs, requires knowledge retention through a flexible workforce, strategic managerial thinking, top management support, and technology.

In sum, SME resilience focus can be separated into three main strands:

1. *SME characteristics and capabilities*

   Sullivan-Taylor and Branicki (2011) have individuated four categories of capabilities that an organization’s management requires for resilience, ie resourcefulness, technical, organizational and rapidity, finding out that SMEs fall short in all but rapidity. SMEs managers exhibit a tendency to muddle through, reflecting limitations in their capabilities related to planning and preparing for adversity, but that the nature of the environment that many faced on a daily basis means that they are generally good at taking decisions quickly in the face of challenges. Being flexible and rapidly responsive allows SMEs to deal with uncertainty in an effective manner. At the same time, small organizations need to invest in resilience to reduce vulnerability by preparing actively for adversity, by developing contingency plans, by building networks and by critically examining their adaptive behaviors (Wishart, 2018). Indeed, other researches have empirically found that SMEs may be able to enhance their resilience by tuning their strategic assets and capabilities, notably by focusing upon access to finance, material assets, networking, and strategic & operational flexibility (Pal et al., 2014).

2. *SME leader resilience*

   As already observed theoretically, also empirically the resilience of an entrepreneur is connected with the growth of their business with a positive association, increasing the possibility of the business itself to successfully grow over time (Ayala & Manzano, 2014). Whether a leader is driven by ideological commitments, or by commitments based on their identity with their organization, he can impact on the business behaviors that they drive: if the first kind produce more rigid "staying the course" behaviors, while the latter fosters more flexible approaches, both offer valid routes to resilience (Wishart, 2018). Entrepreneurs exhibit high levels of resilience compared to the general population, confirming that resilience is a predictor for entrepreneurial success at the individual level. At the same time, even the resilience process itself can become a trigger for the individual's entrepreneurial ambitions: indeed, scholars presented resilience as a precursor of entrepreneurship, proving empirically that resilient individuals are naturally inclined toward entrepreneurial endeavor (Bernard & Barbosa, 2016). These leaders could have containment or anticipation mind-sets (Doern et al., 2016), distinguishing between who prefers to respond to crises rather than anticipating and planning for them, and who prefers to undertake training to improving their adaptive thinking, generating positive influence on the resilience of their companies.

3. *Interventions to improve resilience in SMEs*

   Coaching, business training and the development of support networks have been individuated as possible interventions that may increase SME resilience. The introduction of an organizational development and learning program focusing on collaboration and coaching can impact positively on the resilience of individual entrepreneurs, and consequently on the entire firm (Gray & Jones, 2016); also the individual's self-efficacy, or belief in their own abilities to manage the effects of adversity is considered an essential precondition for leader resilience (Bullough & Renko, 2013). Anyway, apart from some researches attempting to establishing a possible correlation between workplace and resilience, only recently the attention has shifted on practical interventions that may influence an SME's ability to survive adversity, leaving a huge investigation space for further insights.

Therefore, although SMEs should be regarded as a key drivers for a country's economy, and their sustainability of vital importance for the global economy, these are less studied from the resilience angle in a practical way (Alberti et al., 2018). So, there is still great potential for further research; moreover, Italy seems to be an ideal location for empirical research in this field. Indeed, Italian small businesses faced, for some years until now, a condition of deep crisis, the result of a comprehensive sequence of competitive and context challenges. Such companies, especially those of minor size, were so undermined by these challenges to have compromised not only their performance and competitiveness, but also the strength to survive a progressive and merciless process of shake-out; therefore, it becomes relevant deepen the strategic choices and competitive recipes emerging from those small businesses that despite important challenges of the competitive environment have the strength to resist (Alberti et al., 2018). According to data provided by the European Commission, Italian SMEs, which represent 99.9% of firms in the country, far outnumber those of any other European economy, and are mostly micro-enterprises with less then 10 employees that provide 80.3% of national jobs in the private sector and 68.3% of the value added by all companies. In contrast with their diffusion, smaller companies are more vulnerable and exposed to any kind of turbulence:

- SMEs have financial, technological and human resources scarcity to cope with crises and/or unwilling to take actions or defining plans due to the perception to be simply defenseless respect to external changes (Nordman, 2012);
- SMEs are strongly owner-centric and devoted to day-by-day operations rather than on medium-long term planning (Ismail et al., 2011);
- SMEs tend to undervalue not already experienced crises and to consider the probability of the occurrence of other different events too low (Pollard & Hotho, 2006);
- SMEs are also susceptible to financial functions, legislation, and supply network relationship, changing customer requirements and demands and even the collapsing of national financial systems (Pal et al., 2014).

