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Master Program in Entrepreneurship and Innovation

HOW DOES COVID-19 AFFECT ORGANIZATIONAL RESILIENCE? LITERATURE REVIEW & EMPIRICAL ANALYSIS

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Academic Year 2019/2020

To my parents, Pasquale and Anna, without whom this goal would not have been possible

To my sister Eleonora, who always got my back

To all my friends, near and far, who cheered me when I needed it the most

To me, as a prove that the sky is the limit

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Firma

Martina Vitiello

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INTRODUCTION & SUMMARY

THE REASON FOR THIS DISSERTATION – Resilience has been a hot topic in the management literature for a long time now. It has been defined as the ability to cope with external shocks and trends (Linnenluecke, 2017). This concept was not born in the business area: the first time it was found in the management literature was in Meyer (1982). Organizational resilience is a declination of the general concept of resilience and it is applicable to any companies and kind of institution. It is interesting to notice that this variation of resilience is conceptualized in the literature always in relation with an external crisis that has occurred. For instance, one of the first article about organizational resilience (Comfort, 1994) was written article after an earthquake happened in 1994. The same is happening in this dissertation: there is going to be an investigation on whether the definition and determinants of organizational resilience vary before and after a disruptive event – in this case Covid-19 – has occurred.

CHAPTER 1 – WHAT ORGANIZATIONAL RESILIENCE WAS BEFORE COVID-19– In this chapter, the main goal is defining how organizational resilience was defined before the advent of the pandemic caused by the Covid-19 virus. A second goal of the chapter is to investigate what were supposed to be the managerial tools suggested by the scholars in order to face a possible emergency. These variables were considered from both the strategic and the organizational point of view, while also considering the distinction between the determinants highlighted in theoretical papers, as well as in qualitative and quantitative studies. This first investigation is highly valuable because it helps understand how organizational has been defined by the scholars who published an article in the year 2019.

Furthermore, in their analysis, researchers further define which are the main determinants to achieve resilience inside an organization.

CHAPTER 2 – WHAT ORGANIZATIONAL RESILIENCE IS BECOMING AFTER COVID-19? – In this chapter, the main goal is defining how organizational resilience was defined in the first months of 2020 after the advent of the pandemic caused by the Covid-19 virus. A second goal for this chapter is to investigate what were supposed to be the managerial tools suggested by the scholars in order to face the current crisis that is impacting the whole society. These variables were considered as well from both the strategic and the organizational point of view, while also considering the distinction between the determinants highlighted in theoretical papers, as well as in qualitative and quantitative studies. This second investigation is highly valuable because it helps understand how organizational has been defined by the scholars who published an article in the first six months of the year 2020. Furthermore, in their analysis, researchers further define which are the main determinants to achieve resilience inside an organization.

CHAPTER 3 – DOES COVID-19 MATTER IN DEFINING ORGANIZATIONAL RESILIENCE – This chapter represent a final comparison between the topic of organizational resilience, before and after the advent of the Covid-19 pandemic. The theoretical expectations drown by scholars are compared and the different point of view in determining the definition of this topic are provided. Furthermore, the managerial tools that are taken into consideration in the two years of reference are compared. A ranking of variables analysed was developed in order to examine how this sanitary emergency has changed the perception of what is needed to face such an adverse event. The framework developed in this chapter is going to be the base to develop the questionnaire for the empirical analysis. The variables that are investigated the most are those that changed a lot in importance in the two years, and those who remained important before and after the advent of the Covid-19 pandemic.

CHAPTER 4 – ORGANIZATIONAL RESILIENCE IN PRACTICE: EMPIRICAL ANALYSIS – This last chapter focus specifically on the qualitative and quantitative results emerged from the empirical analysis discussed in Chapter 3. This chapter focuses on describing the methodological analyses that has been used to develop the qualitative and the quantitative analysis. There is an investigation of the characteristics of the companies in the municipality of Vo' and those that have answered the online questionnaire.

Then, it follows an extensive description of the interviewed companies reporting some specific financial indicators, namely the net revenues, together with the historical events about the company and, at last, its corporate values and goals.

CHAPTER 5 – ORGANIZATIONAL RESILIENCE IN PRACTICE: DEALING WITH SEQUENTIAL LOCKDOWNS – This chapter starts with a description of the law-decrees that have been issued in Italy, starting from the end of February 2020. In this part, there is the description of the different stages of the lockdown in Italy, as well as a comment on the companies who were allowed to continue their business during the different timeframes. The chapter shift focuses on the answers of the quantitative survey offered by the interviewees. The answers will provide insights on the managerial tools employed during the Covid-19 emergency, especially during the lockdown period happened between March and beginning of May 2020. Thus, it can be evaluated the impact of the sanitary pandemic on the management's perception on what are the threatening scenarios that has to be hedge by a company. Last but not least, a second comparison is carried out. This time, the matter under analysis is the managerial tools that can be used in future emergencies with similar impacts to the Covid19-one. Further on, it follows the extensive analysis of the qualitative study undertaken with few companies. Lastly, the chapter focuses on the interpretation of the qualitative case studies and their organizational implications, regarding the themes that emerged from the interviews and that can be explained by the theoretical models proposed in Chapter 3.

CHAPTER 6 – ORGANIZATIONAL RESILIENCE AND ORGANIZATIONAL THEORY: WHAT IS NEW? – This chapter analyses the managerial implications of the discoveries made in the previous chapters of this dissertation. It tries to identify the hot topic related to organizational resilience that can be of interest for future researches, as well as for managers or entrepreneurs.

1. CHAPTER

WHAT ORGANIZATIONAL RESILIENCE WAS BEFORE COVID-19

1.1 Introduction

Resilience has been a hot topic in the management literature for a long time now. It has been defined as the ability to cope with external shocks and trends (Linnenluecke, 2017). This concept was not born in the business area: the first time it was found in the management literature was in Meyer (1982). Organizational resilience is a declination of the general concept of resilience and it is applicable to any companies and kind of institution. It is interesting to notice that this variation of resilience is conceptualized in the literature always in relation with an external crisis that has occurred. For instance, one of the first article about organizational resilience (Comfort, 1994) was written article after an earthquake happened in 1994. The same is happening in this dissertation: there is going to be an investigation on whether the definition and determinants of organizational resilience vary before and after a disruptive event – in this case Covid-19 – has occurred.

The first chapter of this dissertation is going to focus on what organizational resilience is. It will be a literature review of the articles published in 2019 concerning the topic in business and management related journals.

In the first place, the methodology used for the research will be explained. Secondly, an analysis of the different definitions of organizational resilience is carried out. This is an important step, because in the literature there have been different streams of research (Linnenluecke, 2017), that provide different definitions and peculiarities for organizational resilience. Even though they have some specificities in common, it is important to understand in what they differ in order to get a comprehensive view of the topic. In this way, it is possible to set a definition that is coherent with the literature stream of 2019,

and that will be the corner stone of this dissertation. The different authors will be classified in different groups based on their specific definitions of the topic and on their differences. Afterwards, the different topics, variables and determinants concerning organizational resilience will be listed and analysed from the study of all the articles.
Wrapping up the chapter, the framework for the analysis will be clearly set out and discussed. This will set the base for the next chapter, that will be based on a literature review, and for the empirical case study of the next chapters.

1.2 Methodology

The aim of this first chapter is to define what organizational resilience was before the advent of Covid-19, in particular, in relation to the year of 2019. To answer the proposed research question, a systematic literature review was carries out.
In order to do this, three databases were consulted: Google scholar, Ebsco and Scopus. Moreover, a study of the grey literature was done to evaluate the trends in the market concerning organizational resilience. Gray literature is described as "magazine articles, trade press articles, academic dissertations, institutional reports, consultant reports, book chapters and conference proceedings" (Mahood, Van Eerd, & Irvin, 2014). Articles and case studies by consulting agencies like Deloitte, Accenture, McKinsey, and Boston Consulting Group were analysed.
The research was carried out by the same means in all three different databases. The approach has been to implement a Boolean search for the terms 'Organizational Resilience'. The selection criteria included paper published just in the year of 2019. Moreover, only scientific documents written in English were selected. The research was carried out on abstracts, title and inside the paper. The results were of 336 items, this was also restricted to the articles concerning the management field and published by business related journals, such as 'Scandinavian Journal of Management', 'The international Journal of Human Resource Management', 'Journal of contingencies and crisis management', 'Business Research', and others. The whole selection process can be seen in detail in Table 1.

Table 1 Literature Selection Process for the First Chapter

DATABASE	FIRST SEARCH	ABSTRACT CHECK	FIRST READING	FINAL RESULTS
EBSCO	113	14	9	7
Scopus	123	15	7	7
Google Scholar	100	13	10	9
Total	336	42	26	22

Source: My Analysis

Based on these criteria, forty-two articles were found, and a preliminary analysis of the titles, abstracts and discussion section was carried out to choose the relevant articles for this literature review. Some of them were read in full. Of all these articles, just twenty-two were considered as suitable for this dissertation and, therefore, analysed. The list of the articles considered for this analysis, and their details, can be seen in Table 6. The review of these articles will provide a draft of the framework of analysis for the whole dissertation.

1.3 Definition of Organizational Resilience pre Covid-19

Organizational resilience is a *complex topic* that has been discussed widely in the literature and in many different research streams, as identified by Linnenluecke (2017). The articles analysed for this dissertation offer a wide range of definition and main variables concerning the topic. There is still not a unique definition or framework of analysis concerning this particular subject (Kendra & Wachtendorf, 2003) (Linnenluecke, 2017). From the literature, it is clear that organizational resilience is fundamental for an organization to survive in today's world, given the huge number of different threats and challenges that arise every day. Since the importance of the topic, it is fundamental to analyse the concept and see how it can be determined. This first paragraph is going to try to set a definition for organizational resilience based on the literature review of the articles of the year 2019.

There are many differences in the delineations of organizational resilience provided by the authors, those are about:

- *what the main focus of OR is*: containing or also anticipating a crisis;
- *what the OR is*: a process, an outcome or an ability, and what change between them;
- *what is to be expected out OR*: just a simple *bouncing back* rather than a changing position for the organization.

1.3.1 Organizational Resilience: Anticipating or Containing a Crisis

The first one that is analysed is whether organizational resilience is just the ability to contain and react after a crisis; or if it could be also the ability to anticipate it. Following this structure, the authors are divided into three main groups as follow:

- Those who consider it just a containment practice;
- Those who consider it an anticipation and a containment practice;
- The one who consider it an anticipation, a containment, and an adaptation practice.

Bustinza (2019), Cantoni et al. (2019), Carney (2019), Costa et al. (2019), Herbane (2019), Hosseini and Jafari Bazyar (2019), Macrae (2019), Rodriguez-Sanchez et al. (2019), Suryaningtyas and Sudiro (2019) and Wiig and Fahlbruch (2019) are part of the first group. They focused their studies on organizational resilience as the ability to *react* to *disruption* and to find new solutions in response to a crisis. This is strictly a defensive response, emphasizing the resistance and recovery aspect. In the literature, there has been a change in perspective and the next authors include in their vision an offensive response as well (Duchek, 2019).

Anderson et al. (2019), Bianchi (2019), Darkow (2019), Khan et al. (2019), Morales et al. (2019), Pettersen and Schulman (2019), Rahi et al. (2019), Rahi (2019), Reeves et al. (2019), Tasic et al. (2019), and William et al. (2019) constitute the second group. Therefore, they considered in their study organizational resilience as the ability to both a*nticipate* and *contain* a crisis. In these authors' opinion, it is composed of:

- *monitoring* for the appearance of disruptive events;
- finding ways to *steer clear* of these coming crises;
- putting together a *culture* of *resilience* that encompass the whole organization, that goes from the frontline employees to the top management.

This characterization is important because it changes the focus from a reactive perspective to a proactive one. Indeed, companies are not just waiting for an unexpected event to present itself, but they are actively implementing mechanisms to prevent disasters from happening, rather than to just face the emergencies.

Duchek (2019) goes one step further with his analysis and uses the framework of organizational resilience that is composed of three main abilities:

- *Anticipation*, which comprehends also proactive adjustments to the surroundings in the everyday business (Ortiz-de-Mandojana and Bansal, 2015);
- *Coping*, that is facing and overcoming any kind of disturbances;
- And a*daptation*, so to absorb, adjust and self-renew after a disruption.

In Duchek's article (2019), the containment phase is broken down into two different stages: coping and adaptation. Therefore, the author plainly distinguishes the development and implementation of the solutions phase from the organizational change and the readjustment one. In that paper, this is particularly important because these two different phases have different capabilities and thus need to be considered separately (Duchek, 2019).

Figure 1 Main focus of Organizational resilience in 2019

Source: My Analysis

1.3.2 Organizational Resilience: Outcome, Process or Ability

The second difference in the definitions is given from the different conceptualization of organizational resilience. Indeed, following Duchek (2019) structure it can be defined as a:

- *Outcome*, when it is considered as the desired result after having complied well with a crisis or managed to restore the order after an interruption (Horne and Orr, 1998);

- *Process*, when it is considered as a long-term process that is implemented in everyday practices (Linnenleucke et al. 2012);
- *Ability*, when it is considered as a collection of organization specific routines, capabilities, and practices, those can foster an internal dynamic environment for the firm that is aimed at continuous adaptation (Lengnick-Hall et al. 2011).

Costa et al. (2019) are the only one of the authors taken into consideration, that have a vision of resilience as strictly an outcome. Indeed, they study the theme in relation to inbound logistics and focus on the different steps needed to achieve this desired outcome. They trace the map for managers of the inbound logistic characteristics the company needs to have, based on the organization's needs and attributes.

Anderson et al. (2019), Bianchi (2019), Carney (2019), Darkow (2019), Duchek (2019), Pettersen and Schulman (2019) and Tasic et al. (2019) consider organizational resilience as an habitual process, rather than just the outcome of crisis management practices. Generally speaking, the process is composed of five different stages that entail the view of organizational resilience; as given by Duchek (2019):

- *Anticipatory phase*, that also encompasses adaptation to any emergent situations;
- *Exposure phase*, when a major event disrupts the way the company is normally doing business;
- *Recovery* and *restoration* of the situation, that could mean bouncing back to the previous state of the things, or to a new order that arises thanks to the adjustment;
- *Post-impact determination* of the overall resilience of the company, this is done in order to control whether the structures put in the place were actually enough to face the unexpected event;
- *Future adaptation*, in which the process closes itself, the situation is stable again and a new anticipatory phase starts.

Therefore, the view of organizational resilience as a process connote resilience as a way to successfully face unexpected crisis, not only after it has happened, but also to prior to, in the meanwhile and in the afterwards of the crisis.

Bustinza et al. (2019), Cantoni et al. (2019), Herbane (2019), Khan et al. (2019), Macrae (2019), Morales et al. (2019), Rahi et al. (2019), Rahi (2019, Reeves et al. (2019), Rodriguez-Sanchez et al. (2019), Suryaningtyas and Sudiro (2019), Wiig et Fahlbruch (2019), William et al. (2019) and Yang (2019) are those authors who consider organizational

resilience as an ability. Rahi (2019) defines ability and capability as the key concepts in the definition of organizational resilience. Ability is defined as a skill that is already mastered, while capability is the skill of completing a specific assignment. Indeed, it is linked to the elaboration of operational and strategic capabilities. There are many proceedings that enable this, one of the most cited is excellent Human Resources Management (for example by Bustinza et al., (2019), Hosseini and Jafari Bazyar (2019)).

As noted by Rali et al. (2019) there are general routines and practices that underlie and foster the organizational resilience capability. These authors focus on describing the different abilities that a company needs to implement in the different phases that connote organizational resilience:

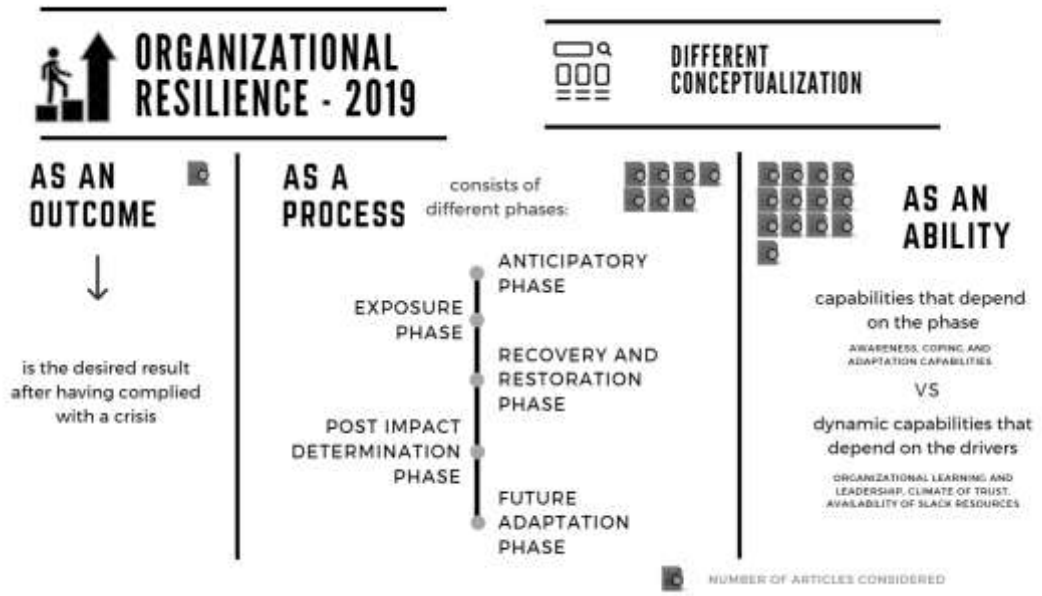
- *Awareness capabilities*, such as environmental scanning and risk management;
- *Coping capabilities*, like continuous feedback and coordination;
- *Adaptation capabilities*, for example learning from failure and developing a culture of re-adjustment.

Khan et al. (2019) gives a deeper inside on the topic, defining organizational resilience as a dynamic capability, rather than just an attribute of an organization. Their framework is different from the one of Rahi et al. (2019) because it classifies the ability according to their *drivers* rather than depending on the phase:

- *Organizational learning capability*, such as knowledge management practices;
- *Organizational leadership*, indeed, a resilient management can foster organizational resilience;
- Climate of *trust*, that is enhanced through effective communication channels;
- Availability of *slack resources*.

This last framework is the one considered in the majority of the cases analysed from the literature.

Figure 2 Different conceptualization of organizational resilience in 2019



Source: My Analysis

1.3.3 Outcome of Organizational Resilience

The third and last difference considered in this dissertation is on what it is to be expected from the implementation of organizational resilience.

The traditional definition of organizational resilience is connoted by the notion of *bouncing back* (Wildavsky, 1988). Costa et al. (2019), Pettersen and Schulman (2019) and Wiig (2019) are the authors who consider resilience as merely a way to restore previous conditions. Therefore, in their articles, they consider it as the ability to get back to normal performances and functioning after the happening of a disruptive event.

Mostly of the authors do not agree with this definition though. Indeed, the very notion of bouncing back is actually troublesome for them. It communicates that there is a preferable result to obtain. This means that the company needs to restore the previous conditions, and that this should be effortlessly known. For all these reasons, Darkow (2019) states that bouncing is a misleading concept to use to measure the outcome of organizational resilience.

Starting from this concept, the other authors give their own interpretations of the possible outcomes:

- Bianchi (2019) focuses not on bouncing back, but on recovering an acceptable situation;

- Bustinza et al. (2019) concentrate the attention just on the capability of reacting positively when a disruptive event occurs, rather than trying to get back to a previously known situation;
- Cantoni et al. (2019) and Carney (2019) put the spotlight on recovering financial solidity as the way to determine when the crisis is over;
- Macrae (2019) states that any kind of improvement or result is a good one when it drives you away from the disruptive event that happened;
- Morales et al. (2019) convene that adaptation and retainment of basic functionality is an acceptable outcome for companies that have faced a crisis;
- Rodriguez-Sanchez at al. (2019) focus their study on adaption and thrift in response to the ever-development of environmental and internal circumstances;
- Suryaningtyas and Sudiro (2019) put the spotlight on the differences between bouncing back after a crisis and the conversion of threats into opportunities. The first one is seen as a passive approach, while the latter as a proactive one and should be preferred.

It is important to have clear in mind what to expect after a crisis and what it brings to the company. Otherwise, if the management expect the bouncing back to the previous situation, then it can misinterpret the signals that arise from the changing situation of the company and this could be problematic. In order to succeed, it is better for top management to keep an open mind on the results that could arise after a disruptive event.

1.3.4 Organizational Resilience: a Definition

To conclude this first paragraph, a comprehensive definition of organizational resilience is delineated. This will be of fundamental importance in order to delineate the framework of analysis for the next chapters.

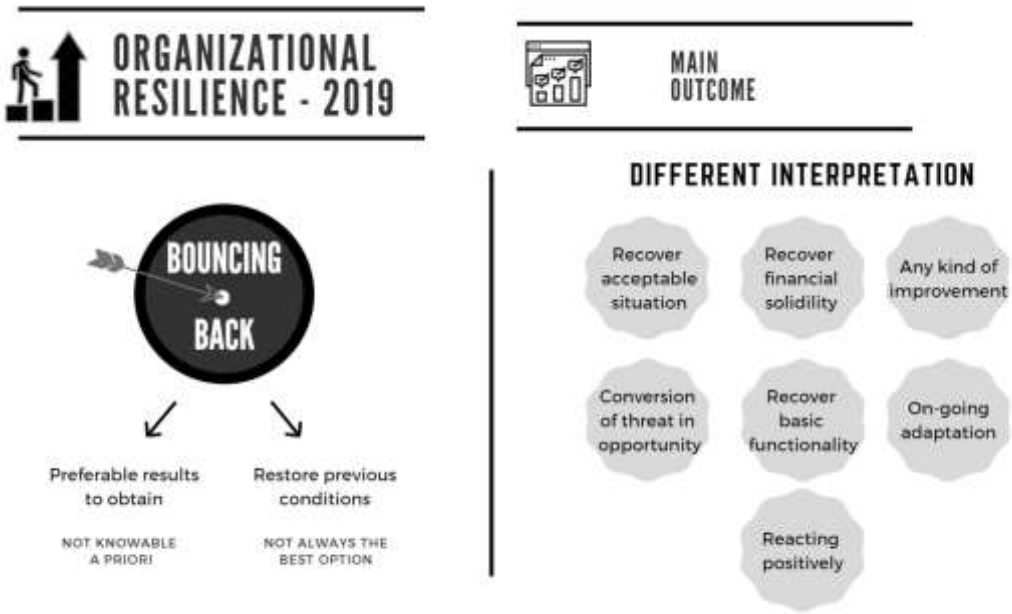
For the purposes of this dissertation, organizational resilience is:

> The *ability* that a firm possess. It enables the organization to be able to anticipate, contain and adapt to the external circumstances and internal disruptions that can arise in everyday business practices. It should be encouraged, nourished, and implemented in everyday practices.
>
> The main purpose to implement this capacity is not just to restore the old ways of doing practices.
>
> The objectives are to recover an acceptable situation, both in terms of operations viability and financial strengths, to convert threats into opportunities

and therefore prospering as a response to changing work environment. Therefore, the organizational culture should enhance a culture of continuous re-adjustment to the different internal and external challenges that arise in the normal way of doing business.

The next paragraph of this chapter is going to focus on the different variables that determine organizational resilience for the academic literature of 2019.

Figure 3 Expected outcomes of organizational resilience in 2019



Source: My Analysis

1.4 Determinants of Organizational Resilience pre Covid-19

In this paragraph, the variables that the authors considered as determinants of organizational resilience are examined. These will be analysed through different lenses and there will be a discussion about their meaning and implication.

1.4.1 Ranking of Organizational Resilience Variables pre Covid-19

All the articles analysed examine different variables as determinants of organization resilience, it is possible to check what each author considered as important in

Table 7. They all used different terms, and those were clustered under common denomination. It is possible to see in Table 2 the ranking of all the organizational resilience variables considered by the authors, and how many times they were recognized as relevant for the articles published in the year 2019.

When considering this classification, *Knowledge Management* and *Risk Management* are the activities that are cited the most as determinants of organizational resilience.

Knowledge Management

Knowledge Management is indicated as important by Bustinanza et al. (2019), Cantoni et al. (2019), Carney (2019), Costa et al. (2019), Duchek (2019), Herbane (2019), Hosseini et al. (2019), Khan et al. (2019), Macrae (2019), Morales et al. (2019), Pettersen and Schulman (2019), Rahi (2019), Rahi et al. (2019), Rodriguez-Sánchez et al. (2019), Tasic et al. (2019) and Williams et al. (2019). Knowledge management is important because it is the corner stone to ensure that *resources* are *exploited*, and to be aware of which actions are undertaken by whom. This can also foster a smooth *collaboration* between different roles, functions and department of a firm (Duchek, 2019). Indeed, a good *knowledge base* and *sharing mechanism* can boost the employees' intrinsic motivation (Rodríguez-Sánchez et al., 2019). It concerns different types of knowledge that a firm needs to have in greater depth:

- About the *stakeholders* of the company, above all its customers;
- About the company's *identity*, such as its goals, values, mission, vision and strategy;
- About the *environment* and the whole ecosystem in which the organization is embedded.

The company needs to develop a continuous organizational learning process, in doing so the firm can develop a high degree of settled knowledge, that is going to be the perfect base for the implementation of *reliable operations* (Pettersen and Schulman, 2019). This knowledge can also result from past experiences of disruptive events, and thus of previous practices of resilience. It is important that the lesson learned from this crisis is documented, so that it can be studied and used as an example. This knowledge is also derived from the organizational level of experimentation, risk taking and interaction with the ecosystem, an example of these is the knowledge that an organization can gather through spill over effects (Khan et al., 2019).

Table 2 Ranking of the Organizational Resilience Variables pre Covid-19

VARIABLES	COUNTING
Knowledge Management	16
Risk Management	16
Cooperation	13
Environmental Scanning	13
Network	13
Communication	12
Decentralized Structure	10
Training	10
Leadership Involvement	9
Financial Strength	8
Power Distribution	8
Slack Resources	8
HRM Practices	7
Information System	7
Technological Capabilities	7
Employees Engagement	6
Innovation	6
Policy	6
Organizational Identity	6
Emergency Planning	5
Improvisation	5
Business Continuity Management	4
Contingency Plan	4
R&D	4
Agility	3
Customer Orientation	3
Reporting	3

Source: My Analysis

Risk Management

On the other side, *Risk Management* activities are pointed out as organizational resilience enablers by Anderson et al. (2019), Bianchi (2019), Cantoni et al. (2019), Carney (2019), Costa et al. (2019), Darkow (2019), Duchek (2019), Herbane (2019), Khan et al. (2019), Macrae (2019), Morales et al. (2019), Pettersen and Schulman (2019), Rahi et al. (2019), Rodriguez-Sánchez et al. (2019), Tasic et al. (2019) and Williams et al. (2019). Risk management is the planning put in place by the company that can help anticipate a crisis by *identifying* risks *early* and by also using prudence, *prevent*, and *overcome* a disruptive event. Putting together the different definitions provided by the articles, it is defined as

the process of rule setting, monitoring operations, managing vulnerabilities and uncertainty in everyday processes: these demonstrate that risk management is delineated by activities not just related to crisis management, but also of operations implemented in the everyday life of a company. There is emphasis on the so-called *anticipation capabilities* (Duchek, 2019), setting and communicating a strategy, preparation, develop some planned strategies for the restoration of a business normal, training and simulation exercises. Furthermore, a company should develop some *infrastructure for* the *detection* of weak *signals* from the environment, so to anticipate the occurrence of a disruptive event and be ready to face it when it appears.

Looking at Table 2, the second most repeated determinants of organizational resilience are *Cooperation*, *Environmental Scanning*, and the presence of a good *Network*.

Cooperation

Cooperation is a variable considered by Anderson et al. (2019), Bianchi (2019), Bustinanza et al. (2019), Costa et al. (2019), Darkow (2019), Duchek (2019), Khan et al. (2019), Morales et al. (2019), Pettersen and Schulman (2019), Rahi et al. (2019), Rodriguez-Sánchez et al. (2019), Tasic et al. (2019) and Wiig et al. (2019). Cooperation and *teamwork* are thus considered as important traits of organizational resilience, both in:

- The *coping phase*, as companywide cooperation to implement solutions based on shared goals given by the corporate philosophy (Anderson et al. 2019);
- The *adaptation phase*, as collaboration that strengthen bonds by boosting the human resources and thus facilitating the transition into a new business normality (Duchek, 2019).

In order to further boost cooperation, the company needs to develop a *decentralized structure*, thus enabling power distribution practices, such as organizational and joint responsibilities, that make the employees feel more involved in decision making. This process can be fostered by the implementation of well-established information system and human resource management processes (Anderson et al. 2019). Teams should be constructed in an optimal way; groups should include employees from *different cultures*. Furthermore, individuals should be matched in order to integrate each other's knowledge base, resources, capabilities, and skills. This can also foster team members *adaptive capacity*, and therefore develop organizational resilience (Tasic et al., 2019).

Environmental Scanning

Environmental Scanning activities are investigated as determinants for organizational resilience in the articles published by Anderson et al. (2019), Bianchi (2019), Bustinanza et al. (2019), Darkow (2019), Duchek (2019), Khan et al. (2019), Macrae (2019), Rahi et al. (2019), Rodriguez-Sánchez et al. (2019), Suryaningtyas and Sudiro (2019), Tasic et al. (2019) Wiig et al. (2019) and Williams et al. (2019). Environmental scanning is an *anticipation* capability, it is needed to be prepared to *act locally* and to prevent disruptive events from happening (Duchek, 2019). It is fundamental to have put in place continuous *monitoring routines* and technological capabilities to detect the environmental dynamism, such as the:

- strengths of the *competitors*;
- changes in the laws or *industry regulations*;
- modifications of institutionalized practices;
- and everything related to the *stakeholders*, including customers' shifts in preferences.

Furthermore, the company should develop more the signal detection capabilities of the *frontline employees* (Macrae, 2019). Indeed, those are the ones that are more in touch with the ecosystem in which the company is enclosed in. They should be encouraged to develop observation and identification capabilities, about the performance of the company and any potential problem that could affect its normal functioning.

Network

The *Network* variable is examined by Bianchi (2019), Darkow (2019), Duchek (2019), Herbane (2019), Khan et al. (2019), Macrae (2019), Morales et al. (2019), Rahi et al. (2019), Reeves et al. (2019), Rodriguez-Sánchez et al. (2019), Tasic et al. (2019) Wiig et al. (2019) and Williams et al. (2019). When talking about network, both *personal relationships* of employees and *external* ones of the *company* are considered. Indeed, they both help the organization leverage resources that might be needed in time of crisis.

Bianchi (2019) stated the importance of being part of a *consortium*, that is composed by different communities and actors, to boost a company's coping capabilities. Furthermore, an organization can benefit from being part of a *district* or being in an *incubator*. Indeed, proximity to those and diversity in the ecosystem can improve knowledge acquisition and environmental awareness, thus fostering organizational resilience. Reeves et al. (2019)

state that it is important for an organization to contribute to the resolution of *common problems* with all the stakeholders, especially in the globalized world that we are living in. This also helps fostering the continuous development of organizational network. Therefore, being connected with the external environment can provide to a company more knowledge, and this increases the resilience not only of the organization but of the whole ecosystem in which the firm is embedded.

For what concerns the *personal networks*, the importance of weak ties is examined by Herbane (2019), and it studied in terms of size and mobilization capacities to provide professional support. The more diverse is an employees' personal network, the more they can access different resources and increase their coping capabilities, thus fostering organizational resilience as well.

Variable Revised

Given the fact that the variables listed so far overlap conceptually with some of the others, it is useful to develop some macro categories to elaborate a better analysis. These are called *Variable Revised* in Table 3, and the process of variable grouping is explained in detail below.

Table 3 Ranking of Variable Revised of Organizational Resilience pre Covid-19

VARIABLES REVISED	COUNTING
Risk Management	42
Knowledge Infrastructure	38
Human Capital Infrastructure	36
Internal Resources	31
Organizational Design	27
Ecosystem	19
Organizational Slack	19

Source: My Analysis

The macro category that is *most considered* as relevant is *Risk Management*. It encompasses Business Continuity Management, the development of Contingency Plans, Emergency Planning, Environmental Scanning, and Risk Management variables.

Most of these are related to the *anticipation* capabilities of organizational resilience. If a company implements no planning processes, it reveals its incapacity to properly react and bounce back after a disruptive event. Furthermore, the monitoring of the ecosystem and the increase in the firm's awareness can help the company in its *adaptation* process, by

continuously analysing the consequences of any crisis that can happen and by adapting the company's priorities to the different situations that arise (Rahi, 2019).

The *second* most cited revised variable is *Knowledge Infrastructure*. It is composed by Communication, both in terms of *peers* to peers and in terms of *feedbacks* given, Information Systems, Knowledge Management, and Reporting variables.

These are made up of *complex routines*, to assure a common understanding and a climate of trust (Khan et al., 2019). Breaking down the silos that could exist in a company and minimizing the communications' barriers can foster organizational resilience (Rahi, 2019). The level to which knowledge is collected and saved in secure positions about inputs, results, customer base, and the overall ecosystem can simplify the handling of a disruptive event. Furthermore, an organization should encourage an *open communication*, in which employees feel free to share their knowledge, point of views and in which they feel like their expectations and desired are met, or at least taken into consideration (Macrae, 2019).

The third macro category developed is *Human Capital Infrastructure*. It includes Cooperation, and the implementation of Teamwork inside the company, Employees Engagement, HRM Practices, and Training variables.

