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ESSAYS ON
STRATEGIC AGILITY OF SMEs: A META CAPABILITY
TO COPE WITH CONTEXT DYNAMISM AND
HOSTILITY-EVIDENCE FROM DEVELOPING AND
DEVELOPED HEALTHCARE INDUSTRY

THESIS PRESENTED AS PARTIAL REQUIREMENT OF
DOCTOR OF PHILOSOPHY IN APPLIED ECONOMICS
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Declaration

I declare that this thesis work is my own original contribution and has not been presented for degrees in any other academic institution. To the best of my knowledge, no previously published and unpublished works are included without being duly acknowledged.

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Abstract

Organizations, especially, small and medium enterprises inevitably confront context challenges because of the fast pace of external changes. Thus, to be strategically agile, responsive, and innovative seems to be a requirement for long term growth and success of SMEs operating in volatile, complex, and dynamic environment such as healthcare industry. This thesis argues that such requirement, in turn, is dependent on the SMEs organizational capabilities. These capabilities consist of strategic sensitivity, leadership unity, and resources fluidity developing SMEs ability to continuously adjust and adapt strategic direction in core business.

The meticulous interplay of these capabilities within SMEs is enabling strategic agility as a function of strategic ambition and changing circumstances, leading SMEs to create new business model and to seize growth opportunities. Strategic agility concept, since it is introduced to the management literature is triggering a scholarly open debate. Therefore, this thesis through a sequence of three studies is exploring the holistic framework of strategic agility, consisting of theoretical conceptualization and practitioners understanding. More specifically, we investigate SMES strategic agility key features and practices adopted to cope with environment uncertainties. We also focus on the dynamic interaction of SMEs strategic agility and industry context, founding the empirical investigation on healthcare industry as an increasingly uncertain context.

We ground the first study on a systematic review of strategic agility literature streams to develop a conceptual framework that link strategic agility capabilities, practices, and micro foundations. We illustrate SMEs strategic agility practices and practitioners perspectives adopting an ethnographic approach. Additionally, we develop dynamic interaction of SMEs strategic agility practices and context dimensions through a multiple case study analysis.

From a literature point of view, we contribute to the ongoing debate about strategic agility, by investigating practitioners perspective and peculiarities of practicing strategic agility within SMEs context. From practical point of view, the linkage between prerequisite foundations, capabilities, practices, execution mechanisms of strategic agility and dynamic interactions with context dimensions is important, in order to support SMEs practitioners to choose the fundamental configuration of capabilities and paths, to act proactively, and to enable entire business model renewal while facing turbulent environment.

Keywords: Strategic Agility, Capabilities, SMEs, Context Dimensions.

CHAPTER I

INTRODUCTION

Strategic agility has received vibrant and increasing attention from strategy and management academic community (Doz et al., 2008; Weber and Tarba, 2014). The notion of strategic agility was created in the theoretical domains of strategic change and renewal (Xing et al., 2020). The prevailing assumption of strategic agility, is how organizations can renew themselves and infuse innovative ideas into development, so as to respond to external uncertainty and turbulence while aiming to enact upon new opportunities (Weber and Tarba, 2014). Strategic agility therefore, defined as 'a firm ability to renew itself continuously and to maintain flexibility without compromising efficiency' (Clauss et al., 2019). It describes an organization's capacity to quickly respond to shifting demand with the ultimate intent to increase competitive advantage (Brand et al., 2021; Shin et al., 2015).

Strategic agile firms have the capacity to stay competitive by focusing on their objectives while simultaneously being responsive to unforeseeable volatility within their business context (Battistella et al., 2017). Additionally, strategic agility also prevents a company's stagnation (e.g, Arbussa et al., 2017), and it enables firms to react flexibly to developments that result from dynamic markets and shifting competition (Weber and Tarba, 2014). It describes a firm's capability to rapidly change and rearrange the strategic orientation by adjusting quickly to shifting requirements, op-

opportunities and trends (Battistella et al., 2017). Referring to Doz and Kosonen (2010), Lewis et al. (2014), Clauss et al. (2019), Clauss et al. (2021) and Hock et al. (2016), strategic agility is composed of a set of organizational capabilities and dimensions. These basic underlying capabilities of strategic agility described in the literature are, strategic sensitivity, leadership unity, and resources fluidity (Doz and Kosonen, 2010).

The first capability is 'strategic sensitivity', described as the sharpness of perception, and the intensity of awareness and attention to strategic developments (Clauss et al., 2019; Doz and Kosonen, 2010; Weber and Tarba, 2014). This capability secures a superior anticipation and greater foresight allowing deliberation of business models to be undertaken in time for firms to maintain strategic advantage and value creation (Doz and Kosonen, 2010). 'Leadership unity' defined as the ability of the top team to make bold, fast decisions, without being bogged down in top-level 'win-lose' politics (Clauss et al., 2019; Doz and Kosonen, 2010; Weber and Tarba, 2014).

Therefore, strategic awareness would remain 'stagnant' in accelerating business model change and renewal without a top management team willing to consider business model redefinition, and more importantly, able to achieve collective commitment to venture into new business models and to abandon old ones (Clauss et al., 2019; Doz and Kosonen, 2010; Weber and Tarba, 2014). To great extent, leadership unity is formed on the ability of top management team to understand the team and trust each other. 'Resource fluidity' is the internal capability to reconfigure capabilities and redeploy resources rapidly (Clauss et al., 2019; Doz and Kosonen, 2010; Weber and Tarba, 2014). Even a deeply felt commitment at the top management does not always translate into vibrant and effective action, unless the firm is evolving its structure, and making its process flexibly and consequently decreasing its rigidity (Doz and Kosonen, 2010; Lewis et al., 2014).

Scholars as [Junni et al. \(2015\)](#), and [Weber and Tarba \(2014\)](#), argue that SMEs need to develop these capabilities to not only maintain their market position, but also to explore new opportunities. The environment hyper-competitiveness presents challenges to all firms (e.g, [Fiegenbaum et al., 2001](#)), but these challenges are more acute for small and medium enterprises due to their limited financial and managerial resources ([Zhang et al., 2008](#)). However, SMEs are considered strategic to the survival of many economies, thanks to their contribution to the production sector, employment, and GDP of many countries. They play a strategic role in the economic performance of any country, it is seen in production and service offerings, innovation, and the aiding of big businesses to function ([Aga et al., 2015](#); [Govuzela and Mafini, 2019](#)). SMEs have more flexible structure, less bureaucratic procedures, a more responsive climate to go ahead with new and ambitious projects and flatter hierarchies, making them more able to accept and implement change ([Arbussa et al., 2017](#); [Damanpour, 2010](#)). Thus, it is essential for SMEs to acutely build key capabilities to handle extreme changes, survive unprecedented threats, and capitalize on emerging business opportunities ([Singh et al., 2010](#); [Sommer, 2015](#)).

SMEs by developing strategic agility capabilities are seeking an adaptation to the context conditions, which was emphasized by organizational theorists, stating that organizations must adapt to their environment if they are to remain viable ([Duncan, 1972](#)). This later concept of context with its relevant dimensions, recently, in the last two decades of the 20th century and the first decade of 21st century, it became one of the important factors impacting strategic agility of SMEs and a critical contingency in organization theory and strategic management ([Lumpkin and Dess, 2001](#)). Many conceptualization of the context are largely consistent with [Duncan \(1972\)](#), and [Dess and Beard \(1984\)](#) definition, as of the totality of physical and social factors that are

taken directly into consideration in the decision making behavior of the organization. It is composed of three dimensions: munificence, complexity, and dynamism. Munificence, signals a firm's growth and dependence on the context for resources (Lumpkin and Dess, 2001). Dynamism, relates to the rate of unpredictable change in a firm's environments (Duncan, 1972; Tosi et al., 1973). It also indicates uncertainty that erodes the ability of managers to predict future events as well as their impact on the organization (Khandwalla, 1977). Complexity, is indicative of the scarcity and intensity of competition for environment resources (Zahra and Covin, 1995). This latest combined with munificence can be described as context hostility (Lumpkin and Dess, 2001).