At the same time, it is largely accepted that SMEs can benefit from (Alberti et al., 2018):

- less procedures and more informal approaches without bureaucracy;
- rapid decision-making, shorter decision chains;
- flexibility to quickly adapt activities and strategies;
- rapid and effective internal communications;

- capacity for fast learning.

Therefore, the capacity of SMEs to know how to adapt and grow, in the event of internal or external crises, is attested as an expression of their resilience. Similarly, the resilience of SMEs is therefore crucial for a country’s economic and competitive growth. These considerations and the obvious needs of further practical investigations, emerged during the analysis of the literature on the subject, give rise to the research project which will be discussed in the following paragraphs.

3.2. Under-represented entrepreneurs

In order to better understand the dynamics behind the upcoming business resilience study, it is opportune to investigate more deeply the reality of small entrepreneurship, widening the magnifying glass also on those under-represented categories that make up a good part of the modern industry. Indeed, some groups of individuals, including migrants, ethnic minorities and women are under-represented in entrepreneurship, experiencing significant barriers to setting up and sustaining their own businesses because of lack of skills, discrimination, difficulty accessing finance, and poor human and social capital (Wishart, 2018). Therefore, attention will be paid to two particular under-represented groups, trying to understand their nature, characteristics and criticalities.

1. *Migrant Entrepreneurs*

   According to OECD, migrant entrepreneurs are defined as foreign-born business owners who seek to generate value through the creation or expansion of economic activity, by identifying new products, processes or markets. Migrant entrepreneurs face additional obstacles to self-employment over and above those experienced by the native population of their chosen countries, including language barriers, a lack of understanding of the culture of their new country and a lack of knowledge of the prevailing political institutions and regulations (Wishart, 2018). The barriers they face have been characterized as push factors in the creation of migrant entrepreneurs as well as obstacles. Economic necessity, social exclusion, lack of education and skills, high level of unemployment and language barriers constitute the main drivers to migrants becoming entrepreneurs (Azmat, 2013). Religious barriers or discrimination against ethnic minorities, underpinned by negative stereotyping, have also often been identified as push factor in putting migrants at a financial disadvantage, and consequently driving themselves towards self-employment. Migrant entrepreneurs are often depicted as over-represented in low-skill and low-profit sectors of the economy with relatively low barriers to entry, such as wholesale, retail and restaurants. However, again according to OECD, migrant entrepreneurs are starting to be represented in as wide a variety of sectors as natives, with a majority working outside traditional ethnic sectors.

2. *Women Entrepreneurs*

   Women are considerably less likely to be self-employed than men in the European Union. According to OECD, statistics show that 9,9% of women versus 17,5% of men in the EU have their own businesses. Women were often characterized as more likely to be pushed into starting a business from home, by economic necessity and the need to fit in with domestic and family responsibilities, whereas men were more likely to be pulled by the lure of a new venture (Wishart, 2018). As part of this characterization, women entrepreneurs were often presented as less ambitious than men, with weaker business support networks and lower levels of prior business experience (Poggesi et al., 2015). Women's motivations for entrepreneurship are found to differ from those of men, with less focus on purely growth and financial objectives, and more on developing their own profiles and skill sets. This can mean that women entrepreneurs tend to have multiple motivations which, in turn, can arguably lead to less focus on the business but which may also mean that they are more tenacious in the face of financial difficulties because they have more reasons to persist (Manolova et al., 2012). Women entrepreneurs are often characterized as more risk averse.

In sum, migrant entrepreneurs have been studied in some depth, but evidence suggests that this group is starting to evolve beyond its origins in low-skill, low-profit sectors which are embedded in ethnic communities; at the same time, a more nuanced understanding of the ways in which women approach entrepreneurship is emerging, but it is opportune to move away from simplistic comparisons with men.