These are useful to influence employees' feeling and engagement toward the organization. *Talent management* is an important part of this category (Hosseini, 2019). Internal training is fundamental for employees to learn to readjust to different technologies and new ecosystem conditions; indeed by training they feel more resourceful and can understand better the relationship between the tasks they implement every day and the ones required to face a disruptive event (Bustinanza et al., 2019 and Rahi, 2019).

The fourth determinant considered is *Internal Resources*, that is formed by Customer Orientation, Improvisation, Innovation, R&D, Organization Identity, and Technological Capabilities variables.

The *corporate philosophy* should promote an organizational culture of adaptability and continuous learning, especially the following of customers' preferences (Anderson et al., 2019). *Bricolage*, *creativity*, and improvisation should also be core values of an organization, and therefore, employees should be rewarded when proposing innovative ideas and solutions. Indeed, the promotion of this value can help by facilitating the process of

dealing with unforeseen situations and of keeping the competitive advantage (Rahi, 2019).

The fifth category is *Organizational Design*, that is constituted of Decentralized Structure, Leadership Involvement, and Power Distribution variables.

A company needs to balance between power distribution mindset, useful for *local responsiveness*, and *central control*, that ensure alignment with organizational goals and avoid silo thinking. The background of managers and leaders is of fundamental importance: they should be able to support a diverse environment and a learning culture, in order to empower employees (Suryaningtyas et al., 2019).

The sixth is *Ecosystem*, that is formed by the Network, both personal and of the organization, and the Supply Chain, the Policies in terms of regulations and law.

The seventh grouping related to the *Organizational Slack*. It is made of Agility and Flexibility, Financial Strength, availability of Slack Resources variables.

The authors considered studied this category, and defined it as slack of resources in terms of: *time*, for instance to detect and react to an unexpected situation; *investing in new resources* with the aim of change and innovation; possibility to re-*outline* the *socio-capital resources* (Khan et al., 2019). All of these can be fostered thanks to the adoption of new technologies.

Even after having reclassified the variables into seven macro categories, the most important determinants considered are still *Risk Management and Knowledge Infrastructure*.

1.4.2 Different Methods of Analysis: pre Covid-19

The variables ranked in the previous paragraph are studied by the authors using different means. In particular, they have been examined by using three different approaches:

- First of all, some of them have been analysed by the authors from a *quantitative perspective*: this means that an empirical analysis was carried out. For these quantitative articles, the variables were taken from the empirical part of these papers. The quantitative analysis was done by: Bianchi (2019), Bustinanza et al. (2019), Cantoni et al. (2019), Herbane (2019), Morales et al. (2019), Rodriguez-Sánchez et al. (2019), Suryaningtyas and Sudiro (2019), and Tasic et al. (2019);

- Then, others have been analysed from a *qualitative perspective*, for instance, with the development of some case studies. In this case, the variables were taken from the analysis of the interviews done with the companies by the researchers. Anderson et al. (2019), Costa et al. (2019), Pettersen and Schulman (2019) and Rahi et al. (2019) have done a qualitative research.
- Lastly, some articles were more focused on the *theoretical background*. In order to capture the variables of these papers, the propositions suggested by the authors were considered and the theoretical background they studied. The authors who followed this methodology are: Carney (2019), Darkow (2019), Duchek (2019), Hosseini (2019), Khan et al. (2019), Macrae (2019), Rahi (2019), Reeves at al. (2019), Wiig et al. (2019) and Williams et al. (2019).

In Table 4 there is the counting of how the variables have been considered. The determinants were mostly considered through theoretical statements, then through a quantitative analysis. The variables studied using a qualitative approach were roughly half of those considered with the analysis of the theoretical background.

Table 4 Variable analysed with Different Methods pre Covid-19

Qualitative Analysis	Quantitative Analysis	Theoretical Statements
43	77	92

Source: My Analysis

1.4.3 Fields of Analysis: pre Covid-19

The variables considered in this analysis are very heterogenous. Indeed, the macro categories that were developed in 1.4.1Ranking of Organizational Resilience Variables pre Covid-19 have a diversified range of determinants and processes inside.

As presented in Table 5, the concept of *Variables Revised* is constituted of concepts that are both organizational and strategic in nature. As a consequence, also the conceptualization of organizational resilience is outline by different numbers of notions.

Table 5 Variables studied in Different Fields: pre Covid-19

VARIABLE REVISED	ORGANIZATIONAL	STRATEGIC	TOTAL
Ecosystem		19	19
Human Capital Infrastructure	36		36
Internal Resources		31	31
Knowledge Infrastructure	22	16	38
Organizational Design	27		27
Organizational Slack	3	16	19
Risk Management	9	33	42
Total	97	115	212

Source: My Analysis

The majority of the articles analysed for this dissertation consider more strategy related variables. Furthermore, three out of seven of the topics that are present in Table 5 are characterized by a *double nature*.

The strategic variables and the organizational ones can have as the object of study the same issues and topic related to the life of the company; however, these are studied from two different points of view.

The former is related to the *strategic direction* that firm has decided to take, and it is given by the general strategy of the company, the corporate one or the competitive one.

Whereas the latter refers to the *intrinsic characteristics* of an organization, such as its internal structure and processes carried out inside the firm, and to the behaviour of the different actors carried out in a company in different situations.

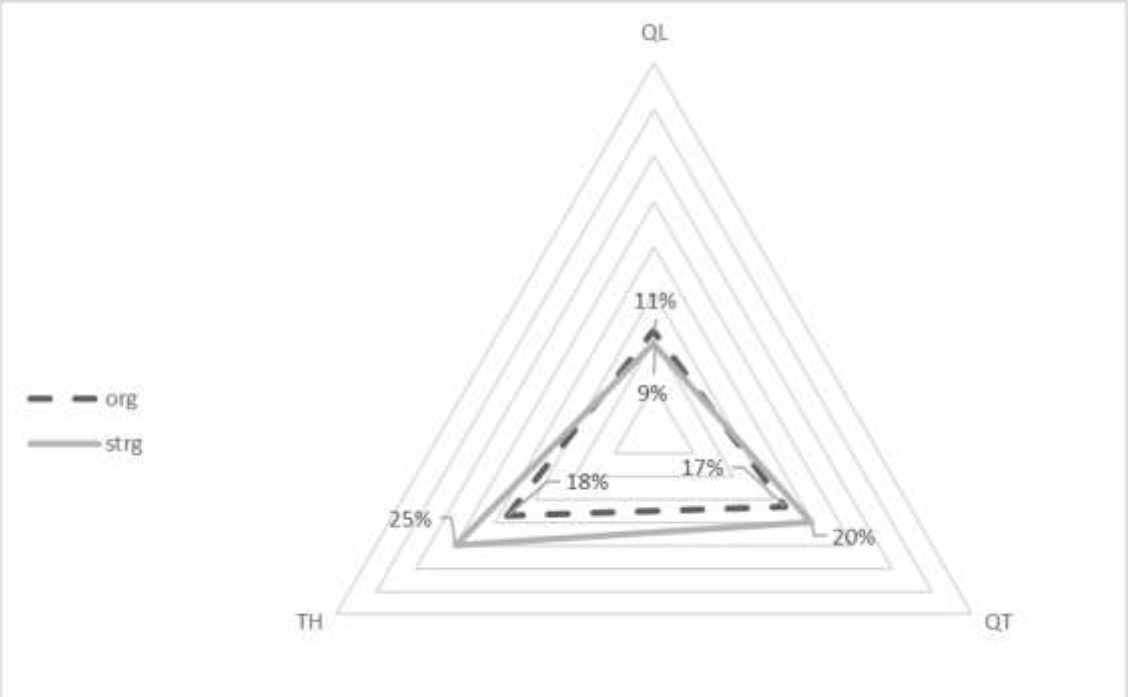
First of all, in order of times cited, there is *Risk Management*. Its broad concept and definition have been already examined above. However, when looking at it under an *organizational* point of view, it refers specifically to the routines adopted in order to adapt to the external environment, such as the development of a contingency plan. It can also hint at establishing infrastructures that can sense and face an adverse event, for instance, through emergency planning (Khan et al., 2019). On the other hand, when adopting a *strategic* point of view, it concerns the development of planned strategies and simulation exercises that can assure business continuity and responsiveness to local action, thanks also to continuous environmental scanning. Additionally, it can be detected in the provided definition of Risk Management, as the activity of rule setting in everyday operations (Carney, 2019).

Afterwards, there is *Knowledge Infrastructure*, that is considered as another *hybrid* determinant. When considering this concept with an *organizational* point of view, it is associated with the complex routines and procedures that enable peer to peer communication and the feedback processes. The purpose of the knowledge infrastructures is to establish and nurture a climate of trust and, therefore, to cultivate the emotional capital of a company (Khan et al., 2019). However, when looking at it through its *strategic* nature, it is about planning for training, simulations, and learning experiences. These are also referred as organizational learning capabilities that are needed to be developed, and this concept is linked to that of organizational experimentation. This latter can prepare employees to face a disruptive event, thus affecting also organizational resilience (Duchek, 2019).

Lastly, also *Organizational Slack* is characterized by this double nature. One of which is defined by the *organizational* point of view, in which agility is combined with flexibility, that is considered as a behaviour that can be established through human resource management practices (Tasic et al., 2019). For what concerns the other point of view, it is characterized by a *strategic* nature, and it refers to the development of a strategy aimed at developing financial strength and slacks. Those are created, for instance, through the monitoring of profitability indexes, such as EBIT (Cantoni et al., 2019), costs and revenues. One way to achieve this is through cost cautiousness (Andersson et al., 2019). Indeed, having low costs is attributed to increases in flexibility and, thus, in growth in the overall profitability of the company. All of these can be the reasons for the presence of slack resources in an organization.

The Figure 4 shows how the different two categories of variables, strategic and organizational, have been analysed in the literature considered. The values are considered in relative terms. The theoretical background is the one most used in both cases, with the strategic context being more investigated than the organizational one. It is followed by the quantitative analyses, and the same situation is repeated here. At last, the qualitative analysis is the one less used in both cases, and it sees more organizational variables analysed than strategic ones.

Figure 4 Different Conceptualization of the papers published in 2019



Source: My Analysis

1.5 Conclusion

In this chapter, organizational resilience has been investigated. The articles published in 2019 were analysed and a comprehensive definition of the topic was given. Furthermore, the variables that can help and build organizational resilience inside a firm were listed and studied.

The purpose of this dissertation is to investigate whether the concept of organizational resilience is a fixed topic, or it changes depending on the circumstances. The analysis carried out in this chapter is useful because it delineates how organizational resilience has been defined and how it could be boosted before the advent of the Covid-19 pandemic.

Organizational resilience is defined by the majority of the authors as a defensive and reactive practice; thus, they consider it just a containment process. However, a more comprehensive approach examines this topic as an offensive and proactive system, that can help an organization to anticipate, to contain and to adapt to an adverse event.

Furthermore, organizational resilience is classified by most authors as an ability that can change and adapt depending on the situation. On the other side, other authors defined it as a process that consists of different phases or as the result that an organization obtains after the advent of a crisis.

To conclude, all the authors rejected the idea that organizational resilience is just the process of bouncing back. Indeed, this would imply that there is a preferable result to obtain, however, something like this is hardly knowable a priori. Furthermore, it would also imply that it is possible and the best outcome to restore the previous state of things of a company. Therefore, the authors give different interpretations of what can be the possible outcomes of organizational resilience, such as recovering financial solidity and basic functionality of the organization.

The articles published in 2019 studied this topic developing different kinds of analysis: qualitative, quantitative, and theoretical. These three modalities of the studies were carried out equally. All of these papers provided some determinants that can be helpful in order to boost organizational resilience inside the organization. In total, 27 variables were found as important to develop resistance in the company. Those determinants related both to the organizational and the strategic side of an organization. The most cited were Risk Management, Knowledge Management, Environmental Scanning, Network, and Cooperation. All the variables were later grouped in macro-categories that helped to develop a better analysis.

In the next chapter, the papers published in the first half of the year 2020 will be studied. There will be an analysis of the definition of organizational resilience provided by the authors and of the variables that are believed to help and increase the resilience of the organizations.

Table 6 Paper List Pre Covid-19

Title	Author	Year	Source	Key Issues
Building traits for organizational resilience through balancing organizational structures	Andersson, T., Cäker, M., Tengblad, S., & Wickelgren, M.	2019	Scandinavian Journal of Management	Anticipation, Containment, Corporate Philosophy, Decentralized Structure, Information System, HRM Processes
Beyond the structural modelling for the analysis of organizational performances in the resilience management	Bianchi, M.	2019	Economia Aziendale Online	Anticipation, Containment, Restoration, Coordination of Consortium
Technological capabilities, resilience capabilities and organizational effectiveness	Bustinza, O., Vendrell-Herrero, F., Perez-Arostegui, M., & Parry, G.	2019	The International Journal of Human Resource Management	HR Practices, Technological Capabilities, Organizational Effectiveness, Environmental Dynamism, Competitive intensity
A Territorial and Organizational Approach to Resilience	Cantoni, F., Graziano, P., Maiocchi, F., & Rizzi, P.	2019	Emerging Issues in Management	Adaptation, Financial Solidity
A Platform for Innovation	Carney, M.	2019	Bank of England	Reporting, Technological Capabilities, Anticipation
Achieving organisational resilience through inbound logistics effort	Costa, F. H., Da Silva, A. L., Pereira, C. R., Pereira, S. C., & Gómez Paredes, F. J.	2019	British Food Journal	Decentralized Structure, Geographical Dispersion, HRM Processes
Beyond "bouncing back": Towards an integral, capability-based understanding of organizational resilience	Darkow, P.	2019	Journal of Contingencies and Crisis Management	Anticipation, Containment, Social Capital, Decision Making Process, Governance Structure, Network, Four Phases
Organizational resilience: a capability-based conceptualization	Duchek, S.	2019	Business Research	Adaptation, Containment, Outcome, Process, Capability, Restoration
Rethinking organizational resilience and strategic renewal in SMEs	Herbane, B.	2019	Entrepreneurship & Regional Development	Network, Location, Management Background, Learning
Organizational Resilience from the Perspective of Organization Employees and Managers	Hosseini, A., Jafari Bazyar, F.	2019	Journal of Management Studies in Development & Evaluation	Talent Management, HRM Processes
Organizational Resilience: A Dynamic Capability of Complex Systems	Khan, T., Farooq, W., & Rasheed, H.	2019	Journal of Management and Research	Capability, Learning, Leadership, Climate of Trust, Slack Resources

Title	Author	Year	Source	Key Issues
Moments of Resilience: Time, Space and the Organisation of Safety in Complex Sociotechnical Systems.	Macrae, C.	2019	Springer International Publishing	Capability, Adaptation, Network, Anticipation, Restoration
Predictors of organizational resilience by factorial analysis	Morales, S. N., Martínez, L. R., Gómez, J. A., López, R. R., & Torres-Argüelles, V.	2019	International Journal of Engineering Business Management	Leadership, Culture, Adaptation, Learning
Drift, adaptation, resilience and reliability: Toward an empirical clarification	Pettersen, K., & Schulman, P.	2019	Safety Science	Technological Capabilities, Network, Leadership
Indicators to assess organizational resilience – a review of empirical literature	Rahi, K.	2019	International Journal of Disaster Resilience in the Built Environment	Project Management, Anticipation, Adaptation, Culture
Benchmarking Project Resilience	Rahi, K., Bourgault, M., & Robert, B.	2019	Journal of Modern Project Management	Leadership, Decentralized Structure, Network, Culture, Slack Resources
Companies Need to Prepare for the Next Economic Downturn	Reeves, M., Whitaker, K., & Ketels, C.	2019	Harvard Business Review	Technological Capabilities, Network, Long-term Focus
How to emerge stronger: Antecedents and consequences of organizational resilience	Rodríguez-Sánchez, A., Guinot, J., Chiva, R., & López-Cabrales, Á.	2019	Journal of Management & Organization	HRM Processes, Containment, Decentralized Structure
Organizational Resilience and Organizational Performance: Examining the Mediating Roles of Resilient Leadership and Organizational Culture	Suryaningtyas, D., Sudiro, A., Troena Eka, A., & Irawanto Dodi, W.	2019	Academy of Strategic Management Journal	Anticipation, Adaptation, Restoration, Containment, Leadership, Culture
A multilevel framework to enhance organizational resilience	Tasic, J., Amir, S., Tan, J., & Khader, M.	2019	Journal of Risk Research	HRM Processes, Anticipation, Decentralized Structure, Network, Learning, Management Background
Exploring Resilience	Wiig, S., & Fahlbruch, B.	2019	Springer International Publishing	Leadership, Network, Decentralized Structure
Cross-Scale Systemic Resilience: Implications for Organization Studies	Williams, A., Whiteman, G., & Kennedy, S.	2019	Business & Society	Network, Anticipation, Slack Resources

Source: My Analysis

Table 7 Variable Analysed in 2019 (Part A)

Variables	Field	Anderson	Bianchi	Bustinanza	Cantoni	Carney	Costa	Darkow	Duchek	Herbane	Hosseini	Khan
Agility	org						QL					
Business Continuity Management	strg								TH	QT		TH
Communication	org			QT	QT	TH	QL	TH	TH		TH	TH
Contingency Plan	org			QT			QL					TH
Cooperation	org	QL	QT	QT			QL	TH	TH			TH
Customer Orientation	strg	QL		QT								
Decentralized Structure	org	QL					QL	TH	TH			TH
Emergency Planning	org		QT						TH			TH
Employees Engagement	org			QT				TH			TH	
Environmental Scanning	strg	QL	QT	QT				TH	TH			TH
Financial Strength	strg			QT	QT	TH	QL	TH	TH			TH
HRM practices	org	QL		QT				TH	TH		TH	
Improvisation	strg							TH	TH			
Information Systems	org	QL						TH				TH
Innovation	strg						QL					TH
Knowledge Management	strg			QT	QT	TH	QL		TH	QT	TH	TH
Leadership Involvement	org	QL								QT		TH
Network	strg		QT					TH	TH	QT		TH
Organizational Identity	strg	QL		QT				TH	TH			
Policy	strg	QL										TH
Power Distribution	org	QL		QT					TH			
R&D	strg			QT				TH				
Reporting	org					TH						
Risk Management	strg	QL	QT		QT	TH	QL	TH	TH	QT		TH
Slack resources	strg						QL		TH	QT		TH
Technological Capabilities	strg			QT		TH		TH				
Training	org			QT					TH	QT	TH	TH

Source: My Analysis
Legenda: *QL* is Qualitative Analysis; *QT* is Quantitative Analysis, *TH* is Theoretical Analysis, *Org* is Organizational Point of View, *Strg* is Strategic Point of View

Table 8 Variable Analysed in 2019 (Part B)

VARIABLES	FIELD	MACRAE	MORALES	PETTERSEN	RAHI ET L.	RAHI	REEVES	RODRIGUEZ	SUYANINGTYAS	TASIC	WIIG	WILLIAMS
Agility	org		QT							QT		
Business Continuity Management	strg	TH										
Communication	org				QL			QT		QT		TH
Contingency Plan	org		QT									
Cooperation	org		QT	QL	QL			QT		QT	TH	
Customer Orientation	strg							QT				
Decentralized Structure	org		QT		QL	TH		QT			TH	
Emergency Planning	org	TH		QL								
Employees Engagement	org				QL	TH		QT				
Environmental Scanning	strg	TH			QL			QT	QT	QT	TH	TH
Financial Strength	strg		QT									
HRM practices	org							QT		QT		
Improvisation	strg		QT					QT		QT		
Information Systems	org		QT			TH		QT				TH
Innovation	strg		QT		QL		TH			QT		
Knowledge Management	strg	TH	QT	QL	QL	TH		QT		QT		TH
Leadership Involvement	org		QT	QL	QL	TH			QT		TH	
Network	strg	TH	QT		QL		TH	QT		QT	TH	TH
Organizational Identity	strg		QT						QT			
Policy	strg	TH			QL					QT	TH	
Power Distribution	org		QT		QL	TH		QT		QT		
R&D	strg	TH					TH					
Reporting	org			QL	QL							

Variables	Field	Macrae	Morales	Pettersen	Rahi et l.	Rahi	Reeves	Rodriguez	Suyaningtyas	Tasic	Wiig	Williams
Risk Management	strg	TH	QT	QL	QL			QT		QT		TH
Slack resources	strg	TH	QT		QL							TH
Technological Capabilities	strg	TH	QT	QL			TH					
Training	org	TH	QT	QL				QT		QT		

Source: My Analysis
Legenda: *QL* is Qualitative Analysis; *QT* is Quantitative Analysis, *TH* is Theoretical Analysis, *Org* is Organizational Point of View, *Strg* is Strategic Point of View

2. CHAPTER

WHAT ORGANIZATIONAL RESILIENCE IS BECOMING AFTER COVID-19?

2.1 Introduction

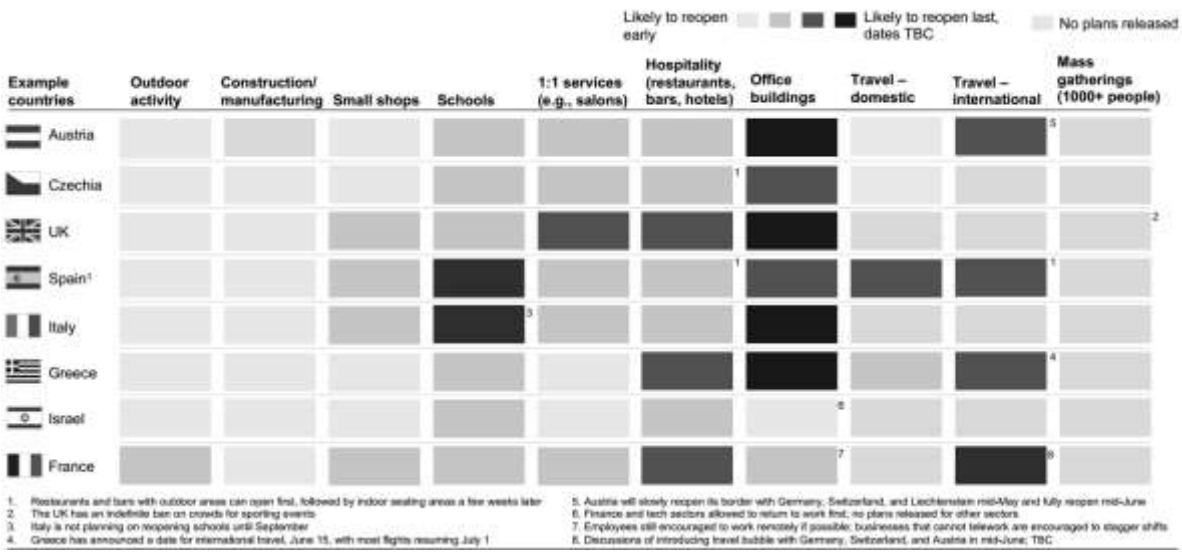
On the 9th January of 2020, the World Health Organization reported an outbreak of a novel coronavirus, that started in China, specifically, in the city of Wuhan, in late December 2019. The first case in Europe happened the 24th January of the same year in France, and in a month, it spread throughout the continent (World Health Organization, 2020). By March, the Covid-19 virus reached all the world – except for the Antarctica continent. At the time of writing, the confirmed Covid-19 cases exceed the 11.6 million and are still increasing worldwide.

Figure 5 WHO Coronavirus Diseases (Covid-19) Dashboard

Source: World Health Organization, 2020

This virus was unexpected and impacted all industries, many companies have been hit hard by the lockdowns implemented by the different governments. (Schwartz, Hatfield, Scoble-Williams, & Volini, 2020). Various countries have adopted different reopening strategies, as it is clear from Figure 2, and it has impacted the way consumers and firms behave.

Figure 6 Different reopening strategies by country



Source: McKinsey & Company, 2020

In this scenario, where office buildings are likely to stay closed for a long time, companies need to be aware that new trends and necessities are emerging in the market such as the acceleration of digital initiatives (McKinsey & Company, 2020). Indeed, chief information-security officers have now to balance two important priorities: protecting against cyberthreats of the digital world and assuring business continuity, in particular for the employees' safety to work at home, embracing thus new working paradigms. Furthermore, some companies managed to communicate appropriately with teams, stakeholders and its whole ecosystem; those proved to react better to the effects of the virus and adapted more reactively (Deloitte, 2020).

This chapter is aimed at understanding whether the concept and the variables that determine and influence the concept of organizational resilience have changed after the advent of the Covid-19 pandemic. It will start with the explanation of the methodology used for the literature review of this chapter. The definitions provided by the articles written during the Covid-19 outbreak will be compared with those of the first chapter and then the same

operation will be done for the determinants. The definitive model will be draft at the end of the chapter, this will be used for the empirical analysis that will follow.

2.2 Methodology

The aim of this chapter is to define what the concept of organizational resilience was in the first half of the year 2020, and whether it has changed after the advent of the Covid-19 disease. In order to answer the proposed research question, a systematic literature review was put in place.

Three different databases were consulted: Google scholar, Ebsco and Scopus. Furthermore, a study of the grey literature was done to evaluate the trends in the market concerning the impact of the novel coronavirus disease on companies. Articles and case studies by consulting agencies, in particular Deloitte and McKinsey & Company were analysed. The research was carried out by the same means in all three different databases: a Boolean search was carried out for the terms 'Organizational Resilience' and 'Covid-19'. The selection criteria included paper published just in the year of 2020. Moreover, only scientific documents written in English were selected. The research was carried out on abstracts, title and inside the paper. The results were ten articles on EBSCO, fourteen on Scopus and more than five thousand on Google Scholar. These were also restricted to the articles concerning the management field and published by business related journals, such as 'International Journal of Management Reviews', 'Harvard Business School Accounting & management Unit Working Paper', 'Harvard Business Review', 'Industrial Marketing Management', 'Journal of Business Research', 'Environment Systems and Decisions', and others. The whole selection process can be seen in detail in Table 9.

Table 9 Literature Selection Process for the Second Chapter

DATABASE	FIRST SEARCH	ABSTRACT CHECK	FIRST READING	FINAL RESULTS
EBSCO	10	9	6	3
Scopus	14	6	4	3
Google Scholar	100	25	14	12
Total	124	40	24	19

Source: My Analysis

Based on this criteria, forty articles were found, and a preliminary analysis of the titles, abstracts and discussion section was carried out to choose the relevant articles for this literature review. Some of them were read in full. Of all these articles, just nineteen were

considered as suitable for this dissertation and, therefore, analysed. The list of the articles considered for this analysis, and their details, can be seen in Table 14. The review of these articles will provide the definitive framework of analysis for the whole dissertation.

2.3 Definition of Organizational Resilience post Covid-19

Covid-19 pandemic have had a huge sociological and economic impact on society. It is classified by experts as a *low probability* – or high uncertainty – and *high impact* event (Keenan, 2020). This has forced the world to face an extreme situation, that is defined as a state of VUCA, that is an acronym for Volatile, Uncertain, Complex and Ambiguous Situation (Nembhard et al., 2020).

In order to cope with this situation of ambiguity and unpredictability, organizational resilience has become a very hot topic. It has developed into such a crucial subject that, for instance, Deloitte has a whole new section on its website dedicated to this topic. It is called 'Combating Covid-19 with resilience', where the consulting firm proposes different articles that give useful insight and suggestions on how companies can become more resilient and restart in this new reality (Deloitte, 2020).

It is interesting to investigate how the authors considered defined organizational resilience, either *explicitly*, by seeking out a definition to start their analysis with, or *implicitly*, by suggesting some solutions to companies, and these imply a specific set of underlying assumptions.

Velu et al. (2020) are the only ones who put the focus on trying to define organizational resilience. They distinguish between three different qualifications of the concept:

- as an innate feature;
- as an outcome of the processes of the firm;
- and lastly as the level of stress that can be endured by the organization.

The authors conclude that there is *no right definition* in absolute terms, but they all pick the notion of organizational resilience up in different ways, grasping *different realities* of the *same notion*. Furthermore, they focus on distinguish organizational resilience from simple survival. Whereas Cheema-Fox et al. (2020) define it as just the ability to tolerate all the negative effects that are generated from a disruptive event, without exploring any other implication that could arise from the notion.

The majority of the articles considered start from the assumption that organizational resilience is the *ability* to *bounce back* in a situation of operational continuity and *bounce forward* into a new way of working, that will become the new normal paradigm. This position is supported by:

- Hynes et al. (2020), who state the importance of both recovery and adaptation for thriving in uncertain conditions;
- Rappaccini et al. (2020), who present it as the ability to develop the resources to face disturbance, while assuring operational persistence;
- Sawalha (2020), who assert that it is the ability to grow and prosper, while also recovering and resuming critical activities;
- Tam (2020), who defines it as the ability to move forward after a crisis into a new equilibrium;
- Trump and Linkov (2020), who believe that it is the ability to respond, recover and adapt to disruption;
- Verma and Gustafsson (2020), who consider resilience as something useful for sustaining and positioning the organizations in the next normal.

On the other side, other authors focus on organizational resilience as an *outcome* of the different activities a company should develop.

Those are Bailey and Breslin (2020), DeCiantis and Lansberg (2020), Kenaan (2020), Menoni and Schwarze (2020), Nembhard et al. (2020) and Sigala (2020). They focus their analysis on the *solutions* that the company should implement in order to build organizational resilience. These should arise from a set of strategies that have the purpose to cope and assure business continuity.

Furthermore, Barton et al. (2020) take a different stance in their article: they define resilience as something the company do and put effort on evolving, rather than an innate characteristic that a firm just has.

In addition, Oehman et al. (2020) and Quigley et al. (2020) define different managerial contexts related to uncertain, risky, and negative events that have different probabilities of happening, and not in all of them organizational resilience is the optimal solution. For instance, in order to face a situation of uncertainty, they believe that the ideal solution should be for the company to have put in place a robust decision-making process.

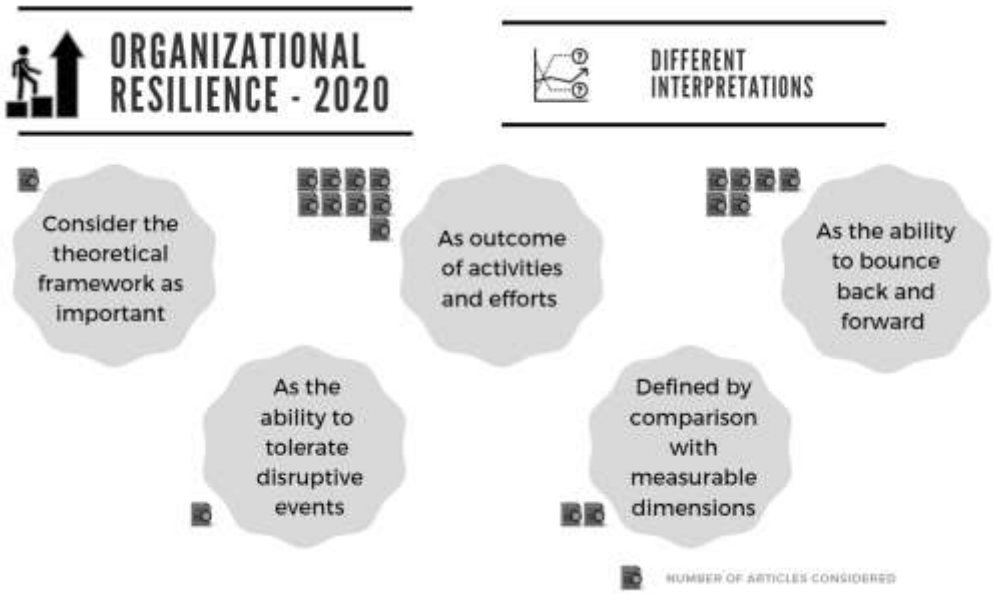
Whereas organizational resilience is defined as the ideal response to a situation of ignorance, where there is very little understanding of the possible future development, and their probability of happening.

Lastly, two articles tried to define organizational resilience by comparing it to two measurable dimensions of the reality of an organization.

First of all, Ding et al. (2020) use the price stock for listed companies as a benchmark for resilience. Indeed, they assume that stakeholders are willing to support companies who signal strong commitment in sustaining their network and overall ecosystem in which they are embedded. This engagement underlies the presence of a company that undertake resilient corporate activities.

Sharma et al. (2020) analyse the flexibility of sales process, considering it as a measure for resilience. They compare organizational resilience to the concept of adaptive selling, they are considered as the characteristic of an organization to react faster, bounce back more quickly and to improvise better during stressful situations.

Figure 7 Different conceptualization of organizational resilience in 2020



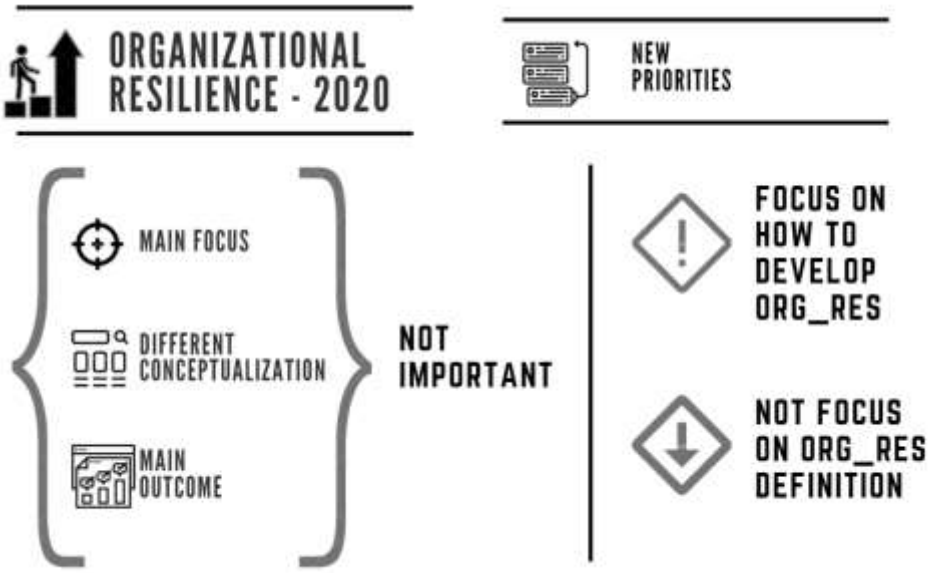
Source: My Analysis

For what concerns this dissertation, the definition of organizational resilience outlined in paragraph 1.3.4 Organizational Resilience: a Definition still stands.