Investigating the dynamic interaction of SMEs strategic agility and context dimensions has been the guiding principle for many research in organization and management literature streams. Tosi Jr and Slocum Jr (1984), developed the acceptance of the contingency theory in this framework, proposing that appropriate organizational structure and management style depend upon a set of "contingency" factors, usually the uncertainty and instability of the context. Contributing to the completion and broadening scope of the contingency theory, this sequence of studies is aiming to investigate the context impact and interaction with SMEs strategic agility, as a new attempt to reveal these firms specific practices and its interaction with the context dimensions in developing and developed markets.

Making the empirical studies having a special contribution in SMEs and context interaction, this thesis will focus on the strategic agility practices of SMEs as an internal capabilities being interacted with the industry context dimensions. The thesis focus will be on the internal side of the SMEs, exploring the practical conceptualization of strategic agility and its practices reaching to the context dimensions, investigating

the possible interactions in two different types of markets. This is also contributing to draw existing similarities and differences in context dimensions.

In the current state of research, literature on strategic agility analyses its associated organizational capabilities, supply chain, measures to enhance strategic agility and its influence on the performance (Clauss et al., 2021). The capabilities that form strategic agility including strategic sensitivity, leadership unity, and resources fluidity (Battistella et al., 2017; Doz and Kosonen, 2010), were investigated mostly in big structure companies with less focus on SME, despite their flexibility advantage. At the same time, studies incorporating strategic agility of SMEs explored the concept significantly in developed markets while the paucity still existing to investigate further specifications about this concept being practiced by SMEs in developing markets. This thesis empirical studies are responding to this literature critics focusing our research effort on companies most exposed to the challenges of speed, dynamism and complexity of environment.

Despite the significant scholarly insights into the strategic agility and its implication on business model and performance, research on practitioners understanding and practices of SMEs strategic agility is still evolving. Whether and how various SMEs managers in developing and developed countries perceive and practice strategic agility is still attracting scholarly inquiry. Specifically, there has been limited research on strategic agility of SMEs in developing countries context. Furthermore, strategic agility of SMEs research stayed constrained to the internal perspective within the firm without spotting the important role of the context as a set of factors initiating SMEs strategic agility.

Considering also that few studies have focused on the industry as a context, this

thesis empirical work is exploring the healthcare industry specifications on the macro level and the existing interactions with SMEs behaviors on the meso and micro level. The healthcare industry over the last years and due to the COVID crisis is going through a major transformation driven by new scientific knowledge and digitization process (Doz et al., 2008). Compounding the global health crises, and emerging disruptive technologies, have significantly affected the nature of competition that firm experience and their performance (Ghauri et al., 2021; Lee and Trimi, 2021). This increasingly dynamic and complex environment requires SMEs to respond to the changes effectively and quickly to attain and sustain competitive advantage (d'Aveni, 1995). Despite the tremendous growth and progress in this field since the last two decades, it is still the increasing development of the industry structure, technologies, service quality, and financial investments are evolving in the developed markets, while in the developing ones, the healthcare transactions are complicated with low service quality and less faster technologies. These observed differences made the choice of the healthcare industry worthy to explore the existing dynamism with various specifications and how SMEs in both contexts are being reactive.

In the first empirical part of this thesis, we seek to contribute to the ongoing work in this area, by investigating the extent to which SMEs practitioners understanding and definition of strategic agility is aligned with scholars conceptualization. More importantly, the existing dynamic capabilities within SMEs and their practices. By making the empirical work accommodating SMEs in developing and developed countries, we are able to figure out similarities and divergences in strategic agility practices depending on the context dimensions specifications. On the top of that, the second empirical study allow us to integrate the external element which is the context, a change initiator. Focusing on the macro, meso, and entrepreneur level, this study is resuming the industry context dynamic interaction with SMEs strategic agility. Adding to this,

the fact of including SMEs from developing and developed markets, is also allowing us to capture existing differences and similarities in context dimensions specifications and possible interaction classifications.

Earlier theoretical work proposed a contingency framework for exploring the interaction and the relationship between context and firms behaviors and suggest the usefulness of considering its dimensions consisting of munificence, dynamism, and complexity as a multi dimensional construct. In this thesis, we investigate the three dimensions of industry context in developing and developed markets. We draw on prior theory and empirical research into these dimensions of context as well as from SMEs strategic agility practices, to provide a rationale and justification for exploring the related research question. Considering that few studies focused on the industry as a context, our empirical work took the healthcare industry as a context to explore the dimensions and to have a macro level analysis. Thus, healthcare industry, for instance, is going through a major transformation, driven by new scientific knowledge and digitization process imposed by COVID crisis circumstances (Doz et al., 2008). This transformation is spreading fast in developed and developing markets, making the competition game faster for SMEs.

This made strategic agility needed not only for SMEs in developing healthcare industry in growth stage, but also SMEs in developed healthcare industry in a maturity stage. These SMEs by developing strategic agility capabilities can leave their competitors behind, create new markets, rejuvenate their business models, and renew the way they compete (Doz et al., 2008). Thus, managers on the top level of SMEs need to maintain a balanced strategic foresight and insight. The foresight remains important to anticipate the consequences of key trends, to identify disruptions and discontinuities early, and either affect them to one's advantage of having the lead time

to adjust to them effectively and in a timely fashion (Arbussa et al., 2017; Doz et al., 2008). Yet, where change is fast, complex, systemic, and stable sources of strategic advantage short lived, strategic foresight needs to be strongly complemented by strategic insight, as an ability to perceive, analyze, and make sense of complex strategic situations as they develop and to be ready to take advantage from them (Doz et al., 2008; Doz and Kosonen, 2010).

Furthermore, SMEs managers need to take fast decisions, with high uncertainty and inter-dependency. They are required to call the firm's team to participate to the design of new ecosystems, business models, and activity systems (Doz et al., 2008). By calling to this collective commitment, it is intrinsically helping cognitive diversity, by maximizing and diversifying knowledge exchange with the outside and reconciled through internal dialogue (Doz et al., 2008; Weber and Tarba, 2014). This is definitely required for the difficult trade-off between the individual players and their whole team, and the balance between individual successes and contribution to the collective success (Doz et al., 2008). All these practices are of little value without SMEs managers ability to redeploy resources quickly toward strategic opportunities. Fast decisions in complex environments such as healthcare industry call for rapid resources deployment for their implementation (Doz et al., 2008). Since choices and commitments cannot be decided and planned well ahead of time, reactivity is needed: resource commitments need to be sudden and vigorous (Doz et al., 2008; Weber and Tarba, 2014).

Seizing all these capabilities, this thesis purpose is firstly providing a literature status quo of strategic agility as a concept and its capabilities, to identify all existing theoretical conceptualization provided by scholars and to generate categories classification, to create a theoretical framework as a preliminary phase to empirical investigation.

The main question to be answered in this first theoretical chapter is: how scholars in the organizational and management literature are conceptualizing strategic agility of SMEs? furthermore, capturing the main definition and dimensions of strategic sensitivity, leadership unity and resource fluidity, is letting us take the challenge empirically and questioning the existing gap and knowledge paucity about practitioners view of strategic agility, and its practices within small and medium enterprises. To achieve this purpose our main question is: how SMEs practitioners perceive and practice strategic agility?

From a managerial perspective, summarizing all the specifications of SMEs strategic agility which make their practices unique, differs from big corporate structure, is making the research curiosity to grow bigger and broader the study scope to accommodate SMEs in developing and developed markets. After observing the experience of a strategic agile SME, the purpose in the second empirical study is to present the dynamic interaction of the industry context and SMEs strategic agility. We believe also that this interaction could differ from a developed to a developing industry context, and we draw all possible classification of contexts and interaction through incorporating strategic agile SMEs in developing and developed markets, responding to the following question: how context dimensions interact with SMES strategic agility?

