Searching for the drivers of organizational resilience in times of crisis: An example from the Covid-19 pandemic

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Abstract

The theme of organizational resilience has been acquiring relevance for some time to date due to the health crises and geopolitical tensions that have marked the last years. Understanding which drivers helped ensure business continuity during such crises can subsequently help managers prepare for future challenges or shocks. Answering the call for an aggregate analysis of the drivers of organizational resilience, this study identifies three main categories: the first one focuses on the human characteristics of the business community; the second focuses on the role played by management control systems, and the third one points to the external support of consultants and stakeholders. This framework is applied to a case study of a not-for-profit organization (FASI – Fondo Assistenza Sanitaria Integrativa) that operates in the healthcare assurance sector and was strongly impacted by the Covid-19 pandemic. The results of this study reaffirm the multilevel essence of organizational resilience. In more detail, the policies adopted by the company to face different challenges led to the achievement of three different types of resilience: reactive behavior – bouncing-back to the previous equilibrium (type 1), adaptive behavior – bouncing-forward to a higher level of equilibrium (type 2), and proactive behavior – preparing for a possible future shock (type 3).

Keywords: Organizational resilience, Management control, Resilience drivers, Consultants, Crisis, Covid-19

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1. Introduction

In the last years, the world has experienced a severe concatenation of crises related to the pandemic from SARS-CoV-2 (Covid-19) and a tense world geopolitical situation. Shocks and uncertainties have undermined the functioning of the entire supply chain, requiring managers to adopt special measures to manage the crisis (Williams *et al*., 2017). In this study, particular attention is given to the catastrophic consequences generated by the Covid-19 pandemic which caused many countries to adopt lockdowns at different moments, imposed an impressive death toll on the world population, and generated severe consequences in the global economic system (e.g., Allen, 2022). In this context, companies had to adapt and innovate their business models, sometimes just to survive or regain stability (Clauss *et al.*, 2022), some others to recover and change for the better (Priyono *et al.*, 2020).

This ability, which the literature identifies with the concept of "organizational resilience", is at the core of this study, which is specifically aimed at searching for the drivers at the basis of this phenomenon.

Used in many different disciplines (e.g., metallurgy and engineering – Bhamra *et al.*, 2011; Thorén, 2014; Fadda *et al.*, 2021; Catturi, 2022), the concept of "organizational resilience" may be defined as the «…capacity which enables the organizations to cope effectively with unexpected events, bounce back from crises, and even foster future success» (Duchek, 2020).

Organizational resilience can envision three different forms (e.g., Fleming, 2012; Conz and Magnani, 2020):

1. Reactive or adaptive behaviors to regain lost equilibrium, defined in this study as "type 1 organizational resilience".
2. Active behavior to exploit the specific crisis, sustaining growth and pursuing higher equilibrium: "type 2 organizational resilience".
3. Proactive behavior to prepare for future crises, developing strategic, risk, and crisis management skills: "type 3 organizational resilience"

Notably, previous research has already studied at length the multifaceted dimensional and cross-disciplinary concept of organizational resilience (Kerr, 2016) highlighting the importance of all the capabilities an organization can rely upon to respond effectively to a crisis (Ma *et al*., 2018). However, less attention has been given to the driving factors of such a phenomenon (Hillmann, 2021), and how they might be jointly used to provide a unifying vision of organizational resilience (e.g., Duchek, 2020) and to investigate what resilient organizations do and how resilience may be achieved in practice (e.g., Boin and van Eeten, 2013; Duit, 2016).

In this regard, the literature review performed in Section 2 allows the identification of three main drivers able to support and steer organizational resilience in a period of crisis, i.e., the personal characteristics of the entrepreneur and human resources, the management control system in place for a specific company, and the external support provided by knowledgeable experts (e.g., consultants), associations (e.g., the association of chartered accountants), or stakeholders (e.g., customers and suppliers).

These three categories of drivers are seen as relevant factors of success and profitability for a company in "normal" times, as well as critical drivers for the enhancement and development of organizational resilience skills in periods of crisis. For this reason, together with the three types of resilience, they constitute the theoretical framework for this study, presented in Section 3. While the insights from this study can apply to any crisis or crisis management scenario (Williams et al., 2017), we decided to focus on a specific critical situation, that is the crisis generated by the Covid-19 pandemic. Although the pandemic's impacts and companies' responses have been widely studied regarding specific industries (Verma and Prakash, 2020; Brodeur *et al.*, 2021) or the type of intervention (Donthu and Gustafsson, 2020; Culasso *et al.*, 2022), less emphasis has been given to the factors able to drive such changes, i.e., the drivers of organizational resilience, thereby calling for more research in this context (Duchek, 2020; Buzzao and Rizzi, 2023).

As described in Section 4, the research design of this study entailed organizing a focus group to create a semi-structured questionnaire on organizational resilience during the Covid-19 pandemic, used to conduct the interviews and develop an exploratory case study (Eisenhardt, 1989; Ryan *et al.*, 2002) - FASI (Fondo Assistenza Sanitaria Integrativa), a not-for-profit healthcare assurance organization strongly impacted by the Covid-19 crisis.