All the authors considered, except for Velu et al. (2020), have their own conception of organizational resilience and do not openly acknowledge in their articles the possibility

that there are different aspects related to it. Thus, it is clear that all of them do not consider this theoretical distinction as a relevant discussion topic at the moment. On the other side, this difference arises when comparing the articles published in the year 2019 with those that appeared in 2020. This can be explained by considering what the world is facing at the moment. Even though, the possibility for such an event to happen has been widely forecast (Gates, 2015), it caught everyone unprepared to face it adequately. Indeed, the articles considered focus their attention on how firms can be more resilient and survive these troublesome times: they put the spotlight on what are the determinants and characteristics that can assure business continuity and improve a firm's position in the market. This is going to be also the focus for the next paragraph.

Figure 8 What is new in organizational resilience is 2020



Source: My Analysis

2.4 Determinants of Organizational Resilience post Covid-19

In this paragraph, the variables considered in the articles published in the first six months of 2020 as determinants of organizational resilience are examined. These will be analysed through different lenses and there will be a discussion about their meaning and implication for the companies.

2.4.1 Ranking of Organizational Resilience Variables post Covid-19

All the authors examined different variables as determinants of organization resilience, it is possible to check what each of them considered as fundamental in Table 15. They all

used different appellations, and those who referred to the same concept were clustered under common designation. It is possible to see in Table 14 the ranking of all the organizational resilience variables considered by the authors, and how many times they were recognized as relevant for the development of organizational resilience for the articles published in the first half of the year 2020.

Table 10 Ranking of the Organizational Resilience Variables post Covid-19

VARIABLES	COUNTING
Network	14
Risk Management	10
Knowledge Management	9
Cooperation	9
Contingency Plan	8
Employees Engagement	7
HRM practices	7
Slack resources	7
Organizational Identity	7
Technological Capabilities	7
Communication	7
Leadership Involvement	6
Business Continuity Management	5
Information Systems	5
Agility	4
Policy	4
Customer Orientation	3
Reporting	3
Innovation	3
Environmental Scanning	3
Emergency Planning	3
Improvisation	3
Financial Strength	2
Training	2
Power Distribution	2
Decentralized Structure	1
R&D	0

Source: My Analysis

When considering this ranking, *Network*, *Risk Management* and *Knowledge Management* are the activities that are considered the most as determinants of organizational resilience. The one that is cited the most is *Network*. It is considered important by Bailey and Breslin (2020), Cheema-Fox et al. (2020), Ding et al. (2020), Kenaan, (2020), Hynes et al. (2020),

Menoni and Schwarze (2020), Oehman et al. (2020), Quigley et al. (2020), Rappaccini et al. (2020), Sharma et al. (2020), Trump and Linkov (2020), Velu et al. (2020), and Verma and Gustafsson (2020).

Network

Network is a wide topic and it is comprised of the global *supply chains* of a company, the partnership with the *community* in which the company is embedded. Companies have been affected by the position of their supply chains, in terms of proximity to pandemic outbreaks hotspots (Ding et al., 2020). Indeed, the world has experienced resource shortfalls and stoppages in the supply chain, thus revealing their weaknesses (Rappaccini et al., 2020). Therefore, as suggested by Verma and Gustafsson (2020), organizations need to assure business continuity and supply chains will need to be flexible and increase their overall resilience to stress. The authors suggest that this could be achieved by:

- reducing the complexity of the supply chain, i.e. removal of superfluous linkages (Verma and Gustafsson, 2020);
- changing the company's perspective, from a globalization point of view to a regionalization one, transferring more products closer to the customers and thus affecting logistic pipelines (Rappaccini et al., 2020).

On the other side, Network is also considered in terms of relationships with the wider community and the authors highlight the emergency

- to create more partnership, so to have access to new kinds of insights;
- to collaborate in detecting new disruptions;
- to come up with solutions together as part of an ecosystem.

Risk Management

The second most cited determinant is *Risk Management*. It is considered by Hynes et al. (2020), Kenaan (2020), Menoni and Schwarze (2020), Nembhard et al. (2020), Oehman et al. (2020), Quigley et al. (2020), Sawalha (2020), Sigala (2020), Velu et al. (2020), and Verma and Gustafsson (2020). Hynes et al. (2020) put the spotlight on reducing and monitoring the system complexity, increasing resources, creating slacks, and establishing a real time decision support tool. The company needs to adopt a *scenario approach*, to improve the recovery phase (Menoni and Schwarze, 2020). Oehman et al. (2020) consider

Risk Management as fundamental to move companies quickly out of denial and thus minimizing the negative outcomes of refusal and inactivity, by designing and implementing recovery plans. Some suggestions to boost the Risk Management process are given by Nembhard et al. (2020), that are:

- to put people at the centre of the organization's strategy;
- to manage operations differently from before;
- to increase cooperation and boost communications, both inside and outside the company;

Knowledge Management

Afterwards, *Knowledge Management* is the third most cited variable by Barton et al. (2020), Kenaan (2020), Menoni and Schwarze (2020), Nembhard et al. (2020), Oehman et al. (2020), Quigley et al. (2020), Sawalha (2020), Sharma et al. (2020), and Verma and Gustafsson (2020). The ability to learn is considered as a fundamental one, that should not be restricted to what has happened, but it should also be related to the opportunities that the company has missed, so it is important to learn from the mistakes of the past (Menoni and Schwarze, 2020). The company needs to be sure to share and update frequently the knowledge acquired, therefore, there should be an established practice of taking interruptions to achieve this. Moreover, Menoni and Schwarze (2020) state that the adaptation phase should be developed with a solid foundation of data, information, and learning.

Looking at Table 10, the list of variables considered as important continues with *Cooperation* and the presence of *Contingency Plan* routines.

Cooperation

Furthermore, *Cooperation* is considered as an important variable by Bailey and Breslin (2020), DeCiantis and Lansberg (2020), Menoni and Schwarze (2020), Nembhard et al. (2020), Rappaccini et al. (2020), Sawalha (2020), Sharma et al. (2020), Trump and Linkov (2020), and Velu et al. (2020). Collaboration has changed a lot because of the pandemics, it all moved to the digital word: companies had to implement remote work, with virtual members, virtual cooperation, and new ways of working (Bailey and Breslin, 2020). Organization who implemented is successfully were enabled by a proper cooper-

ation between the IT department and operational one (Rappaccini et al., 2020). Furthermore, cooperation also fosters the quality of teamwork, and, since teams are also knowledge enablers, this can create connections inside the firm (Sharma et al., 2020).

Contingency Plan

Subsequently, the fifth variable most cited is *Contingency Plan*. This is taken into consideration by DeCiantis and Lansberg (2020), Hynes et al. (2020), Menoni and Schwarze (2020), Oehman et al. (2020), Quigley et al. (2020), Sawalha (2020), Sigala (2020), and Velu et al. (2020). Indeed, in order to foster resilience, planning and organizational routines need to be put in place (Sawalha, 2020). Menoni and Schwarze (2020) suggest the adoption of a *scenario approach*, that has the purpose to lower at the minimum the uneasiness under all possible scenarios that can happen. It is important that plans are updated and evaluated constantly, in order for them to be efficient when a disruptive event will happen (Sawalha, 2020).

Variables Revised

Given the fact that the variables considered so far overlap conceptually with some of the others in the list, it is useful to develop macro categories to elaborate a better analysis. These are called *Variable Revised* in Table 11, and the process of variable grouping is explained in detail below.

Table 11 Ranking of Variable Revised of Organizational Resilience post Covid-19

VARIABLES REVISED	COUNTING
Risk Management	29
Human Capital Infrastructure	25
Knowledge Infrastructure	24
Internal Resources	23
Ecosystem	18
Organizational Slack	13
Organizational Design	9

Source: My Analysis

There are seven main categories. The one that is most cited is *Risk Management*. It encompasses Business Continuity Management, the development of Contingency Plans, Emergency Planning, Environmental Scanning, and Risk Management variables.
This is composed of different aspects such as:

- the ability of *frontline workers* to recognize and face different emerging situations (Bailey and Breslin, 2020);
- the adoption of *routines* and procedures that allows an organization to be aware and quickly adapt to the *external environment* (Cheema-Fox et al., 2020);
- the development and implementation of *plans*, and mitigation measures that are based on different scenarios, that have to be updated and evaluated in order to be ready to face a disruptive event (Sawalha, 2020).

These processes should be characterized by a continuous cycle of improvements to be truly effective. Indeed, this can enable the company to be more adaptable, allowing thus for more rapid innovation and changes.

The second most cited category is *Human Capital Infrastructure*. It includes Cooperation, and the implementation of Teamwork inside the company, Employees Engagement, HRM Practices, and Training variables.

Those can foster organizational resilience by creating a *positive working environment*, in employees are willing to work more and commit to the company even in time of crisis (Ding et al., 2020). Workers should be evaluated frequently, and they should have clear in mind the connection of their daily activities to the broader purpose of the organization.

Furthermore, there is *Knowledge Infrastructure*, that calls for the design of communication infrastructure that foster learning and innovation. It is composed by Communication, both in terms of peers to peers and in terms of feedbacks given, Information Systems, Knowledge Management, and Reporting variables.

During the Covid-19 outbreak, all of these is achieved through the *digitalization* of processes, routines, and communications (Rappaccini et al., 2020). This makes it easier for employees who cannot meet in the companies' premises to share information and low ambiguity that can derive from low quality sharing of knowledge.

The fourth most cited variable is *Internal Resources*, that is formed by Customer Orientation, Improvisation, Innovation, R&D, Organization Identity, and Technological Capabilities variables.

Organizations have been impacted by the location of customers, due to their proximity to a Covid-19 outbreak hotspot (Ding et al., 2020). Furthermore, companies need to face new challenges, and in some cases, they have to modify their corporate philosophy to face the disruptive event that has occurred (Hynes et al., 2020). For instance, resilience should

be introduced as core values, as well as creativity, the pursue of a learning mindset, and innovation, to acquire new perspective. In addition, this pandemic has highlighted the importance of technological capabilities, as enabler of the new workplace: where meetings and communication happen in the virtual world (Bailey and Breslin, 2020). Digitalization can also boost relationship with other organization and can be used to capture information about the market, the customers and all the stakeholders involved with the company.

Furthermore, there is the *Ecosystem*, that is formed by Network, both personal and of the organization, Supply Chain and Policies, in terms of regulation and law.

Those can be fundamental in helping to detect emerging crisis, to gather more understanding about innovations, problem solving techniques, data and knowledge. Furthermore, global collaboration and cross industry cooperation are needed to face and emerge into a new normality (Trump and Linkov, 2020).

Further on there is *Organizational Slack*. It is made of Agility and Flexibility, Financial Strength, availability of Slack Resources variables.

Companies need to adapt and respond to disruptions as quickly as possible. There is the need for modularity so that functions can be quickly either outsourced or insourced when necessary (Sharma et al., 2020). Organizations should have in place a decentralized structure that can foster the flexibility and adaptability of the relationships between employees. Furthermore, there must me slack resources, also in terms of time available, so that the company can reorganize the workplace and add these redundancies in critical department of the organization (Rappaccini et al., 2020).

The last variable considered is *Organizational Design*, that is constituted of Decentralized Structure, Leadership Involvement, and Power Distribution variables.

Rappaccini et al. (2020) state that companies need to have a central coordination system in place as soon as there is a disruptive event, so that the organization can deploy an unanimous response, have all workers aware of the situation, and check if there are enough resources to face that kind of situation. After that, *noses in, fingers out*, as expressed by DeCiantis and Lansberg (2020), should be the philosophy to follow. This entails the responsibility to check with great attention what happens in the organization assert when the corporate board see issues and risks, however, ultimately, they should allow local management to run the everyday business.

When considering this classification, the most cited are *Risk Management* and *Human Capital Infrastructure*; those considerations are different from those done when considering the single variables, without the grouping.

2.4.2 Different Methods of Analysis: post Covid-19

The variables ranked in the previous paragraph are studied by the authors using different methods of analysis. In particular, they have been examined by using three different approaches:

- First of all, some of them have been analysed by the authors from a *quantitative perspective*: this means that an empirical analysis was carried out. For these quantitative articles, the variables were taken from the empirical part of the papers. The quantitative analysis was done by Cheema-Fox et al. (2020), Ding et al. (2020), Rappaccini et al. (2020), and Velu et al. (2020);
- Then, others have been analysed from a *qualitative perspective*, for instance, with the development of some case studies. The variables were taken from the analysis of the interviews done with the companies by the researchers. Quigley et al. (2020) and Sharma et al. (2020) have done a qualitative research.
- Lastly, the majority of the articles considered were more focused on the *theoretical background*. In order to capture the variables of these papers, the propositions suggested by the authors and the theoretical background they studied were considered. The authors who followed this methodology are: Bailey and Breslin (2020), Barton et al. (2020), DeCiantis and Lansberg (2020), Hynes et al. (2020), Kenaan (2020), Menoni and Schwarze (2020), Nembhard et al. (2020), Oehman et al. (2020), Sawalha (2020), Sigala (2020), Tam (2020), Trump and Linkov (2020), and Verma and Gustafsson (2020).

In Table 12 there is the counting of how the variables have been considered. The determinants were mostly considered through theoretical statements, then through a quantitative analysis. The variables studied using a qualitative approach were roughly half of those considered with the analysis of the quantitative background.

Table 12 Variable analysed with Different Methods pre Covid-19

Qualitative Analysis	Quantitative Analysis	Theoretical Statements
18	30	93

Source: My Analysis

2.4.3 Fields of Analysis: post Covid-19

The macro categories that were developed in paragraph 2.4.1 Ranking of Organizational Resilience Variables post Covid-19 have a diversified range of determinants and processes inside.

As presented in Table 13, the concept of *Variables Revised* is constituted of concepts that are both organizational and strategic in nature. As a consequence, also the conceptualization of organizational resilience is outline by different numbers of notions.

Table 13 Variables studied in Different Fields: post Covid-19

VARIABLE REVISED	ORGANIZATIONAL	STRATEGIC	TOTAL
Ecosystem		18	18
Human Capital Infrastructure	25		25
Internal Resources		23	23
Knowledge Infrastructure	15	9	24
Organizational Design	9		9
Organizational Slack	4	9	13
Risk Management	11	18	29
Total	64	77	141

Source: My Analysis

The majority of the articles analysed for this dissertation consider more strategy related variables than ones related with the organization nature. Furthermore, three out of seven of the topics that are present in Table 13Table 5 are characterized by a *double nature*. The strategic variables and the organizational ones can have as the object of study the same issues and topic related to the life of the company; however, these are studied from two different points of view. The former is related to the *strategic direction* that firm has decided to take, and it is given by the general strategy of the company, the corporate one or the competitive one. Whereas the latter refers to the *intrinsic characteristics* of an organization, such as its internal structure and processes carried out inside the firm, and to the behaviour of the different actors carried out in a company in different situations.

First of all, in order of times cited, there is *Risk Management*. Its broad concept and definition have been already analysed in the previous paragraphs. However, when looking at it through the *organizational* lenses, it refers to the planning put in place to face disruptive circumstances and to the throughout definition of the specific strategies that the company needs to adopt in the different possible scenarios (Menoni and Schwarze, 2020). On the other hand, when looking at it through the *strategic* point of view, it concerns the adoption

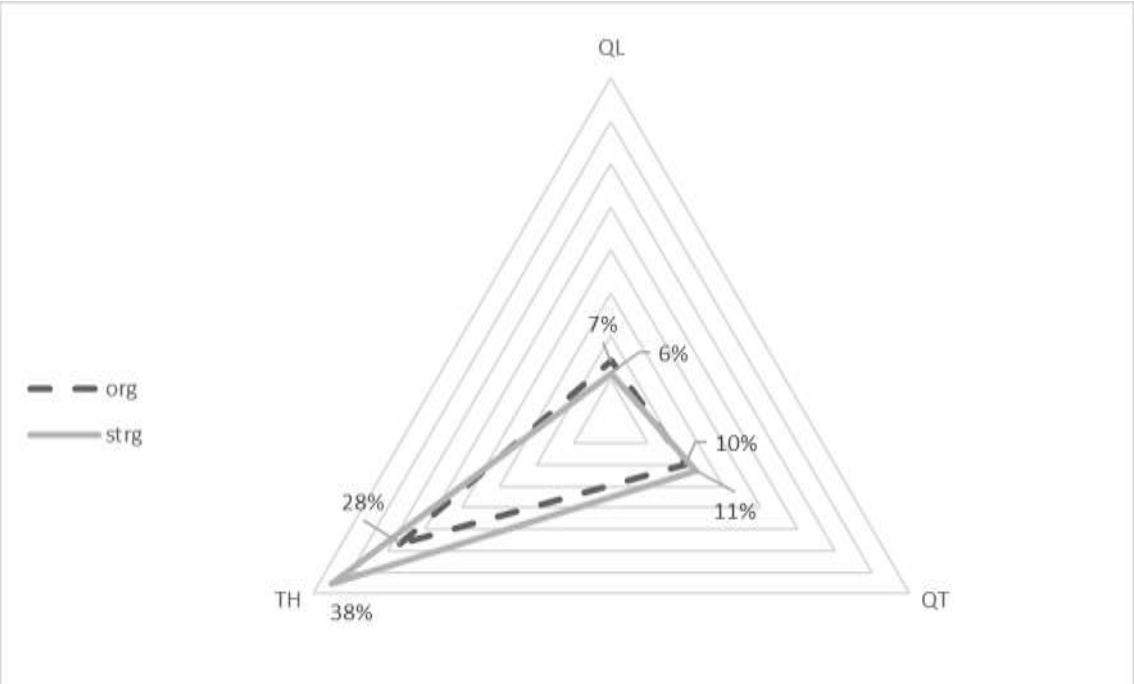
of a business model that is adaptable, and that can allow employees to be able to recognize and to face different challenges that happen (Bailey and Breslin, 2020). Furthermore, it encompasses the mechanism of early warning, that has to be put in place to scan the environment.

Afterwards, there is *Knowledge Infrastructure*, that is considered as another determinants characterized by a double nature. When considering this concept with an *organizational* point of view, it refers to the outline of a proper communication infrastructure across the different department of an organization (DeCiantis and Lansberg, 2020). Furthermore, it entails the design of information system that are appropriate for rapidly acquiring data and information, stored, and communicate throughout the company (Hynes et al., 2020). However, when looking at it through its *strategic* nature, Barton et al. (2020) suggest it is about scheduling interruptions to update the knowledge of all employees and share the ideas that can arise in different functions of the company.

Lastly, *Organizational Slack* is characterized by this double nature as well. One of which is defined by the *organizational* point of view. In this context, agility is needed to adapt and face adverse events, while flexibility is related to the relationships between employees. Both of these concepts are enabled by the adoption of a decentralized structure (Verma and Gustafsson, 2020). For what concerns the other point of view, it is characterize by a *strategic* nature, and it refers to the implementation of policies aimed at the creation of slack resources also in terms of time available (Rappaccini et al., 2020). Organizations need to prepare financially and operationally to these adverse events, by keeping cash holdings, low levels of debt, and focus on the profitability of the company (Ding et al., 2020).

The Figure 9 shows how the different point of views, strategic and organizational, have been considered in the literature analysed, not considering the absolute values. The theoretical background is the one most used when considering both points of views, with the strategic context being more investigated than the organizational one. It is followed by the quantitative analyses, and the same situation is repeated here. At last, the qualitative analysis is the one less used in both cases, and it sees more organizational variables analysed than strategic ones. It is clear that there is an important percentage of variables studied from a theoretical point of view, therefore, authors are focusing more on building the theoretical foundation of the possible determinants of organizational resilience.

Figure 9 Different Conceptualization of the papers published in 2020



Source: My Analysis

2.5 Conclusion

In this chapter, the articles published in the first half of the year 2020 that studied organizational resilience have been analysed. In particular, the definition and the variables that can help and build organizational resilience inside a firm were listed and studied.

The purpose of the dissertation is to investigate whether the concept of organizational resilience is a fixed topic, or it changes depending on the circumstances. The analysis carried out in this chapter is useful because it delineates how organizational resilience has been defined and how it could be boosted after the advent of the pandemic caused by the novel Covid-19.

For what concerns the definitions, most of the authors do not discuss widely about the different delineations of organizational resilience and their implications. Indeed, they do not consider the theoretical distinction seen in the previous chapter as a hot topic to investigate. This can be due to the fact that there is already an adverse event in place and that, at this point, companies need to know the tools that they need to leverage in order to successfully face this emergency.

The articles are focused on the determinants that can assure business continuity and improve the firm's position in the market. Indeed, the most cited variables were Network,

Risk Management, Knowledge Management, Cooperation, Contingency Plan, and Employees Engagement.

The articles published in the first half of the year 2020 studied this topic developing different kinds of analysis: qualitative, quantitative, and theoretical. Most of the papers were focused on developing theoretical statements. This could be due to the fact that this analysis is carried out at the very beginning of the pandemic and, therefore, it was not possible to develop many empirical studies. Another explanation for this phenomenon could be that the pandemic of Covid-19 has changed the managerial tools that need to be leveraged in order to develop organizational resilience. Therefore, there is the necessity to investigate those from a theoretical point of view before carrying out any empirical analysis. All of these papers provided some determinants that can be helpful in order to boost organizational resilience inside the company. In total, 26 variables were found as important to develop resistance in the firm. Those determinants related both to the organizational and the strategic side of an organization. All the variables were later grouped in macro-categories that helped to develop a better analysis.

In the next chapter, there will be a comparison of the articles published in 2019 and of those published in the first half of the 2020. The different definitions will be examined, and a comparison of the determinants that are regarded as important in the two years will be carried out.

Table 14 Paper List Post Covid-19

Title	Author	Year	Source	Key Issues
The Covid-19 Pandemic: What can we learn from past research in organizations and management?	Baley, K., & Breslin, D.	2020	International Journal of Management Reviews	Factors to build resilience, Leadership, New Business Challenges, HRM
Resilience in action: leading for resilience in response to COVID-19.	Barton, M. A., Christianson, M., Myers, C. G., & Sutcliffe, K.	2020	BMJ Leader	Disruption, Bricolage, Emotional implications, Learning
Corporate Resilience and Response During COVID-19	Cheema-Fox, A., LaPerla, B., Serafeim, G., & Wang, H.	2020	Harvard Business School Accounting and Management Unit Working Paper	Stakeholders, News articles as evidence of resilience
What Family Businesses Need to Adapt to a Crisis	DeCiantis, D., & Lansberg, I.	2020	Harvard Business Review Digital Articles	Family Businesses, Crisis Governance, Leadership,
Corporate immunity to the COVID-19 Pandemic	Ding, W., Levine, R., Lin, C., & Xie, W.	2020	National Bureau of Economic Research	Price stocks as a measure of resilience, Stakeholders, CSR, Ownership Structure, Governance System
Bouncing forward: a resilience approach to dealing with COVID-19 and future systemic shocks	Hynes, W., Trump, B., Love, P., & Linkov, I.	2020	Environment Systems and Decisions	System Thinking, Recovery, Adaptation, Recommendations
COVID, resilience, and the built environment	Keenan, J. M.	2020	Environment Systems and Decisions	Learning, Engineering and Community resilience
Recovery during a crisis: facing the challenges of risk assessment and resilience management of COVID-19	Menoni, S., & Schwarze, R.	2020	Environment Systems and Decisions	Learning, Adaptation, Ecosystem, Scenario Approach
Responding to Covid-19: Lessons from Management Research	Nembhard, I. M., Burns Lawton, R., & Shortell, S. M.	2020	NEJM Catalyst Innovations in Care Delivery	VUCA, Leadership, Stakeholders, Emotional implications, Learning, Health Care workers
Risk, uncertainty, ignorance and myopia: Their managerial implications for B2B firms	Oehmen, J., Locatelli, G., Wied, M., & Willumsen, P.	2020	Industrial Marketing Management	Monitor, React, Management of Ignorance, Preparation, Resistance, Recovery, Learning, Local Adaptation
A multi-hazards earth science perspective on the COVID-19 pandemic: the potential for concurrent and cascading crises	Quigley, M., Attanayake, J., King, A., & Prideaux, F.	2020	Environment Systems and Decisions	Scenario Approach, Management of Ignorance

Title	Author	Year	Source	Key Issues
Navigating disruptive crises through service-led growth: the impact of COVID-19 on Italian manufacturing firms	Rappaccini, M., Saccani, N., Kowalkowski, C., Paiola, M., & Adrodegari, F.	2020	Industrial Marketing Management	Digitalization, Long-term, Bouncing back and forward, Ecosystem, Collaboration, Local Adaptation
A contemporary perspective on the disaster management cycle	Sawalha, I. H.	2020	Foresight, Scopus	Traditional Disaster Management, Adaptation, Leadership, Learning,
Increasing resilience by creating an adaptive salesforce	Sharma, A., Rangarajan, D., & Paesbrugghe, B.	2020	Industrial Marketing Management	Sales Processes, Adaptive Selling as a measure of resilience, Digitalization, Adaptation
Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research	Sigala, M.	2020	Journal of Business Research	Tourism market, Digitalization, Bouncing back and Forward
The Path Forward Amid COVID-19	Tam, G.	2020	Talent Development	Leadership, System Thinking
Risk and resilience in the time of the COVID-19 crisis	Trump, B. D., & Linkov, I.	2020	Environment Systems and Decisions	Long-term, Bouncing back and Forward, Ecosystem
Competency assessment for OR - Covid-19	Velu, S. R., Gopinathan, S., & Raman, M.	2020	Journal of Humanities and Social Sciences Research	Adaption, Community, Competency, Teamwork, Coordination, Recommendations, Malaysia market
Investigating the emerging COVID-19 research trends in the field of business management: a bibliometric analysis approach	Verma, S., & Gustafsson, A.	2020	Journal of Business Research	Digitalization, Responsive, Supply Chain, Service Industry, Ecosystem
The Covid-19 Pandemic: What can we learn from past research in organizations and management?	Baley, K., & Breslin, D.	2020	International Journal of Management Reviews	Factors to build resilience, Leadership, New Business Challenges, HRM
Resilience in action: leading for resilience in response to COVID-19.	Barton, M. A., Christianson, M., Myers, C. G., & Sutcliffe, K.	2020	BMJ Leader	Disruption, Bricolage, Emotional implications, Learning
Corporate Resilience and Response During COVID-19	Cheema-Fox, A., LaPerla, B., Serafeim, G., & Wang, H.	2020	Harvard Business School Accounting and Management Unit Working Paper	Stakeholders, News articles as evidence of resilience

Source: My Analysis

Table 15 Variables Analysed in 2020 (Part A)

Variables	Field	Baley	Barton	Cheema-Fox	DeCiantis	Ding	Hynes	Keenan	Menoni	Nembhard	Oehmen
Agility	org										
Business Continuity Management	strg	TH		QT							
Communication	org				TH		TH		TH	TH	
Contingency Plan	org				TH		TH		TH		TH
Cooperation	org	TH			TH				TH	TH	
Customer Orientation	strg					QT					
Decentralized Structure	org										
Emergency Planning	org						TH		TH		
Employees Engagement	org			QT	TH	QT				TH	
Environmental Scanning	strg								TH		TH
Financial Strength	strg					QT					TH
HRM practices	org	TH	TH	QT		QT				TH	
Improvisation	strg	TH	TH							TH	
Information Systems	org						TH				
Innovation	strg									TH	
Knowledge Management	strg		TH					TH	TH	TH	TH
Leadership Involvement	org	TH			TH					TH	
Network	strg	TH		QT		QT	TH	TH	TH	TH	TH
Organizational Identity	strg	TH			TH	QT	TH				
Policy	strg			QT					TH		
Power Distribution	org										
R&D	strg										
Reporting	org							TH			
Risk Management	strg						TH	TH	TH	TH	TH
Slack resources	strg		TH		TH		TH				

Variables	Field	Baley	Barton	Cheema-Fox	DeCiantis	Ding	Hynes	Keenan	Menoni	Nembhard	Oehmen
Technological Capabilities	strg	TH					TH				
Training	org										TH

Source: My Analysis
Legenda: *QL* is Qualitative Analysis; *QT* is Quantitative Analysis, *TH* is Theoretical Analysis, *Org* is Organizational Point of View, *Strg* is Strategic Point of View

Table 16 Variables Analysed in 2020 (Part B)

Variables	Field	Quigley	Rappaccini	Sawalha	Sharma	Sigala	Tam	Trump	Velu	Verma
Agility	org		QT		QL		TH			TH
Business Continuity Management	strg		QT	TH					QT	
Communication	org	QL	QT						QT	
Contingency Plan	org	QL		TH		TH			QT	
Cooperation	org		QT	TH	QL			TH	QT	
Customer Orientation	strg		QT				TH			
Decentralized Structure	org									TH
Emergency Planning	org	QL								
Employees Engagement	org				QL			TH	QT	
Environmental Scanning	strg			TH						
Financial Strength	strg									
HRM practices	org				QL			TH		
Improvisation	strg									
Information Systems	org	QL			QL				QT	TH
Innovation	strg			TH			TH			
Knowledge Management	strg	QL		TH	QL					TH
Leadership Involvement	org		QT	TH			TH			
Network	strg	QL	QT		QL			TH	QT	TH
Organizational Identity	strg				QL		TH		QT	

Variables	Field	Quigley	Rappaccini	Sawalha	Sharma	Sigala	Tam	Trump	Velu	Verma
Policy	strg							TH		TH
Power Distribution	org		QT							TH
R&D	strg									
Reporting	org			TH	QL					
Risk Management	strg	QL		TH		TH			QT	TH
Slack resources	strg		QT		QL		TH			TH
Technological Capabilities	strg		QT		QL	TH	TH			TH
Training	org			TH						

Source: My Analysis
Legenda: *QL* is Qualitative Analysis; *QT* is Quantitative Analysis, *TH* is Theoretical Analysis, *Org* is Organizational Point of View, *Strg* is Strategic Point of View

3. CHAPTER

DOES COVID-19 MATTER IN DEFINING ORGANIZATIONAL RESILIENCE?

3.1 Introduction

Organizational resilience has been a widely discussed topic in the management literature (Linnenluecke, 2017) and scholars have not yet reached a common agreement neither concerning the definition nor on the processes needed to be put in place in order to successfully face the advent of disruptive events.

This could be due to several reasons, perhaps it is such a complex topic that it is very complicated to give a comprehensive overview of all the different facets of the subject. On another side, maybe, it could also be due to the fact that organizational resilience is not a given topic with fixed issues. These can change time by time and be different depending not only on the time period, but on the disruptive event that the world and in particular the company is facing. It can depend as well as on the field of business in which the organization considered is involved.

These last considerations will be the foundation for this chapter, that will investigate whether organizational resilience is a fixed topic that do not change over time or whether it is an issue that must be contextualized.

The third chapter of this dissertation is thus aimed at comparing the results obtained in the first two chapters that have been already developed. Therefore, there will be a comparison of the definition of organizational resilience before the advent of the pandemic caused by Covid-19 and what has changed after this dramatic event. After this initial overview, there will be an investigation that has the aim to explain the differences that have arisen in the definitions. Furthermore, the determinants that are at the base of the concept of organizational resilience will be compared and the main differences between

the two models – per and post Covid-19 – will be highlighted. At the time of writing, the pandemic has not yet been overcome, therefore, the topics analysed in this chapter are still an ongoing issue, that can mutate in the months to come.

3.2 Different Conceptualization of Organizational Resilience

Organizational resilience is not a new topic in the literature, it was first seen in managerial studies in the 80's (Meyer, 1982). However, this first paragraph of the chapter is going to focus on the different ways in which the topic of organizational resilience has been defined, comparing the years 2019 and 2020. This is an important analysis to develop in order to understand how the definition of organizational resilience can possibly change due to the advent of an external threat. In this particular case, the disruptive event considered is the pandemic caused by the spread of the Covid-19 virus. This is an event that is not directly related to the economics; however, it has had an impact on all companies, and especially on the economic and social system, considered as a whole.

> This chapter is going to investigate whether the Covid-19 pandemic can be considered as an event that can move forward the concept of organizational resilience or if this concept is strong enough to resist this external threat.

The articles published in the year 2019 give a very interesting insight about organizational resilience. The definitions provided by the different authors were not the same and they changed based on three different delineations of the topic: the aim, the outcome, and the purpose.

Starting from these initial differentiations, the papers considered gave different definitions and considered different facets of organizational resilience in their analysis, based on the particular study that was carried out in their work.

It was not possible to derive a unanimous definition, on which all the authors completely agreed. This is due to the fact that those are very different, and they all relate to important characteristics of the issue considered and cannot be overlooked.

Nonetheless an analysis of the main themes was carried out in the first chapter of this dissertation and it can be summarized as follows:

- *What its main focus is*: to anticipate, cope with, and adapt to a disruptive event. The majority of the articles considered focus on organizational resilience as a defensive and reactive practice.