Fulfilling the thesis aims, the studies followed three complementary methodologies, systematic literature review, ethnography, and multiple case study design. As an essential components of almost any research project, systematic literature review in the first chapter serves as the foundation for advancing knowledge, facilitates theory development, closes mature research areas and uncover novel research areas ([Torres-Carrión et al., 2018](#); [Webster and Watson, 2002](#)). It is a 'knowledge map' (e.g, [Frank](#)

and Hatak, 2014), aiming to analyze and synthesize prior literature of strategic agility. Because of its relevance as a methodology, many comprehensive resources as Webster and Watson (2002), Aguinis et al. (2018), and Frank and Hatak (2014), were revised as a guidance with all the necessary steps to conduct. The systematic process review of Brereton et al. (2007), and Kitchenham et al. (2009), composed of planing, conducting, and reporting results is adopted in this chapter. The search process was a manual search of specific journals covering the last decade of strategic agility studies and the relevant journals and articles were selected through a quality assessment and by applying specific inclusion and exclusion criteria. The data extracted from each study were related to the journal, classification of the study type, and study's methodology. Following a thematic analysis, the data of the paper reviewed got classified into, category defining strategic agility concept, capabilities specifications, and strategic agility impacting SMEs performance. The result in this study suggest a theoretical framework adopted for the empirical studies.

The research design followed for the second study of the thesis is a case study analysis supported by 'ethnography' approach, it is a technique based upon direct observation (e.g, Gobo and Marciniak, 2011). This methodology comprises two strategies: non participant observation and participant observation. The strategy adopted is a participant observation, where I joined an Italian strategic agile SME in the healthcare industry, operating in tele-medicine sector, for a period of four months of observation combined with fours interviews conducted with top management team (Co-founders), quality manager from the organizational level and supply chain manager from the operational side. I became part of the group and the phenomenon being studied, supporting the team in some decision making and internationalization process activities, while at the same time, taking care of observing all events, behaviors and artifact of the business setting. Choosing this methodology with this specific strategy is in

the purpose to capture for a long time the strategic agility practices on different level of the organization, screening all interactions on daily basis, as well as to seize all the SME reactions to face environment uncertainties. This participant observation strategy helped me as a researcher to establish a direct relationship with the SME staff, being for a long time in their natural environment and catching real practices, learning the stuff code, and having the opportunity to interview and interact with them, was helpful to reflect the practitioners knowledge about strategic agility.

In the following investigation of context dynamic interaction with SMEs strategic agility, the research setting is a multiple case study design (e.g, [Patton, 2002](#); [Yin, 2003](#)), where eight strategic agile SMEs operating in developing and developed health-care industry got selected. These SMEs demonstrated a significant flexibility toward environment uncertainty in the last three years and dispose of strategic agility capabilities. This made these firms to be successful to prove the efficacy of their strategic agility practices and interaction with the healthcare context, and therefore gain better insights from them. I selected SMEs from healthcare industry in developed and developing markets to have a better comparison of the concept practices and interactions happening with these environments. Thus, to increase the information base and to diversify data in order to reduce biases (e.g, [Battistella et al., 2017](#)), a multiple data sources were adopted to acquire a deeper understanding of the dynamics involved ([Battistella et al., 2017](#); [Patton, 2002](#); [Yin, 2003](#)). I used several data, primary sources (semi structured interviews) and secondary data sources (website of companies, archival documents and materials provided by informants).

| Chapter | Study's Aim | Methodology |
|--|--|---|
| A systematic literature review of strategic agility: theoretical framework and research agenda | Status quo of strategic agility in management literature and theoretical framework | Conceptual study based on systematic literature review |
| SME practitioners understanding and practices of strategic agility: Evidence from an Italian SMEs experience | Holistic conceptualization of SMEs strategic agility and screening of practices | Empirical study adopting ethnography methodology |
| Interaction dynamics of SMEs strategic agility and context dimensions | Capturing industrial context dimension and existing interactions with SMEs strategic agility in growth and maturity stage industry | Empirical study formed on multiple case study research design |

Table 1.1: Thesis Studies and Methodologies Adopted.

Table 1.1 reports the thesis studies aim, methodologies, and empirical investigation are making a number of theoretical and empirical contributions to strategic agility and context literature. First, our study on the organizational level contributes to the strategic agility literature by screening theoretical definitions of the concept and its capabilities, it is creating a theoretical framework combining all distinct contributions to be adopted for future research in this area. Our empirical investigation also proposed a practitioners perspective of strategic agility and capabilities practices, to have a holistic view of the concept combining scholars and practitioners inputs.

We believe that our emphasis of strategic agility on SMEs operating in healthcare industry as a special category of firms in a transforming field is broadening the spectrum of strategic agility practices that is focused on big corporate structure in IT and engineering fields. We also contribute to the literature by capturing strategic agility practices interplay between strategic, organizational, and operational level of SMEs, while the practices dominant in the literature were about supply chain agility. Second, we are also contributing to the literature by connecting strategic agility and

context, which were, until recently a disparate research line. By doing so, we are reflecting the external contribution of the environment to internal capabilities practices of strategic agility, while the studies before focused strongly on the internal view of strategic agility within the company.

Third, by focusing on the context especially the healthcare industry as a dynamic field rich of uncertainty and complexities, we seek to broaden the scope of the context research that has predominantly focused on adoption of other context typologies, and less attention given to industry dimensions. Accordingly, by exploring the industry context in developing and developed markets, we provide scholarly insight of existing differences in context dimension specifications between both categories of markets and particularly within the developing markets, they tend to have different features. Focusing on the dynamic interaction of the context and SMEs strategic agility in developing and developed markets, allow us to explore different typologies of interactions.

These sequence of studies also make a managerial contribution for SMEs. They propose to SMEs in mature growth industry with high level of competition to employ strategic agility capabilities to anticipate future market needs and to create new markets to gain competitive advantage. The studies suggest also to SMEs in growth stage industry to look for external support and to find resources providing alternatives, to avoid being dependent on the local market in generating resources which is limiting its development process. Finally, for SMEs practitioners either operating in developing or developed markets, to develop a strategic agility capabilities within the company to face environment uncertainties, they need to nurture an efficient leadership initiating change and sustain it.

To present these contributions and as reported in [Figure 1.1](#), our thesis structure includes a systematic literature review of strategic agility literature in the next chapter. In this regard, it is providing a holistic view of the concept as a meta capability, its practices and impact on SMEs performance. The following chapter is providing an empirical investigation on SMEs, practitioners conceptualization and interplay practices of strategic agility from an internal perspective. In the next chapter, the empirical emphasis is adopting an external view of strategic agility capturing the dynamic interaction of industrial context and practices of SMEs strategic agility in both developing and developed markets.