The results presented in Section 5 and discussed in Section 6 confirm the multilevel essence of organizational resilience. Drivers belonging to the three categories of our framework were contemporarily solicited to face different pandemic shocks. According to the level of preparedness for those shocks and the response timing, the same drivers (e.g., the ones related to the digitalization process) have played different roles, such as helping the business restore previous procedures (type 1), improving its processes (type 2), and preventing future shocks through cost forecasting activities (type 3).

The last section (no. 7) provides conclusions, limitations to this study, and ideas for future research.

2. Literature review about the concept of resilience

2.1. Defining resilience

Accademia della Crusca[1] (2014) reports that the term "resilience" has a Latin origin, i.e., "resiliens" (from the verb "resilire") whose meaning is "bounce back". This concept is primarily used in disciplines different from management and usually refers to "the ability of a substance to return to its usual shape after being bent, stretched, or pressed"[2]. With elasticity and strength, just to name a few, resilience is a feature that characterizes specific materials, suggesting their choice for specific construction purposes or uses.

The concept of resilience has been subsequently used across various disciplines (e.g., see Bhamra *et al.*, 2011; Fadda *et al.*, 2021) with quite similar meanings making it both a cross-disciplinary (Manfield and Newey, 2017) and a unifying concept (Thorén, 2014). Examples concern the metallurgical field, where resilience is considered as the ability of a metal to withstand the impact of forces that are applied to it (Angelico, 2018), "resilience engineering" (Hollnagel *et al.*, 2006), defined as "the ability of systems to anticipate and adapt to the potential for surprise and failure" (Zohuri and Moghaddam, 2018, p. 7), resilience in ecology, seen as «the persistence of relationships within a system […] measur(ing) the ability of these systems to absorb changes of state variables, driving variables, and parameters, and still persist» (Holling, 1973), or in psychology, where Grotberg (1996) argued that «resilience is a universal capacity which allows a person, group or community to prevent, minimize or overcome the damaging effects of adversity».

Interestingly, resilience is currently and extensively used to analyze and describe social systems (e.g., Catturi, 2022). In this regard, previous research has explored organizational resilience's multifaceted dimensions, such as operational, supply chain, and information resilience (Kerr, 2016). Moreover, three resilience components have been identified in the *individual* competencies to overcome personal difficulties, *group* capabilities to face negative collective challenges, and *organization* adaptive structures to avoid the failure of the entire system. The sum of these dynamic competencies represents the multilevel concept of *organizational resilience* (Ma *et al.*, 2018), which includes the entire set of capabilities on which an organization can build its answer to a crisis. Such a broad concept constitutes the focus of this study.

[1] Official website of the Accademia della Crusca Italian institute, 2014. www.accademiadellacrusca.it last visit 13/11/2022.

[2] Official website of the Cambridge Dictionary, 2023. https://dictionary.cambridge.org/ last visit 24/06/2023.

2.2. Defining organizational resilience

Broadly, "organizational resilience" may be defined as the «…capacity which enables the organizations to cope effectively with unexpected events, bounce back from crises, and even foster future success» (Duchek, 2020).

Extant literature has explored organizational resilience, its meaning(s) (e.g., Conz and Magnani, 2020), the interest shown in it both by academics and practitioners (e.g., Limnios *et al.*, 2014 and Woods, 2015), and its performance impacts (e.g., Beuren *et al.*, 2022). Furthermore, attention has been given to the conditions that can be (re)gained after a given shock (Ciasullo *et al.*, 2023) and the relevant "time frames" for preparing, implementing, and applying organizational resilience (Mazzara *et al.*, 2023; Polese *et al.*, 2023).

In the field of business and management, two main schools of thought emerge from the various interpretations and theories of organizational resilience (Duchek, 2020). The so-called "bouncing-back approach" (or theory), grounded in organizational psychology, argues that organizations can bounce back – or, simply, "bounce" – from challenging situations or adversities (e.g., Boin and van Eeten, 2013). The main idea underlying this approach is that organizations are dynamic systems able to adapt, change, and recover from disruptions, thanks to three main capacities (Duchek, 2020):

1. Absorptive capacity: the ability to absorb and understand the impact of disruptions or shocks. It involves the organization's knowledge, skills, and resources to recognize and interpret the situation (Lewin *et al.*, 2011).
2. Adaptive capacity: the ability to adapt and adjust in response to disruption. It involves the organization's flexibility and agility to change its strategies, processes, and structures (Denhardt and Denhardt, 2010).
3. Transformative capacity: the ability to go beyond mere adaptation and embrace transformative changes. It focuses on innovating, reimagining, and reinventing new ways of doing things to thrive in the face of adversity (Lengnick-Hall *et al.*, 2011).