However, this dissertation is considering it as an offensive and proactive one. This is a more comprehensive and dynamic point of view for this subject and considers organizational resilience as an anticipation, containment, as well as an adaptation practice;

- *What organizational resilience is*: either an outcome of the activities carried out by an organization, a set of abilities, or an ongoing process. The majority of the authors consider it not just as a simple ability the organization has, but as a dynamic capability that can be developed through different processes.
  This is also the point of view taken by this dissertation;
- *What its outcome is:* all the papers considered have in common that the starting point for organizational resilience should be to bounce back to a situation of normal business. However, this position assumes that it is actually possible and that it is the best option to restore the condition that were present before the disruptive event occurred. This is not always true, and it is not something that can be readily knowable *a priori*. Therefore, some of the authors analysed provided different interpretations of what the possible outcomes may and should be.
  This dissertation considers the purpose of organizational resilience to be to recover an acceptable situation, both operationally and financially, and, on the meantime, the company should also focus on adapting and thriving in response to the external threat and environment.

Whereas, when considering the articles published after the advent of the pandemic caused by Covid-19 – from the beginning of this year to July 2020 – the situation does really change. The above-mentioned distinction is not relevant anymore and some of the authors considered do not even bother to give an exhaustive definition based on the three criteria previously seen.

On the contrary, they adopt a standard definition of organizational resilience, and do not consider the implications that the different declination of the subject of investigation can have on their suggestions.

Following the majority of the papers, the concept of organizational resilience is shaped as:

- the ability to *bounce back* after a disruptive event has occurred in a situation of operational stability;

- the ability to *bounce forward* into new ways of working;
- the authors suggested that going back to the ol*d ways of doing business is not a plausible scenario*, because the Covid-19 pandemic has completely changed how businesses operate and how customers purchase;
- therefore, companies need to *adapt their processes, skills, and abilities* to this new reality and employees have to re-adjust as well to these new practices.

The process of adapting and redesigning skills and processes becomes critical. In particular, companies need to:

- be fully aware of *what the organization is able to do, how* they can *implement* those practices, and *what they cannot do*;
- have the ability and *willingness to learn* new capabilities and processes;
- have cognitive and economic ability and willingness to *unlearn*.

  The company needs the *cognitive capability* to abandon organizational routines that have proved to be successful, but that could mean for the company to try and bounce back in these old processes, rather than try and bounce forward.

  On the other side, the organization needs the *economic availability* to accept suck costs and economic losses due to discarding of processing and skills, in which they had already invested.

It is clear from the analysis of the literature that the focus of the studies related to organizational resilience has undergone a shift:

- before the advent of Covid-19 one of the aims of the majority of the articles considered was to give an exhaustive definition of organizational resilience and analyse in detail its implications on how companies should behave to prepare and face a crisis;
- on the other side, all the articles considered after the novel pandemic outbreak take the definition for granted, and focus their attention on *recommendations* to foster organizational resilience after the crisis, so that the companies can stay in business without major disruptions to their operations, and, at the same time, find a way to grasp new opportunities to grow in the next future.

To conclude, the definition of organizational resilience has changed because of the outbreak of the Covid-19 pandemic. Indeed, the papers published in the first half of the year 2020 provided a different conceptualization with different insights on the topic. They took

for granted the definitions implemented by other articles published before theirs, in particular the one provided by Linnenluecke (2017). On the other side, the authors who published something before the advent of Covid-19 pandemic compared different definitions of older papers and tried to give their own comprehensive definition and insight on the topic.

What's new?

A contingent approach – The findings delineate that organizational resilience is not as a fixed topic in time, but it is a concept that needs to be contextualized and that changes depending on the threat and on the time of analysis.

A dynamic definition - This also means that it is not possible to give a comprehensive definition of the topic that is static and good to go for all the threats that a company can face.

From a comprehensive definition to contingency plans - The pandemic caused by the virus known as Covid-19 has impacted the way scholars have defined organizational resilience, especially when considering that the three different aspects of the definitions are not considered anymore after the advent of the pandemics. Furthermore, it shifted the main focus of these articles, from analysing different papers and give a comprehensive definition, to try to find solutions to face the current adverse event.

Figure 10 New Conceptualization of Organizational Resilience moving from 2019 to 2020

Source: My Analysis

3.3 Different Variables determining Organizational Resilience

This third paragraph of the chapter is going to investigate whether the management tools that need to be studied and implemented by the companies are different before and after the advents of the Covid-19 pandemic. Therefore, there will a focus on the different determinants that are considered as responsible for the development of organizational resilience, comparing the years 2019 and 2020.

3.3.1 Comparison of the determinants of OR pre and post Covid-19

In the first two chapters of this dissertation an analysis was carried out on the different processes that an organization needs to put in place in order to implement and exploit organizational resilience.

In the first chapter, the analysis was focused on studying the determinants that the articles published in the year 2019 stated as fundamental. The first most cited variables were *Knowledge Management*, *Risk Management*, *Cooperation*, *Environmental Scanning*, and *Network*.

On the other side, when examining the papers promulgated in the first months of 2020, the situation changes. The most mentioned determinants are *Network*, *Risk Management*, *Knowledge Management*, *Cooperation*, and *Contingency Plan*.

It is clear that the priorities of the authors taken into consideration has shifted. Indeed, scholars lost interest in Knowledge Management, while putting more emphasis on the important of the Network of which the company is part. This novel Covid-19 pandemic is not related just to internal dimension of the company such Knowledge Management or Environmental Scanning, but it is more important to have a well-developed external situation: in 2020, the variables Network and Cooperation are more important than they were the previous year. Furthermore, the focus of has shifted from scanning the external environment, to developing contingency plan. This is important because the virus do not spread through business channels but through social relations. Moreover, organizations need to develop these plans in order to be ready to face the different lockdowns measures that the governments have put in place.

In Figure 11, there is the representation of the confrontation of the times a variables have been cited, in absolute terms, in the two years. It is interesting to note that the variables that have been cited more in 2020 are *Agility*, *Contingency Plan*, *Organizational Identity*, *Employees Engagement*, and *Network*. This confirms the considerations previously made and will be further investigated later, when the distinction between the theoretical and the empirical analysis will be carried out.

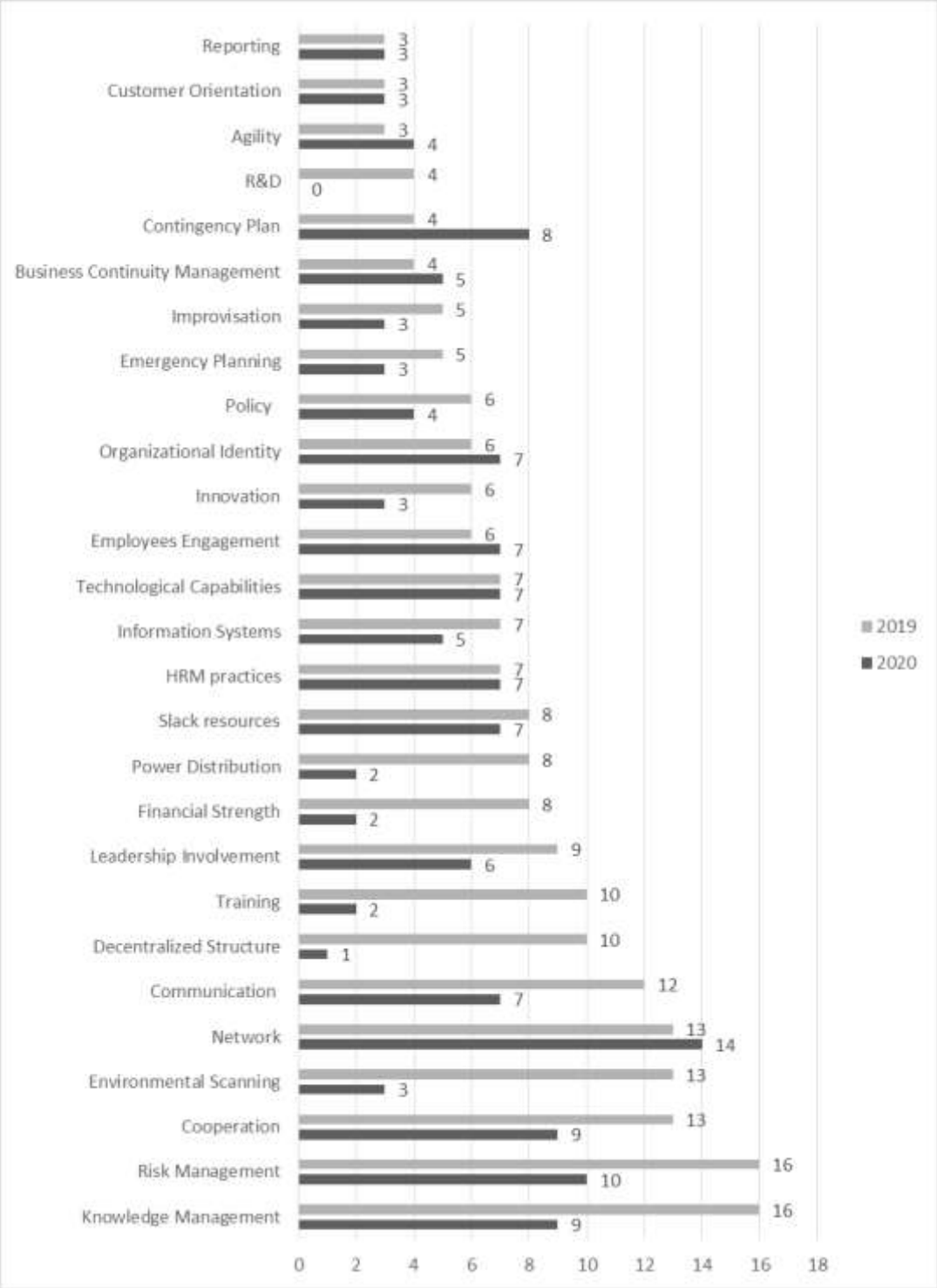
R&D

When comparing the two years, there is another big difference that emerges. Research and Development is considered in the year 2019 as one important practice that companies should implement in order to increase their resilience capabilities. On the other side, when looking at the articles published in the year 2020 this is not the case anymore. Indeed, Research and Development is not even mention as a way to predict, resist, and react to disruptive events.

This could be due as well to the different *state of the world* in which the authors were when they investigated this important topic. Indeed, R&D can be useful to predict a crisis, and to keep ahead of competitors in normal times. However, when a crisis strikes, research and development is not a practice that can help a company to survive it, especially when it is a sanitary emergency, in which the crisis does not spread through business activities and relations, but that is external to those .Indeed, in this particular case, there are other instruments that are considered in the articles of 2020 as more helpful in facing

the current Covid-19 pandemic, as it has already been discussed and it will be investigated empirically in Chapter 4.

Figure 11 Comparison of Citations of Variables pre and post Covid-19 (in absolute values)



Source: My Analysis

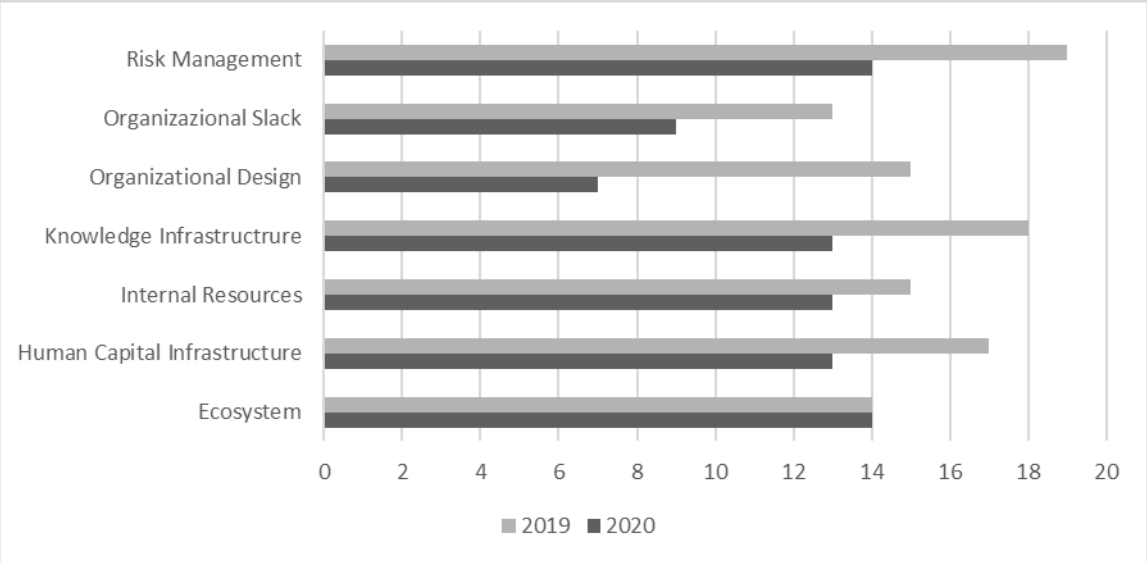
3.3.2 Comparison of the Variable Revised pre and post Covid-19

The single variables analysed in the previous chapters were later revised and gathered in groups depending on their broader themes.

In the articles that have been published in the year 2019, the variables revised that were mentioned the most were *Risk Management*, *Knowledge Infrastructure*, and *Human Capital Infrastructure*.

Whereas, for what concerns the papers promulgated in the first half of the 2020, the determinants that were most considered are *Risk Management*, *Human Capital Infrastructure*, and *Knowledge Infrastructure*.

Figure 12 Comparison of Citations of Variables Revised pre and post Covid-19 (in absolute values)



Source: My Analysis

Risk Management

It possible to deduce from Figure 12, *Risk Management* is one of the topics that are estimated as important in both the years considered, even though the number of times it has been mentioned is lower in 2020 than it was in 2019.

However, the definitions of the single practices that need to be put in place are not the same. In 2019, the focus is on the anticipation capabilities, such as the development of infrastructure for weak signals detection. Whereas, when looking at the year 2020, the main topic associated with Risk Management is related to the adoption of a scenario approach for the decision-making process, so that the recovery phase can be boosted. This

difference in the point of view taken by the authors could be due to the different times of writing. Indeed, in 2019, there is no imminent crisis and the majority of the suggestions are focused on averting an emergent disruptive event. However, in 2020, there is a global pandemic that has completely changed the world. Therefore, the suggestions for the organizations have changed as well, from trying to anticipate a crisis to facing and reacting in the best possible way to the current challenges posed by the spread of the Covid-19 virus.

This can be demonstrated also by the fact that *Environmental Scanning* is considered as important in 2019, while it is replaced in the following year by the practice of developing *Contingency Plans*.

Knowledge Infrastructure

Another theme that is repeated as fundamental for the development of organizational resilience is *Knowledge Infrastructure*. This topic is considered equally important in both years, with one noteworthy main difference: in the year 2020, the knowledge management process and different practices are achieved mainly through the *digitalization* process. This is an important factor to take into consideration. Indeed, the digitalization of most of the aspects of the life of an organization is a transformation that have been in place for some time now (Eden et al., 2019).

However, this has become an even hotter topic during the Covid-19 pandemic: it was not anymore possible to go into the offices and work from there: indeed, all workers had to work for home. This has changed the way an organization works, how information is stored and communicated (Pastakia et al., 2020). This has had a huge impact on all organizations. Those companies who had already implemented these kinds of processes were better off, whereas some firms had not yet developed these kinds of practices. Therefore, they had to implement them in the first months of 2020 from scratch and this was more expensive for the firm in terms of resources employed – money, time, and people (McKinsey and Company, 2020).

Human Capital Infrastructure

Furthermore, *Human Capital Infrastructure* is considered as a meaningful set of tools as well. There are not relevant differences in the definitions provided by the articles published in the two years analysed. The main focus for this thematic is that employees need

to clearly understand the relationships between their daily operations, the actions they need to implement in response to a disruptive event, and the broader purpose of the organization.

Furthermore, in the articles published in the year 2020, the creation of a positive working environment is regarded as important. Organizations need to care and check frequently how their workers are feeling and what are their sentiments towards the organization and toward their fellow employees, especially in this time of uncertainty and ambiguity. Indeed, this practice can boost employees' engagement in such a time, and therefore, they are willing to work harder and they are more committed to the company (Ding et al., 2020).

Ecosystem

To conclude, there is just one of these variables revised that has the same amount of mentions: *Ecosystem*. Ecosystem is formed from the composition of the supply chain, the network that the company and also the individuals have developed, as well as the presence in consortia, the specific government, and the community in which the firm is embedded. This is an important aspect to highlight because it confirms that the importance of the *ties* and relationships that firm has in place, that is nurturing and that is creating are fundamental to overcome this crisis.

3.3.3 Differences in the Field of Study of the Determinants

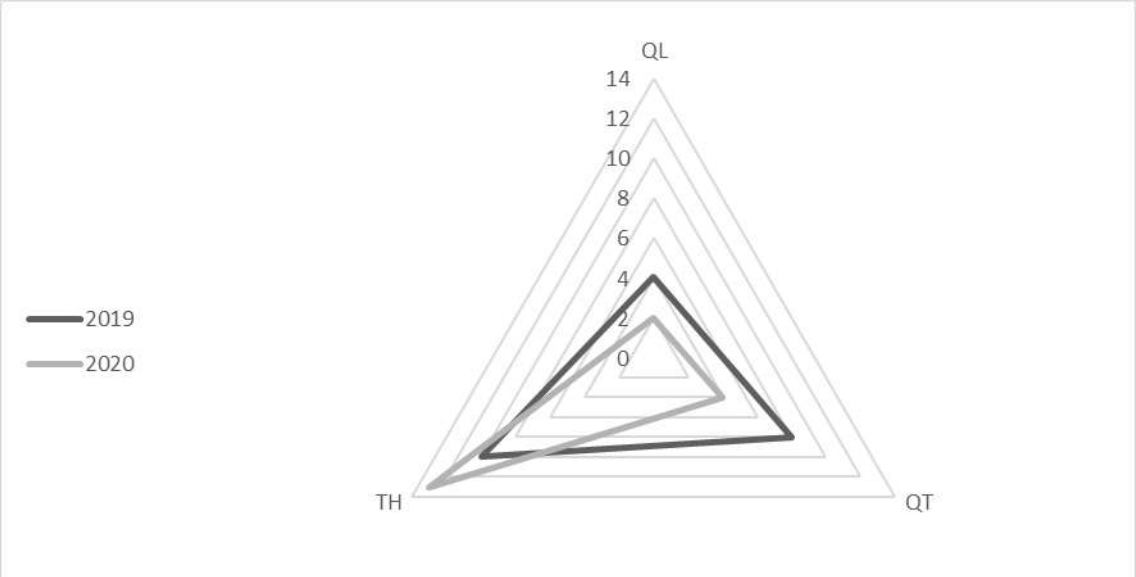
The authors taken into consideration studied organizational resilience using different methods in both 2019 and 2020. Some of them developed qualitative case studies, others implemented a quantitative examination of the topic, whereas some other authors studied the theoretical background of organizational resilience.

In Figure 13, there is the representation of the papers published in the two years, considering the distinction between the different types of studies carried out. The values in the graph are compared in absolute terms. It is clear from this figure that the scientific community has changed point of view. Scholars have focused more in 2020 on the theoretical aspects of organizational resilience, rather than developing empirical studies.

This could be due to the fact the papers taken into consideration are those published in the first half of the year 2020, and it is more complicated to do many empirical analyses on such a new disruptive event in little time. However, this could also be due to the fact

that many authors considered relevant to investigate more the concept of organizational resilience and whether it changed after the occurrence of a disruptive event, such as the Covid-19 pandemic. This could hint to the fact that this shock took a toll on the very essence of the concept of organizational resilience.

Figure 13 Comparison of Papers published (absolute values)



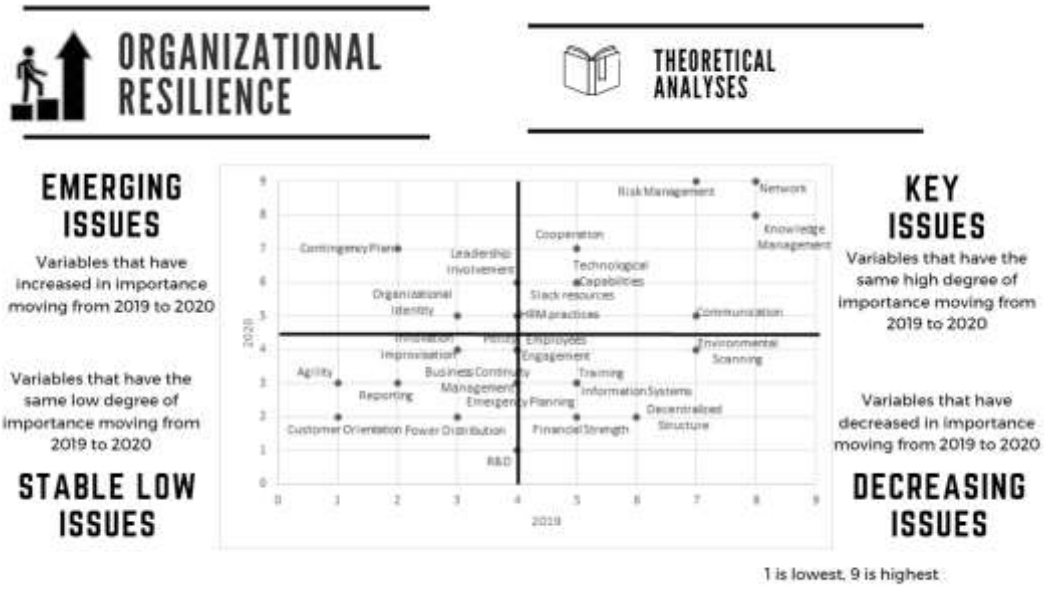
Source: My Analysis

It is important to check whether the different ranking of the variables seen in Figure 11 is due to the different theoretical studies, or to the empirical studies. This is interesting to investigate because if there are many differences in the theoretical studies, this could mean that the scientific community is revising the importance of the different managerial tools that can help build organizational resilience.

3.3.4 Bridging and Bonding: the Strength of Weak Ties

More than two thirds of the papers published in the first six months of 2020, which have to do with organizational resilience and Covid-19, reflect on the meaning of organizational resilience from a theoretical point of view after the advent of this pandemic. This fact hints that this concept has probably been questions: this is paragraph is going to investigate whether the approaches to organizational resilience have changed.

Figure 14 An Overview: the ranking of Theoretical Analyses



Source: My Analysis

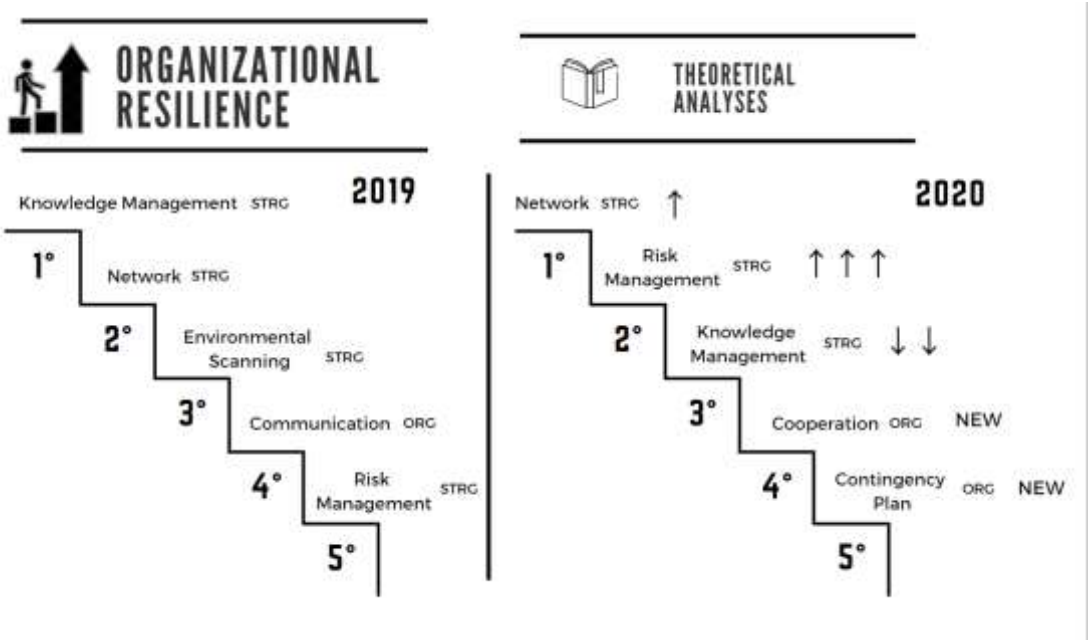
Figure 14 shows how the level of importance of the variables have changed from the year 2019 to the first months of 2020. This analysis is limited to the articles which study organizational resilience from a theoretical point of view. The scatterplot represented has on the X axis the level of importance of the variables in 2019, while on the Y axis there is the level of importance of the determinants in 2020.

This representation helps us understand how the theme studies by scholars are evolving: there are *emerging* and *decreasing issues* that are changing because of the pandemic of Covid-19.

However, organizational resilience is not a concept that changes completely, and this can be seen from the fact that there are stable issues: *key* and *stable low issues*.

In order to understand better this theoretical ranking, there is going to be a detailed investigation of the top variables that are considered as critical for building organizational resilience in the two years that are taken into consideration.

Figure 15 Ranking of the Variables most studied from a Theoretical Point of View



Source: My Analysis

In Figure 15, there is a comparison of the five most analysed variables up to 2019 and of those analysed in the first six months of 2020 from a theoretical point of view. It is clear that the concepts developed in the two years are very different. This confirms the hypothesis that organizational resilience is an evolutionary concept, and it depends on the external contingencies. Indeed, as it is evinced from above, to analyse the concept of organizational resilience, a contingent approach must be adopted. This means that this is not a stable concept, but one that evolves, so much that in the face of a change the scientific community changes its focus as well.

Furthermore, this table highlights how the managerial levers that are most likely to allow an organization to deal with the Covid-19 crisis have changed from those that were recommended before the pandemic.

The ranking developed in Figure 15 shows that *Environmental Scanning* loses relevance in the eyes of scholars, so much that it is not in the top five anymore, and, as can be seen from Figure 16, it is one of the variable that loses the most interest of the authors. This can be due to the fact that the world is still facing the Covid-19 pandemic at the moment of writing, and this specific threat is not transmittable through economic relationship, but through social ones. Therefore, its detection is out of the scope of an organization's scanning tools and it cannot be controlled. In such a state of the world, a company needs to be

linked with external actors more than ever, so that, all together they can better face this severe disruption.

In confirmation of what has just been said, the *Network* variable gains more importance, thus highlighting how the Covid-19 pandemic has established a greater interdependence between different economic and organizational actors. In other words, the business continuity of an organization is closely linked on the capabilities of the company to network, by nurturing already established ties and developing brand new ones.

Furthermore, a new variable that appears in this top five ranking is *Cooperation*. This determinant is closely linked to the Network one. This confirms the increased emphasis that scholars put on the interdependencies between an organization and the whole ecosystem in which it is embedded.

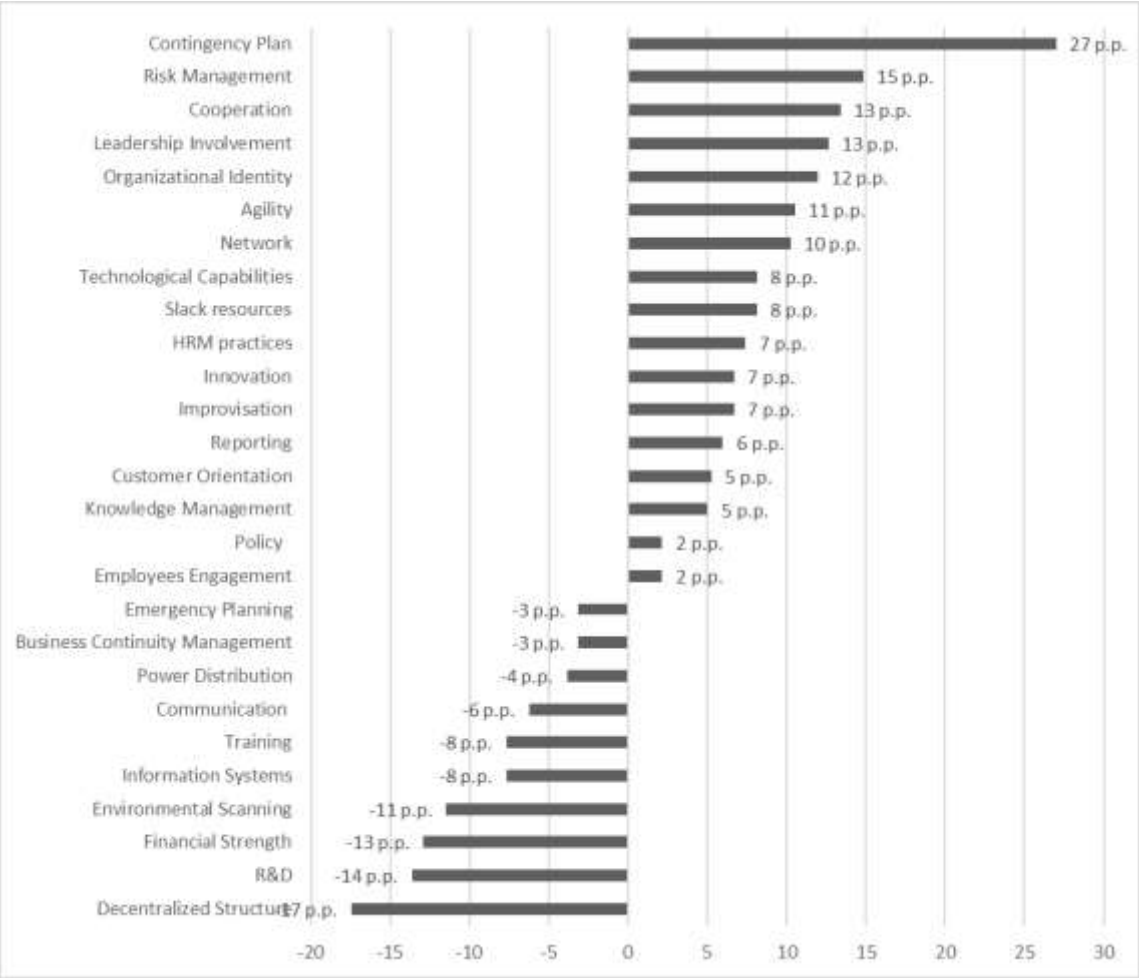
Indeed, in the state of emergency caused by the spread of the Covid-19 virus, business continuity is not anymore under the control of the managers nor of the entrepreneurs of an organization. Therefore, the theoretical investigations on organizational resilience do not focus anymore on tools like Environmental Scanning to prevent the crisis, they highlight more the creation and deepening of the Network a company and on their Cooperation abilities.

These are all means through which a firm can try to reduce the level of uncertainty that derives from the external environment, by creating meaningful and collaborative relationships with the institutions and other external organizations. For instance, a small business located in a virus hotspot could be doomed if it had to face this situation alone. Whereas if they were to develop more relationships, they could be able to guarantee the continuity of their ability to satisfy customers.

Furthermore, the remission to consider Environmental Scanning as important is, in fact, a declaration of powerlessness of the forecasting systems that organizations have in place. A company renounce at predicting unexpected events, however, they get ready to respond successfully to unexpected events by developing more and more *weak ties*.

This is also confirmed by the fact that the development of *Contingency Plan* rises in the ranking considered in Figure 15. This is also shown in Figure 16.

Figure 16 Comparison of Times a Variable is mentioned in the Theoretical Literature: increase or decrease moving from 2019 to 2020



Source: My Analysis

In Figure 16, there is the representation of how all the variables considered in the analysis have changed in relevance before and after the advent of the spread of the Covid-19 virus. The difference is expressed in percentage point terms. For instance, Contingency Plan has been mentioned by 5% of the papers published in 2019, and by 32% of the papers published in 2020, therefore it increased in relevance by 27 percentage points.

The one that are considered as more significant than before are *Contingency Plan*, *Risk Management*, and *Cooperation*. These are closely related to the analysis already carried out from the analysis of the ranking developed in Figure 16.

The increase of consideration of the variable Cooperation highlights the importance of developing ties that are strong enough to face this crisis

The increment of the emphasis of Contingency Plan and Risk Management could be linked to the fact that, at the time of writing, the pandemic is an ongoing threat. Therefore,

companies need to focus on way to face new crisis, such as new possible lockdowns in the months to come and how to keep on working: adopting more strict health measures for manufacturing firms and implement more smart working solutions for service organizations.

Whereas the ones that lost more importance are *Decentralized Structure*, *R&D*, and *Financial Strengths*. Research and Development has been already discussed in the previous paragraph of this chapter.

The lower importance of having a Decentralized Structure is interesting, because, in order to react better to the threat posed by the spread of the Covid-19 pandemic, companies need to have an appropriate central control in order to plan everything in the best possible way, not wasting any resources. This kind of operation would not be possible if the power is widely distributed throughout the organization.

3.3.5 In Search of Business Continuity

On the other side, there are the empirical analyses, that are the papers developed with a qualitative or quantitative method of study. This analysis is needed to understand whether the organizational and strategic determinants investigated in the empirical analysis have changed in the face of the Covid-19 pandemic. In light of this change of approach, from theoretical to empirical analysis, this paragraph is going to investigate whether also the management levers that needs to be used in practice change.