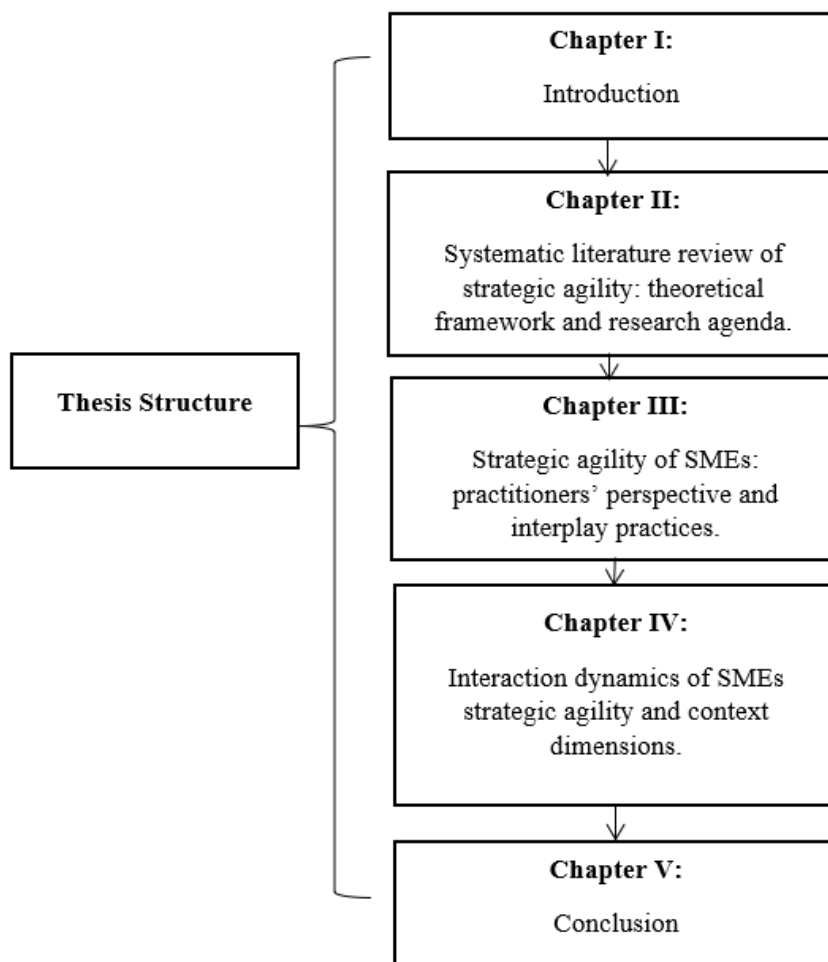


Figure 1.1: Thesis Structure

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CHAPTER II

A SYSTEMATIC LITERATURE REVIEW ON STRATEGIC AGILITY: THEORETICAL FRAMEWORK AND RESEARCH AGENDA

Abstract

The present study is reviewing strategic agility as a concept in management literature, it proposes a conceptual framework recognizing capabilities, practices, and fundamental foundations of strategic agility. This is achieved through a structured literature review of studies published in the last decade about strategic agility in management literature. The study synthesizes different conceptualizations of strategic agility referring to the dynamic capability theory, paradoxical framework, and resources based view approach. The study analysis is confirming the existence of the commonly agreed meta capabilities of strategic agility, including strategic sensitivity, leadership unity, and resources fluidity. This study is contributing to the ongoing debate about conceptualization of strategic agility with a holistic conceptual framework including micro-foundations and practicing capabilities of strategic agility. Our study is also providing a nuanced view of the relationship between, micro-foundations, capabilities, and practices of strategic agility as well as identifying their impact on firms performance.

Keywords: Strategic Agility, Capabilities, Structured Review.

2.1 Introduction

In the last decade, markets are facing turbulent scenarios where globalization is impacting strongly consumers behavior and implying continuous change on demands. Under these conditions, firms found obliged to adopt flexible structure, adaptable organization design, and to nurture the ability to restructure processes to achieve competitive advantage. Therefore, developing organizational capabilities, guides companies to the strategic concept of agility, that is more than a functional and tactical concept. Indeed, strategic agility is defined as " the firms ability to review itself and to stay flexible without sacrificing efficiency" (Junni et al., 2015). The term renewal could be considered from perspectives of different organizational settings (Shams et al., 2021). Strategic agility is also considered as " the firm's ability to remain flexible in facing new developments, to continuously adjust the company's strategic direction, and to develop innovative ways to value creation "(Weber and Tarba, 2014).

Referring to the dynamic capability theory, if firms aim to survive in such volatile environments, they must develop capabilities, to detect environments changing conditions early and to offer accurate responses, gaining new business opportunities and competitive advantage to be exploited. In this context, strategic agility is considered as a critical dynamic capability that influences firm's competitive actions, and therefore, it becomes a significant antecedent of firm's performance. Thus, strategic agility is considered as organizational capability to sense environment changes and to respond efficiently and effectively (Felipe et al., 2017). Moreover, the concept of strategic agility from resource based view perspective (e.g, Peteraf, 1993), is defined as the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments (Teece et al., 1997).

According to Weber and Tarba (2014), de Diego and Almodóvar (2022), and Xing

et al. (2020), the concept of strategic agility was introduced about two decades ago, but it remains ill-defined. Since the work of Abshire (1996), introducing a 'strategy of agility', then, the concept of strategic agility has been used across a series of industries, and authors have related this research line with several topics and organizational areas. Recently, authors as Mathiassen and Pries-Heje (2006) used terminology 'business agility' highlighting the idea that the main path to maintain the competitive strategy is designing an agile business. In this line, Van Oosterhout et al. (2006) focus their research on explaining how the business environment is highly dynamic and that businesses need to be not only flexible but also agile.

Thus, strategic agility as a recently developed concept, received substantial attention in the academic literature and arguably scholars in management literature are conceptualizing it differently. Judge and Miller (1991), considered strategic agility as the speed of the organization in making decisions. While, Bahrami (1992), defined strategic agility as the firms' ability to take advantage of emerging opportunities and side step threats. Other definitions in the management literature, present strategic agility as the responsiveness to environment and adaptation to change. Additionally, Vrontis et al. (2009), argues that strategic agility is a key focus of how a firm could remain flexible and quickly adapt to new ideas, technologies, socio-economic aspects, stakeholders norms, and values along with the concerns of various public and private organizations of those target markets.

Some studies presented strategic agility as a multilevel set of capabilities interacting dynamically on a continuous basis. In other words, strategic agility is a meta capability composed of an interplay set of capabilities existing in strategic, organizational, and operational level of the firm. On the organizational level, it involves aspects of perception and decision making factors, such as anticipation, visual mapping, knowl-

edge of condition, and patterns with speed of changes in direction (Wiklund and Shepherd, 2003). It allows companies to secure the parallel relationship between tasks and resources to minimize the costs. On the operational side of the firm, it is a set of capabilities allowing management of processes and information technology infrastructure, securing for companies the full control on errors, failure, and resolve conflicts while interacting and collaborating with other companies. Consequently, strategic agility capabilities in all firm levels are interacting each other continuously to enable firm's flexibility and anticipation of change that is impacting the business performance (Muafi, 2017; Phillips and Wright, 2009).

Since the mid 1990s, strategic agility has been approached from a wide range of academic disciplines. In some fields like information technology, the concept of strategic agility has been deeply investigated, however, in other disciplines the conceptualization of strategic agility was bounded by consideration of continuous change and divergent dimensions. Some researchers as Dove (2005), investigated responsiveness and knowledge management as the crucial dimensions of strategic agility, while Ganguly et al. (2009), argued that the concept rather depends on flexibility and speed. On the other side, Schnackenberg et al. (2011), considers strategic agility as bi-dimensional concept involving change in magnitude of variety (flexibility) and rate of variety generation (Speed).

These proposed conceptualizations and dimensions of strategic agility mostly remain related to information and technology field, which make it less relevant in different contexts and requires a consistent treatment in the management literature to reduce its broad conceptualization. Literature on strategic agility in management is fragmented with open debate among scholars and lacking the practitioners perspective. This paucity of a holistic comprehensive conceptualization requires to be fulfilled, to

generate a valid conceptualization of the concept across different contexts. Additionally, [Shams et al. \(2021\)](#), confirmed the need of a holistic definition of strategic agility in management literature. Furthermore, [Ivory and Brooks \(2018\)](#), noted the need for additional theoretical literature of strategic agility, due to the limited provided conceptualization, especially in SMEs sustainability context. We argue that strategic agility has been a subject of increasing research interest with academic and practical calls for a better conceptualization of the concept, which makes the gap of a literature review in management literature and the need to screen existing conceptualizations and definitions of the concept.

In the present study, we contribute to the management literature by reviewing and analyzing the available knowledge and definitions of strategic agility provided by management scholars. The study's purpose is to spot light on existing definitions with strategic, organizational, and operational dimensions of the concept. Our conceptual contribution, is to synthesize the existing and relevant definitions, dimensions, and practices of strategic agility and to create a holistic theoretical framework. By doing so, the present study is replying to the research question: how strategic agility is being conceptualized in management literature? to answer this research question, this theoretical study is following a systematic literature review methodology to select, analyze, and report findings of strategic agility papers, published in the period of 2010 and 2021, to capture relevant theoretical contribution in this decade where the concept was attracting more scholars interest.