Given this interpretation and within the bounce-back approach, organizational resilience is characterized by "the intrinsic ability to maintain and regain a dynamically stable state that enables organizations to continue their activities after various shocks and work effectively in continuing threats" (Bartuseviciene *et al.*, 2022, p. 3) and is conceived as the ability to adapt and return to normal activities (after shocks or threats), eventually allowing organizations to gain knowledge from what has happened and use such lessons as driving forces also to "bounce-forward" (Manyena *et al.*, 2011).

In this regard, some studies have argued that organizational resilience goes beyond a mere act of adaptation. In detail, the "bouncing-forward approach" argues that resilience is the ability to react positively to a traumatic event by developing new skills (Bartuseviciene *et al.*, 2022). Therefore, a shock impacting an organization is not seen as an obstacle but as an opportunity to improve on the initial state (e.g., Manyena *et al.*, 2011).

About the "time frames", the presented definitions and considerations clarify that organizational resilience can emerge at least in two moments, i.e., as a capability to overcome *(ex-post)* or to prevent (*ex-ante*) a crisis. Policies such as providing guidance for managers before the shock and favoring the assessment of its impacts afterward (Munoz *et al.*, 2022) or exploiting ex-ante mitigation as well as ex-post adaptation opportunities (McDaniels *et al.*, 2008), may be effective in promoting resilience at both times of analysis.

The considerations mentioned above have led previous researchers to propose models and frameworks able to describe the resilience process, thereby identifying specific stages (Duchek, 2020) and paths of resilience (e.g., Shepherd and Williams, 2023), as reported below.

3. Typologies and main drivers of organizational resilience

The literature review highlighted how organizational resilience envisions three different behaviors (e.g., Fleming, 2012; Conz and Magnani, 2020).

- The first one entails adopting reactive and adaptive behaviors when facing a crisis to regain the lost equilibrium, defined in this study as "type 1 organizational resilience".
- The second one refers to active behavior to exploit the specific crisis, thereby sustaining growth and pursuing new and higher levels of equilibrium, called in this study "type 2 organizational resilience". This entails relying on and exploiting a balanced system of drivers not only to overcome the impact of negative events but also to sustain growth, performance improvement, and organizational development over time.
- The third one, called "type 3 organizational resilience", builds on proactive behavior to plan and prepare for future crises, developing strategic, risk, and crisis management skills, procedures, and systems.

Moving forward, attention is to be given to the factors at the basis of organizational resilience, i.e., to the "drivers" favoring and/or enabling such capacity. Extant literature has revealed that these drivers are diverse, with many elements contributing to the resilience process (e.g., Duchek, 2020).

Key drivers of resilient behavior are identified by some studies in the organizational characteristics and attitudes like weighed prudence and willingness to search for continuous improvements (Wiig and Fahlbruch, 2019), preparedness, responsiveness, adaptability, and learning abilities (Koronis and Ponis, 2018), or the role of digital corporate social responsibility (Al-Omoush *et al.*, 2023). Other investigations focused more on human- and individual-related factors, like the role played by women's skills and aptitudes (Cosentino and Paoloni, 2021), or behavioral capabilities such as improvisation, experimentation, and knowledge implementation (Lengnick-Hall and Beck, 2005). Additional research included factors related to resource availability (e.g., time, financial, and human resources - Duchek, 2020), social resources (e.g., social capital and positive internal and external relationships - Lengnick-Hall and Beck, 2009), and power and responsibility relationships that affect the organization decisions and actions, such as resource allocation, change processes, and hierarchical decisions (Lengnick-Hall *et al.* 2011).

Lastly, and more relevant for this research, several studies have identified factors that might play a *joint role* in favoring organizational resilience. These include management control systems (e.g., Roffia and Dabić, 2023; Bracci and Tallaki, 2021), entrepreneurs' skills (e.g., psychological factors - Hartmann *et al.*, 2022), and enterprise characteristics (e.g., levels of digitalization - Isensee *et al.*, 2023), recognized as key drivers in different contexts.

In broad terms and in sum, relevant literature in the field identified organizational resilience drivers as internal and external, human – and process – related, entailing both soft and hard factors, involving interactions of individuals within the organization and with stakeholders. Notably, these drivers are not only potential enablers of organizational resilience but are also crucial for the success and profitability of a company in "normal" times.

Building on these considerations, this study identifies three key dimensions that can include specific driver categories, forming the theoretical framework shown in Figure 1. First, top management's ability to identify, orchestrate, and promote critical knowledge and skills inside the organization and among human resources constitute the "human dimension drivers" (as discussed by Teece, 2007, 2012, 2018 with the concept of micro-foundations). Second, several categories of management controls used to guide managers and employees (i.e., the control of results, actions, personnel, and culture - Merchant and Van der Stede, 2007) constitute the "control dimension drivers". Third, external consultants, bodies, and stakeholders might help a company during the various phases of its life (Greiner and Metzger, 1983; Momani, 2013) and form the "external dimension drivers".