3.3. A Business Resilience Study

The two-year research project ***Building Better Business Resilience***, carried out in 2018-

2019 with the support of the JP Morgan Chase Foundation and coordinated by the Enterprise Research Center, involves 3.000 companies located in five major European cities in as many countries: London for the United Kingdom, Frankfurt for Germany, Madrid for Spain, Milan for Italy and Paris for France. The research project aims to investigate the resilience of SMEs with particular attention to those located in territories or peripheral areas, or with limited infrastructures, and those founded and managed by people in disadvantaged situations related to gender or nationality origin. The report for Italy is prepared by the research group of the Department of Economics and Business "M. Fanno" of the University of Padua, and it focuses on the resilience of SMEs in the Metropolitan City of Milan.

The research, conducted through telephone interviews (CATI – Computer Assisted Telephone Interview) in the period February-March 2019 involved 600 owners of SMEs (305 male entrepreneurs and 295 female entrepreneurs), with a number of employees between 3 and 99. The businesses are located in 100 of the 134 Municipalities of the Metropolitan City of Milan divided into:

- *low-income municipalities*, 47 municipalities with an average per capita income less than €23.499;
- medium-income municipalities, 53 municipalities with an average per capita income between €23.500 and €24.999.

All other municipalities with average per capita income higher than €25.000. In each of the two areas, 300 people were interviewed.

In all the European countries involved in the research, the sample was divided into two groups, in particular for Italy:

- *companies owned by Italians and established foreigners*, which, in addition to holders of Italian nationality, include entrepreneurs from other European countries, from North America, Central and South America and Australia, who have lived in Italy for at least 5 years; 454 people interviewed are included in this group:
- *companies owned by migrants*, which includes entrepreneurs from Asia and Africa regardless of the number of years they lived in Italy and those from Europe, North America, Central and South America and Australia, who are in Italy for less than 5 years; this group includes 146 people interviewed.

The main points that emerged from the survey concern the type of crisis faced by the companies, how they dealt with it, whether the response was judged effective or not, and in general on the approach to risks.