2.2 Strategic Agility: State of Art

The competitive landscape has been shifting recently more than ever, globalization, increased knowledge transfer, changes in customer demands, and rapid technological transformation with obsolescence of products have all caused turbulent environments.

These chaotic environments, are having rapid cycle where markets, emerge, evolve, and die, it is requiring high flexibility from companies. Consequently, concepts like, sustained competitive advantage and strategic planning, are considered not enough and inadequate for companies to cope with rate and complexity of environments and market changes (Chen et al., 2010). This made the key of firm's success, is being strategically agile, implying ability to remain flexible in facing new developments, to continuously adjust the company's strategic direction, and to develop innovative process to create value at the same time securing long term vision (Weber and Tarba, 2014).

Strategic planning has been criticized for preventing fast adaptation when markets discontinuity occurs. Thus, strategic agility emerges as an ability that allows companies to respond to several changes simultaneously while keeping the focus on the strategic vision. Therefore, it is allowing firm's to have a constant ability to effectively change its course of action in order to sustain its competitive advantage (Goldman et al., 1995). In an attempt to cope with this strategic disrupted environments, scholars suggest to companies nurturing and developing organizational capabilities to become strategically agile, to renew their business models, and to generate innovate solutions. This concept of strategic agile companies, is referring to firms adopting new methodologies and processes of managing resources, taking decisions, and maintaining high level of flexibility, as well as creating a change corporate culture (Doz and Kosonen, 2008). However, despite enormous studies done in this framework to define strategic agility, still the practitioners and managerial perspective is missing to have a holistic conceptualization of the concept according to Weber and Tarba (2014) study.

Strategic agility has received recently intensive attention with inconsistent treatment

which evolves an elusive term with many definitions. One of the most influential definitions by [Weber and Tarba \(2014\)](#), stated that strategic agility encompasses a set of activities carried out by a company to create value in a turbulent and unpredictable environments. These activities and related organizational changes are having systematic variations in processes execution and structures ([Weill et al., 2002](#)). Other scholars as [Doz \(2020\)](#), and [Wilson and Doz \(2011\)](#), consider strategic agility as a dynamic capability consists of dual major capabilities. The first capability is emphasized by leadership: sensing the direction for a needed change and putting together the right resources for strategy execution ([Weber and Tarba, 2014](#)). The second capability, pertains to organizational design that includes the necessary structural adaptation and mechanisms to implement the course of action ([Weber and Tarba, 2014](#)). Neither one capability is sufficient, both are needed to secure firm's flexibility.

In this line, [Brueller et al. \(2014\)](#), emphasized that strategic agility is an invaluable capability that enables a firm to turn around quickly without losing momentum, which increases its validity in uncertain, volatile, and rapidly changing environments. This study identified three enabling capabilities that companies should develop to create an agile organization: making sense quickly, making decisions nimbly, and re-deploying resources rapidly ([Brueller et al., 2014](#)). Moreover, [Gurkov et al. \(2017\)](#), suggested that strategic agility entails four key routines: (a) strategizing, giving a shared strategy and motivating people that should operate in a good organizational climate; (b) perceiving, through continuously monitoring the environment to anticipate major changes and quickly providing this knowledge to executives who should interpret them and formulate decisions; (c) testing, through ongoing trials and errors and experiments; and, (d) implementing, both incremental and radical changes, and measure their performances ([Gurkov et al., 2017](#)).

Referring to these previous literature streams of strategic agility, they still share common themes and key features. First, strategic agility involves a set of capabilities and actions taken by an organization that operates in an environment distinguished by rapid and unpredictable changes (Weber and Tarba, 2014). Thus, agile organizations are those firms that successfully adapt to disruptive environments (Adler et al., 1999). Second, strategic agility requires changes that are different from other regular and routine types of changes (Weber and Tarba, 2014). The changes that result from strategic agility are specified as continuous with systemic variations in an organization's products, processes, services, and structures (Tallon and Pinsonneault, 2011). The intensity and variety of these changes are high, consequently, agile firms are those that demonstrate high flexibility (Mohrman and Worley, 2009). Third, speed is needed to sense the environments changes and to adequately respond to their volatility (Sanchez, 1995).

Therefore, strategic agility requires investment in resources to maintain high level of flexibility and mandatory speed, to respond to sudden environments threats and opportunities. Common specifications and different definitions were given to the concept of strategic agility referring to different theoretical perspectives, and this study purpose is to synthesize the status quo of strategic agility in the management literature with a proposition of a holistic conceptual framework for future research work. This structured review is also contributing to the existing agreement on the importance of conceptualizing and understanding the role of strategic agility in light of common complex challenges, such as globalization, accelerating rate of innovation, and mergers and acquisitions according to Charan and Tichy (1989) study.

2.3 Research Design

To answer the defined research question and to review the proposed theoretical conceptualization of strategic agility in management literature, a systematic literature review has been performed and accomplished based on the guidelines proposed by [Macpherson and Holt \(2007\)](#), and [Tranfield et al. \(2003\)](#) adapted to this study specific research interest and detailed in review protocol as presented in [Figure 2.1](#). The aim of conducting this systematic literature review is often to enable both mapping and assessing (e.g, [Tranfield et al., 2003](#)) the existing definitions and dimensions of strategic agility, and to specify a new research question to develop the existing body of knowledge further.

In an attempt to retrieving and mapping the current research on strategic agility, this systematic review involves two processes. First, defining review protocol and mapping the field by accessing, retrieving, and judging the quality and relevance of research about strategic agility ([Macpherson and Holt, 2007](#)). Second, reporting the findings to identify gaps and inform propositional conclusions as to where future research might be usefully directed ([Macpherson and Holt, 2007](#)).

As stated by many scholars, there are many definitions and conceptualizations given to strategic agility from different perspectives, and the possibility of providing a sustaining definition is debated in the literature, especially regarding the development of a holistic conceptualization. Consequently, considering [Truong and Venkatesh \(2007\)](#), and [Alavi and Joachimsthaler \(1992\)](#) recommendations, a structured analysis is followed to present strategic agility conceptualization, dimensions, and impact on firms performance. Therefore, to ensure a rigorous process of review, and to obtain results based on the research question and the corresponding analysis, this study used the common review method proposed by [Okoli and Schabram \(2010\)](#), [Armitage](#)

and Keeble-Allen (2008), Fisch and Block (2018), and Kitchenham et al. (2009). This structured review of strategic agility is helping to synthesize the research and create a common theoretical understanding of the concept dimensions and practices. It is also increasing awareness about the concept in the management literature and showing current perspectives (Frank and Hatak, 2014; Pittaway et al., 2014).