The three driver categories in Figure 1 address the research gap identified by existing literature, specifically, the need for a unified vision and joint use of the various drivers that enhance organizational resilience (e.g., Duchek, 2020) and explain how resilient organizations function and achieve resilience in practice (e.g., Boin and van Eeten 2013; Duit 2016).

Figure 1 - The main drivers of organizational resilience investigated in this study

4. The research design

This study presents the findings of an exploratory case study. The strengths of case studies (Eisenhardt, 1989; Yin, 2009) in exploring and explaining how management accounting works in practice – both in terms of the techniques, procedures, and systems that are used and how they are used – are widely recognized (e.g., Scapens, 1990). In detail, exploratory case studies (Ryan *et al.*, 2002, p. 144) are used in accounting and management not only to explore the reasons for particular accounting practices but also to generate hypotheses about those reasons, allowing further testing. Several preparatory steps were necessary before developing the case study.

Firstly, a 1-hour focus group (Liamputtong, 2011) in March 2023 discussed the main drivers of organizational resilience, focusing on their impact during the Covid-19 crisis. Together with the three researchers, two legal representatives of an important managers' trade union participated: a top

manager involved in control system management and an external controller with several consulting assignments in the territory. Their expertise was useful in confirming the importance of the three drivers, creating a semi-structured questionnaire (Panneerselvam, 2014), and identifying the case study, (Eisenhardt, 1989; Ryan *et al.*, 2002), internally to the trade union's network.

The Covid-19 pandemic period was selected for this study due to its severe impact since early 2020, causing many countries to adopt lockdowns at different moments that negatively impacted the global economic system (Allen, 2022) and business organizations across various countries and industries (Baber and Ojala, 2020). Companies had to adapt and reinvent themselves, profoundly changing their traditional *modus operandi* to regain an overall equilibrium and, sometimes, just to survive (Priyono *et al.*, 2020; Clauss *et al.*, 2022). These considerations fully embed the concept, the categories, and the functioning of organizational resilience, as addressed in this study.

The case study refers to a not-for-profit healthcare assurance organization significantly affected by the Covid-19 pandemic. The sudden shock – which could have overwhelmed the organization system – highlighted critical issues related to its business model and acted as a driver of change. We believe that this business case is peculiar since it perfectly depicts the three types of resilience objects of investigation and their development over time.

Following the initial meeting on 20/03/2023 five additional meetings were held, as shown in Table 1. A commercial executive was chosen for his top management role (first resilience driver), his business administration background and deep knowledge of the company's management control system (second driver), and his daily direct contact with the company's customers, suppliers, affiliated structures, and external stakeholders (third driver), highly impacted by the pandemic shocks.

The first meeting confirmed the case study fit for purpose, building up the case overview portrayed in section 5.1. The semi-structured questionnaire was administered in the second meeting and served as a track to investigate the resilience drivers (section 5.3). The third meeting clarified previous answers and addressed post-pandemic challenges (section 5.4). Findings from the document analysis (section 5.2) were reviewed in the fourth meeting. The final meeting allowed discussion of a draft of the results section to avoid eventual data misinterpretations and ensure the solidity of findings.

The second meeting was in-person, while the others were held via video calls. The same encoding method was maintained throughout the duration of the study: one researcher conducted the interview and managed the relationship with the company's manager, while the other two handled data collection – one transcribed the conversations, and the other pinned the key points

of the discussion. Data triangulation sessions took place at the end of each meeting. The parts of the interviews reported in this paper were translated from Italian (the original language of the interview) to English, trying to preserve the shades of meaning of the respondent's words.

About the sources used to develop the case study, we relied on multiple data collection methods to increase the validity and reliability of this study through triangulation (Patton, 1987). Data sources included written documents (such as the company's regulation, statute, ethical code, social and integrated reports), interviews, and informal discussions. Additional secondary sources were used to recreate the organization's history and include newspaper articles, website news, and LinkedIn posts.

Table 1 - Case study overview: meetings, topics, and participants

Meeting	***Topic(s)***	***Length***
1	Discussing the project, schedule, key concepts, and goals. Collecting and preliminarily analyzing data and information. Discussing the three main components of the questionnaire.	1 hr.
2	Conducting the interview and administering the semi-structured questionnaire.	2 hrs.
3	Follow-up interview to clarify answers and collect additional feedback.	30 minutes
4	Collecting and discussing additional company data and publicly available documents.	30 minutes
5	Collecting follow-up feedback and updating information. Providing final feedback.	30 minutes

5. Results

5.1. Introduction: overview of FASI

Founded in 1977, FASI (Fondo Assistenza Sanitaria Integrativa) is an Italian not-for-profit association that provides supplementary healthcare services to executives and their families, complementing the National Health Service, thanks to a mutuality and intergenerational solidarity system[3]. Services are regulated by a national collective agreement between companies

[3] FASI's associates are Confindustria (representing Italian manufacturing and service

and managers. Executives pay about a third of the fixed annual fee, while their employers cover the rest. Due to this agreement, membership is quite stable: while FASI benefits from maintaining a strong membership base by offering valuable services, it has limited control over its revenues. This is due to the predetermined, not elastic or influenceable nature of its income, leading to a particular case of an "obliged" marketing mix.