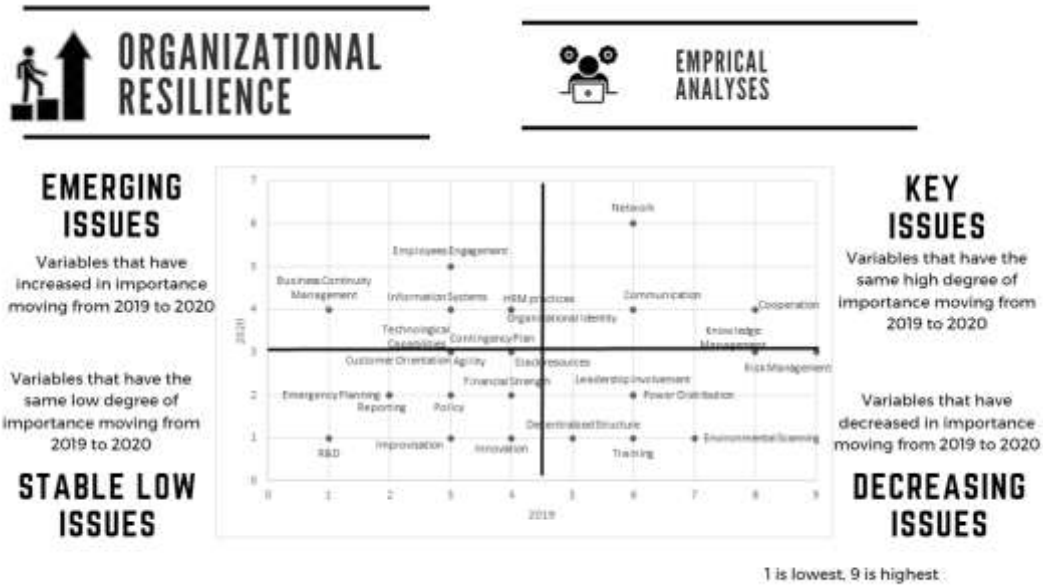
Figure 17 shows how the level of importance of the variables have changed from the year 2019 to the first months of 2020. This analysis is limited to the articles which study organizational resilience from an empirical point of view. The scatterplot represented has on the X axis the level of importance of the variables in 2019, while on the Y axis there is the level of importance of the determinants in 2020.

This representation helps us understand how the theme considered as important by the firms in a practical way are evolving: there are *emerging* and *decreasing issues* that are changing because of the pandemic of Covid-19.

However, there are practices to build organizational resilience that do not change completely, and this can be seen from the fact that there are stable issues. Those are represented in the *key* and *stable low issues*.

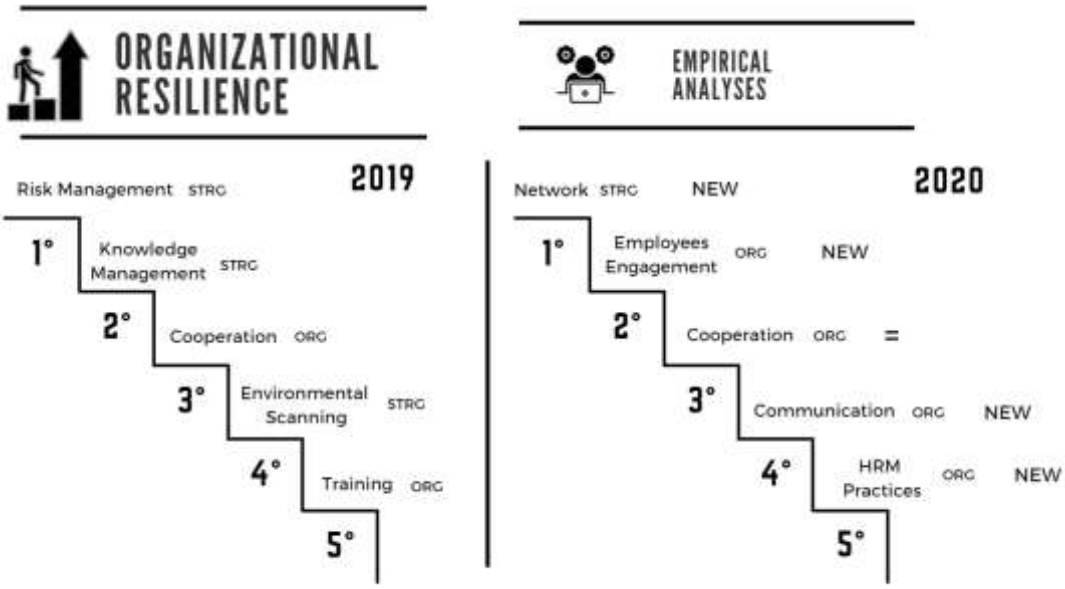
In order to understand better this empirical ranking, there is going to be a detailed investigation of the top determinants that are considered as essential for building organizational resilience in the two years that are taken into consideration in this dissertation.

Figure 17 An Overview: the ranking of Empirical Analyses



Source: My Analysis

Figure 18 Ranking of the Variables most studied from an Empirical Point of View



Source: My Analysis

In Figure 18**Errore. L'origine riferimento non è stata trovata.**, there is a comparison of the five most analysed variables up to 2019 and of those analysed in the first six months of 2020 from an empirical point of view. It is clear that the concepts developed in the two years are very different, also in the nature of the field that has been studied. This confirms the hypothesis that organizational resilience is an evolutionary concept, and it depends on the external contingencies.

Furthermore, this table highlights how the managerial levers that are most likely to allow an organization to deal with the Covid-19 crisis have changed from those that were recommended before the pandemic.

In the search of business continuity, the theme of *Network* is present again as the most investigated variable. Furthermore, except for this specific variable, all the others considered as important by the authors are of organizational nature. Indeed, at this stage, organizational variables are more important than strategic ones, because you have more immediate problem to focus on.

All of the variables in this ranking are connected to the concept of *perceived organizational support* (Perrone, 2010). Perrone in his paper explains that organizations are resilient when they give people the feeling and the security that the company takes responsibility for solving problems and that cares about the safety – both physical and mental – of their employees.

The top variables that are present in the ranking developed in **Errore. L'origine riferimento non è stata trovata.** highlight the fact that there are two main determinants of the resilience of a company after the Covid-19 outbreaks.

The first one is the external environment, and it entails the ability of the firm to develop strong ties and thus to seek to reduce the level of uncertainty that derives from the external environment by bridging and bonding. This is highlighted by the presence of *Network* and of *Cooperation* in the ranking.

The other element is the perceived organizational support, that is composed of the psychological tool that refers to the ability of the firm to support its employees in overcoming negative events (Perrone, 2010). This is achieved by investing in *Human Resource Management practices*, and this practice can help to generate *Employees Engagement*. Furthermore, all of these practices are supported by having a properly set *Communication*.

In Figure 19, there is the representation of how all the variables considered in the analysis have changed in relevance before and after the advent of the spread of the Covid-19 virus. The difference is expressed in percentage point terms. For instance, Business Continuity Management has been mentioned by 5% of the papers published in 2019, and by 16% of the papers published in 2020, therefore it increased in relevance by 11 percentage points. The one that are considered as more significant than before are *Business Continuity Management*, *Employees Engagement*, and *Network*. These are closely related to the analysis already carried out from the analysis of the ranking developed in **Errore. L'origine riferimento non è stata trovata.**.

Whereas the ones that lost more importance are *Risk Management*, *Environmental Scanning*, and *Knowledge Management*. These are in lines with what has been discussed so far. Environmental Scanning loses importance because an organization cannot do anything about it. Because at the time of writing, the crisis generated by the spread of the Covid-19 pandemic is already underway. Furthermore, the coronavirus pandemic does not depend on your company's ability to do environmental scanning, because the virus travels relationally, not through business.

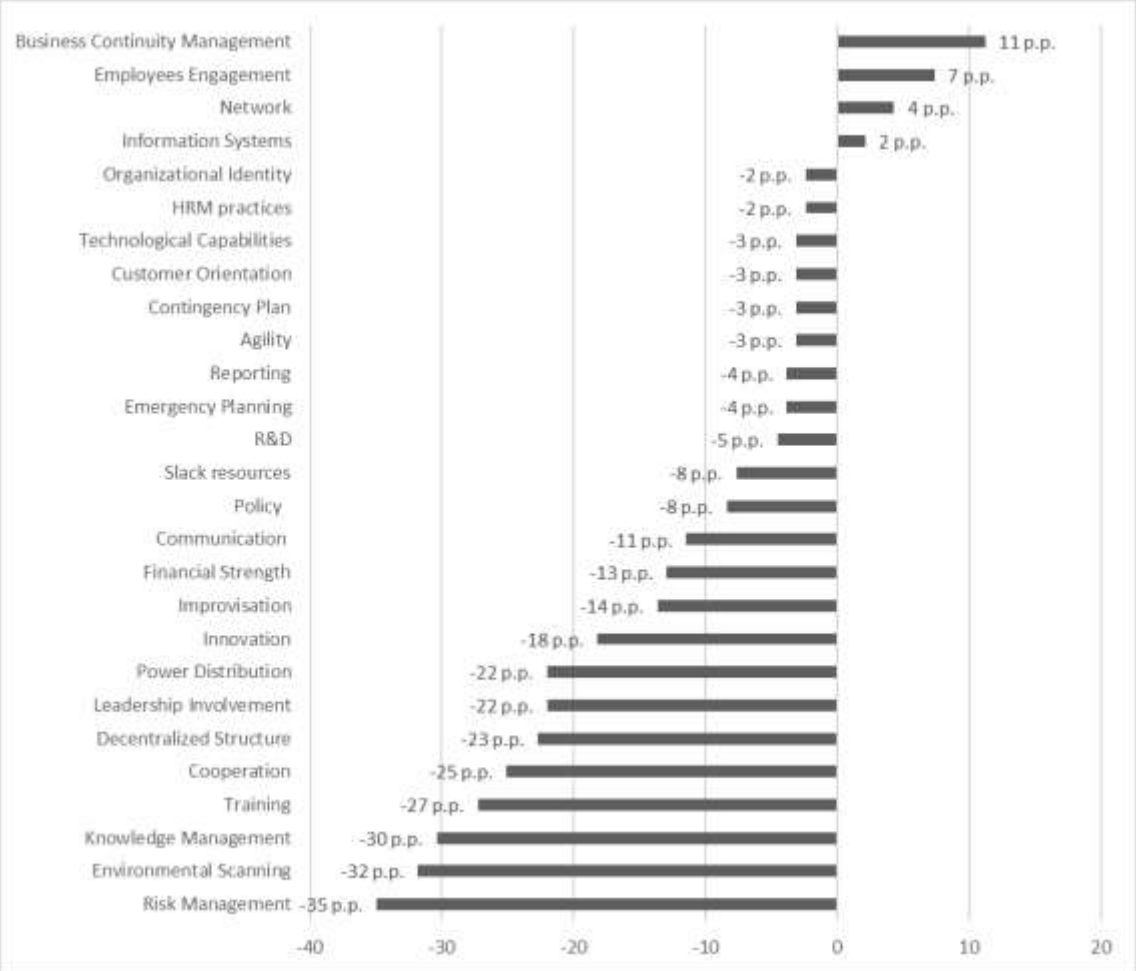
What is more, from Figure 19 Risk Management is the variables that lost most importance. Whereas when looking at the theoretical analysis it has increased.

This can be explained because scholars are faced with a pandemic that has changed the way businesses operated and customers buy. In such a situation, the scientific community needs to develop conceptually ways to improve the preparation of contingency plans, and they have to recognize that risk management is important in this practice. Therefore, this variable increases in the theoretical literature due to the fact that scholars are discussing new tools to streamline risk management activities. Of course, these practices have a long-term focus on how to support this managerial tool.

On the other side, when looking at the empirical part, companies are not doing any more Risk Management activities. This is because in the middle of the pandemic caused by the Covid-19 virus these practices do not work well and thus are not effective. Therefore, Risk Management tools are no longer applicable, on the other side, organizations prefer to focus on the engagement of people, on the importance of external collaboration with other companies and institutions.

This tells us that empirical studies during the pandemic have shifted in relative terms the attention from the internal to the external issue, and in particular on the capacity of the organization, and on the importance of the networks in which you are.

Figure 19 Comparison of Times a Variable is mentioned in the Empirical Literature: increase or decrease moving from 2019 to 2020



Source: My Analysis

It tells us from an empirical point of view what most interests the relationship with the external environment, the ability of the company to weave relationships with the outside. As can be seen from above, the portfolio of management levers to intervene on resilience has a stable composition, all the variables have been used for the different analyses. However, they were studied with different priorities, and those with strategic responsibility must be able to identify the levers that are needed at a certain moment.

3.3.6 Different Determinants of OR: Further Considerations

Furthermore, when considering the variables analysed in different field of study – organizational and strategic – there were not many dissimilarities when the comparison between the two years analysed was carried out.

From an organizational point of view, the most cited macro variable has been *Human Capital Infrastructure* in both years, while the one with the lowest number of mentions is *Organizational Slack*. Therefore, it is clear that the situation has not changed and the priorities under this perspective have not shifted.

Whereas, when considering the single variable, the most cited one has been *Cooperation* in both years, while the one with the lowest number of mentions is *Reporting* in 2019, while it is *Decentralized Structure* in 2020.

In Figure 20, there is a representation of how the variables have changed using a scatterplot. On the X axis, there is the ranking of the year 2019, where 1 is the highest ranking and 13 is the lowest, while on the Y axis, there is the ranking for the year 2020. The changes that emerges from this analysis have been already widely discussed previously. This analysis confirms the hypothesis developed in the previous paragraphs.

Figure 20 Ranking of the Variables most studied from an Organizational Point of View

Source: My Analysis

When considering the strategic nature of the determinants the situation is a little different. The most cited macro categories of variables are *Risk Management*, for the year 2019,

and *Internal Resources*, for the first months of 2020. This could be due to the fact that, at the time of publication, the disruptive event has already occurred, and since very few companies were able to detect it in time, the focus has shifted on the strengths that helped to react better to this disruptive event.

Indeed, for the paper published in 2020, it is considered more important to have:

- strong core competencies;
- a strong core identity that keeps employees engaged and that can motivate them to work and make sacrifices with and for the company;
- the focus of the company on customer engagement, and on improving improvisation capabilities of its own workers.

Whereas the least cited ones in both years are *Organizational Design* and *Organizational Slack*. This is true under both points of view considered: the strategic and the organizational one. This hints to the fact that the *power distribution* that the company has in place is not as important as having good *human resource management* processes.

When looking deeper into this analysis, Network has stayed as the top strategic variable that can help build organizational resilience, this result is coherent with what have been said so far. The variables that is considered as least important is Customer Orientation in 2019, and it changes to be R&D in 2020. The reasons for this change have already been investigated in the previous paragraphs.

In Figure 21, there is a representation of how the variables have changed using a scatterplot. On the X axis, there is the ranking of the year 2019, where 1 is the highest ranking and 14 is the lowest, while on the Y axis, there is the ranking for the year 2020. The changes that emerges from this analysis have been already widely discussed previously. This analysis confirms the hypothesis developed in the previous paragraphs.

Figure 21 Ranking of the Variables most studied from a Strategic Point of View

Source: My Analysis

3.4 Conclusion

In this chapter, the definition and the variables that help to boost organizational resilience have been investigated. There has been a comparison of the concept outlined in 2019 and those outlined after the advent of Covid-19, specifically in the first six months of the year 2020.

In this chapter we answer to the question posed by this dissertation: whether organizational resilience is a fixed topic, or it changes depending on the circumstances. The analysis carried out in this chapter is useful because it compares the two years taken into consideration in the first two chapter of this dissertation.

The definition provided by the authors who have published a scientific article in the two years analysed is compared.

The definitions provided do differ and this implies the organizational resilience is indeed an evolutionary concept and that the three components of the definition of the topic (its main focus, its different conceptualization, and its main expected outcomes) changes of importance and of most cited contents depending on the specific external contingencies that the organization needs to face.

After this investigation, an analysis of the different variables considered was carried out. A comparison of all the different conceptualization of the variables made in the first two

chapters was carried out: the ranking of the variables and of the variables revised was compared, then the different determinants studied from a theoretical point of view and from an empirical one were analysed in details. This has the purpose to check whether scholar questioned both the theoretical definition of the determinants of organizational resilience and its empirical determinants.

The evidence suggests that the ranking of the variables considered – both from the organizational and the strategic point of view – changed. Therefore, the portfolio of management levers has a stable composition, but those with strategic responsibility must be able to identify the levers that are needed at a certain time to develop more organizational resilience.

In the next chapter, an empirical investigation is going to be carried out in order to check whether the theoretical findings of these chapters are supported by the analysis of different case studies.

4. CHAPTER

ORGANIZATIONAL RESILIENCE IN PRACTICE: EMPIRICAL ANALYSIS

4.1 Introduction

The pandemic caused by the spread of the Covid-19 virus has been lightning-fast and had paralyzing effects not only on businesses but on the society as whole. Indeed, this health crisis has spread rapidly and swiftly throughout the whole economic and societal context. Companies, associations and institutions were not in the position to be able to raise any kind of barriers that could have stopped its spread. This is because this crisis caused by the pandemic does not spread through business movements and relationships, rather this virus moves along with social relations.

Therefore, the spread of the Covid-19 virus was out of the control of businesses. The aim of this chapter is to investigate, through qualitative and quantitative case studies, how the companies in the hotspot of the city of Vo' have faced the sanitary emergency. Furthermore, it aims at understanding what were the managerial tools that different companies in different geographical locations have leveraged in order to face the emergent health crisis.

In this fourth chapter, there is going to be the explanation of the methodologies undertaken in order to develop the empirical analysis for this dissertation. The study developed in these last chapters are of qualitative nature. This is carried out with the help of a questionnaire and interview. Furthermore, there is going to be an initial investigation and description of all the companies taken into consideration for this analysis. This chapter is going to set the ground for the next one, in which there will be the investigation of the results of this empirical study.

4.2 An Explorative Study

4.2.1 Methods and Procedures

In this chapter, there is going to be an attempt to close bring closer the literature review undertaken in the first three chapter and the different realities of the companies, that concerns how organizational resilience has changed in definition and implementation before and after the pandemic caused by the Covid-19 virus. This is achieved by coupling different research methods: inductive and qualitative researches have been implemented (Eisenhardt and Graebner, 2007).

The investigation undertaken is based on case data to address the topic of the different managerial tools that can be leveraged in order to develop better resilience inside the organization. Furthermore, an inductive method has been developed, and is based on multiple-case analyses. This has been implemented with the purpose to determine the deductive process undertaken (Hyde, 2000). This practice also has the ability to present a better founded and a more general understanding than a single case analysis. (Yin,1984; Eisenhardt, 1989).

Case study approach is a good tool to investigate different phenomena, indeed, this method relies on different sources, rather than just considering one as good to go (Yin, 1994).On the other side, the qualitative research is considered as a good practice when a complex event is under investigation, and organizational resilience has been proved to be one (Linnenluecke, 2017). The deductive approach implemented in this research is bolstered by the narrative one. In this way, better interpretations of the data collected can be developed (Lawler, 2002). This is also helpful to better elaborate the different experience that the companies had in this time of crisis, to discuss on the opinions expressed by the representatives of the organizations and to deeply understand the reasons behind the behaviours adopted during and after the lockdown (Shkedi, 2005).

The research implemented is an explorative study: indeed, the world and in particular the companies taken into consideration are still facing the pandemic at the time of writing. For this reason, it is possible to implement an adequate sampling that is actually representative of the population. Therefore, the purpose of this dissertation is to be one of the first to address the issues of the different managerial tools that need to be leveraged to develop organizational resilience in the face of the Covid-19 pandemic.

4.2.2 Case Selection

The research implemented within this dissertation is going to involve an analysis of all the companies that have their registered office in the city of Vo' (Padua, Veneto, Italy) and some other companies in the Veneto region that have been proving to be able to adequately face the current health crisis, at least at the time of writing.

The city of Vo' has been chosen because it has been the centre of a hot spot of Covid-19 cases in February 2020 (Polese, 2020). Therefore, it has been quarantined before the rest of the national territory and it has been under spotlight of the whole nation and world, since it has been one of the first city in Europe to have a peak of infections.

On the other side, the companies not located in the city of Vo' were indirectly chosen through *snowball sampling*. This is a tool that can help to identify a different number of cases that can be of interest for the research, from talking to people who then know other people that could serve as good subjects for the current interview or that know other people that could be adequate for the research (Patton, 1990).

4.2.3 Data Collection

Different means and methods have been used to collect the data for the analysis.

In the first place, the database AIDA was consulted in order to get the name and the specifics of all the different active companies who have their registered office in the city of Vo'.

In the second place, more evidence was gathered with the development of semi-structured interview with individual respondents. The topics discussed in these were those that emerged from the analysis of the literature and the comparison of the tools that were leveraged before and after the pandemic. Some interviews were conducted in person, other were conducted virtually on the 'Zoom' platform. These were implemented following an interview guideline and a questionnaire (used as the evaluation system), concerning:

- the tools implemented to face the lockdown, using a Likert scale from 1 to 3, marking 1 as not important and 3 as very important;
- the tools that would be leveraged to face any kind of emergency, before and after the advent of Covid-19, using a Likert scale from 1 to 3, marking 1 as not important and 3 as very important;

- the scenarios that were considered as dangerous for the organization, before and after the advent of Covid-19, using a Likert scale from 1 to 3, marking 1 as not relevant and 3 as very dangerous;

The interviewees were asked different kind of questions as seen above, and they knew that no right questions exist, but they depend on the specific situation in which the company is involved. The complete questionnaire can be seen in the Appendix of this dissertation.

4.3 Comprehensive view of the companies analysed

In this paragraph, there is going to be a general description of all the companies that have been interviewed for the empirical analysis carried out in this dissertation.

4.3.1 Companies in the city of Vo' (PD)

Vo' is a municipality located in the province of Padua, that is in the Veneto region. The city has a little more than three thousand inhabitants and has an area of about twenty square kilometres (Comune di Vo' - Homepage, n.d.). This city has been at one of the first hotspot of Covid-19 in Italy, and it has been quarantined before the national lockdown was put in place (Polese, 2020).

It is important to investigate how companies have reacted to the lockdown in order to see the managerial tools they implemented and to get a hold of the different ways to cope with such a crisis, or whether the coping mechanism is the same. The analysis developed on these organizations will provide the general picture for the analysis, that will be investigated analytically thought the individual cases in the next chapter.

Selection method

In order to get the names of the companies that have their registered office in the city of Vo', the AIDA database has been consulted. This database collects comprehensive information on Italian companies. The filters used in the research have been the geographical one, companies need to be located in the city of Vo', and they have to be active at the time of the current crisis. The companies that appeared in the research considered these parameters are 49.

These organizations operate in various sectors, considering the ATECO 2007 classification, they are present in detail in Table 20. The companies are heterogeneous in terms of

industry in which they belong, number of employees and turnover. In order to get a more comprehensive view of the organizations that are present in the city, in Table 17 those have been clustered considering the ATECO 2007 code.

Table 17 Information on the companies in Vo'

ATECO 2007 SECTOR	NUMBER OF COMPANIES	AVERAGE TURNOVER (THOUSANDS OF €)	AVERAGE NUMBER OF EMPLOYEES
Agriculture, Forestry And Fishing	5	3136	7
Artistic, Sports, Entertainment and Fun Activities	1	265	10
Activities of Accommodation and Restaurant Services	2	154	6
Real Estate Activities	5	22	1
Manufacturing Activities	6	926	8
Manufacturing Activities - Manufacture of Machinery and Equipment	1	1050	5
Manufacturing Activities - Beverage Industry	2	3517	14
Professional, Scientific and Technical Activities	3	225	2
Wholesale and Retail Trade; Repair of Motor Vehicles And Motorcycles	10	7203	5

Source: Re-elaboration from AIDA dataset

Of all the companies found with this methodology, twenty-six had an active website on which it was possible to find an e-mail address that could be used to send the questionnaire developed for this dissertation. Only four companies have answered to the questionnaire. Even though this is not at all a representative sample, it is still interesting to investigate how these four companies faced the lockdowns, how their perceptions on different problematic scenarios has changed and the managerial tools they would leverage in order to succeed in facing any emerging crisis.

4.3.2 General overview of the companies

In this paragraph, there is going to be an initial analysis of the companies located in the Veneto region that have compiled the questionnaire that was provided by them through email.

The companies that have been responded to the email questionnaire are 42 in total. They are very different in nature as it can be evinced from the tables below. From the analyses of the different data gathered through the survey, the companies interviewed have an average of 71 employees. Some of them are part of a group and other are smaller local

companies. Furthermore, it emerged that their average turnover is of around 5 million € in the year 2019.

Table 18 Province of the respondents

Vicenza	18
Padua	7
Venice	6
Treviso	2
Verona	2
Milan	2
Genoa	1
Mantova	1
Modena	1
Rovigo	1
Trento	1

Source: My Analysis

It is possible to see that the companies answered from different cities in Italy, with a focus on the Veneto Region.

In the next table there is going to be the presentation of the different sectors in which they operate. Most companies operate in the manufacturing sector, and the majority of them are B2B businesses.

Lastly, it has been asked whether they worked or not in during the different lockdowns that have been instituted in Italy:

- Twenty-seven companies have always been open, this is due to the fact that their ATECO 2007 codes was that in line with those of the essential supply chains that have always worked;
- Two companies have closed from the 24th of February, when the first lockdown measured have been institutionalized;
- Thirteen companies have closed from the 25th of March, when the national lockdown started. This companies had the possibility to work two days more in order to finish the last duty they had in the warehouse.

This is the comprehensive view of the companies that have answered to the online questionnaire. It is clear that the number is small and there is no claim to have a representative sample. However, this is only an introductory study that aims at getting a hold of how the company reacted to this sanitary crisis.

Table 19 Industry Sector of the respondents

Agriculture	2
Automotive	1
Building	2
Clothing	2
Distribution	1
Electronic	1
Engineering	1
Food	2
Furniture	4
Health	3
Jewellery	2
Manufacture	6
Mechanical and technological electrical systems	2
Mechanical Subcontracting	1
Metal Working	7
Oil & Gas	1
Retail and Commerce	1
Services	1
Steel industry	1

Source: My Analysis

4.3.3 Companies analysed from a qualitative point of view

In this section, there will a be a brief introduction of the company that have been interviewed and with which a qualitative case study has been carried out.

Prosciuttificio Nuova Riviera S.r.l.

Prosciuttificio Nuova Riviera S.r.l. is a family business that is located in the municipality of Vo'. The main product of this company is the sausage and, more in general, the cured meal. The firm takes care of whole the process, and overall produces hams, bacon, roast, and turkey. Recently, they started operating in the new are of producing spicy sausages and other kind of sausages. They expanded the range of their products according to the requests of their customers.

They operate in the B2B environment, selling their products to bigger distributors. The company has a turnover of around one million euros every year. Prosciuttificio Nuova Riviera employs seven people, two of which are residents in the municipality of Vo'. This characteristic will be of fundamental importance in the initial phases of the lockdown.

Being a small company, all employees are aligned with the vision of the entrepreneur and there is clear and open communication.

Looking at data provided by the AIDA dataset, the ATECO 2007 code of Prosciuttificio Nuova Riviera is 10.13.00. Indeed, the company taken into consideration is a manufacturing one, they operate in the agro-alimentary industry. The organization produces meat-based products.

This case is particularly important on a symbolic level: the company is located in Vo', in the centre of a hot spot and because they have always been operational.

4.3.4 Companies in the Veneto region

The analysis of the companies seen so far pertains just those that have their legal offices in the municipality of Vo'. On the other side, in this paragraph there is going to be an investigation of the main characteristics of other companies who managed the Covid-19 crisis in an interesting way that could be of example for others and, when joined with the theory of the previous chapters can have important managerial implications for future researches and businesses.

Zordan S.r.l. sb

Zordan S.r.l. sb is a family business that was founded in 1965 by Attilio Zordan. The organization produces tailor made interiors as well as mono-brand shopfitting. Therefore, the company operates in the luxury segment. Indeed, their clients are of likes of Bulgari, Salvatore Ferragamo, Fendi, Coin, Dior and the list goes on (Homepage - Zordan, 2020). In 2017, Zordan acquired Woodways, an American company in Michigan that produce bespoke furniture (Homepage - Zordan, 2020). Thanks to this acquisition, the organization managed to have a strategic production site also in North America, thus enhancing its international reach.

The company is based in Valdagno, in the province of Vicenza (Homepage - Zordan, 2020). As stated from the website of the organization, their mission is to "have a positive impact on the environment and on the local community". Indeed, Zordan believes that all their employees are key people for the company, and they engage them in a continuous learning process, related to both technical and *humanity* skills. The organization values engagement and transparency with their employees, this entails a certain degree of co-responsibilities. This aspect is also fostered by the fact the employees of the company are

organized in teams, each of which has a project manager that is directly in contact with the final clients. They all work together to satisfy the customers and to achieve the best results throughout all the buying experience. Indeed, the provide after sales maintenance as well (Homepage - Zordan, 2020).

In order to follow throughout their values of sustainability, focus on all the families, flexibility, humility, passion, skills and reliability the company obtained the B-Corp certification, that qualifies the company as a *Società Benefit* in 2016 (Gubitta, COVID-19: "Prova del 9" per società benefit e imprese familiari, 2020).

This means that Zordan is committing to go beyond the mere monetary profit realization. They work daily on having a positive impact on both the society and the environment, starting from its employees.

Looking at the data provided by the AIDA Database, Zordan is a manufacturing company that produces furniture (ATECO code 31.00.00). In 2019, they closed with a total turnover of almost sixteen million euros. Furthermore, they employed fifty-two people overall. It is clear that this company does not belong to the essential supply chain.

All of these factors considered, we could suppose that the main tools that the Zordan S.r.l. sb organization used to face the Covid-19 crisis are related to the *Employees Engagement* determinant.

LaBrenta S.r.l.

LaBrenta S.r.l. is an Italian manufacturing company that was founded in 1971. The organization is specialized in the production of corks, which combines aesthetics, functionality and sustainability to close the bottle of spirits, wines, beers, oil and vinegar (Homepage - LaBrenta, 2020).

The company is based in Breganze, in province of Vicenza, in the Veneto region. As stated from their website, their mission is to provide the right closure methods for any specific need. Furthermore, they have many values that are considered as fundamental for the organization. For instance, the care about their customer, with which they aspire to implement a *bilateral relationship*, indeed the company focuses on developing partnership with distributors to be as close as possible to the customers (Homepage - LaBrenta, 2020).

They embrace quality, competence and innovation as well as an important value. Indeed, they emphasize that their products are all Made in Italy. Furthermore, they have a *validation process* in which they take pride that is the result of almost fifty years of know-how od the process (Homepage - LaBrenta, 2020). This helps also the company to manage all the phases of production in the best possible way and to supply the best stoppers.

LaBrenta also considers their employees as important. They want that employees feel encouraged to work for the company. This is achieved by enhancing cooperation and team working. However, individual responsibility is also considered as an important factor.

In the year 2019, the organization implements *green measures* in terms of new materials and environmental impact assessment for the different products. At the beginning of 2020, LaBrenta exploited this new knowledge to develop a corporate spin-off called Mix cycling (Gubitta, 2020). This spin-off that vegetable waste (such as cork, wood, rice husk and other waste products) and transforms them into blend materials with reduced environmental impact. This is a clear sign from the company that it values the environment in which it is embedded and all the stakeholders as important.

Looking at the data provided by the AIDA Database, LaBrenta is a manufacturing company that produces article in plastic (ATECO code 22.20.00). In 2019, they closed with a total turnover of more than ten million euros. Furthermore, they employed forty-nine people overall. This company does belong to the essential supply chain, since it produces corks for wines, spirits, beers, oil and vinegar.

All of the factors previously taken into consideration, we could suppose that the main tools that the LaBrenta organization used to face the Covid-19 crisis are related to the *Innovation* determinant.

Galdi S.r.l.

Galdi S.r.l. is an Italian manufacturing company that was founded in 1985. The company produces machines for the packaging of liquid eggs, of fruit juice, of fresh milk, of wine, of diary and fermented products. The organization also implements different kind of services for their customers, such as training, helping to develop an innovative mindset, consultancy, maintenance and assistance (Homepage - Galdi, 2020).

The organization is based in the city of Paese, that is in the province of Treviso, in the Veneto region. Galdi is focused on its customer, on developing an innovative mindset

inside the firm (Homepage - Galdi, 2020). One of core values of the company is to try and achieve a clear communication both with the clients and the employees.

Galdi S.r.l. is a green company, they implement different kind of solutions, such as green testing, they produce their own energy (Homepage - Galdi, 2020). In this way, the organization is successfully reducing their carbon and water footprint.

Galdi S.r.l. embraced agile methods of production. Furthermore, their welfare system is a very good one: they received different certification: such as the Family Audit Certification, that was obtained thank to the ability of the company to facilitate the reconciliation of work and family life (Homepage - Galdi, 2020). The organization implemented different tools to reach this objective, such as smart working solutions that enhances autonomy and communication between colleagues. Galdi S.r.l. focus on continuous training for their employees on both hard and soft skills (Homepage - Galdi, 2020).

Looking at the data provided by the AIDA Database, Galdi is a manufacturing company that produces automatic machines for dosing, wrapping, and packaging (ATECO code 28.29.30). In 2019, they closed with a total turnover of almost twenty million euros. Furthermore, they employed eighty-nine people overall. This company does belong to the essential supply chain.

All of the factors previously taken into consideration, we could suppose that the main tools that the Galdi organization used to face the Covid-19 crisis are related to the *Network and Cooperation* determinants.

4.4 Conclusion

In this chapter, the methodology used for the empirical analysis is investigated.

The ground for the questionnaire is laid down. The investigation regards which managerial tools the company valued as important in facing the lockdown. The tools are derived from the determinants highlighted in the previous theoretical chapters. This is important for the purpose of this dissertation, because it highlights whether the managerial tools described in the previous chapters are those that the companies actually put in place to face the crisis emerged from the Covid-19 pandemic.