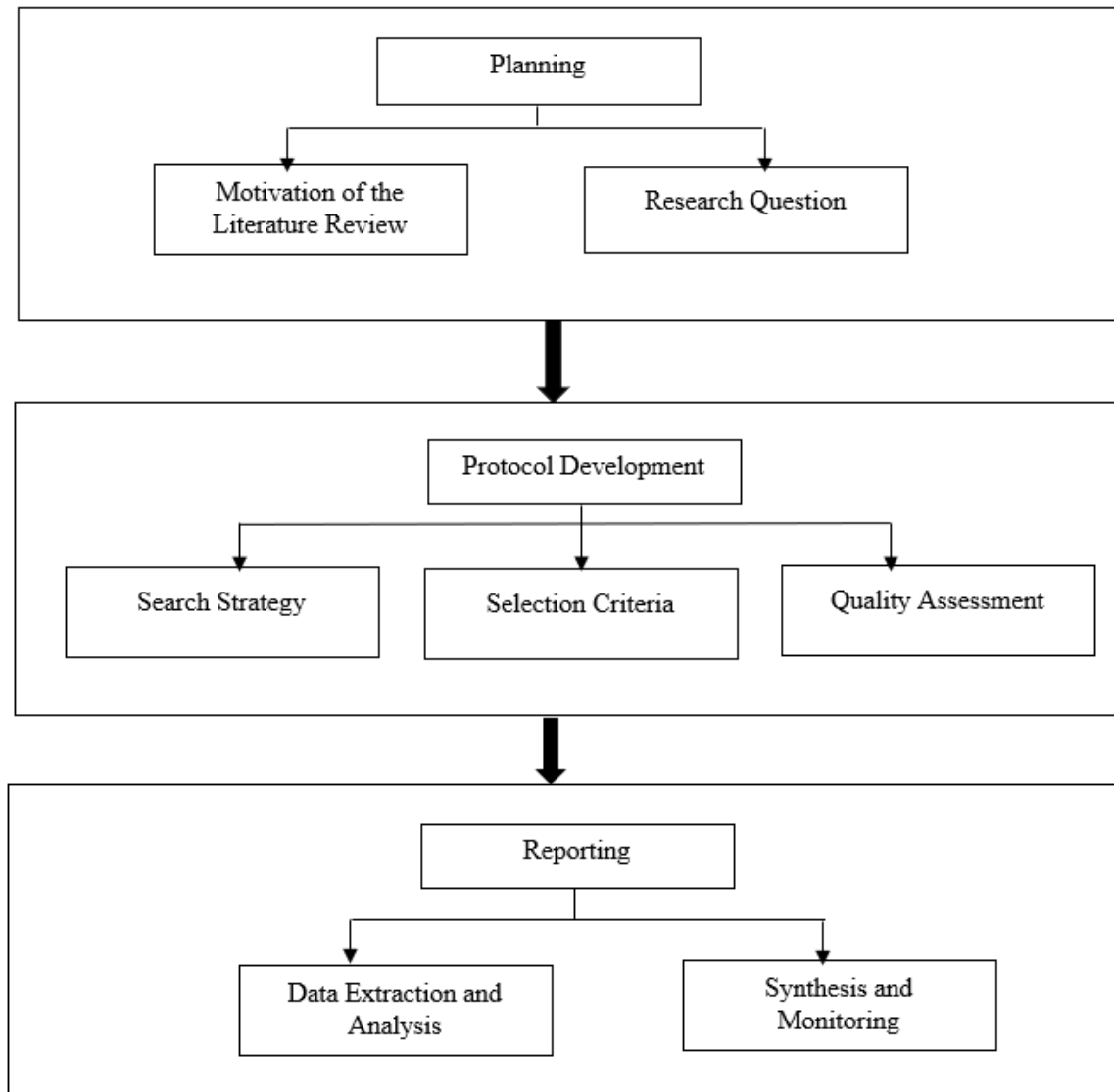


Figure 2.1: The Systematic Literature Review Protocol

2.3.1 Research Strategy

To ensure objectivity of the review, research strategy has been adopted outlining the parameters for the data search, keywords, and searching fields. This strategy is composed of the search strings, databases and quality criteria (Pittaway et al., 2014). Therefore, the search was conducted via and only journal articles that have been included, since they are considered as validated knowledge according to Podsakoff et al. (2005). Following Jones et al. (2011) approach, and due to their more restricted availability, books, chapters and conference papers have been excluded. Therefore, to build a database with relevant articles about strategic agility in management literature, the two most widespread database for searching the literature were used: Web Science Core Collection by Clarivate Analytics and Scopus of Elsevier, thanks to their wider coverage of journals in management literature (de Araújo Lima et al., 2020; Liñán and Fayolle, 2015). Additionally, Mendeley database was also used to select and cover more articles of strategic agility in the literature (Bramer et al., 2017).

First of all, different sets of keywords were combined "strategic agility", "agility", "organizational agility", and "business agility" to extract the results in each database between 2010 and 2021 inclusive. To narrow down the results and following de Araújo Lima et al. (2020) methodology, a selection process was performed using the following filters: exclusion of articles that were not in English; exclusion of proceeding papers, editorial material and notes; and exclusion of the duplicated articles among the results of the queries, and of the duplicated articles between the databases used. At this point, 110 articles were obtained, but they needed to be analyzed carefully.

2.3.2 Selection Process

To perform the selection process suggested by Alavi and Carlson (1992) on the results obtained from the search strategy, and to select the studies going to be part of the

analysis, this structured review adopted an evaluation method of two essential selection stages. The first stage: journal ranking and quality assessment was performed on 110 articles, only studies that was published in journals at least first level of ABS academic guide of journals were selected. The outcome obtained of this selection is 85 studies published in highly ranked journals.

Second stage: In this phase the selection was based on the reading and evaluation of the studies titles and abstracts. 85 studies were reviewed and the papers that did not include strategic agility conceptualization were excluded. When the doubt arose further reading of the article was done. Thus, around 38 studies got excluded as strategic agility conceptualization was not the core topic, and 10 others studies also got excluded to avoid repetition matter. The final database and the analysis hereinafter includes 37 studies published from 2010 till the end of 2021 as [Figure 2.2](#) presenting. The majority of the studies (26 studies) are qualitative, it is including literature review of strategic agility, conceptual studies and articles with case study design, while the rest of the articles (11 studies) are adopting a quantitative methodology.

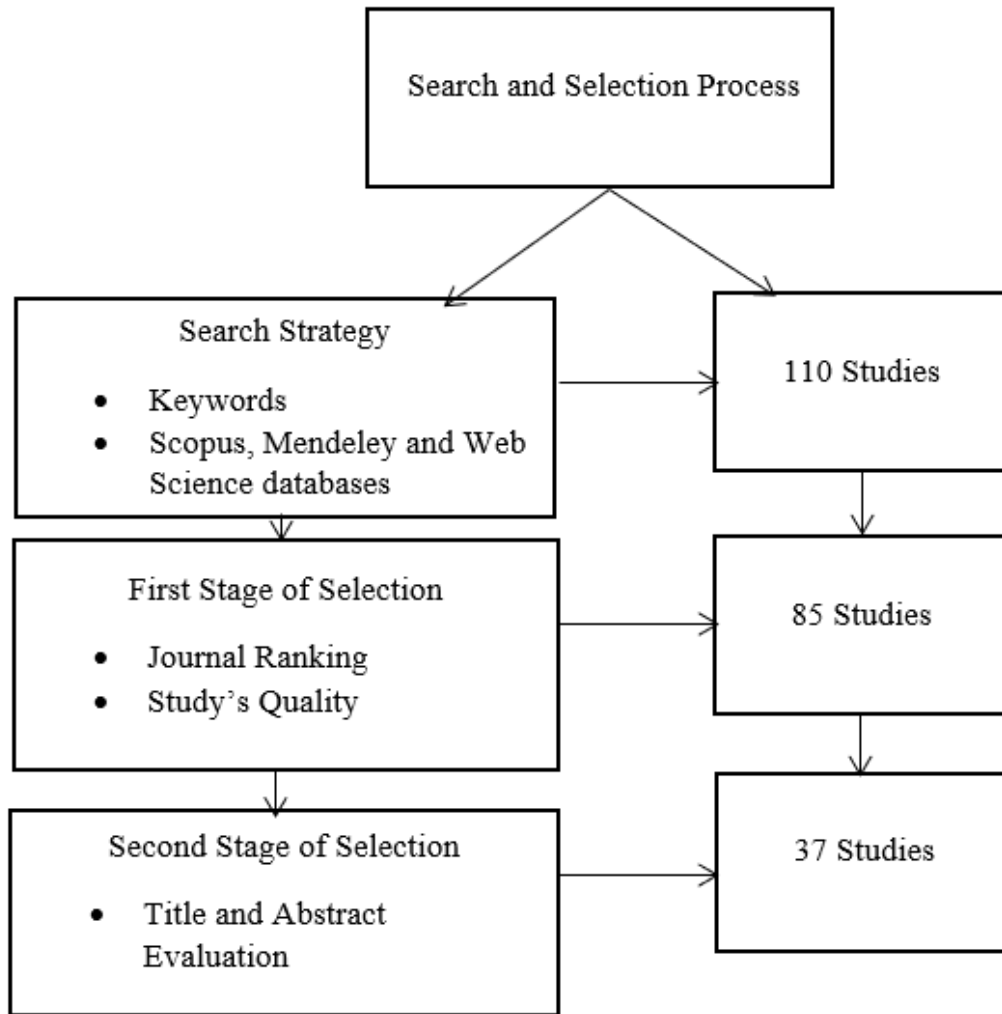


Figure 2.2: Search and Selection Process

2.3.3 Content Analysis

To complete answering the research question, a content analysis was performed. Initially, through this analysis, it is possible to identify strategic agility conceptualization from different perspectives published during this last decade in the management literature. Therefore, the analysis of the studies in the database followed a framework developed considering three main constructs: (1) types of definitions and conceptualizations of strategic agility provided in the selected studies, (2) the dimensions