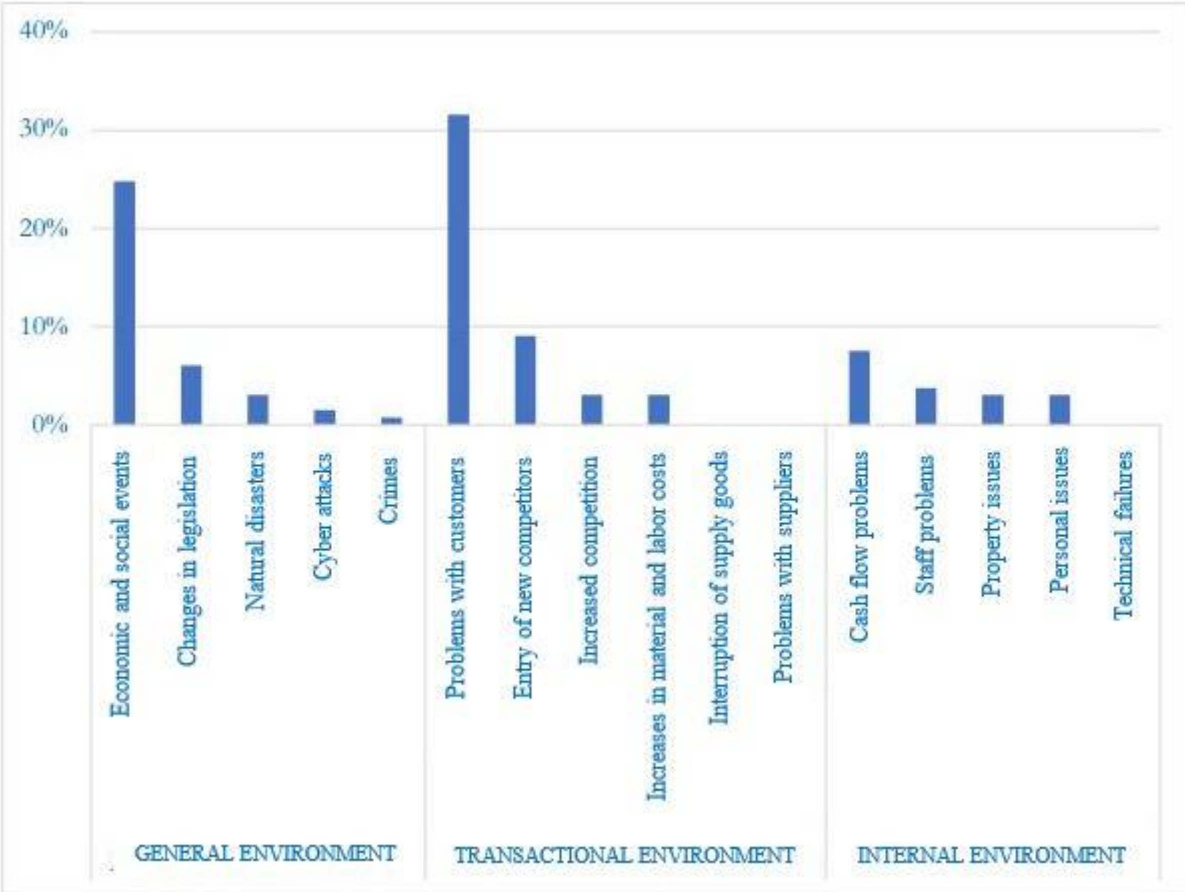
I. *Type of crisis*

22% of the analyzed sample claimed to have had a crisis experience in the last 5 years, and the causes that led to crisis situations were reclassified based on the environment of origin. Companies operate in a general environment that is made up of a group of actors, rules, institutions that the company cannot control and therefore must be considered as "given". The threats that emerge in this environment can therefore derive from the choices of the political / institutional system (for example national laws, local regulations), from the technological system (for example infrastructures), from the economic system and from the system socio-demographic (for example labor market conditions, urban development). Within the general environment, the company activates exchanges of resources and information with a limited number of actors that define its transactional environment. The threats coming from the transactional environment can concern the relationships with the workers, with the actors that supply the sources of financing, with suppliers of technologies, plants, materials and services, with customers to whom they sell the own goods and services and finally with other competing companies already present within the sector or that potentially they can enter it. Finally, a final group of threats concerns those coming from the internal environment understood as the set of activities, resources and processes that the company manages internally. The latter can, for example, concern the organization company and the division of responsibilities. If the external environment is generally considered as given, the transactional environment can be partially influenced (for example through agreements, contracts, communications), while the internal environment is the one that can be more directly controlled by business decisions and planning.

Therefore, it is possible to distinguish between internal environment and external environment, in turn divided into general and transactional:

- internal environment includes cash flow problems, staff problems, property issues, personal issues and technical failures;
- transactional environment includes problems with customers, entry of new competitors, increased competition, increases in material and labor costs, interruption of supply goods, problems with suppliers;
- general environment includes economic and social events, changes in legislation, natural disasters, cyber attacks, crimes.

Figure 7. Causes of the businesses crisis



Italian Report, Building Better Business Resilience., 2019

As shown in Figure 7, 65,4% of the companies that suffered a crisis indicate a cause attributable to the external environment as a trigger. These cases concern problems with customers (31,6%), economic and social events (24,8%) and the entry of new competitors (9%); all other causes were indicated by a significantly lower number of companies (less than 8%). Therefore, to challenge the company is the external context and specifically the market which is indicated by almost a third of the companies that have suffered a crisis as the trigger. The loss of customers and the change in needs and buying habits are the first cause of crisis for almost a third of the overall sample. Digging into the data, however, a certain polarization emerges between the areas of the Metropolitan City of Milan: in low-income municipalities, the schizophrenia of the market is at the top (43,8%) of the causes of companies crisis, followed at a considerable distance by strikes and initiatives of associations and unions (21,9%); instead, it is discovered the opposite situation in middle-income municipalities, where economic and social events is the main cause of crisis. Even the segmentation by origin has a few surprises: unfaithful and fickle customers represent the main cause of crisis for companies led by Italians and established foreigners; while strikes and association initiatives are in the first place for migrant companies.