Then, there is an investigation on how the scenarios that worry the management of a company have changed. There is a comparison of pre and post Covid-19. This is of relevance for the dissertation because it highlights how important was the impact of this new disease on the worries of a company. Furthermore, it can show whether it managed to

lower the stress on some scenarios that are not considered as relevant anymore because the company managed to succeed at facing this crisis.

Lastly, it is investigated whether the managerial tools that a company can put in place to face an emergency has changed before and after the crisis emerged from the pandemic caused by the Covid-19 virus. This could lead the company to discover they have latent capabilities that were not known before but that emerged as relevant to face this emergency. This is relevant for the dissertation because it gives empirical ground on discovering whether the managerial tools seen in the previous chapters were actually relevant to face a crisis of whether there is the need to reconfigure the literature scope.

Furthermore, there is the presentation of the companies that are the focus of the case studies analysis developed in the next chapter. This is important for the dissertation, so that it is possible to investigate in detail the motifs behind the choices and actions that a company undertakes.

In the next chapter, there is going to be results of both the questionnaire and of the qualitative case studies.

Table 20 List of Companies with registered office in Vo'

COMPANY NAME	NUMBER OF EMPLOYEES (2019)	TURNOVER (2019, THOUSAND €)	ATECO 2007 CODE	ATECO 2007 DESCRIPTION
CANTINA COLLI EUGANEI SOCIETA' COOPERATIVA AGRICOLA PER FINALITA' COMMERCIALI, I PRODOTTI POTRANNO ESSERE IDENTIFICATI CON I SEGUENTI MARCHI: C.C.E., VIRICE, CONTE EMO CAPODILISTA E CANTINA VO'	23	15,375	012100	Coltivazione di uva
SOCIETA' AGRICOLA ALICE & DAISY SRL	0	25	012100	Coltivazione di uva
SOCIETA' AGRICOLA IL PIOPPO S.R.L.	0	28	014100	Allevamento di bovini e bufale da latte, produzione di latte crudo
AGRIVERDE SOCIETA' A RESPONSABILITA' LIMITATA SEMPLIFICATA	0	147	016100	Attività di supporto alla produzione vegetale
AGRICOLLI SOCIETA' COOPERATIVA	13	107	016100	Attività di supporto alla produzione vegetale
TONIOLO S.R.L.	17	1,425	081100	Estrazione di pietre ornamentali e da costruzione, calcare, pietra da gesso, creta e ardesia
CAVE TRACHITE SRL	0	15	081100	Estrazione di pietre ornamentali e da costruzione, calcare, pietra da gesso, creta e ardesia
CA' FERRO S.R.L.	11	2,182	110200	Produzione di vini da uve
TERRE GAIE S.R.L.	17	4,851	110210	Produzione di vini da tavola e v.p.q.r.d.
DELTA SERRAMENTI S.R.L.	2	59	162310	Fabbricazione di porte e finestre in legno (escluse porte blindate)
TIPOGRAFIA MANDRUZZATO S.R.L.	14	1,254	181200	Altra stampa
LORENZATO CAV. PIETRO - SOCIETA' A RESPONSABILITA' LIMITATA ED IN FORMA ABBREVIATA LORENZATO CAV. PIETRO - S.R.L.	4	319	236100	Fabbricazione di prodotti in calcestruzzo per l'edilizia
RAVAZZOLO FRANCO SRL	13	1,301	251100	Fabbricazione di strutture metalliche e parti assemblate di strutture
COGNO SRL	5	1,050	289300	Fabbricazione di macchine per l'industria alimentare, delle bevande e del tabacco (incluse parti e accessori)

Company name	Number of employees (2019)	Turnover (2019, thousand €)	ATECO 2007 code	ATECO 2007 Description
STYLE ARREDAMENTI SRL	8	1,597	310940	Fabbricazione di parti e accessori di mobili
SERPLA S.R.L.	6	1,027	331259	Riparazione e manutenzione di altre macchine di impiego generale nca
MARTINELLO COSTRUZIONI S.R.L.	4	222	412000	Costruzione di edifici residenziali e non residenziali
PATTARO SOCIETA' A RESPONSABILITA' LIMITATA SEMPLIFICATA	0	71	412000	Costruzione di edifici residenziali e non residenziali
SA-FE IMMOBILIARE SRL	0	40	412000	Costruzione di edifici residenziali e non residenziali
COSTRUZIONI STRADALI MARTINI SILVESTRO S.R.L.	37	4,654	421100	Costruzione di strade, autostrade e piste aeroportuali
MARTINI LUCIANO S.R.L.	3	395	431100	Demolizione
LEGNO AMBIENTE S.R.L.	4	292	439100	Realizzazione di coperture
MS SINIGAGLIA SOCIETA' A RESPONSABILITA' LIMITATA SEMPLIFICATA	5	555	439909	Altre attività di lavori specializzati di costruzione nca
LINEARETRO' S.R.L.	3	157	452020	Riparazione di carrozzerie di autoveicoli
TURETTA S.R.L.	0	239	463910	Commercio all'ingrosso non specializzato di prodotti surgelati
RICCARDO LORENZI S.R.L.	5	6,682	463920	Commercio all'ingrosso non specializzato di prodotti alimentari, bevande e tabacco
WONDER FOOD S.R.L.	0	0	466999	Commercio all'ingrosso di altre macchine ed attrezzature per l'industria, il commercio e la navigazione nca
BOGONI S.R.L.	7	50,595	467100	Commercio all'ingrosso di prodotti petroliferi e lubrificanti per autotrazione, di combustibili per riscaldamento
LINEA PANNELLI S.R.L.	2	3,590	467310	Commercio all'ingrosso di legname, semilavorati in legno e legno artificiale
LA NUOVA FORNITURE INERTI S.R.L.	15	2,448	467329	Commercio all'ingrosso di altri materiali da costruzione
EDILVO' S.R.L.	5	894	467329	Commercio all'ingrosso di altri materiali da costruzione
EUGANEA ROTTAMI S.P.A.	8	5,838	467710	Commercio all'ingrosso di rottami e sottoprodotti della lavorazione industriale metallici

Company name	Number of employees (2019)	Turnover (2019, thousand €)	ATECO 2007 code	ATECO 2007 Description
AGRIVITE S.R.L.	1	1,586	475240	Commercio al dettaglio di macchine, attrezzature e prodotti per l'agricoltura; macchine e attrezzature per il giardinaggio
TRATTORIA AL BOSCO SRL	9	198	563000	Bar e altri esercizi simili senza cucina
T & T SRL	3	111	563000	Bar e altri esercizi simili senza cucina
IMMOBILIARE IL COLLE S.R.L.	1	36	681000	Compravendita di beni immobili effettuata su beni propri
G.I.L. S.R.L.	0	0	681000	Compravendita di beni immobili effettuata su beni propri
EUROIMMOBILIARE S.R.L.	0	0	681000	Compravendita di beni immobili effettuata su beni propri
IMMOBILIARE GHIOTTO E VERONESE S.R.L.	0	36	682001	Locazione immobiliare di beni propri
POLENTA & MOTORI S.R.L.	0	38	682002	Affitto di aziende
VADUM S.R.L.	3	158	692000	Contabilità, controllo e revisione contabile, consulenza in materia fiscale e del lavoro
CORPORATE PERFORMANCE MANAGEMENT S.R.L.	0	26	702209	Altre attività di consulenza imprenditoriale e altra consulenza amministrativo-gestionale e pianificazione aziendale
CONSORZIO VOLONTARIO PER LA TUTELA DEI VINI COLLI EUGANEI	3	491	712021	Controllo di qualità e certificazione di prodotti, processi e sistemi
INTENSA SOCIETA' A RESPONSABILITA' LIMITATA (IN FORMA ABBREVIATA: INTENSA S.R.L.)	0	54	773400	Noleggio di mezzi di trasporto marittimo e fluviale
VINUM ET RES S.R.L.	1	71	823000	Organizzazione di convegni e fiere
LA COSTA L.C. S.R.L.	2	280	829210	Imballaggio e confezionamento di generi alimentari
ECODAO SRL	0	2	829999	Altri servizi di supporto alle imprese nca
POLIAMBULATORIO SAN GIUSTO S.R.L. IN LIQUIDAZIONE	1	142	862209	Altri studi medici specialistici e poliambulatori
PIROTECNICA SANT'ANTONIO S.R.L.	10	265	932990	Altre attività di intrattenimento e di divertimento nca

Source: AIDA Database

5. CHAPTER

ORGANIZATIONAL RESILIENCE IN PRACTICE: DEALING WITH SEQUENTIAL LOCKDOWN

5.1 Introduction

The Covid-19 pandemic has been an unpredictable, paralyzing and fast phenomenon. This is something that is beyond the control of businesses and any kind of organizations. Indeed, it spread not through business relations, but through any kind of social interactions. Indeed, has it has emerged from the past chapters, this health crisis changed the managerial practices that helped firms to succeed in their environment.

The aim of this chapter is to understand how companies managed to continue to work in these unfavourable conditions, and what can we learn from their experiences.

This chapter is going to analyse the different stages of the national lockdown that hit Italy at the beginning of the year 2020. The main distinction is going to split the days between:

- the initial lockdown, during which just few hotspots were closed,
- the national one, when all the nation was blocked apart from the essential supply chain,
- the first recovery of activities, during which some specific businesses started to work again;
- the full recovery of activities for all the businesses.

Furthermore, there is going to be a qualitative investigation on what some specific companies have done in order to face such emergency and to be as resilient as possible. The data will be taken from interviews and blog posts done by the different organizations. Lastly, there is going to be the explanation of the results obtained from the online questionnaire that was handed out to different companies.

5.2 Incremental Lockdowns/Different moments of Lockdowns

The lockdown in Italy has not been a timely phenomenon, rather a progressive one. During which some companies were involved, and others were not. For instance, there have been some areas that have been closed before others, and therefore some companies were shut down, while the organizations in the neighbouring town were still operative. The pandemic, as well as the consequential lockdown, were not the results of some negligence, or errors in corporate strategies and policies.

The *hundred days of the new Italy* is an expression often used in the news to describe the timeframe that started from the 24th of February 2020, and that ended the 3rd of May 2020. This time frame is divided between:

- The first seventy days, that have completely changed Italy. This period of time started in the 24th of February, from the first working day after the famous decree-law number 6, that started the restrictive measures that were aimed at lowering the spread of the Covid-19 virus in hot spot cities. This period ended in the 3rd of May, that is the last day of total lockdown, before the reopening of many factories and offices. This is the so-called *Phase one* of the pandemic;
- The last thirty days, which marked the beginning of the reopening of activities in Italy. This period foes from the 4th of May, up to the 2nd of June. In this period, more businesses and offices were allowed to open and work This is the so-called *Phase two* of the lockdown;

After these last thirty days, there is the start of *Phase three*, during which all business resumed their activities, and they had to follow very strict sanitary measures.

Phase One: the first Seventy Days

The *Phase One* of the Italian lockdown is of heterogenous nature and it is divided in two main moments. Firstly, there is a partial lockdown that affects certain cities of Italy that were the hot spot of the spread of the Covid-19 virus. Secondly, there is the total lockdown that impacts the whole nation.

The first part of this phase officially starts the 24th of February 2020: the first day after the *decree-law number 6 of the 23rd of February 2020*. In this decree, the first restrictive measures are introduced, in order to stop the spread of the Covid-19 virus. The decree states that in case there are people that have caught the virus, there is:

> a) divieto di allontanamento dal comune o dall'area interessata da parte di tutti gli individui comunque presenti nel comune o nell'area;
> b) divieto di accesso al comune o all'area interessata;
> j) chiusura di tutte le attività commerciali, esclusi gli esercizi commerciali per l'acquisto dei beni di prima necessità;
> l) previsione che l'accesso ai servizi pubblici essenziali e agli esercizi commerciali per l'acquisto di beni di prima necessità sia condizionato all'utilizzo di dispositivi di protezione individuale o all'adozione di particolari misure di cautela individuate dall'autorità competente;
> n) sospensione delle attività lavorative per le imprese, a esclusione di quelle che erogano servizi essenziali e di pubblica utilità e di quelle che possono essere svolte in modalità domiciliare;
> o) sospensione o limitazione dello svolgimento delle attività lavorative nel comune o nell'area interessata nonché' delle attività lavorative degli abitanti di detti comuni o aree svolte al di fuori del comune o dall'area indicata, salvo specifiche deroghe, anche in ordine ai presupposti, ai limiti e alle modalità di svolgimento del lavoro agile, previste dai provvedimenti di cui all'articolo 3.

This means that the municipality is isolated from the outside world: people, employees, and any kind of movements of vehicle across the border are prohibited, both outside in and inside out. This decree also institutes that business have to all shut down, exception done for those which provide essential and public utility services, such as those related with the food supply chain, and those who can be carried out remotely, for instance by implementing smart working solutions.

The second part of this phase officially starts the *25th of March 2020*, with the *law-decree number 19*. In this decree, there is the institution of the total lockdown in all the national territory of Italy. This is not the case for the essential supply chain Indeed, the decree states that:

> u) limitazione o sospensione delle attività commerciali di vendita al dettaglio, a eccezione di quelle necessarie per assicurare la reperibilità dei generi agricoli, alimentari e di prima necessità da espletare con modalità idonee ad evitare assembramenti di persone, con obbligo a carico del gestore di predisporre le condizioni per garantire il rispetto di una distanza di sicurezza

interpersonale predeterminata e adeguata a prevenire o ridurre il rischio di contagio;
v) limitazione o sospensione delle attività di somministrazione al pubblico di bevande e alimenti, nonché' di consumo sul posto di alimenti e bevande, compresi bar e ristoranti;
z) limitazione o sospensione di altre attività d'impresa o professionali, anche ove comportanti l'esercizio di pubbliche funzioni, nonché di lavoro autonomo, con possibilità di esclusione dei servizi di pubblica necessità previa assunzione di protocolli di sicurezza anti-contagio e, laddove non sia possibile rispettare la distanza di sicurezza interpersonale predeterminata e adeguata a prevenire o ridurre il rischio di contagio come principale misura di contenimento, con adozione di adeguati strumenti di protezione individuale;
gg) previsione che le attività consentite si svolgano previa assunzione da parte del titolare o del gestore di misure idonee a evitare assembramenti di persone, con obbligo di predisporre le condizioni per garantire il rispetto della distanza di sicurezza interpersonale predeterminata e adeguata a prevenire o ridurre il rischio di contagio; per i servizi di pubblica necessità, laddove non sia possibile rispettare tale distanza interpersonale, previsione di protocolli di sicurezza anti-contagio, con adozione di strumenti di protezione individuale;
le imprese le cui attività sono sospese per effetto del presente decreto completano le attività necessarie alla sospensione entro il 25 marzo 2020, compresa la spedizione della merce in giacenza
alle imprese che non erano state sospese dal DPCM 22 marzo 2020 e che, per effetto del presente decreto, dovranno sospendere la propria attività, sarà consentita la possibilità di ultimare le attività necessarie alla sospensione, inclusa la spedizione della merce in giacenza, fino alla data del 28 marzo 2020
attività produttiva che non sia strettamente necessaria, cruciale, indispensabile a garantirci beni e servizi essenziali

This decree states that all companies had to shut down their operation. However, this was not the case for some companies, those with a particular ATECO 2007 codes – that are written below – could work and operate. Nevertheless, they had to follow the sanitary measures that were provided in the same decree so that it could be possible to be operative

while also trying to ensure the good health of those who were working and visiting the shop. This decree also allowed businesses, which had to stop working, to conclude the works in process and to ship the last deliveries, before actually being completely shut down. They had to implement these solutions before the 28th of March 2020.

The companies with these ATECO 2007 code could continue working: 01, 03, 05, 06, 09.1, 10, 11, 13.96.20, 13.95, 14.12.00, 16.24, 17, 18, 19, 20, 21, 22.2, 23.13, 23.19.10, 25.21, 25.92, 26.6, 27.1, 27.2, 28.29.30, 28.95.00, 28.96, 32.50, 32.99.1, 32.99.4 33, 35, 36, 37, 38, 39, 42, 43.2, 45.2, 45.3, 45.4, 46.2, 46.3, 46.46, 46.49.2, 46.61, 46.69.91, 46.69.94, 46.71, 49, 50, 51, 52, 53, 55.1, 58-63, 64, 65, 66, 69, 70, 71, 72, 74, 75, 78.2, 80.1, 80.2, 81.2, 82.20, 82.92, 82.99.2, 92.99.99, 84, 85, 86, 87, 88, 94, 95.11.00, 95.12.01, 95.12.09, 95.22.01, and 97.

These codes pertain mainly to business who were in business for the supply chain of essential services, such as the food one, or the agricultural one.

Phase Two: the last Thirty Days

The *Phase Two* of the Italian lockdown is more homogenous than the first one, and it affects all the national territory with the same operational modalities. It has been set in motion by the *law-decree issued the 26th of April 2020*. This decree stated that the second phase of the lockdown in Italy was bound to start the 4th of May 2020. With this decree, the prime minister allowed for the reopening of many factories and offices, with particular ATECO 2007 codes. Indeed, the decree states that:

> a) sono consentiti solo gli spostamenti motivati da comprovate esigenze lavorative o situazioni di necessità ovvero per motivi di salute e si considerano necessari gli spostamenti per incontrare congiunti purché venga rispettato il divieto di assembramenti e il distanziamento interpersonale di almeno un metro e vengano utilizzate protezioni delle vie respiratorie; in ogni caso, è fatto divieto a tutte le persone fisiche di trasferirsi o spostarsi, con mezzi di trasporto pubblici o privati, in una regione diversa rispetto a quella in cui attualmente si trovano, salvo che per comprovate esigenze lavorative, di assoluta urgenza ovvero per motivi di salute; è in ogni caso consentito il rientro presso il proprio domicilio, abitazione o residenza;
>
> z) sono sospese le attività commerciali al dettaglio, fatta eccezione per le attività di vendita di generi alimentari e di prima necessità individuate

nell'allegato 1, sia nell'ambito degli esercizi commerciali di vicinato, sia nell'ambito della media e grande distribuzione, anche ricompresi nei centri commerciali, purché sia consentito l'accesso alle sole predette attività. Sono chiusi, indipendentemente dalla tipologia di attività svolta, i mercati, salvo le attività dirette alla vendita di soli generi alimentari. Restano aperte le edicole, i tabaccai, le farmacie, le parafarmacie. Deve essere in ogni caso garantita la distanza di sicurezza interpersonale di un metro;

aa) sono sospese le attività dei servizi di ristorazione (fra cui bar, pub, ristoranti, gelaterie, pasticcerie), ad esclusione delle mense e del catering continuativo su base contrattuale, che garantiscono la distanza di sicurezza interpersonale di almeno un metro. Resta consentita la ristorazione con consegna a domicilio nel rispetto delle norme igienico-sanitarie sia per l'attività di confezionamento che di trasporto, nonché la ristorazione con asporto fermo restando l'obbligo di rispettare la distanza di sicurezza interpersonale di almeno un metro, il divieto di consumare i prodotti all'interno dei locali e il divieto di sostare nelle immediate vicinanze degli stessi;

bb) sono chiusi gli esercizi di somministrazione di alimenti e bevande, posti all'interno delle stazioni ferroviarie e lacustri, nonché nelle aree di servizio e rifornimento carburante, con esclusione di quelli situati lungo le autostrade, che possono vendere solo prodotti da asporto da consumarsi al di fuori dei locali; restano aperti quelli siti negli ospedali e negli aeroporti, con obbligo di assicurare in ogni caso il rispetto della distanza interpersonale di almeno un metro;

cc) sono sospese le attività inerenti servizi alla persona (fra cui parrucchieri, barbieri, estetisti) diverse da quelle individuate nell'allegato 2;

dd) gli esercizi commerciali la cui attività non è sospesa ai sensi del presente decreto sono tenuti ad assicurare, oltre alla distanza interpersonale di un metro, che gli ingressi avvengano in modo dilazionato e che venga impedito

> di sostare all'interno dei locali più del tempo necessario all'acquisto dei beni;
> ee) restano garantiti, nel rispetto delle norme igienico-sanitarie, i servizi bancari, finanziari, assicurativi nonché l'attività del settore agricolo, zootecnico di trasformazione agro-alimentare comprese le filiere che ne forniscono beni e servizi;

This means that some companies are getting back to business, but there are strict rules that they have to follow in order to assure that all the sanitary precautions are taken to avoid that the Covid-19 virus started spreading again.

The companies with these ATECO 2007 code could start working again were : 01, 02, 03, 05, 06, 07, 08, 09, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 41, 42, 43, 45, 46, 49, 50, 51, 52, 53, 55, 58, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 78, 80, 81.2, 81.3, 82, 84, 85, 86, 87, 88, 94, 95, 97, and 99.

This decree allowed for more businesses to go back in business, such as banking, financial, insurance services. Some other companies were continuing to be operative, such as those in the agricultural, livestock and agro-food processing sectors, including the supply chains that provide goods and services.

This second phase of the lockdown ended the 2nd of June 2020, which marked the return to a *normal* situation. This normality is dictated not by a return of the working and living conditions pre Covid-19. Rather, this means that all businesses were operational again, with new modalities and new rules that have the aim to contain the spread of the Covid-19 virus, while also allowing for companies to get back to work. From the 3rd of June 2020, *Phase 3* has started, and this determines the *new normal*.

5.3 Results from the Empirical Analysis

This paragraph is going to present the results of the two investigations done, one in the companies with the legal office in the municipality of Vo', and the other one that considered companies from a broader geographical base.

5.3.1 Results from the questionnaire of Vo'

The companies that had a website, from which it was possible to get an email address to send the questionnaire to, were twenty-six, on the total of forty-nine companies registered

in the municipality of Vo'. However, the questionnaire did not have much success, as it was expected: just four companies completed it. In any case, this paragraph will report quickly the results obtained.

The companies that answered were involved in the following sectors:

- Pyrotechnic Shows and Event Production;
- Production of meat products;
- Business services;
- Fuel distribution.

In order to face the lockdown, these companies consider as the most important managerial tools: communicating openly with collaborators, having employees aligned with strategic goals and having financial strengths. This denotes that the companies were focusing mainly on their internal resources in order to face the crisis, rather than seeking help outside. On the other side, the most useless tools have been to modify in any way the workforce, in terms of both numbers and working hours, and to be included in a supportive network. This hints to the fact that everybody in the company is important in such particular times and that the external help has not been perceived as fundamental to face the emergency.

When looking at the scenarios that the companies considered as worrying before and after the advent of the Covid-19 pandemic, the scenarios that is worrisome in both years is the loss of an important customer. This can be explained by the fact the companies taken into consideration are very small and it could be likely that their customers are bigger than them and this highlights the importance of *Network*. This factor is not well understood these companies; indeed, they did not consider it as an important resource on which they could count to face the crisis. This is the only scenarios that worries a lot the companies before the advent of Covid-19. Whereas, when looking at after the advent of the pandemic there are other worrying scenarios such as the *lack* of *liquidity* and being subject to legislative changes. Once again, the Ecosystem in which the firm is embedded is a critical factor. Furthermore, the lack of resources represents the fragility of the system after the lockdown.

Lastly, the tools that the organizations would leverage before and after the sanitary crisis that emerged because of the Covid-19 virus are different. Before the Covid-19 pandemic, companies would focus their attention in providing training to their customers, having

financial strengths and updated technologies and systems. Whereas, after the Covid-19 crisis, the ranking has changed, apart from the considerations on financial strengths, and the updated technologies and systems. Companies value more having *employees aligned* with the strategic goal, having the ability to develop *contingency plans*, and having clear the measures that needed to be taken in the event of interruption of business. This shows that there are some tools that companies consider always as important and others that become more relevant because of the different experiences the companies had to face. This is a further proof that managerial tools that needs to be leveraged to face a crisis and therefore organizational resilience are *dynamic concepts* that need to be adapted to the contingencies.

It is clear that this result does not show the real situation of the companies that have experienced the early lockdown in Vo'. However, this could be considered a starting point for other scholars to further investigate this phenomenon.

5.3.2 Results from the general questionnaire

This paragraph is going to deal with the results of the questionnaire that was not focused on a particular geographical area.

Lockdown reactions

The lockdown has been an emergency that the companies had to face. As it was discussed in Chapter 3 of this dissertation, there are different tools that an organization can put in place in order to react and adapt to such an adverse event. This paragraph is going to show the means that the companies use to face the lockdown that has invested Italy in the first half of the year 2020.

The questionnaire provided valuable insight, that can be checked in Figure 22. This figure shows the times that the managerial tools listed have been considered as very important, important or not important. It shows that the two most important tools that they have implemented in facing such a crisis are to communicate openly and frankly with the collaborators and to have financial strengths. The first one is related to *Employees Engagement* and *Communication*, in particular the internal one. This tool is a good way to keep employees connected with the reality and with the company. Furthermore, this can boost the *perceived organizational support* as well. The latest is related to the presence of *Slack of resources* and *Financial strengths*. Indeed, in order to face the sequential lockdown, it

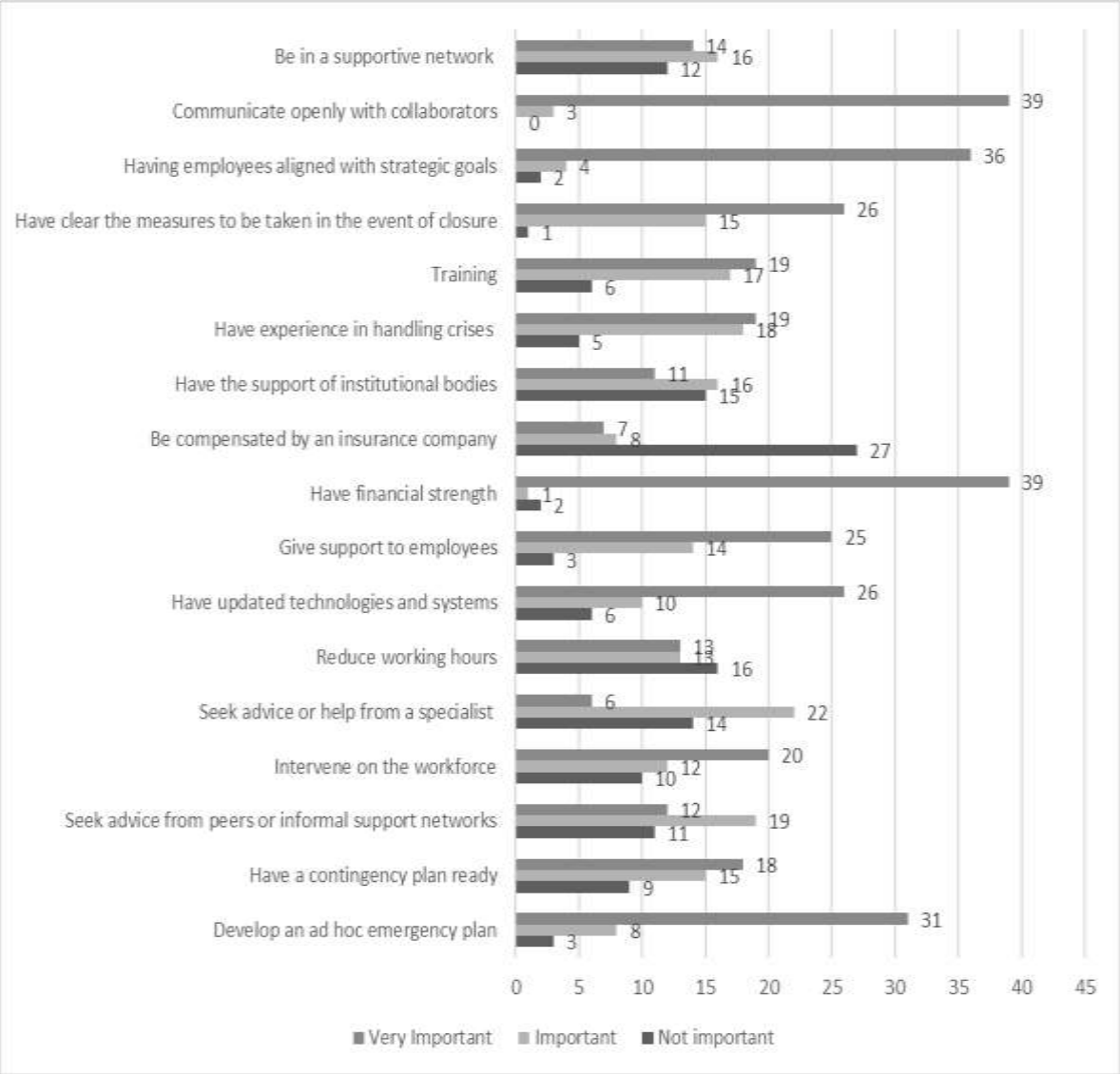
has been fundamental for companies who worked to have an adequate warehouse to keep working in the case the suppliers did not, and for those who did not enough liquidity so that they were able to pay their employees and re-open once the lockdown was over.

Furthermore, the companies had other tools on which they could count on that were important in facing the emergency created by the spread of the Covid-19 virus, such as to have employees aligned with strategic goals and to give support to employees. Both of this measures are related to *Employees Engagements*, *Human resource management practice*, the *organization identity*, and they all have the purpose to keep the workers in contact with the firm, by implementing smart working solutions or online training sessions, so that they could be empowered by being aligned with the values of the companies, and be willing to go through this emergency together. This is all aimed at developed a high *perceived organizational support* that can be fundamental in times of crisis such as these.

Another determinant that has been regarded as important is that related to *Technical capabilities*. They valued a lot the importance of having updated technologies and systems. This tool helped companies in transitioning from the normal working situations to remote smart working that needs to secure so that it is resistant to cyber-attacks. This tool could be also useful so that companies could have the possibility to innovate and bricolage new kind of services and products for their customers.

To conclude, the other two variables that are considered important in order to face the crisis that has emerged from the spread of the Covid-19 pandemic are related to *Risk Management* and the ability to develop *Contingency plan*. Both of those are important characteristics that can make the difference when the time to take important decisions is very short. Indeed, having clear the measures that need to be taken in the event of crisis and the ability to develop an ad-hoc emergency plan are very important. These denotes the ability of the company to be aware of their own strengths and weaknesses and to act upon them. Furthermore, it proves that the company has high adaptive and responsive capacity that are important to face a crisis and to have the ability, later on, to adapt to the new normality that arises when the situation of emergency vanishes.

Figure 22 Counting of the importance of different managerial tools to face to lockdown



Source: My analysis

It is not a surprise that the possibility to be compensated by an insurance company is not regarded as an important tool in facing the lockdown. Indeed, this Covid-19 pandemic has been hardly predictable and therefore no companies had the possibilities to prepare in this sense to face the crisis. Furthermore, it is not really plausible that an insurance company will provide such protection, since the risk of a second wave of lockdown is very likely at the time of writing.

Scenarios that worry the companies

This paragraph is going to investigate whether the pandemic caused by the Covid-19 virus has had such a huge impact on the business community that it managed to change the

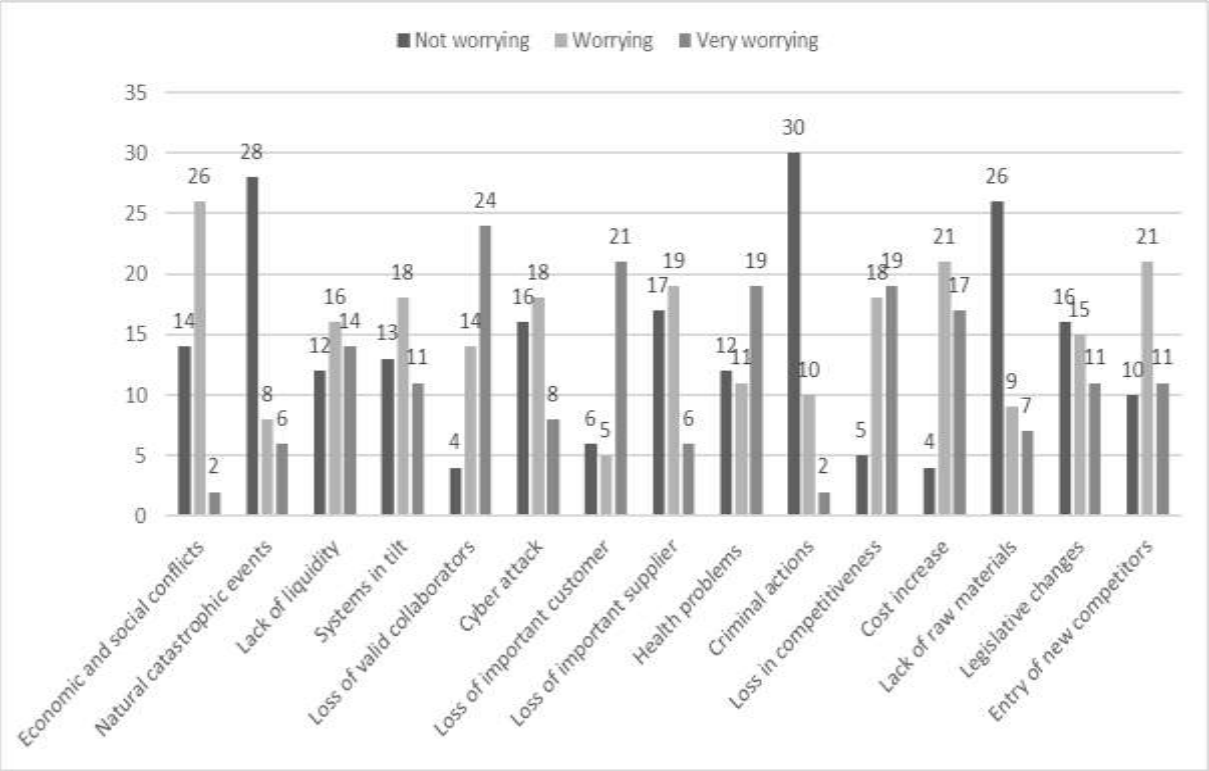
perspectives of the companies on which are the worrisome scenarios that they need to alert and ready for.