FASI's mission is "protecting the health of its members, guaranteeing them healthcare excellence". To achieve this, FASI can count on more than 80 employees and 2.685 active agreements with healthcare facilities to satisfy the requests of around 129.000 members and their families. The main challenge is maintaining economic and financial equilibrium while expanding the services offered through the reinvestment of the operating surplus.

From a membership perspective, members obtain refunds when receiving medical services from an affiliated health facility. The intergenerational, solidarity, and mutuality system mentioned in its statute consists of the fact that managers and their families can maintain supplementary healthcare services even during the retirement period, when the expected sanitary expenditure increases, without suffering any risk-specific fee.

The characteristics described above make the selected case study a unique example to analyze organizational resilience during an intense and exogenous shock. In particular, how can a business with such an obliged marketing mix actively answer to a sudden change?

In the following sections, information gathered from additional and secondary sources as well as from the interviews is reported and discussed, looking for organizational resilience drivers and procedures that ensure the continuity of the FASI association.

5.2. Findings: the pre-pandemic phase - analysis of additional sources

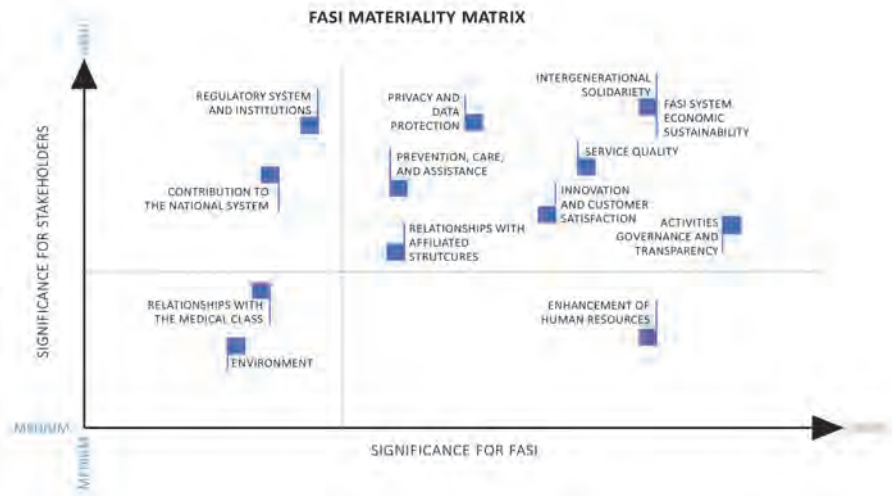
The analysis of the additional and secondary sources, such as FASI's regulation, statute, and ethical code, helped build the case narrative and provided background knowledge of the organization's scope and behavior, easing interactions with managers. Social reports from 2012 to 2019 revealed business trends before the pandemic outbreak (i.e., 2020) and highlighted FASI's social role, especially as the ongoing demographic change increased the proportion of retired managers. Over time, FASI has assumed a *primary role* in the national context, expanding its services and spreading awareness of the importance of the integrative healthcare system to *promote prevention*.

companies) and Federmanager (representing managers). Managers and firms that contribute to FASI fund become FASI members without acquiring the associate qualification.

From a resilience perspective, *accurate economic management* ensured the fund's prosperity, with capital reserves covering the operating deficits linked to the fluctuation in health service requirements. This economic and financial stability allowed for improvements in organizational (e.g., digitalization) and environmental (e.g., paper used, energy consumption) practices while ensuring high-quality services to its members.

The 2019 social report represents a snapshot of the pre-pandemic situation. In particular, the materiality matrix, shown in Figure 2, provides information on the topic prioritization made by FASI and its stakeholders.

Figure 2 - 2019 FASI materiality matrix, author translation



Some of the FASI's higher significance matters (i.e., on the right of the x-axis) are the expression of the association's mission (e.g., "intergenerational solidarity", "service quality", "prevention, care, and assistance"), existence preconditions (e.g., "FASI system economic sustainability") and mandatory requirements (e.g., "activities governance and transparency" and "privacy and data protection"). To achieve those objectives, FASI selects external partners aligned with the FASI Code of Ethics, promoting strong and lasting "*relationships with affiliated structures*".

Two other strategic and internal levers to achieve business goals are: "*enhancement of human resources*" and "*innovation and customer satisfaction*". The first is promoted through attention to gender equality, workforce training, team building, and job time flexibility, as demonstrated by a perfor-

mance measurement system of workforce wellbeing. The second is supported by dematerialization (e.g., -31% paper usage compared to 2015 performance) and digitalization (e.g., creation of a mobile app, implementation of new ICT solutions for development, innovation, and data management) practices.

The 2019 report outlines future projects in new healthcare services, process reengineering, human resources formation, and ICT development. However, the pandemic and a change in FASI top management interrupted the social reporting process, leading to more website disclosures.