and practices of strategic agility, and (3) the impact of strategic agility on SME performance. Additionally, a citation analysis was also conducted to identify the most influential studies of the database (Gundolf and Filser, 2013). It reflects also the interconnection among scholars and the conjunction between the different definitions (Liñán and Fayolle, 2015). Each study read and classified according to the dimensions of the analysis framework. Table 2.1 reports the outcome of studies analysis, the three categorization of studies determining the most studied streams of strategic agility in the literature. In each category, there is a recognized influential study as a category reference. According to Acedo and Casillas (2005), and Casillas and Acedo (2007), the studies in each category are naturally connected in term of main topic and focus, they are also presenting a common knowledge used as a foundation of the reporting process.

2.3.3.1 Category 1: Conceptualization and Definition of Strategic Agility

The studies in this category present different theoretical conceptualization of strategic agility in the management literature. Among the influential definitions, Di Minin et al. (2014) defined strategic agility as a capability formed on decisions that change within the environment circumstances with a strong focus on strategic objectives, adaptability, commitment and flexibility. Moreover, Weber and Tarba (2014) stated that strategic agility involves a set of actions taken by an organization that operates in an environment distinguished by rapid and unpredictable change. While scholars as Ivory and Brooks (2018), consider strategic agility as an approach to manage the firm's paradoxical situation, referring to its main meta capabilities that include, strategic sensitivity, collective commitment and resources fluidity.

2.3.3.2 Category 2: Foundations and Practices of Strategic Agility

This category includes studies reflecting, needed foundations, dimensions and practices of strategic agility from different levels of a firm. The main research stream in this category is oriented toward organizational design and capabilities of firms, managerial practices, and operational infrastructure allowing companies to be strategically agile. These streams can be accommodated into three sub-categories where studies are sharing the main focus on certain dimensions of strategic agility.

First sub-category 2.1: studies in this section focus on necessary micro foundations, like organizational system and design that allow firms to develop strategic agility capabilities. Authors as [Brueller et al. \(2014\)](#), stated that these systems need three enabling capabilities: to make sense quickly, make decisions nimbly and redeploy resources rapidly, pointing out to mergers and acquisitions as a form to enhance these capabilities and to make companies strategically agile. In the same line, [Worley and Lawler \(2010\)](#) confirmed that firms need a dynamic organizational design that can sense the need for change from both internal and external sources, carry out those changes routinely and sustain above-average performance. Not only this, but an innovative business model and a flexible enterprise structure are considered preliminary conditions helping firms to be strategically agile according to [Battistella et al. \(2017\)](#), and [Hazen et al. \(2017\)](#).

The descriptive analysis of the second sub-category 2.2: includes studies focused on the dynamic capabilities of strategic agility and managerial practices. In this context, [Teece et al. \(2016\)](#) outlined that dynamic capabilities are necessary for fostering firms strategic agility to address environment uncertainty. In particular, [Doz \(2020\)](#) highlighted the role of leaders and human resource practices in initiating change and being strategically agile. In the same line, the leadership practices to resolve the com-

plexity nature of strategic agility has been also a focus of [Lewis et al. \(2014\)](#) study about paradoxical leadership to enable strategic agility. Furthermore, [e Cunha et al. \(2020\)](#) developed a vision in which firms nourish improvisational capabilities in order to enhance strategic agility and [Morton et al. \(2018\)](#), identifies a number of practices firms demonstrate in building and maintaining strategic agility.

The third Sub-category 2.3 : it comprises studies contributing to the practices on company's operational level enabling strategic agility. [Gligor et al. \(2016\)](#) refers to supply chain agility as antecedents and contributing factor to firms strategic agility. along with [Lee et al. \(2016\)](#) stated that the key role of operational practices especially in developing strategic agility capabilities.

2.3.3.3 Category 3: Impact of Strategic Agility on Firms Performance

Studies included in this category are focusing on how strategic agility is impacting firm's performance. It involves [Clauss et al. \(2019\)](#) study that investigates to which extent strategic agility predicts the adoption of suitable business model and its impact on firms performance. [Shin et al. \(2015\)](#), argue that strategic agility is influencing on firms performance and contributing to their growth.

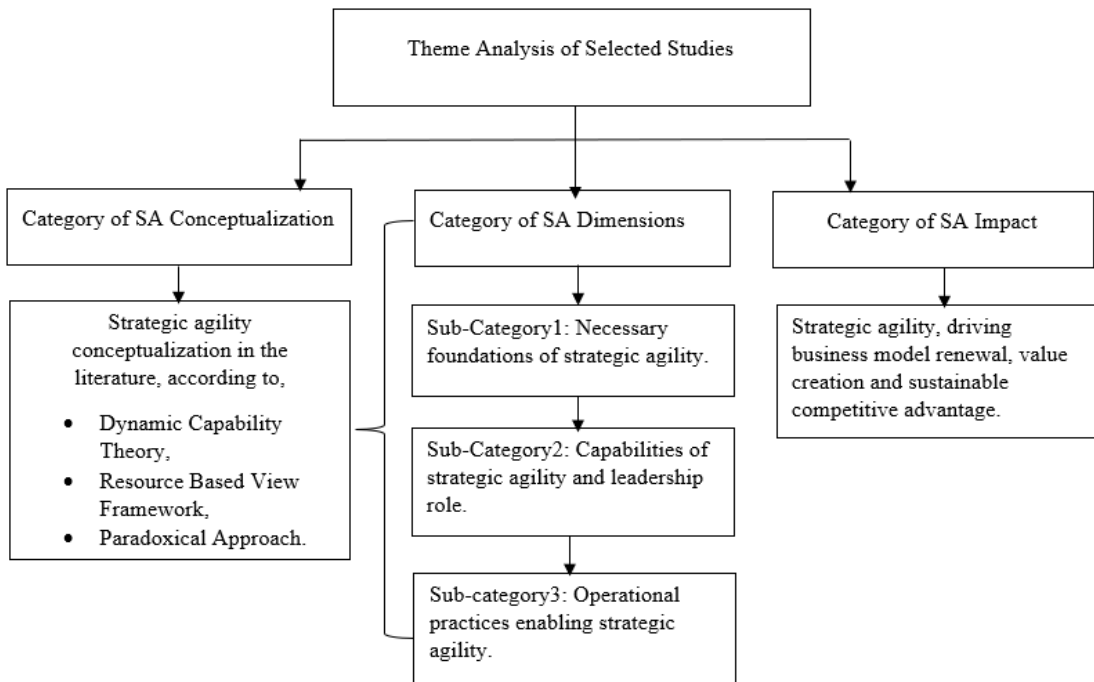


Figure 2.3: Descriptive Analysis of Selected Studies

To this end, these categories reported in [Figure 2.3](#) and [Table 2.1](#), summarize how strategic agility streams have been presented in the literature from different perspectives. The descriptive analysis of these relevant studies, aims to present a brief review of strategic agility as it is existing in the literature and its contextual conditions. Through this analysis, the reporting will allow us to summarize the literature according to the three categorization and on a concept-centric basis. This involves a careful identification and evaluation of the concept used in the review, which then guide the analysis conducted ([Fisch and Block, 2018](#)).