The questionnaire provided valuable insight, that can be checked in Figure 23 and in Figure 24. These figures show the times that the different scenarios proposed have been considered as very worrying, worrying, or not worrying, before and after the spread of the Covid-19 virus.

Figure 23 shows how the situation was before the pandemic. The scenarios that generated more apprehension in the companies were the loss of valuable collaborators, the loss of an important customer and the presence of health problems – both personal and of the family. These are important aspects to take into consideration. Indeed, just one of these is completely out the control of the company, whereas the other two can be in some way influenced by the behaviour of the organization. For instance, if the firm develops good human resource management practices to keep the employees engaged, they will hardly leave the company. On the other side, if the company contributes to the creation of a good network with the client and the overall ecosystem, this can help in retaining important customer.

For what concerns the scenarios that have not been regarded as worrying there are the natural catastrophic events, criminal actions, lack of raw material. The situation here is the opposite of those seen before. Two out of three are all situations in which the emergency does not depend on the behaviour of the company, but rather on unpredictable events that are outside the scope of control of a firm. For what concerns the lack of raw material, it can be under the oversight of the organization, however it depends also on the supply chain in which the firm is embedded.

Figure 23 Worrying scenarios before Covid-19

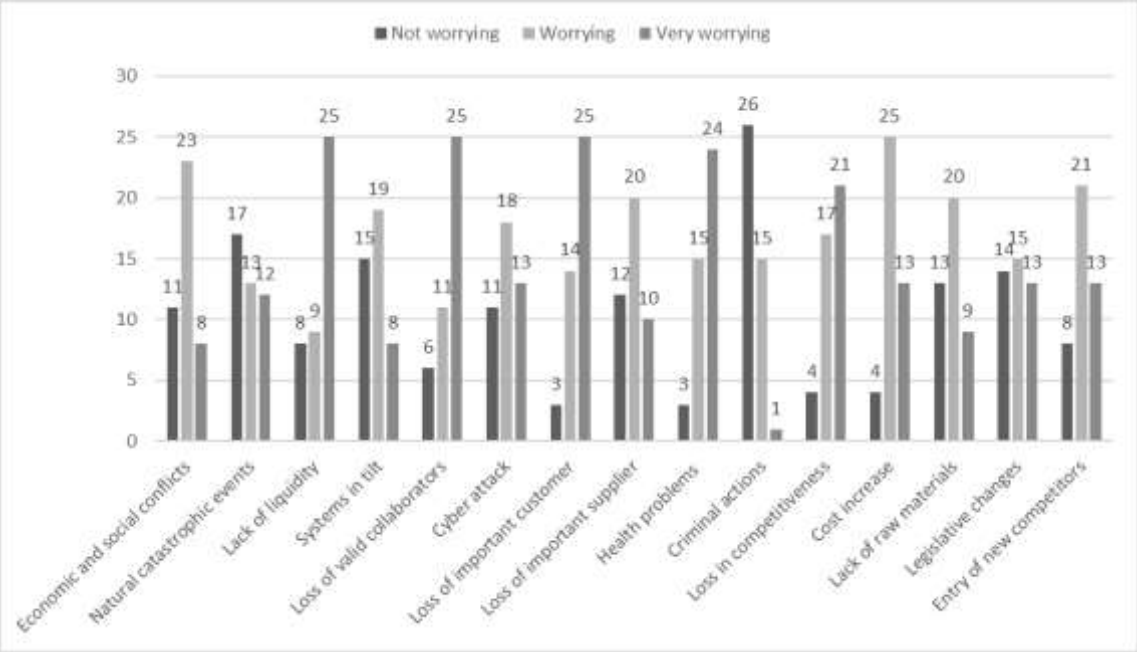


Source: My analysis

Figure 24 shows how the situation has become after the Covid-19 pandemic. The scenarios that generated more apprehension in the companies were the loss of valuable collaborators, the loss of an important customer and the presence of health problems – both personal and of the family. These are the same aspects that have been discussed previously. There are new additions to these ranking, that are the lack of liquidity and the loss in competitiveness in the market. Those are scenarios that are under the oversight of the companies and that can make or break any strategies that firms is trying to carry out. These can be explained because it has become more difficult to survive in the market without enough financial strength. Furthermore, customers are less willing to spend because of the crisis, therefore they are very selective in their purchases and the competition between the companies who can stay open is very high.

For what concerns the scenarios that have not been regarded as worrying there are the natural catastrophic events, criminal actions. These are the same one that have been previously discussed.

Figure 24 Worrying scenarios post Covid-19



Source: My analysis

Figure 25 shows how the situation has changed before and after the advent of the pandemic caused by the spread of the Covid-19 virus. In this figure, there is the representation of the absolute difference in times that a scenario is regarded as very worrying, worrying, or not worrying by the respondents of the questionnaire.

Looking at the figure below, there are a few ones that have changed a lot in terms of importance. For instance, lack of liquidity and lack of raw materials have increased a lot. These are factors that have proved to be fundamental in order to face the lockdown that happened in the first half of 2020, and those are still crucial factors at the time of writing. Indeed, the supply chains have had a huge hit because some of them were not able to work, and therefore raw materials were not ready right away to be used.

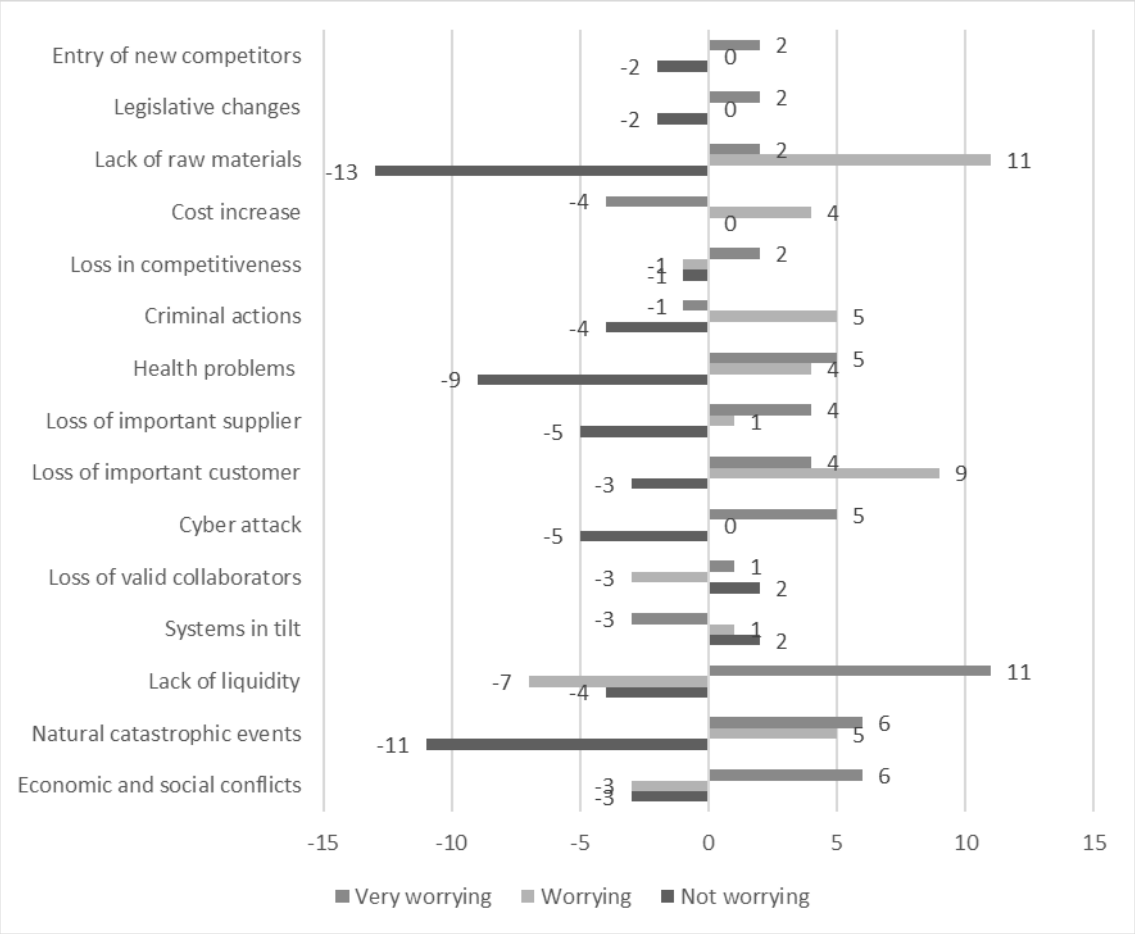
Furthermore, natural catastrophic events have increased of importance as well, even though it is still in the lower part of the ranking when considering the two years under investigation. This can be because the pandemic generated more awareness the world in which we are operating is very volatile and that there are things that cannot be controlled, but to which companies need to quickly adapt.

The other situations considered as apprehensive are the possibility for economic and social conflicts. These are scenarios that are outside the control of the company, but that have increased in importance because firms understood that they have to be aware of the

possible evolvements of the context in which they work in order to be caught off guard, but to be ready to face the next challenge that awakes.

Lastly, health problems have arisen in wariness as well, because, of course, the emergency that is in place at the moment is a sanitary one.

Figure 25 Differences in the worrying scenarios pre and post Covid-19



Source: My analysis

The analysis carried out so far proved that the Covid-19 pandemic changed in some measure the perception of the companies on the scenarios that generate apprehension. There are a couple of elements that changed a lot, such as the lack of liquidity and the lack of raw materials. However, the differences provoked were not drastic, as it is for the case of the loss of competitiveness and having the systems in tilts.

Managerial tools that can be leveraged to face a crisis

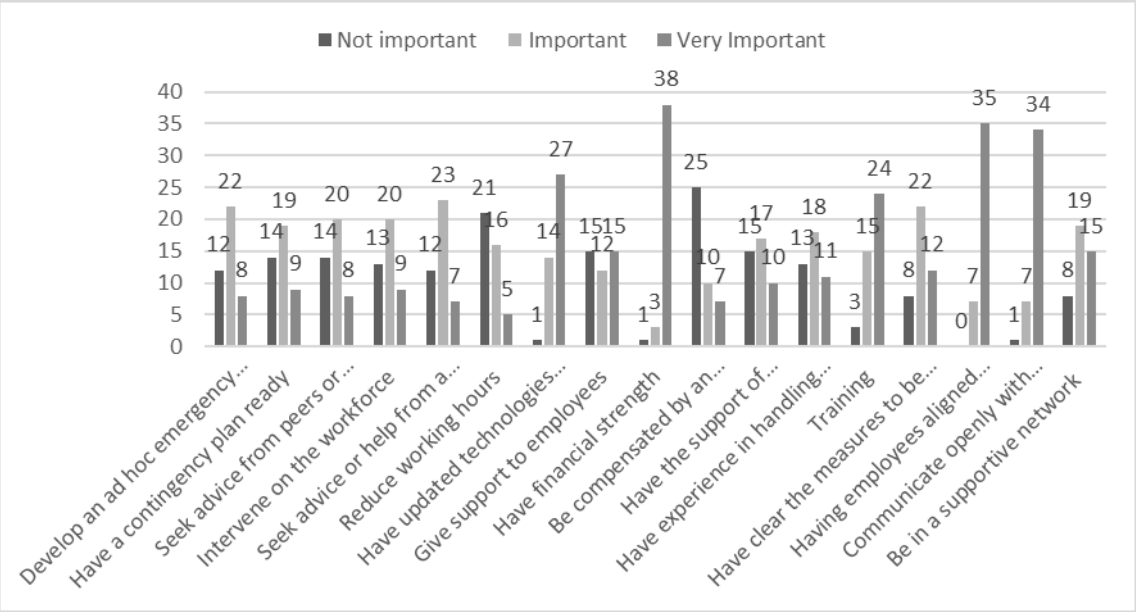
This paragraph is going to investigate whether the pandemic caused by the Covid-19 virus has had such a huge impact on the business community that it managed to change the

perspectives of the companies on which are the managerial tools that they need to leverage in order to face any possible forthcoming emergency.

The questionnaire provided valuable insight, that can be checked in Figure 25 and in Figure 26. These figures show the times that the different managerial tools proposed have been considered as very important, important, or not important, before and after the spread of the Covid-19 virus.

Figure 25 shows how the situation was before the pandemic. There are different variables that are regarded as important. One of these is having financial strengths, that is linked to having the *Slack resources* and *Financial strengths*. The others are to have employees aligned and to communicate openly with workers. These are related to *Employees Engagement* and *Communication*, in particular the internal one. These tools are a good way to keep employees connected with the reality and with the company. Furthermore, this can boost the *perceived organizational support* as well. Last but not least, the companies who answered the questionnaire consider as important having updated technologies and systems. This is related to *Technological capabilities* that can help the firm better position themselves in the competitive market.

Figure 26 Tools considered as important before Covid-19



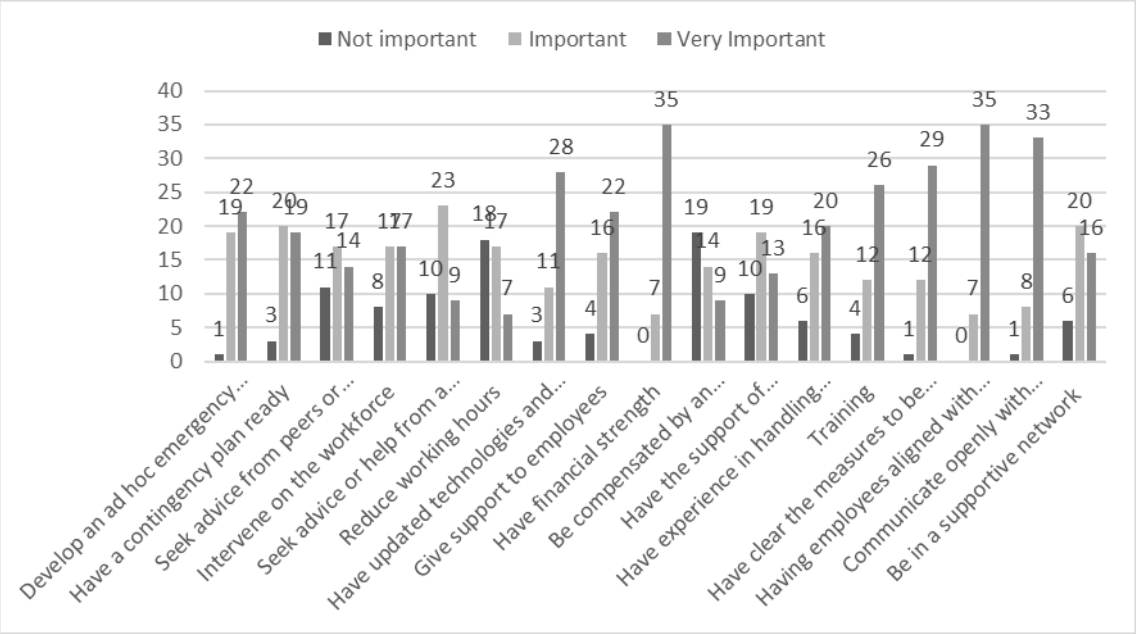
Source: My analysis

Figure 26 shows how the situation is after the spreading of the Covid-19 pandemic. There are some tools that are considered as important as before, such as having financial

strengths, having updated technologies and systems, having employees aligned with strategy, communicate only employees. These are determinants that have been regarded as fundamental in facing an emergency, both before and after the crisis.

The ones that emerge as important after companies have to face the Covid-19 emergency are to have clear the measures that needs to be implemented to face an adverse event, implement training sessions for the worker, and give support to their employees. The first one is related to *Risk Management* and *Contingency plan*; indeed, companies realized the importance of knowing which are their strengths and weaknesses and the usefulness of acting on them. For what concerns the training and the giving support to employees, companies understood the importance of the *perceived organizational support*. Indeed, this can have a huge impact on the motivation and engagement of employees. Both these factors are very essential for a company to have in order to successfully face an adverse event. These can be linked to the variables *Employees engagement*, and *Human resource management practices*.

Figure 27 Tools considered as important after Covid-19



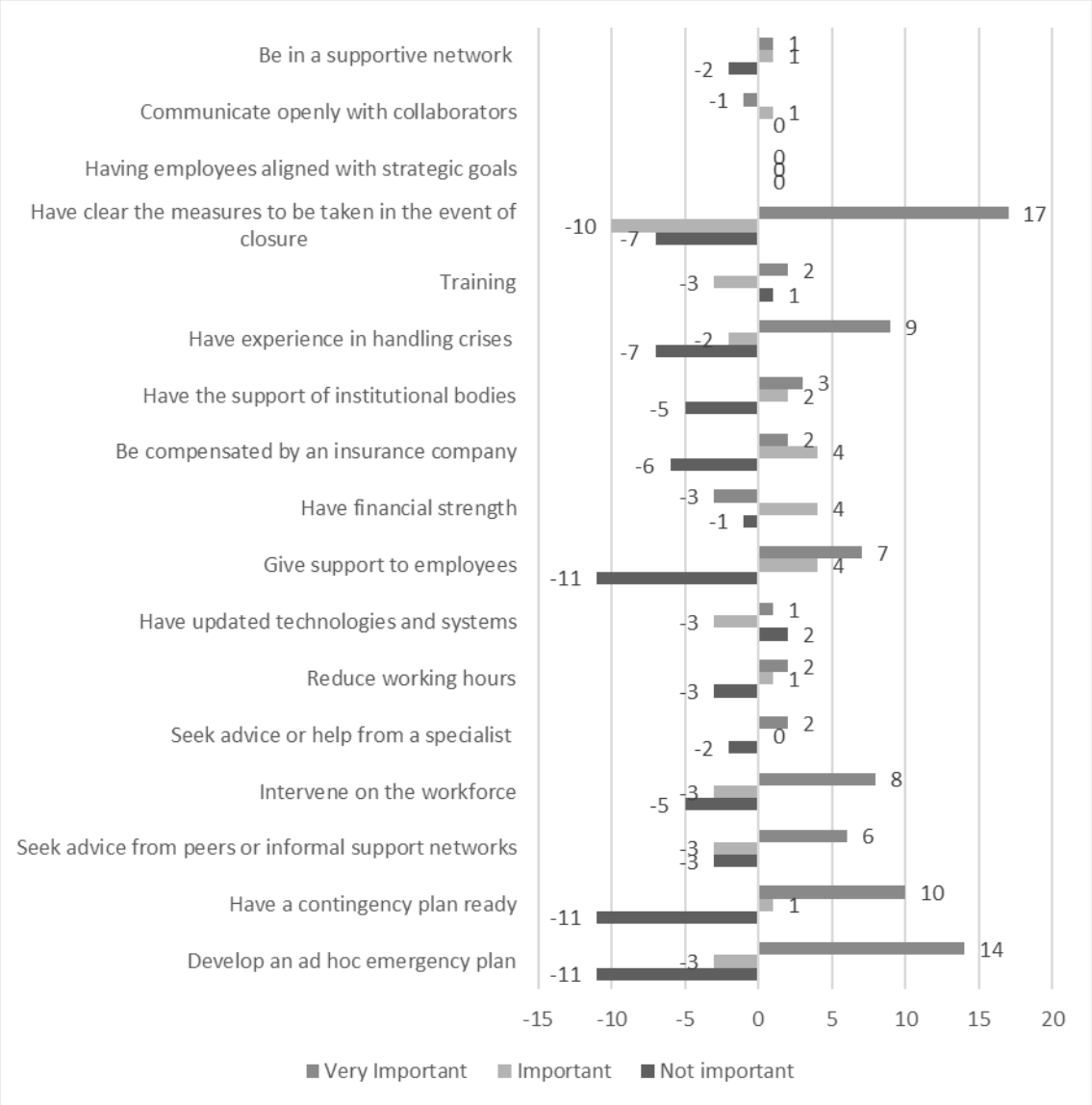
Source: My analysis

Figure 27 shows how the situation has changed before and after the advent of the pandemic caused by the spread of the Covid-19 virus. In this figure, there is the representation of the absolute difference in times that a managerial tool is regarded as very important, important, or not important by the respondents of the questionnaire.

The figure shows that the main difference is in the increase of importance in having clear the measures that needs to be taken, having experience in handling crisis, and developing an ad-hoc emergency plan. These are all related to *Risk Management* and the development of *Contingency plan*. Indeed, the companies realized that they need to be well aware of the capabilities they have and the direction they can take starting from those. Having already some past experienced on facing such extreme situations could have helped in detecting which are the areas of the companies that needs to be protected and whose continuity must be assured. Lastly, having a plan ready is becoming more important, because now companies have understood the phenomenon of the lockdown and they could prepare to be ready when a possible next one could hit the national territory again. Therefore, organizations should and are preparing for the occasion of a second lockdown or in case there is another peak in the infections, or if someone in the premises of the company has caught the Covid-19 virus.

Furthermore, another one that has increased in importance is giving support to employees. Organization had to face the reality that keeping employees engaged and supported is one fundamental tool in successfully face any adverse event. This concept is linked to that of the *perceived organizational support*. Indeed, this can have a huge impact on the motivation and engagement of employees. Both these factors are very essential for a company to have in order to successfully face an adverse event. These can be linked to the variables *Employees engagement*, and *Human resource management practices*, that have been widely discussed in the previous chapters.

Figure 28 Differences in the importance of the tools pre and post Covid-19



Source: My analysis

5.3.3 Final considerations

The questionnaire that was develop for this dissertation has not been widely spread, because of the little time available and the results are not those of a representative sample. However, the purpose is to get the temperature of how the companies reacted and what has changed in their perception.

Indeed, the Covid-19 pandemic had an important impact on what companies perceived as worrisome, putting more emphasis on the lack of liquidity, and on getting ready on the possible new lost in competitiveness, loss of valid collaborators and customers. For what

concerns the means to face the lockdown, the most important have been related to *financial strengths*, *employees' engagement* and the development of *contingencies plans*. Lastly, the managerial tools that need to be leverage in order to face a crisis have changed before and after the crisis caused by the Covid-19 pandemic. The solutions adopted by the firm has shifted towards more a deeper focus on *employees*, and on keeping high the perceived organizational support that the companies provide.

It is possible to say that Covid-19 have had an impact on the business community, and that this phenomenon is still undergoing, and further studies are needed to completely grasp the full scope of the phenomenon.

5.4 Organizational Interpretation

In this chapter there is going to an analysis on the in-depth interview with a couple of companies and what they consider important in terms of determinants that helped them face the sanitary crisis.

5.4.1 Zordan S.r.l. sb

The information and data provided in this paragraph are the result of the interview done with a manager of the company.

As soon as the news of the first lockdown arrived in February, the first thing that emerged from this was fear. The company made sure not to allow it to become panic by giving reliable and certain sources of information. Furthermore, they allowed the possibility for those who did not feel like coming in the premises to work from home, because the company already had the *Technological Capabilities* needed in order to do so. In this situation, the company is focusing on keeping a high *organizational perceived support* (Perrone, 2010).

Zordan is one of the companies who closed starting from the 25th of March 2020. They were allowed two days to deliver the last things in the warehouse. The company is organized in *team*, and this empowered people because every team has a direct and two-way link with the suppliers. This allowed them to manage the emergency in a short time period and to absorb the complexity of this particular moment, that could have otherwise jeopardized the whole organization. The organization of work has proved fundamental to face the emergency.

Zordan has another factory in the USA, and several teams around Europe. Thanks to these, they managed to have full cover in America, as well as in Middles Ease, when Italy was blocked. This *multi-location* made them feel more confident in having a way out.

In full management capacity, Zordan has 30% of the carpentry and metal works internalized, this means that they are reliant for the 70% on their suppliers. The structure in integrated and multi-function team has helped in managing the relationships with suppliers directly. The fact of having *cross functional teams* that have a direct relationship with suppliers is likely to have made the relationship more trustworthy, and this made in unnecessary the involvement of the strategic top. Indeed, this was part of the processes managed normally by the teams. Common sense allowed for a natural management. This means that the skills activated – technical, cognitive and relational ones – to handle the shock were not difficult to obtain, they have done nothing but do what they did before or a little more.

In other words, the organization had experienced a transferability of skills, which were used to manage orders before, and those same skills were then used to manage the exceptional nature of the Covid-19 crisis, net of new health practices. This was all possible thanks to the transformation into a team. This slack of resources allowed the company to face the emergency without a cognitive shock.

Furthermore, Zordan implemented different kind of practices for the *Employees Engagement*. They did this by giving priority to their workers, and through the mean of internal *Communication*. They were able to transmit the *Organizational Values* of the owner family and of the overall company. These actions make evident how much they value the real involvement of people. They developed many emails to keep the employees up to date on what was happening in terms of legislation and of the situation of the company: how much of a hit this stoppage would mean for their liquidity and economic result at the end of the year. They managed to stay close to the workers by carrying out welfare improvements, seminars, free training. All of these information have been communicated through emails. The highlight on *perceived organizational support* is the basis to get the *Employees Engagement* needed to achieve organizational resilience.

Furthermore, the company developed a new blog, where employees can have virtual coffees, aperitifs in order to feel closer to each other's and to the company. Family things had entered the company and vice versa, this happened since past corporate events. There

had already been in the past the idea of building a blog. Therefore, the services team created one, it was an initiative that made it possible to establish a relationship also with the employees in the American company.

A rarefaction of the difference between the organizational environment and the family environment, which is not prevarication, but it is an osmosis that the urgency of the moment makes necessary. This is an awareness of interdependence, and it is a tool to better manage it. This was what was needed to keep the community stayed alive.

At this time, it is used for corporate communications, to make events materials available for those who could not attend. Furthermore, it is used by the worker's family as well because there are some tools, for instance the welfare application, that is difficult to use for a non-digital native, and the company knows that the workers have the support of the family to use this. Therefore, they need a tool that makes knowledge available to them too. It is not enough to do the training in the company, and family resources are also used to foster this.

Relationships have always been important for Zordan, they have always involved customers and suppliers in all their events for the issue of interdependence. This crisis has highlighted that no one can stand on his own. Furthermore, Zordan has increased the integration with the local institutions. They donated FP2 masks to the brigades of the municipality. Moreover, they designed desks for the local schools. They got in touch with the local councillor and various high schools in the area and they got to know that they were planning on opening the schools in November because the desks would not arrive before. Zordan made pacts with them and thus started working on a project for a circular economy bench. The theme is that it is something that is needed for a short period and then it becomes useless, therefore the company decided to make the desk so that they can be transformed into chairs. The idea of *circularity*: the bench functionality is destined to be short-lived, and the effort is recovered for other uses.

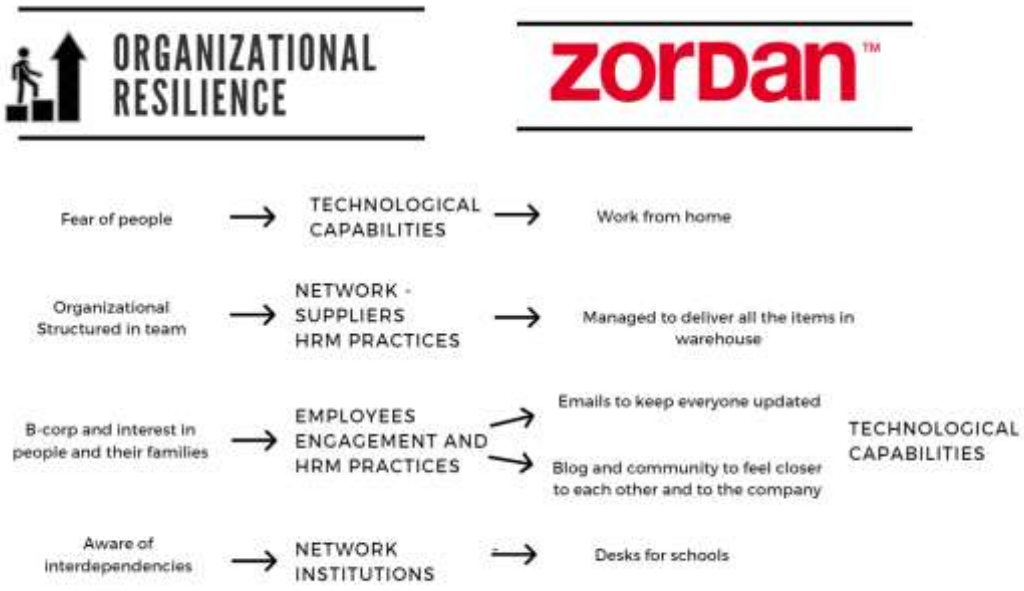
Lesson Learned

The company focus a lot their attention on the *employee*, on how to keep them engaged and secure. Indeed, Zordan valued the importance also of the workers' families. This could be linked to the fact that the firm is B-corp, and in this context the organization can count on greater people-based organizational resilience, thanks to the *HRM Practices*, *Communication* and the subsequential *Employees Engagement* they can achieve. Indeed,

even when the premises of the company were closed, they organized seminars, a virtual community to workers would feel closer to the company.

The result of this terrible period has been the awareness that the companies has had the right *technological capabilities* to face this, and that there is interdependence between the different actors in a society, and therefore, there must be trust within the *Network* and the overall *Ecosystem* in which the firm is embedded.

Figure 29 Scheme for Zordan S.r.l. sb tools



Source: My Analysis

5.4.2 LaBrenta S.r.l.

The information and data provided in this paragraph are the result of the interview done with one of the entrepreneurs of the company.

The case of LaBrenta S.r.l. is interesting because they have always stayed open. Indeed, they operate in the essential supply chains. The distinctive element of this case is that this is a company specialized in the production of corks, that enters in a new sector with an antibacterial handle protector in very short time. In three weeks, they managed to go from the intuition of a new mass daily need –opening doors in full health safety – to the creation of a new product to satisfy it. That is an antibacterial handle protector to open doors without the need to use the hands.

After the first decree-law from the government a climate of fear and uncertainty was the norm. Their main ATECO was not part of the essential services, but the secondary one

was. Therefore, they immediately went to the chamber of commerce to switch the secondary code to primary, in order to get rid of any risks of being closed.

In terms of suppliers, the company experienced no important issues, because they have many of the process internalized. Indeed, they process few raw materials and make many products of them. In this way, they do not have many external processes, but they had suppliers who closed: they manage to not be affected by this thanks to the warehouse stocks and were therefore able to meet most of the needs. In this case, *Internal resource* and *Slack resources* were the key strengths of the company.

When considering their clients, when the sanitary emergency was mainly in Italy, foreign customers asked the company whether they were able to supply them. Before the lockdown, the company was not sure. However, they had to be seen safe by their customers so that they did not look for other competitors.

When the lockdown was implemented, the concerns of customers increased. However, at that point, the company knew that they could continue operating and they reassured them. LaBrenta guaranteed that they put in place all the procedures to work safely and that they were open because part of the essential supply chain.

A problem has arisen with customers because LaBrenta is their supplier of a component without which their product will not go out. The company managed to be successful thanks to *Leadership involvement*, their *Internal resources*, and the focus on assuring *Business Continuity*.

For what concerns the employees, anyone who could do smart working was left at home. All the workers already had all the tools, such as a laptop, that enable them to work from home. At the beginning, there were a couple of workers who were worried, and then they were given a leave. Having those employees going to work with anxiety would have not been optimal and could have spread panic on to others. In any case, all employees had to go to the premises of the company in rotation because there were different needs to do some paperwork. They did not have long-term absences from the office that would have generated a strong need for employees' engagement practices. In this case, *Business Continuity Management* has been of fundamental importance.

LaBrenta began to use tools that have now become the norm, but which they did not use before, such as remote meetings. Furthermore, they asked for emergency funding and for delays in mortgage payments, in order to have *Liquidity*.

As soon as the situation started to get worse, LaBrenta set up an emergency team. This was composed of the two funding entrepreneurs, the general manager, and the marketing director. They would meet once a week, and this practice has proven so useful that they are continuing to do it today.

During these weekly team meetings, they were wondering what they could do to five their contribution to obstruct the spread of the virus. From this brainstorming meeting, they realized that they could create a solution to open the doors without having to touch them with your elbows or forearm. The company produces the moulds internally furthermore, they have an internal graphic and design office, so they do not have to rely on third parties. It was fundamental that the company had the right *Internal* resources in such a time. Thanks to all these factors, they designed the product and produced the mould, in less than a day. The system designed adapts to the most common handles and allows doors to be opened and closed avoiding bacterial contagion. This solution has also the perk that can be assembled in a very short time period. On the 27th of April, small series production of the handless door kit begun, and a short promotional video was launched. They gave them to their customers, they donated some to civil protection, some others to the hospital in Vicenza. This signals that the company values the *Network* in which they are embedded. Then, they then tried to build the sales network, there are people who bought it, but the goal was not to build a business on it. However, it remained an expression of the company's ability to *innovate*.