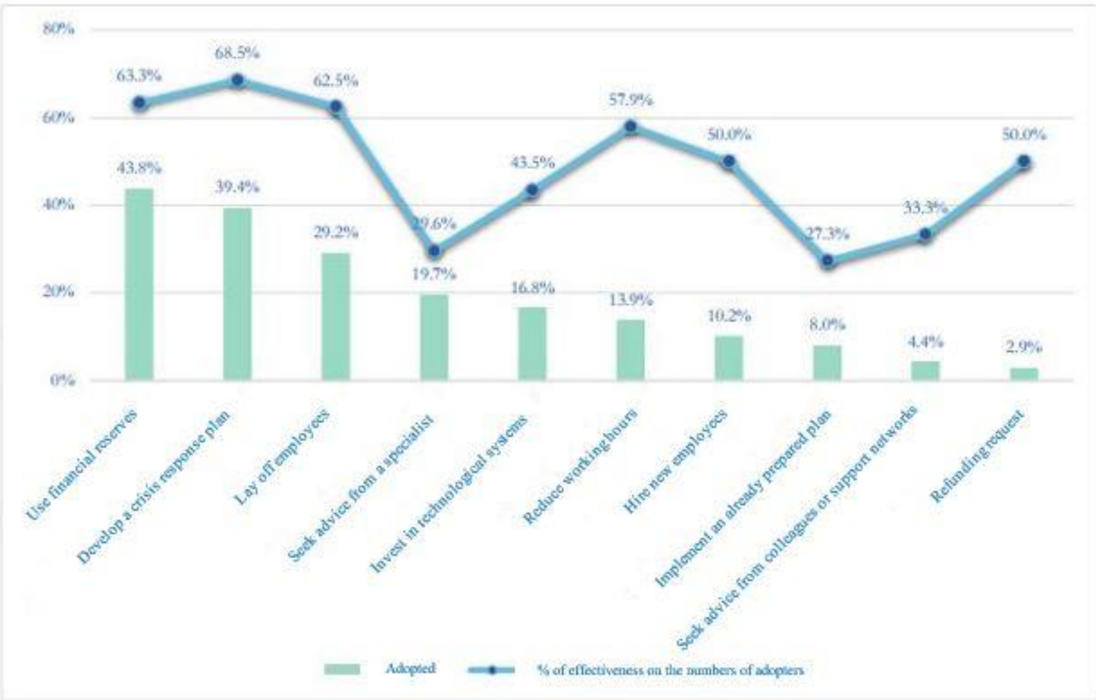
II. *How companies dealt with crisis and perceived efficacy*

Analyzing the choices adopted by companies to face the crisis and which of them have proved to be the most effective, it is clear that among the 10 possible choices, the most used are three: the use of reserves and financial resources (43,8%), the development of a crisis response plan (39,4%) and the recourse, in extreme cases, to the dismissal of employees (29,2%). As shown in Figure 8, all other seven possible choices were preferred by less than 20% of respondents. The three major choices also proved to be the most effective and allowed most companies to bounce back to the pre-crisis situation in less than three years.

This market snapshot confirms that "resources make resilience", thus representing the main training ground available for resilience. The research indicates that there are two poles:

- when the shock depends on the decisions or behavior of customers and suppliers, most companies (72,4%) use financial resources to deal with it; however, the most effective (77,3%) solution turns out to be the reduction in staff numbers. It is quite likely that this response is linked to the duration of the crisis, or that what was initially an unexpected shock, has turned into a continuing situation of stress due to the behavior and habits of customers and suppliers;

Figure 8. Choices to combat the crisis and their level of effectiveness



Italian Report, Building Better Business Resilience., 2019

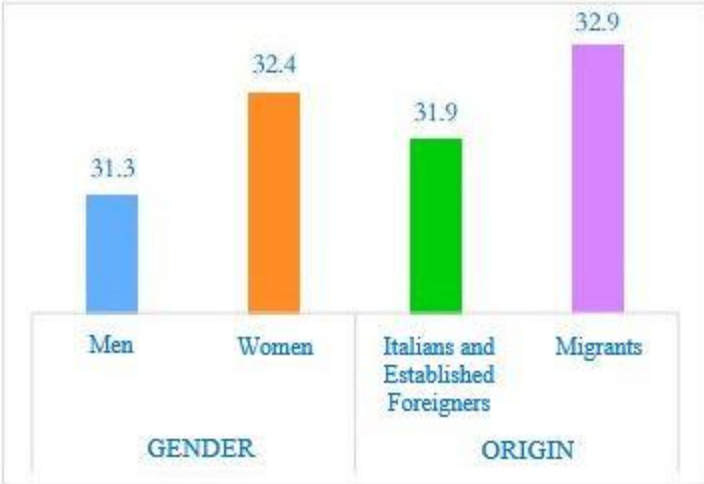
- when, on the other hand, the shock is linked to changes in technology or the administrative and regulatory framework, the most adopted and effective method is the development of a crisis response plan (83,3%), which however a significant part of migrant companies is unable to process.