The semi-structured interview described in Section 4 explores FASI's pandemic response, with the findings presented in the next section.

5.3. Findings: the pandemic phase - the interview

The following statements summarize the interviews with FASI's representatives, described in Table 1. Like most Italian companies, FASI's first shock was adapting to social distancing imposed by Italian law during the first months of the pandemic (D.P.C.M. 09/03/2020). The increased *commitment of the top management* was crucial in this first moment:

«*Managers were more present inside the business and had to rapidly adapt the informative system due to the impossibility, for Covid-19 restrictions, of performing the daily rituals in presence*».

The organization also invested in *digitalization*, with digital solutions and training for employees that

«ensured the operative continuity of the fund, moving online all the offline procedures, thanks to the use of videoconferences and a shared file repository based on Microsoft Teams platform».

This digitalization gave the «push» to innovate the business model, responding to both social distancing and «structural changes introduced by the Italian State in the normative and fiscal sectors». FASI sought *external support*, as *internal competencies* were insufficient for the pandemic challenges:

«the specialized consultants represented the main interlocutor and played a key role during the pandemic», performing a «job of loyalty» that «led to a durative relationship that is still going on, even if the collaborations don't have the intensity and frequency that it has had before».

Enterprise networks and relationships (e.g., members and health institutions) also supported the digitalization process. The pandemic fostered a *sense of «empathy»* and increased «the *information and knowledge sharing*

both inside and outside the company», facilitating acceptance of external procedure changes, thanks to increased stakeholders' collaboration.

In addition to digital innovation, key changes focused on the *management control systems*, with the pandemic that «provided the *push to innovate*». Initially, managers feared an overwhelming surge in health service requests, with no associated revenue benefit. Contrary to expectations, the total number of health service requests came to a screeching halt: during the emergency, the entire health system focused on Covid-19, and fear kept people away from hospitals, creating a backlog of requests:

«This situation generated a strong and delayed increase in health service requests, represented by the sum of the "normal" and the "past" ones that went standby». «The National Sanitary System was only partially able to respond to this increase; long waiting lists and a feeling of uncertainty among those who need care are two undesired outputs of this situation».

Since FASI covers all the refund requests only through its own funds, without any external assurance, *forecasting* the number of health service requests represents the main «organizational challenge for FASI», impacting relationships with health facilities and stabilizing finances. After the first pandemic period, FASI decided to adopt *big data solutions* and a data warehouse from "Poste Italiane S.p.A.", allowing forecast analysis and financial simulations by «taking into account the medium age of FASI members and the average expected expenditures» and linking them to the *budget system*.

These changes required improved *digital skills* among employees, contributing to the need for digital training and stimulating «*higher efficiency of internal processes*». From a specific question about the role played by budget data and sustainability indicators, it emerged that, though they represent a strategic asset of the organization, «the contribution to first crisis management was marginal». Before Covid-19 pandemic, decisions relied heavily on «*top management intuitions and flair*», but now:

«intuition is not enough anymore, if before the decision-making process relied for 90% on intuition and 10% on control systems, now the relationship is exactly overturned. The performance indicator system experienced minimal qualitative and quantitative changes; the real modification was the awareness of its value and the role it played in the decision-making process».

5.4. Findings: the post-pandemic phase - the follow-up interview

In the last interview, the manager summarized the changes at FASI:

«The business – as of the 7th of March 2020 – no longer exists», «crisis incentives the change, and the alternative to the adaptation is the closure of the business».

«The procedures used before the Covid-19 diffusion were not sufficient to face the crisis effectively».

«The real changes happened in the first three months when the paper and pen solutions were coercively interrupted by the social distancing procedures».

These aspects led to an approach transformation; digital solutions started to be conceived as something fast and reliable, and top management meetings to review performance became more frequent, leading to clearer objectives. FASI *consolidated* most of these innovations improving efficiency:

«Now it is quite common to hear someone inside the organization saying: "Oh, how I wish we had changed before!"».

Nevertheless, the improved internal side of the organization does not reflect what is happening outside the association's boundaries.

«Long waiting lists are still generating misalignments between demand – including the one through the FASI system – and supply – the whole sanitary system». «Here the motivations widen, the individual dimension (i.e., demand) is summed to the national organizational (i.e., sanitary system) and inter-organizational (i.e., FASI and affiliated health facilities) levels, leading to higher challenges related to economic problems with a national dimension».

The framework in Section 3 offers the theoretical key to reading the findings, providing insights into the drivers of organizational resilience.

6. Discussion

In this study, we refer to "organizational resilience" as the «…capacity which enables the organizations to cope effectively with unexpected events, bounce back from crises, and even foster future success» (Duchek, 2020). The purpose of this research is to individuate and categorize the value drivers of organizational resilience, offering a homogeneous reading key to the cross-disciplinary and multilevel richness of the literature (Bhamra *et al.*, 2011; Thorén, 2014; Fadda *et al.*, 2021; Catturi, 2022).