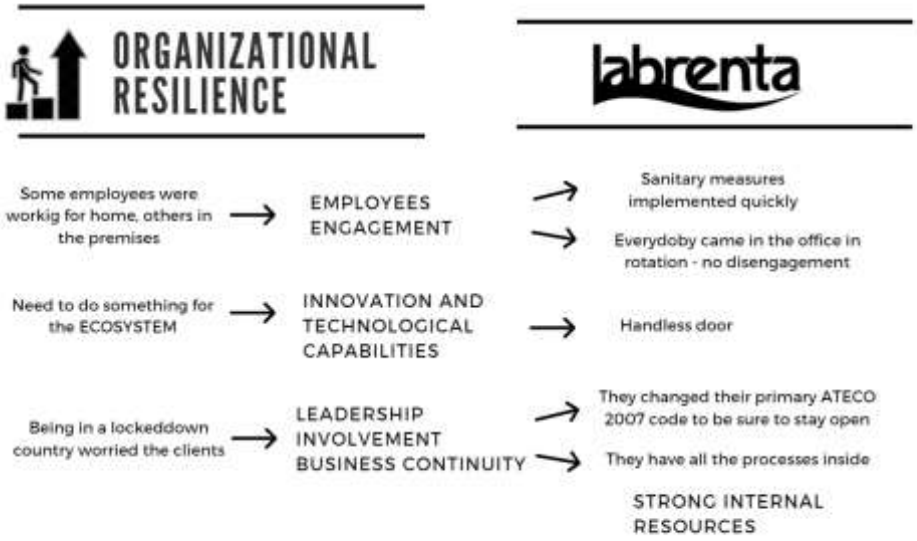
Furthermore, this emergency provided the entrepreneur with the ability to better manage emergencies, indeed, the company had to take decisions in areas in which they were not prepared for.

To conclude, this was also a way to learn to use new tools. For instance, the commercial department is implementing a series of webinars. Each webinar was mono language and the company made the investment of digitizing the entire showroom of the company. Through the webinar, they let the potential customer browse inside the showroom in a virtual way. This is another process *innovation* that the company will carry forward thanks to their *Technological capabilities* and that in normal situations they would never have done.

Lesson Learned

LaBrenta proved that through exploiting its *Internal Resources*, *Leadership involvement*, and investment done in *Technological Capabilities*, they were able to assure *Business Continuity*, *Financial Strengths*, and, most importantly, they were able to implement *innovations* of product – with the handless door – and of process – the digital showroom.

Figure 30 Scheme for LaBrenta S.r.l. tools



Source: My Analysis

5.4.3 Galdi S.r.l.

Galdi S.r.l. case is particularly important because there are three elements that emerged from the interview that make their experience from the 24th of February 2020 onwards relevant for the scope of this dissertation.

The first reaction of everyone as soon as the news about the Covid-19 virus spread was of fear. Companies in all the production chain were wondering whether they should close or not. Galdi is related to the food supply chain, therefore they continued being operational for all the lockdown period. The first thing that the general manager did was to reach out to the sales department, in order to have them contact the customers to be sure that they would still want the machines. The positive feedback from the customer was the right motivation for Galdi to continue working. In order to do this, the general manager reached out to the supply chain team, in order to get in contact with the suppliers, and to ask them to stay open.

In order to do this, Galdi gave mainly two things to their suppliers: psychological reassurance and advices. For what concerns the first, the motivation given concerned the reassurance that Galdi is working, there are workers in the factory and the customers are requesting the machines. On the other side, for what concerns the latter, the company was providing consultancy on how their suppliers could continue working. Indeed, the general manager was keeping well informed with official channels of the government, industry associations. Some suppliers were even poorly advised on how to proceed and on whether they should continue operating. In this situation, the Network has been of fundamental importance. Galdi, and in particular the general manager, wrote several letters in which they were explaining the decree-laws, and allowing suppliers to get in touch and getting reliant information from the lawyer and specialists of the company. Indeed, some suppliers were connected also to other supply chain – not only the food sector – and they recorded a drop in turnover and were oriented towards closure. The supply chain team reached out to them and suggested them to reach out to the prefecture and communicate that the supplier is part of the food sector thank to their link to Galdi. Furthermore, they suggested to have all the necessary raw materials in house and told them that Galdi was willing to contribute and participate to these extra expenses, in order to have the production process on going.

This proves that Leadership Involvement, clear Communication, and a good Network has been fundamental for this particular case in order to face the sanitary crisis that emerged in late February 2020.

This dramatic experience made the company understand the importance of the Network in which it is embedded, in particular of the clients and suppliers. Moving from this realization, they have promoted a supply chain agreement with Banca Intesa, with the purpose of helping each other out.

Secondly, the relationship with the workers as well as with the trade union are two other important topics in the experience of Galdi that deserve further investigation in this dissertation.

For what concerns the relationship with the worker, the general manager admits having under considered the importance of the perceived organizational support (Perrone, 2010) for all the workers in the company. Indeed, she focused her attention on being able to get

some employees to work from home. In order to this, there needs to be workstation, support to allow for continuity. Furthermore, they also needed to reassure them that they were making them work from home for security reasons and not because the company wanted to fire them.

This intent of doing good for the company lead momentarily to the feeling that there are a privileged category of workers, those who could do smart working, and one that has to act as a hero, those who had to be in the premises of the company in order to make the production continue. There were several complaints from the hero category, and this is a clear example of how the lack of perceived organizational support can put the company in trouble. This is a very important topic that cannot be underestimated.

In the first place, the general manager had to force them to come and work. In order to make the employees feel the organizational support, she would always show up, at least once a day, in the production department. Furthermore, the general manager has been discussing everyday with the employees all the measures that the company could undertake in order to make them and the environment safe to work in. Also, in this case, clear Communication and Leadership involvement have been of crucial importance in order to increase the perceived organizational support.

On the other side, the general manager asked the company union to help out, in order to consolidate the perception that the company is close to the workers, that is to improve the perceived organizational support. The company laid out the facts that the premises were safe, there were no immediate risks, and the union provided their availability: they reached out to the employees to communicate these messages and to instil confidence in them. The company also handed out ex post an economic incentive to recognize the effort that they had to put in their work in order to carry out their daily activities.

For what concerns the people working from home, they started to get disengaged as well, and the company developed short videos of the general manager in order to keep the perceived organizational support high. In these videos, there would be explanations of what is going on in the factory, so that all employees were aligned and that they would perceive the leadership involvement.

Lastly, it is important to note the ability of the after-sales area to continuously innovate. Indeed, this department in characterized by consolidated practice, and it managed to reconfigure them quickly. They managed to exploit their already developed *Technological*

capabilities. The companies had developed in the past two applications, one for monitoring the performance of the machines, the other one to share images and documents with the customers. Before Covid-19, these two have been underused, but at the break of the pandemic, both customers and after-sales employees started to exploit it more. This is because it was not possible to be present anymore, so they started using the data provided by the IoT solutions and they realized its actual value. Furthermore, the after-sales worker started to develop digital services, such as making videos to show to the customers the features that a particular machine has. This is a prove of how important bricolage and innovation can be in order to stay close to customer and to try to provide the same level of services.

One of the main worries for Galdi were the aggressiveness of competitors, whereas now it is the fear of a lockdown and how this could impact clients. Indeed, their customers who have suffered the most are those that serves the Ho.Re.Ca. channels. They experienced significant drops and had to reorganize themselves. The crisis that could derive from this is one of the biggest worries for the company.

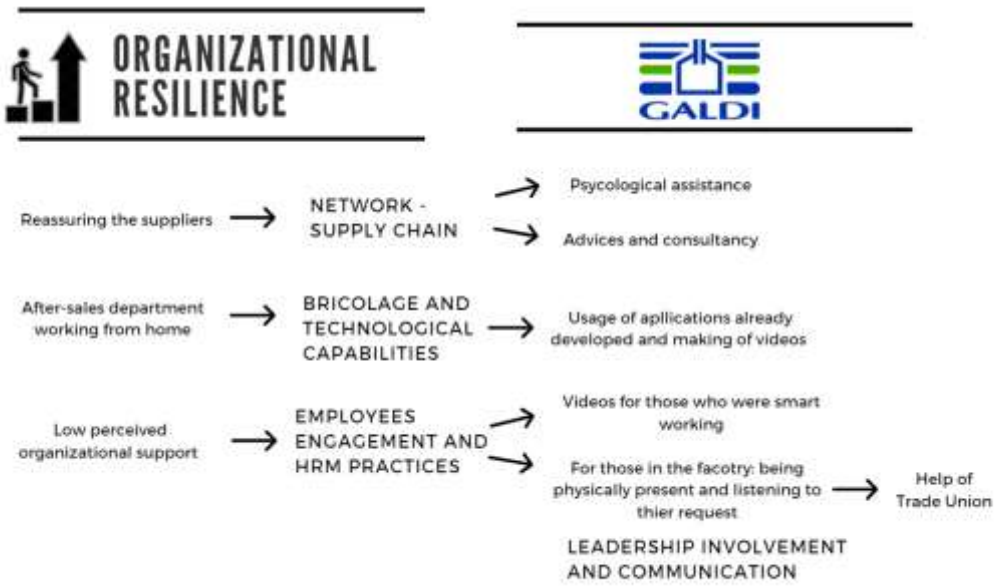
After Covid-19, Galdi is more reliant on *Contingency plan* than it was before, they know they have to be ready for a change, but they and nobody can know what it is. Furthermore, during this period, Galdi realized the importance of a multi-localization that helps to divide the risk – that is neither geopolitical, nor related to the business relationships.

Lesson Learned

Galdi S.r.l. proved to be robust, ready and resourceful. They are robust because the manage to activate and exploit the *Internal Resources* in times of need. They managed to make the most out the relationship with the trade union, which made it possible to manage the transition to smart working and allowed for the other employees to be heard and work safely in the factories. This was possible thanks to clear *Communication*, *Employees engagement* and *Leadership involvement*. They are ready because they managed to exploit all the capabilities of their *Network*, in order to be sure that the clients are still interested in their product and that the suppliers are operational and can provide with everything that is necessary. They are resourceful, because they managed to implement *Bricolage* and *Innovative* ideas, in particular the Technical Area, accustomed to travel around the world to provide the side by side service, have managed to transfer their know-how to

digital media. This was possible thanks to investment in *Technological capabilities* that was done before Covid-19 by the company.

Figure 31 Scheme for Galdi S.r.l. tools



Source: My Analysis

5.4.4 Prosciuttificio Nuova Riviera S.r.l.

The information and data provided in this paragraph are the result of the interview done with a manager of the company.

Prosciuttificio Nuova Riviera is a company located in the municipality of Vo', in the province of Padua. This city is one of the first hot spot that has been closed starting from the 24th of February 2020. On the other side, this organization has a 10.13.00 ATECO 2007 code, that means that its business is related with the food supply chain, that is considered as an essential service. This means that the firm could stay operational, however it was not actually possible. Indeed, the city was isolated, no one could get inside or go outside of it. Therefore, they were not able neither to supply the warehouse nor to let any of the employees in. This situation puts Prosciuttificio Nuova Riviera in default risk.

In this situation, the importance of the *Network* in which the company is embedded has been fundamental, in particular concerning to the role of the institutions. Indeed, the prefecture of the city of Padua was were active in giving direction. Furthermore, the organization immediately established a communication channel with the ULSS – Veterinary Public Health district. Thanks to this collaboration, the two employees who lived in the

municipality of Vo' were allowed to enter the factory and check on the products, and the machineries. This happened after the two workers had tested negative for the Covid-19 virus.

The clients of the companies are distributors for the Ho.Re.Ca. channel. Indeed, they were harshly hit by the restrictive measures undertaken. Therefore, Prosciuttificio Nuova Riviera decided to expand their products range as well as their market.

Firstly, they decided to implement new products starting from the same raw materials. The national slaughterhouse does not have the flexibility to provide the companies with the cuts of meat as needed by the firms. In this way, organizations have scraps that can be used in order to produce other sausages that are typical of the Veneto region. They made a small investment to reopen the premises that were already in their hands. They bought some machinery and started this new production. They managed to offer new products without having to sustain higher costs in purchasing raw materials: they buy the same piece of meat, they produce the same ham as before, and with the scraps they make a sausage. Before the Covid-19 pandemic, they would throw away the scraps. The manager said that the company did not implement this solution before because of the established routines that left no space for the production of new products. This means that the pandemic made the firm discovers and exploit new latent capabilities and opportunities that were not fully known by the company before. The company implemented some bricolage and innovative ideas in order to face the crisis.

Secondly, the company reached new geographical markets, because the crisis had strongly limited their operations in the local communities. The company implemented some market analysis and managed to find different partners, that would sell their products outside the Veneto region, in other parts of Italy. In order to do this, they got the support of local agents organized in structures that have territorial skills and the ability to return the payment. Once again, the formation of a good *Network* was the fundamental determinants for the success of this company.

In this short time period, Prosciuttificio Nuova Riviera has lost 80% of their turnover, compared to the previous year, as stated by the manager during the interview. Nonetheless, the company was able to meet the deadlines for the payment of the suppliers, as well as for the delivery of the final products, with a little margin and flexibility from the customers. This is believed to have helped strengthen the reputation of the organization and

the support that they can obtain from the suppliers, the clients, and from some institutions, such as banks. Indeed, customers recognized the ability of the firm to meet their demand even in difficult times. This factor helped to overcome the war price and put the organization and their customers in a union of intentions. In this way, Prosciuttificio Nuova Riviera has strengthened the relationship with its Network.

The interviewee stated that having already passed a similar situation of disruption of production helped them understand which the right offices were to go to in order to request some help. Therefore, Knowledge Management has been important for Prosciuttificio Nuova Riviera. However, he stated that in case of a second lockdown it would not be as important as it was before for an individual company. This is because, at this point, all workers, people and institutions are more aware of the impact of a possible lockdown and how their non-compliant behaviour can impact the organizations and the society as a whole.

Furthermore, they do not consider having partners outside the hotspot as important, because no person or vehicle or good could enter or exit the geographical limit imposed by the decree. Employees Engagement has also been important. Indeed, the company is composed of seven workers, and therefore, they have the feeling of being part of a family and of going through the crisis together.

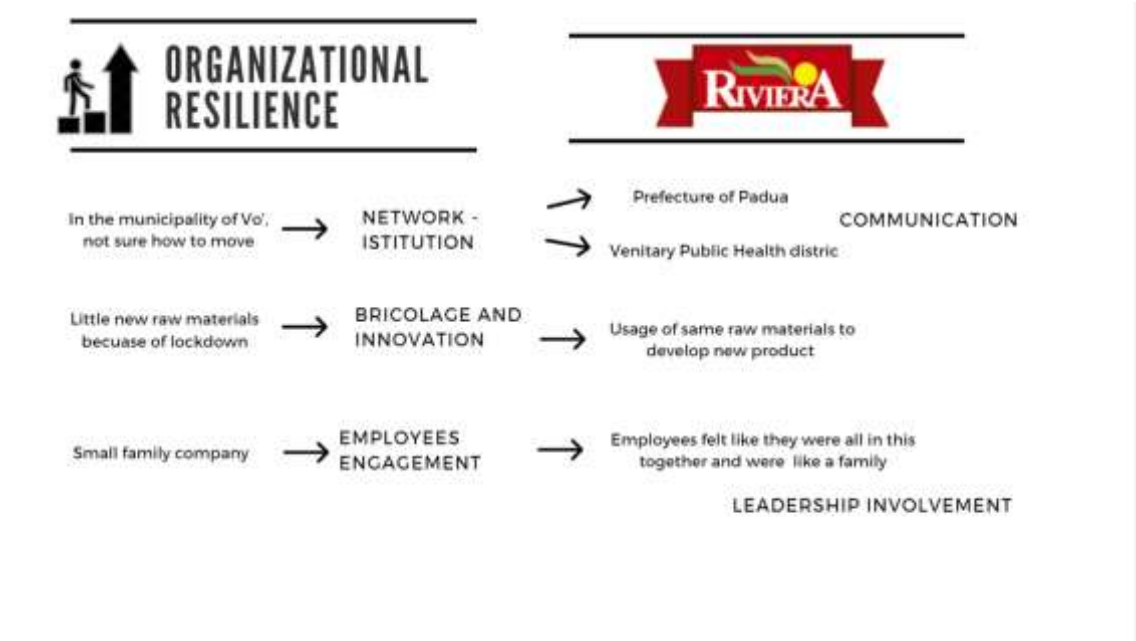
The company had no Emergency plan ready for the crisis. However, a plan was done subsequently because the legislation provided for the company to have one. This is related to the development of Contingency plan. They now have plans on how to manage an emergency in case an employee results positive to the Covid-19 virus. They believe that it is important to develop emergency plans that are tailor made to suit the needs of the company.

The company was worried of losing their customers, because at the beginning of the lockdown they were the only one closed: the organizations in the neighbouring cities were still operational for some more time. However, in practice, this fear was not completely true, because all the customers started to request less products, because less people and customers were circulating in cities and shops. On the other side, financial solidity is another hot topic in these times, but not as worrying as before. This is because experience made the company fully understand the issue of current assets and liquidity: if you work less, you pay less.

Lesson Learned

The managerial tools that the Prosciuttificio Nuova Riviera S.r.l. leveraged in order to successfully face the lockdowns were the formation of a good *Network*, with suppliers, clients, and institutions. Furthermore, they implemented different *Bricolage* and *Innovation* practices, such as expanding their product offer and expanding their market distribution. Experience in a similar situation was also relevant for the positive outcome of the organization. Lastly, *Employees engagement* that was enable by the *leadership involvement* has been another success factor for the company.

Figure 32 Scheme of Prosciuttificio Nuova Riviera S.r.l. tools



Source: My Analysis

5.5 Conclusion

This chapter begins with the timeline of the different stages of the lockdown in Italy. The time period is divided mainly in two parts. The first one concerns the first seventy days when the first restrictive measures were put in place. This phase was not homogenous in all the national territory, and this could have created inequalities in the preparation for and the actual facing of the emergency. In this time period, the transition to the total lockdown is also included. In this particular time frame, very few companies could continue to operate: those that were related to the essential supply chains. The second part concerns the recovery of activities. Some companies with particular ATECO 2007 codes

could start working again, and this marked the new phase of normality, in which companies had to put in place new competencies in order to be operational again.

Further on, the results of the questionnaire are analysed. It emerges that the Covid-19 pandemic had an important impact on what companies perceived as worrisome. Furthermore, the managerial tools that need to be leverage in order to face a crisis have changed before and after the crisis caused by the Covid-19 pandemic. The solutions adopted by the firm has shifted towards more a deeper focus on *employees*, and on keeping high the perceived organizational support that the companies provide. This is in line with what the theory analysed in the previous chapters have discovered, with one main discrepancy: the importance of the *Network* does not emerge from the questionnaire; however, it is highlighted in the in-depth case studies.

For what concerns the means to face the lockdown, the most important have been related to *financial strengths*, *employees' engagement* and the development of *contingencies plans*, this is still in line with the theory, but again, the importance of the *Network* is not clearly evident.

To conclude, the chapter ends with the discussion of the case studies of the different companies that have been interviewed. The different companies had different experiences in terms of geo-localization, one was in Vo', at the centre of a hotspot, and of capabilities they put in place. For Prosciuttificio Nuova Riviera S.r.l. being supported by the institutional network and having the right capability to innovate have been the characteristics that helped succeed in such turbulent times. For what concerns Zordan S.r.l. sb, their emphasis on keeping high perceived organizational support and their organization of work revealed fundamental in facing the complete shutdown that they had to go through. On the other side, LaBrenta S.r.l. could count on their technological capabilities, internal resources and leadership involvement to come out of the crisis as well. Galdi S.r.l. is another interesting case, because they had to put in place different tools to succeed in this adverse situation, such as HRM practices, leadership involvement to make the employees feel the organizational support, Furthermore, they had to reassure the supply chain that they could continue operation. On a last note, the company managed to put in place some bricolage activities exploiting the technology they have implemented before in order to take the after-sales department close to the customers even though they were working from home and could not go physically there.

The next chapter is going to focus on analysing the elements seen in this chapter to check whether these can be of use for other companies and for future researches to delineate some fundamental managerial practices to face an emergent crisis.

6. CHAPTER

ORGANIZATIONAL RESILIENCE AND ORGANIZATIONAL THEORY: WHAT IS NEW?

6.1 Introduction

The research for the definition of organizational resilience has been widely discussed in the literature (Linnenleucke, 2017). This dissertation stated that there is no fixed and static definition of this concept, but rather it is an evolutive one that changes depending on the different circumstances in which a company is embedded. Organizational resilience is indeed an evolutionary and dynamic concept and it needs to be investigated as such.

Furthermore, this investigation also tried to define some managerial tools that could be useful to develop this kind of resistance and elasticity to stresses. Starting from the analysis of the theory, some variables have been identified as important and a framework of analysis has been set.

Empirical investigations have been carried out in order to define whether the literature review undertaken is accurate in defining the tools needed to face the sanitary crisis that emerged by the end of February 2020. Furthermore, this dissertation investigates the effect of Covid-19 pandemic in defining the scenarios that can worry the entrepreneurs and the managers of an organization. Lastly, there has been an examination on whether the Covid-19 pandemic has changed the managerial tools that a company would put in place in order to face an emergency. These information were derived from the data collected form a questionnaire and from the in-depth analyses of different cases studies.

In this chapter, there is going to be the investigation of some elements that emerged from the literature investigation, as well as from the empirical analyses carried out in the de-

velopment of this dissertations. There will an initial inquiry on the effects that these discoveries can have on future researches and on managerial practices and tools that can be leveraged when the next crisis is going to arise.

6.2 Managerial Implications

This dissertation has widely discussed the theme of organizational resilience and the managerial tools that can help to achieve this result. In all the cases analysed in this thesis, there have been some common elements than can be of use for other companies and for future researches to delineate some fundamental managerial practices to face an emergent crisis.

6.2.1 Latent Capabilities

From the study of the empirical investigations emerges that some scenarios became less worrisome for the companies after they had to face the crisis related to the spread of the Covid-19 virus.

One reason that could explain why these situations lost importance is because the organizations realized that they were able to face this kind of emergency and this proved that the companies had more capabilities that they account for.

Indeed, the capabilities needed to face this crisis are not developed in a couple of days, rather they are sleeping capabilities. They stay dormant and are activated once they become necessary for the business continuity of the company. One clear example of this has been how Zordan stated that they did not need any further capabilities than the one they have already developed during the years and some common sense to assure the normal functioning of the company.

This revealed to be fundamental also for LaBrenta S.r.l.. From the exploitation of their internal resources and capabilities, they managed to innovate during this time of crisis and to create a new product that could be used in order to open the doors without having to touch them.

Prosciuttificio Nuova Riviera S.r.l. has been in a similar situation because they managed to implement a new line of products that they did not do before. They were aware they could implement this kind of solutions; however, they never got the right motivation to do so. Therefore, these could be classified as sleeping resources.

From a managerial point of view, this means that the organization have some resources, that could be for instance the organizational identity, and that they have to constantly invest in them even in normal times, because they could make a huge different when the firm is facing such extreme events. This also means that the companies that have been able to react or live better in these difficult moments are not companies that have changed overnight. They already had these resources and they were not aware that they had them or of their potentiality.

The notion of *invisible assets* is a well-known concept in literature, there is a book called *Unstoppable: finding hidden assets to renew the core and fuel profitable growth*, by Chris Zook (2007), which is based on this concept. The main notion is that a company has invisible assets and the skills of the leader of the firm is to create opportunities for these invisible assets to manifest themselves.

On the other side, they could be classifies as sleeping resources. which are assets that the organization is actually aware of possessing them. However, they are not considered as important on the daily operations that the company carries out.

Therefore, the forthcoming investigations on this subject could be on analysing the depth of the impact that the unconscious resources and invisible capabilities can have on organizational resilience.

6.2.2 Perceived Organizational Support

Another important topic that emerged in particular from the in-depth case studies is the importance of *Perceived Organizational Support*.

This concept has been present in the literature. One of the articles that discusses it is the one by Vincenzo Perrone *Ora e sempre resilienza!*, that is translated in *Now and always resilience!*. In this paper there is the introduction of the concept of the perceived organizational support that is a fundamental characteristic for organizational support. Indeed, resilient organizations are those that give their employees the feeling and the practice of taking on the responsibility of solving problems, overcoming the so-called *survivor syndrome*.

This has been in particular the case of Galdi S.r.l., in which there was a distinction between the *privileged employees* who could work from home, and the *heroes workers* that

have to go physically to the factory. The latter felt abandoned and like second-class workers. The company underestimated the importance of being close to their employees. Galdi S.r.l. had to quickly fix this problem in order to continue being operative.

This topic has been particularly relevant also for Zordan S.r.l.. The company implemented several human resource management practices in order to have a high perceived organizational support and to give to all the workers the stimulus to stay connected with the company. Zordan values a lot their employees and they have implemented during the lockdown new welfare policies as well as the opening of an online community in which workers could have together virtual coffees, aperitifs and chats. Furthermore, the company shared these new tools also with the families of workers so that they could feel very supported. This is a clear example of a companies that deeply cares about their employees – indeed they have been certified to be a B-corp – and that do not underestimate the importance of having a high perceived organizational support.

LaBrenta S.r.l. managed to keep the organizational perceived support high by allowing those who wanted to work remotely to implement smart working solutions, and by providing to those who had to work in the premises of the company strict sanitary measures. Furthermore, they managed to have all the employees to come to the factory and offices in rotation, so that they would not feel disengaged.

Prosciuttificio Nuova Riviera S.r.l. adopted a different approach in order to keep the organizational perceived support high during the sanitary crisis, that has been provoked by the pandemic caused by the spread of the Covid-19 virus. This is a small company and the management focused on making the employees feel like they are part of the family and that they were all together facing this terrible event.

The topic of perceived organizational support should be highly valued by the companies, because it can make or break any strategies that the organization is implementing. Furthermore, it should be investigated how companies can exploit this phenomenon in order to respond to any other kind of crisis.

6.2.3 Contingency Plan

One last common thing that emerged from the case studies is the need for any company to be ready to face an emergency and to develop a plan in response to the forthcoming crisis. This is different from having pre-established plans, because no plan could have

prepared the companies to face such a sanitary emergency. It has been revealed that emergency planning is not as fundamental as it has been in the past to face other kinds of crisis – such as the financial of 2008.

The focus has shifted on developing ad-hoc plans to face any possible emergency. Indeed, the practice of implementing contingency plans has increased. The world has now become very volatile and uncertainty is becoming the norm. Nobody can know what is going to be the next emergency, whether a financial crisis or a climate catastrophe. Companies need to know their capabilities and resources on which they can count, and they need to be ready for whatever challenge the world is going to pose.

This issue emerged clear in both the in-depth case studies as well as in the analysis of the questionnaire.

This topic is very interesting for the companies; therefore, this should be further investigated in the management theory. The purpose should be to understand how companies could prepare and what are the solutions or the particular capabilities that could be fostered in order to face the next emergency that arises.

6.3 Conclusion

This chapter has focused on the different managerial implications that can arise from the inquiries – both theoretical and empirical – that have been developed in this dissertation. There are several limits to this analysis and this topic needs to be further investigated from scholars. One of this being the fact that this thesis has been developed while the crisis derived from the pandemic is still ongoing. The data and information collected in this thesis may be withdrawn when compared to the results that can be collected once this terrible emergency is going to be over.

On the other side, this could also be seen as a strength point, because it gives to this dissertation a unique and privileged point of view from inside the pandemic. Furthermore, it provides a measure of how the companies have reacted so far at this shock that is completely different to those that they have experienced or prepared for up to these times. Indeed, the pandemic caused by the spread of the Covid-19 virus is a crisis that does not transfer through economic or geo-political relations. On the contrary, it has spread through social relationships, something that companies cannot control, and that institutions were not ready to control.

Nonetheless, this chapter provides some insight that can be of interest for the study of organizational resilience under times of crisis.

RESEARCH TOOL

7.1 Informazioni generali sulla sua azienda

In questa sezione, la prego di fornirmi le seguenti informazioni riguardo la sua azienda.

In quali di questi periodi ha chiuso la sua azienda?

(è possibile segnarne solo una)

Sono sempre rimasto aperto, ho sempre lavorato
Ho chiuso dal 24 Febbraio 2020, giorno in cui sono state istituite le prime "zone rosse"
Ho chiuso dal 25 Marzo 2020, giorno in cui è stato istituito il lockdown nazionale

La provincia (indichi la sigla) in cui ha sede legale la sua azienda è: _____

Il settore in cui opera la sua azienda è: _____

Numero di dipendenti della sua azienda alla fine del 2019: _____

Fatturato della sua azienda alla fine del 2019: _____

7.2 La sua esperienza con il Lockdown

In questa sezione, le chiedo di tornare con la mente ai mesi di febbraio, marzo, e aprile, e di indicarci come ha affrontato il lockdown.

Come ben sa, all'inizio del 2020 siamo stati colpiti dalla pandemia di Covid-19. Quanto si sono rivelati importanti gli strumenti elencati per affrontare la situazione che si è creata? (Mostrate in ordine casuale) (1: poco importante; 3: molto importante)

STRUMENTO	1	2	3
Sviluppare un piano di emergenza ad hoc			
Disporre già di un piano di emergenza			
Cercare consiglio da colleghi o reti informali di supporto			
Intervenire sugli organici			
Cercare consiglio o aiuto di uno specialista (i.e. consulente aziendale)			
Avere tecnologie e impianti aggiornati			
Ridurre l'orario di lavoro			
Dare supporto ai dipendenti (i.e. smartworking)			

STRUMENTO	1	2	3
Avere solidità finanziaria			
Essere risarciti da un ente assicurativo			
Avere il supporto di enti istituzionali			
Avere esperienza nel gestire crisi o emergenze			
Fare formazione			
Avere chiare le misure da prendere in caso di chiusura			
Avere dipendenti allineati con gli obiettivi strategici			
Comunicare in maniera aperta e franca con i collaboratori			
Essere inserito in una rete di relazioni di business "supportiva"			

7.3 Prima dell'esperienza con il Covid-19

In questa sezione le chiedo di tornare con la mente a prima del Covid-19 e di dire quali erano i fattori più critici in termini di impatto sul regolare svolgimento delle attività aziendali e come li gestiva.

PRIMA dell'emergenza Covid-19, quanto la preoccupavano i seguenti fattori?

(Mostrati in ordine casuale) (1: poco preoccupante; 3: molto preoccupante)

EVENTO	1	2	3
Conflitti di tipo economico e sociale			
Eventi catastrofici naturali			
Mancanza di liquidità			
Impianti in tilt			
Perdita di collaboratori validi e/o non trovarne di adatte			
Attacco informatico			
Perdita di cliente importante			
Perdita di fornitore importante			
Problemi di salute (miei o della mia famiglia)			
Azioni criminali			
Perdita di competitività			
Mancanza di materie prime			
Aumento dei costi			
Entrata di nuovi concorrenti			
Cambiamenti legislativi			

PRIMA del Covid-19, i seguenti strumenti quanto importanti erano per aiutarla a gestire una crisi?

(Mostrate in ordine casuale) (1: poco importante; 3: molto importante)

STRUMENTO	1	2	2
Sviluppare un piano di emergenza ad hoc			
Disporre già di un piano di emergenza			
Cercare consiglio da colleghi o reti informali di supporto			
Intervenire sugli organici			
Cercare consiglio o aiuto di uno specialista (i.e. consulente aziendale)			
Avere tecnologie e impianti aggiornati			
Ridurre l'orario di lavoro			
Dare supporto ai dipendenti (i.e. smartworking)			

STRUMENTO	1	2	2
Avere solidità finanziaria			
Essere risarciti da un ente assicurativo			
Avere il supporto di enti istituzionali			
Avere esperienza nel gestire crisi o emergenze			
Fare formazione			
Avere chiare le misure da prendere in caso di chiusura			
Avere dipendenti allineati con gli obiettivi strategici			
Comunicare in maniera aperta e franca con i collaboratori			
Essere inserito in una rete di relazioni di business "supportiva"			

7.4 Dopo l'emergenza Covid-19

In questa sezione le chiedo di tornare con la mente a prima del Covid-19 e di dire quali erano i fattori più critici in termini di impatto sul regolare svolgimento delle attività aziendali e come li gestiva.

DOPO l'emergenza Covid-19, quanto la preoccupavano i seguenti fattori?

(Mostrati in ordine casuale) (1: poco preoccupante; 3: molto preoccupante)

EVENTO	1	2	3
Conflitti di tipo economico e sociale			
Eventi catastrofici naturali			
Mancanza di liquidità			
Impianti in tilt			
Perdita di collaboratori validi e/o non trovarne di adatte			
Attacco informatico			
Perdita di cliente importante			
Perdita di fornitore importante			
Problemi di salute (miei o della mia famiglia)			
Azioni criminali			
Perdita di competitività			
Mancanza di materie prime			
Aumento dei costi			
Entrata di nuovi concorrenti			
Cambiamenti legislativi			

DOPO il Covid-19, i seguenti strumenti quanto importanti erano per aiutarla a gestire una crisi?

(Mostrate in ordine casuale) (1: poco importante; 3: molto importante)

STRUMENTO	1	2	3
Sviluppare un piano di emergenza ad hoc			
Disporre già di un piano di emergenza			
Cercare consiglio da colleghi o reti informali di supporto			
Intervenire sugli organici			
Cercare consiglio o aiuto di uno specialista (i.e. consulente aziendale)			
Avere tecnologie e impianti aggiornati			

STRUMENTO	1	2	3
Ridurre l'orario di lavoro			
Dare supporto ai dipendenti (i.e. smartworking)			
Avere solidità finanziaria			
Essere risarciti da un ente assicurativo			
Avere il supporto di enti istituzionali			
Avere esperienza nel gestire crisi o emergenze			
Fare formazione			
Avere chiare le misure da prendere in caso di chiusura			
Avere dipendenti allineati con gli obiettivi strategici			
Comunicare in maniera aperta e franca con i collaboratori			
Essere inserito in una rete di relazioni di business "supportiva"			

7.5 Fine del questionario

La ringraziamo per il tempo che ci ha dedicato. Se vorrà, la terremo informata sui risultati della nostra indagine. In tal caso, le chiediamo cortesemente di lasciarci il suo indirizzo e-mail: _____

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