In general, when companies face difficult or new management problems, their choice to seek help falls between accountants, consultants or family and friends. If only 12,8% of the migrant companies turn to figures outside the company, and when they do, it is aimed at the accountant or family members, the involvement of external figures among Italian and established foreigners' companies is more marked (50%), also addressing management and legal consultants for advice. This is not surprising, because cultural affinities and the use of the same language facilitate the sharing of experiences and the transfer of knowledge. Supporting the development of business cultural mediators to specific segments can be an action to support the already good resilience of the system.

III. *The approach to risks*

Business led by women are more resilient, more efficient and more attentive to sustainability issues. Research confirms that resilience is a feminine virtue even among those who do business. As shown in Figure 9, the level of individual resilience of women is slightly higher than that of men.

Figure 9. Respondents resilience (average values)



Italian Report, Building Better Business Resilience., 2019

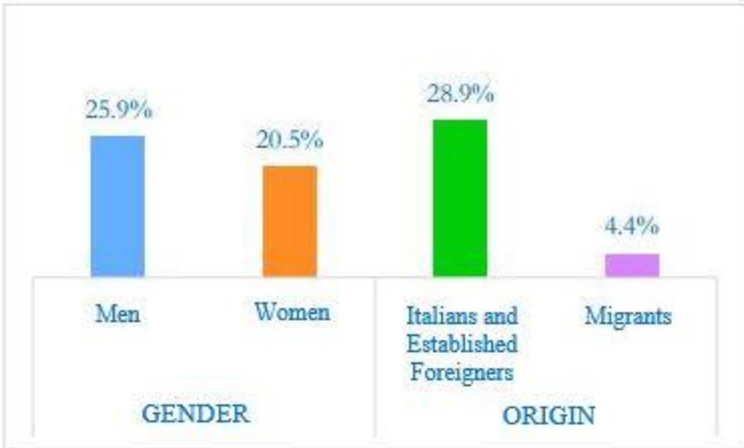
To measure the level of people's resilience interviewed it was used the Connor-Davidson Resilience Scale (CD-RISC) that the two authors proposed in 2003 in the article "*Development of a new resilience scale: the Connor-Davidson resilience scale (CD-RISC)*" published in the scientific journal *Depression and Anxiety*. The CD-RISC analyzes the ability of individuals to deal with stressful situations. Over time it got a progressive international recognition as an official scale to measure the resilience of people, enough to be translated into almost 70 languages. Currently there are three versions in function of the number of indicators considered: 2, 10 or 25. The research team of the project *Building Better Business Resilience* has decided to use the scale with 10 indicators in each city under study, in which a value is assigned from 0 (not true) to 4 (true most of the time). The level of resilience of the person is given by the sum of all the values, which can therefore go from a minimum of 0 to a maximum of 40. The greater the value obtained and the greater the level of resilience possessed.

For the majority of the people interviewed, the main objective of the company is to consolidate the activity (50,8%); however, the objective of improving social and environmental sustainability also plays a key role for women leaders (32,8%).

From the point of view of origin, migrants prove to be slightly more resilient (32,9) than Italians and established foreigners (31,7). The goal of consolidating the activity is the main driver that guides migrant companies (49,7%) and those of Italian and established foreigners (51,7%), but between the two segments there are substantial differences on how they face business risks. The migrant people who do business perceive the presence of threats to the business (93,2%) with levels comparable to those of Italians and established foreigners (93,4%), but only a third of the first ones (35,4%) is able to formulate plans to deal with threats, compared with half of the second ones (52,9%). It is a signal of potential weakness that suggest the start of training actions for policy makers and associations serving migrants.

Therefore, Italian and established foreigners companies are more aware of the crisis.

Figure 10. Companies that have experienced a crisis in the last 5 years (starting 2018)



Italian Report, Building Better Business Resilience., 2019

As shown in Figure 10, almost a third of Italian and established foreigners companies claim to have faced a crisis in the last 5 years, while among migrants only 4% say they had to sustain adversities in the same period examined. On side, the greater knowledge of the economic and institutional context makes the former ones more able to distinguish the normal ups & downs of the market from the real crisis situations; on the other side, expectations also play an important role, as it is not unusual for migrants to necessity entrepreneurs, thus having lower economic expectations.