To achieve this, an exploratory case study was conducted. FASI's responses to Covid-19 pandemic provided valuable insights. In this Section, the drivers identified from interviews and secondary sources are organized into the three categories (i.e., human, control, and external dimension drivers) presented in Section 3. The combination of these drivers helped FASI

develop different types of resilience (e.g., Fleming, 2012; Conz and Magnani, 2020), i.e., type 1 - "adaptive resilience", type 2 - "active resilience", and type 3 - "proactive resilience". The following discussion addresses the three main challenges that FASI faced during the pandemic, testing its organizational resilience.

The first challenge was the coercive social distancing that, for three months, led to the forced interruption of in-presence jobs (Table 2).

Table 2 - Social distancing challenge and adopted policies

First challenge: Social distancing			
Type of resilience	**Human drivers**	**Control drivers**	**External drivers**
"Previous procedures restoring" - Type 1: adaptive	- top management commitment - digital skills	- routine safeguard	- external competencies
"Process improvements" - Type 2: active	- internal information sharing - digitalization	- higher efficiency targets	- external information and knowledge sharing -sense of empathy with stakeholders

The first answer to that problem was the higher commitment of top management, which multiplied its efforts to maintain the daily routines in a digital way. External professionals trained the staff to perform their tasks online. Thanks to the acquired digital skills, FASI quickly bounced back to its previous equilibrium (type 1 of resilience). Soon, digitalization became essential, leading FASI to seek greater efficiency in service delivery. Increased information and knowledge sharing, both within and outside the organization, helped communicate FASI's needs to stakeholders. Additionally and notably, a sense of empathy among stakeholders emerged, easing the acceptance of procedural changes and improvements, ultimately leading to enhanced efficiency, bouncing forward from the initial situation (type 2 of resilience).

The second shock, though it never materialized, still gave FASI the push to change. It is related to the concerns about a potential surge in health service requests due to the pandemic, which could have drastically increased costs and threatened the association's economic equilibrium (Table 3).

FASI's pre-pandemic social reports revealed the awareness of such a threat. Financial reserves, built through prudent and accurate economic management would have worked as shock absorbers, while lasting relationships with affiliated health structures would have ensured service continuity. These drivers represented a proactive approach to resilience aimed at mitigating future risks (type 3 of resilience). However, the reaction to that shock would have been unstructured, based on top management intuitions and flair, low control systems' contribution, and eventual research for external help in case of internal skills shortage (type 1 of resilience). FASI understood that improving forecasting and cost simulations could enhance business stability. The digital skills acquired in the first Covid-19 period, together with the inclination to innovate the association, laid the foundation for implementing big data solutions linked to the budget system. This strengthened the effectiveness of the management control system (type 2 of resilience) and built a forward-looking orientation to prevent future crises (type 3).

Table 3 - Potential cost explosion challenge and adopted policies

Second challenge: Potential cost explosion			
Type of resilience	**Human drivers**	**Control drivers**	**External drivers**
"Wise management" - Type 3: proactive	- prudence	- accurate economic management	- relationships with affiliated health structures
"Unprepared answer to the shock" - Type 1: adaptive	- top management intuitions and flair	- low control systems' contribution	- external help
"Management control improvement" - Type 2: active. "Cost forecasting" - Type 3: proactive	- digital skills, -inclination to innovate	- big data solutions - budget system - forecasting and simulation ability	- cooperation with external providers

The third and still ongoing shock is related to the health service backlog that is leading to long waiting lists that threaten FASI's service quality (Table 4).

Internally, enhancing human resources skills, consolidating process improvements, and maintaining the management control system central, together with strong partnerships with affiliated health structures, could help restore the balance of the system (type 1 of resilience). However, internal efficiency alone may not be enough to face the National scale of the issue. The social reports (2012-2019) highlighted FASI's political efforts to increase its influence in the National Health System. FASI's message centers on its values and mission, emphasizing the importance of prevention; in fact, preventive checkups are faster and cheaper than subsequent pathology cures. If these ongoing efforts succeed and FASI promotes prevention on a national level, it could show strong proactive resilience, directly impacting the lives of the members and the Italian citizens (type 3 of resilience).

Table 4 - National backlog and long waiting lists challenge and adopted policies

Third challenge: National backlog and long waiting lists			
Type of resilience	**Human drivers**	**Control drivers**	**External drivers**
"Backlog resolution" Type 1: reacting	- enhancement of human resources skills - consolidation of improvements	- central role of the management control system	- relationships with affiliated health structures
"Promotion of health prevention" Type 3: proactive	- internal values and mission communication	- speed and economy of the services	- political weight on a national scale

The three shocks discussed earlier provided a push to innovate routines. Recognizing that previous procedures were inadequate to face pandemic challenges, FASI consolidated changes, improving overall performance. In this sense, reactive responses to specific challenges constituted the basis for further adaptations, leveraging the crisis to learn how to proactively anticipate future risks (Duchek, 2014). From a theoretical standpoint, this expands the research's contribution to the broader field of crisis management, under-

lining the drivers and the determinants of the dynamics between the occurrence of a crisis in the form of an event (e.g., the lockdown) or of a process (e.g., long term social distancing) and activities that restore (i.e., react) and maintain (i.e., build resilience) equilibrium over time (Williams *et al*., 2017).