3.4. A look at London

According to the same guidelines used in Milan, a survey of business adversity and resilience was conducted in 600 small businesses located in six London boroughs, three low-income and three middle-income. Here the key findings emerged:

- 37% of all businesses surveyed had experienced a crisis that threatened the survival of their business over the past 5 years. Ethnic-led businesses were 15% more likely than non-ethnic led businesses to have experienced such a crisis, and 17% more likely to have done so in low-income boroughs;

- Female and ethnic business leaders identified different priorities for their businesses than males and non-ethnic leaders. Female attached higher importance than males to increasing the environmental benefits of their businesses (65% vs 51%); ethnic leaders rated increasing the environmental benefits of their business more highly than non-ethnic ones (64% vs 55%);
- Female and ethnic business leaders judged future threats in a similar way, and differently from male and non-ethnic leaders. Male and non-ethnic business leaders generally judged potential future threats to be less significant than their female and ethnic counterparts; female leaders attached more importance than males to increased competition from new sources (39% vs 26%), increased competition from existing sources (45% vs 31%), cost rises (56% vs 46%) and changes in regulation or legislation (49% vs 41%); ethnic leaders judged increased competition from new sources (43% vs 27%), increased competition from existing sources (45% vs 35%), cost rises (57% vs 48%) and changes in regulation or legislation (54% vs 41%) to be more significant than non-ethnic leaders did;
- Similar proportion of businesses had consulted external sources of advice over the past 12 months, however the sources that they had consulted varied by type of leader. Female leaders were less likely than males to have consulted a legal adviser (57% vs 67%) and an accountant (76% vs 83%); ethnic leaders were less likely than non-ethnic leaders to have consulted a legal adviser (55% vs 65%) and an accountant (71% vs 83%), but they were more likely to have consulted a mentor (51% vs 44%).

The survey findings indicate material differences in the ways in which ethnic and female-led small businesses in London run their businesses, and in how they plan for and experience adversity, compared to their male and non-ethnic counterparts. Targeted initiatives and support mechanisms for these under-represented groups are both appropriate and timely.

3.5. A look to Madrid

According to the same guidelines used in Milan, a study to understand, learn from and develop suggestions on how to improve business resilience was conducted in 988 small and medium enterprises located in the 21 districts of Madrid, with a special focus on female-led and migrant-led businesses. Here the key findings emerged:

- respondents reported cash flow, regulatory changes, and personal circumstances such as illness among their top three business threats. Slightly more female-led (63%) than male-led (57%) SMEs perceive cash flow difficulties as a possible risk in the future, but many more of migrant entrepreneurs (75%), compared to non-migrant entrepreneurs (54%) report the same fear. Regulatory changes were the single most feared business threat by male respondents (60%). Migrants were most worried about personal circumstances such as illness (75%). Non-migrants perceived regulatory change (59%), the loss of an important client (58%) or a key employee (57%) as their main worries;
- To address such adversity, almost two thirds (64%) of male and equally many female business leaders develop plans. However, less than half (48%) of migrant SME respondents do the same, compared to 70% of planning non-migrants. Similarly, only 32% of migrant-led SMEs asked for advice in the last 12 months prior to the survey, but 57% of non-migrants did. Female-led SMEs are more likely to ask for advice than male-led SMEs (53% vs 49%). Contingent on soliciting advice, legal advice was most valued - 40% of women, 35% of men, 17% of migrants, and 45% of non-migrants asked for help from a legal expert. Help from accountants/banks and business mentors was second and third most solicited by all groups. Not surprisingly, requests for advice increase from the areas of lowest to highest socio-economic standing in Madrid. In terms of desired support, next to the ubiquitous wish for lower taxes (31%) and social security contributions (31%), some 12% of respondents would appreciate flexibility with the payment of their taxes;
- In terms of actual crisis, about one third of female (36%) and male (33%) reported experimenting a business crisis in the last 5 years. Migrant-led enterprises only did so in 22%. Leading causes for the crisis were the general economy or a downturn in revenues, but still almost 9% of respondents cited late payments and liquidity problems as their main causes for the crisis. The number one resource for overcoming a business crisis was the fall back on savings (53%) followed by developing a response plan (44%) and either asking for specialized advice (38%) or reducing the workforce (37%). Male leaders are significant more likely to lay off workers (40%) compared to female leaders (34%). Conversely, women-led SMEs

search for specialized help in 41% of the cases, compared to 35% of male-led SMEs. Migrant-led SMEs, in line with the above results, make less use of contingency plans;

- Personal resilience levels were similar among female, male, migrant, and non-migrant entrepreneurs. All groups scored between 29.9 and 31.4 on the 10-item Connor Davidson Scale.