The adopted framework enabled an aggregated analysis of resilience drivers that would otherwise have been fragmented. In fact, relevant literature describes these drivers as internal or external, human- and process-related, involving soft and hard factors, and the interaction of individuals within the organization and with stakeholders. Our analysis effectively addresses organizational aspects (e.g., prudence, accurate economic management, consolidation of improvements, inclination to innovate, digitalization, cooperation with providers) (Wiig and Fahlbruch, 2019; Al-Omoush *et al*., 2023), human factors (e.g., top management commitment and flair, HR skills) (Koronis and Ponis, 2018; Cosentino and Paoloni, 2021), resource availability (e.g., external competencies, relationships with affiliated health structures, cooperation with providers) (Duchek, 2020), and stakeholder relationships (e.g., internal and external information and knowledge sharing, sense of empathy) (Lengnick-Hall and Beck, 2009). All these drivers impact management control systems and decision-making (Lengnick-Hall *et al.* 2011).

The results confirm the multilevel essence of organizational resilience (Fleming, 2012; Conz and Magnani, 2020): organizations can either bounce back to the previous equilibrium (type 1) or bounce forward and take advantage of the opportunity to innovate (type 2) and can also prepare proactively for future crises (type 3). The same drivers can support different types of resilience, depending on timing: pre-shock policies would lead to an anticipatory type 3 of resilience, while ex-post solutions can vary based on whether they aim to restore or improve (Duchek, 2014).

For example, the driver “relationships with affiliated health structures” supported the “Wise management” policy, contributing to a type 3 of resilience in the “Potential cost explosion” challenge; differently, it could help regain the lost equilibrium and reach a type 1 of resilience in the challenge "National backlog and long waiting list”. Similarly, the same drivers can constitute an answer to a shock and represent a precondition for future improvements and answers to new shocks: the “Social distancing” challenge imposed the improvement of digital skills to perform the previous routines (type 1); these skills constituted the prerequisite for the digitalization of the procedures, contributing to reaching higher efficiency levels (type 2) and facilitated forecasting control systems to prepare for future challenges (type 3).

The presented tables offer important tools to support crisis management. When a shock occurs, managers might benefit from the table structure to

individuate immediate answers and foster the interactions among the human, control, and external components. Furthermore, the visual potential of the table can help the different actors involved in the process to understand their role and may stimulate the debate around the desired future development of individual competencies and organizational relationships. In this way, shared trajectories to build type 2 and type 3 resilience can be traced, thereby promoting a participated approach useful to effectively overcome the crisis. Once the table contents are defined, targeted metrics for each driver can be developed, building a balanced scorecard-likewise type of tool to monitor the advancement in resilience building (Kaplan and Norton, 1992).

7. Conclusion, limitations, and ideas for further research

More and more frequently our organizations are called on to face external and internal crises, thereby changing their traditional modus operandi and achieving new performances.

In this scenario, the capacity of an organization to be resilient has become fundamental, although different types of organizational resilience can be adopted, with different results and benefits.

Our research advocates that a so-called proactive behavior should be adopted, thereby moving towards a "type 3" level of organizational resilience. However, this study also demonstrates that a progressive path toward the development of the skills, tools, and structures needed to develop and embed a type 3 resilience within a given organization might be possible, and, even, planned. Within this context, a fundamental role can be certainly played by three categories of drivers, i.e., the personal characteristics of the top management (i.e., the human dimension), the management control systems in place for a company, and the external support provided by stakeholders, knowledgeable experts (e.g., consultants) or associations (e.g., the association of chartered accountants).

Even though this study was concerned with the analysis of the impacts generated by the Covid-19 pandemic, it also emphasizes that a balanced use of all the drivers identified at an organization's disposal might be effective in addressing a number of other crises – characterized differently if compared to the one from Covid-19. This is particularly relevant when organizations will strive to implement not just a reactive and adaptive behavior (i.e., looking for a type 1 resilience) but will pursue new levels of equilibrium and/or growth (i.e., aiming at overcoming a crisis by developing a type 2 form of

resilience) and will let a type 3 resilience guide its plans and actions towards a desired future path of growth and value creation.

Despite the profound awareness of the company's dynamics shown by the manager we interviewed, acknowledged limitations of the study refer to the possible restricted perspective of a commercial executive, with other resilience drivers that may have impacted the organization's answer to the crisis. Moreover, one case study is not enough to provide general insights and policy recommendations. Subsequently, further research is already underway, specifically to submit the questionnaire to a sample of Italian companies in order to acquire more data and evidence and develop additional case studies.

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