In summary, while differences do exist, male-led and female-led SMEs in Madrid exhibit remarkable similarities when contrasted with migrant-led and non-migrant led SMEs in terms of their reported challenges, ways to address them, experienced crisis, and methods to overcome those. Together these findings suggest that even among similar resilience levels, different strategies prevail for migrant and non-migrant led businesses that policy makers and business support groups would do well to consider.

3.6. Comparing results

With a broader picture in mind, it is now possible to identify similarities and differences in order to take a snapshot of the actual level of resilience in SMEs in Europe. Basing the analysis on the three main themes individuated in the project presentation paragraph, the following has emerged:

1. on the three cities examined, Milan presented the lowest rate (22%, compared to 34,5% and 37%, respectively in Madrid and in London) of companies subjected to crisis experiences in the last 5 years. The United Kingdom and Spain are therefore more competitive and dynamic economic environments;
2. in all three cases analyzed, the main types of crisis faced fall under the category of external environment. However, if in London and in Milan the main threats concern respectively the changes in regulation and the problems with customers, the threats relating to the internal environment, such as cash flow problems and personal issues, should not be underestimated in Madrid, especially for migrant companies;
3. regarding possible solutions for overcoming a business crisis, all cities have the same line of action, identifying the fall back on savings, the development of a response plan and, in last instance, the reduction of workforce as the most appropriate defense tools against adversity. As in Italy, even in Spain and the United Kingdom, there is a clear difference between native companies and migrant companies in relation to the development of a response plan. This turns a warning

light on the need to introduce at European level some training actions for policy makers useful to remove these residual obstacles in the economic integration of these realities;

4. in London there is a greater propensity to rely on consultants and legal advisors, regardless of leader's gender or origin. The English capital thus demonstrates that it has fewer barriers, or at least lower ones, for the under-represented entrepreneurs. Even more than Madrid, Milan needs to break down language barriers in order to increase trust levels even outside the family environment;
5. in terms of individual resilience, all reports confirm, albeit slightly, a feminine propensity that favors the achievement of higher levels of organizational performance and resilience. Furthermore, London and Milan emphasize the attention of female leaders and migrants towards sustainability and environment, confirming what has emerged from the most recent literature reviews according to which under-represented entrepreneurs are moving away from their traditional sphere of belonging.

In conclusion, to complete the picture of the entire survey, future research should be focused on the data collected in Paris and Frankfurt, so as to obtain a reference for more continental countries and have a definitive perspective on the resilience/SMEs relationship in Europe.

3.7. Future Perspectives and conclusions

If it was not already clear at the start, this research finally shows that there are many roads that lead to resilience. A company could decide to invest in individual training, or to build a relational network which includes both professional and personal aspects; all available resources can be deployed to react as quickly as possible to the difficulties encountered, or endure adversity by making it your own and transforming all in changing opportunity; there are leaders by nature more inclined to resilience, but at the same time organizational resilience can be learned and developed. Given its multiple nature, an optimal recipe for responding to the crisis and therefore achieving resilience does not exist.

Over the years, although the phenomenon of resilience has been analyzed under many facets in the course of literature, there are still many question marks on what could be investigated in the near future to establish more in detail those that could be the definitive key components of this particularly unusual and elusive theme called organizational resilience.

Future researches, and as it has humbly attempted to do this paper, must aim at triggering a circular learning process in which the analysis of past experiences, the reconstruction of the key steps regarding corporate strategies, the comparison between next situations and typical constraints of the operating environment follow one another.

A systemic vision, which places the individual story in a broader horizon, can not only positively overcome what would otherwise be difficult to avoid, but also can capture the potentially favorable aspects that are present in any situation, transforming the adversities in opportunities for growth and renewal, thus being more resilient.

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