| Category | Articles | Citation | Year of Publication | Journal | Method |
|------------|---|----------|---------------------|---------|------------|
| Category 1 | Strategic Agility: A state of the art | 213 | 2014 | CMR | Conceptual |
| | Strategic Agility in MNEs: Managing tensions to capture opportunities across emerging and established markets | 89 | 2014 | CMR | Conceptual |
| | Enterprise Systems and Organizational Agility: A review of the literature and conceptual framework | 84 | 2012 | AIS | Conceptual |
| | Managing Corporate Sustainability with a Paradoxical Lens: Lessons from strategic agility | 82 | 2018 | JBE | Conceptual |
| | Management Processes for Agility, Speed, and Innovation | 59 | 2014 | OD | Conceptual |
| Category 2 | Dynamic Capabilities and Organizational Agility: Risk, uncertainty and entrepreneurial management in the innovation economy | 866 | 2016 | CMR | Conceptual |
| | Paradoxical Leadership to Enable Strategic Agility | 313 | 2014 | CMR | Conceptual |
| | Agility and Organization Design: A diagnostic framework | 159 | 2010 | OD | Conceptual |
| | Cultivating Business Model Agility Through Focused Capabilities: A multiple case study | 149 | 2017 | JBR | Conceptual |
| | An Exploration of the Strategic Antecedents of Firm Supply Chain Agility: The role of firm's orientations | 80 | 2016 | IJPE | Empirical |
| Category 3 | Embedding Strategic Agility, A leadership Agenda for Accelerating Business Model Renewal | 1263 | 2010 | LRP | Conceptual |
| | Strategic Agility of Korean SMEs and Its Influence on Operational and Firm Performance | 127 | 2015 | IJPE | Empirical |
| | Absorptive Capacity and Firm Performance: The mediating role of strategic agility | 57 | 2019 | IJHM | Empirical |
| | Strategic Agility, Business Model Innovation and Firm Performance: An empirical investigation | 36 | 2019 | IEEE | Empirical |
| | From Fragile to Agile: Marketing as a key driver of entrepreneurial internationalization | 27 | 2019 | IMR | Conceptual |

Table 2.1: A Brief Representation of the Studies Categorization

2.4 Reporting the Review

2.4.1 Theoretical Conceptualization of Strategic Agility

Given markets changes and discontinuities, companies increased attention on strategic agility and new paradigm to be adopted. Consequently, scholars get more involved and attempted to define strategic agility from different perspectives. According to the result analysis, dynamic capability theory especially [Weber and Tarba \(2014\)](#) study, defined strategic agility as the availability of management capabilities to constantly and rapidly sense and respond to a changing environments, by intentionally making strategic moves and consequently adapting the necessary organizational configuration to succeed decisions executions. It consists of dual major capabilities, the first is emphasized by leadership through sensing the direction for a needed change and putting resources together for strategy execution ([Fourné et al., 2014](#); [Weber and Tarba, 2014](#)).

The second capability pertains to organizational design that includes the necessary structural adaptation and mechanisms to implement the course of action ([Weber and Tarba, 2014](#)). In a multinational companies context, where firms need to operate successfully in an emerging and established markets, ([Fourné et al., 2014](#)) presented strategic agility as a meta-capability that is responsible of allocating resources to the development of three dynamic capabilities: sensing local opportunities, enacting global complementary and appropriating local value, and keeping the balance between these capabilities over time. This conceptualization stresses the notion of needed balance in executing all capabilities to face unpredictable changes and to allocating resources to these practices, to ensure competitive advantage.

Strategic agility is also an invaluable capability that enables a firm to turn on a dime without losing momentum, which increases its viability in uncertain, volatile

and rapidly changing environments (Brueller et al., 2014). To be strategically agile, companies need to develop three enabling capabilities: making sense quickly, making decision nimbly, and redeploying resources rapidly. Thus, referring to the provided definitions of strategic agility in the dynamic capability theory, scholars were mostly focused on the internal aspect of the concept and its capabilities from an inside point of view within the companies boarder. Therefore, in this context, there is still an existing paucity of a definition considering the balanced combination of strategic agility dimensions including internal and external factors together.

On the other side, authors as Ivory and Brooks (2018) following resource based view framework, outlined strategic agility as the ability to quickly recognize and seize opportunities, change direction and avoid collision. In this framework, strategic agility is considered as the firm's ability to make strong strategic commitments while at the same time remaining sufficiently fleet of foot to manage and adjust to continuous change (Lewis et al., 2014). It comprises processes, actions, structures, culture, attributes, skills and relationships designed to ensure the organization remains flexible when facing new developments (Lewis et al., 2014). These definitions are criticized of being too vague and linear when the environment changes are unpredictable. In this regard the latest conceptualization of strategic agility as the meta capability composed of, strategic sensitivity, collective commitments, and resources fluidity is relatively responding to these critics (Ivory and Brooks, 2018).

In the review analysis, strategic agility was also defined from paradoxical framework, some authors found that while the explicit link between paradox and strategic agility is limited, implicit connection is abound. Therefore, strategic agility itself embraces paradox, evoking contradictions such as stability vs flexibility, commitment vs change and established routines vs novel approaches (Lewis et al., 2014). In this line, Weber

and Tarba (2014) refers to this paradoxical root, stating that strategic agility itself entails contradictory efforts and trade off between the use of resources for both routine processes and new business models. Additionally, Lewis et al. (2014) explores the paradoxical leadership that enables strategic agility, by encouraging leaders to view strategic agility as a continual balancing act as they work through competing demands simultaneously. It suggests that leaders should encourage paradoxical thinking in which tension is identified, its contradictory elements and their links are explored, and new insights into existing problems are reached. In this context, strategic agility is also considered as ambidextrous concept that favors the selection and adoption of the right configuration at the right time (Vaillant and Lafuente, 2019). However, despite these theoretical conceptualizations, the literature that links strategic agility with paradoxical approach is still limited in term of which paradoxical approach enable strategic agility.

Conceptualization of strategic agility in the management literature has been strongly related to certain frameworks, including dynamic capability theory, resource based view framework or paradoxical approach as summarized in Table 2.2. Each of these, provide a unique conceptualization of strategic agility but all are subject to specific critics. Consequently, strategic agility requires further investigation to bring the managerial perspective of the concept and to create a holistic conceptualization accommodating theoretical and practitioners understanding. Moreover, in every context, the concept seems to have various dimensions and practices, thus, a unique and valid foundations, capabilities, and practicing mechanisms are also strongly needed to be developed, especially in the case of SMEs. Fulfilling this gap will contribute to the knowledge development of strategic agility in the management literature.

| Strategic Agility Definition | Author |
|--|--|
| The ability of management to constantly and rapidly sense and respond to a changing environment by intentionally making strategic moves and consequently adapting the necessary organizational configuration for successful implementation. | Weber and Tarba (2014) |
| A meta-capability that involves not only allocating sufficient resources to the development and deployment of all three dynamic capabilities, but also staying agile by balancing those capabilities dynamically over time. | Fourné et al. (2014) |
| An invaluable capability that enables a firm to turn on a dime without losing momentum, which increases its viability in uncertain, volatile, and rapidly changing environments. | Brueller et al. (2014) |
| The ability to “quickly recognize and seize opportunities, change direction, and avoid collisions”. | Ivory and Brooks (2018) |
| The ability of firms to make strong strategic commitments while at the same time, remaining sufficiently fleet of foot to manage and adjust to continuous change caused by growing strategic discontinuities and disruptions. | Lewis et al. (2014) |
| The ambidextrous combination of generative-based cognitive and process agility has been identified as strategic agility, this ambidextrous strategic agility favors ‘the selection and adoption of the right configuration at the right time’. | Vaillant and Lafuente (2019) |

Table 2.2: Influential Definitions of Strategic Agility in Management Literature

2.4.2 Capabilities and Practices of Strategic Agility

The theme analysis of the second category of reviewed studies is resuming strategic agility capabilities and practices declared in the literature. It is emphasizing the rapid and timely responses to the demands, urging companies to adjust quickly to change, redesign existing processes to create, produce, and deliver value to customers. To do so, dynamic capability theory emphasizes the importance of organizational resources and capabilities in creating value and competitive advantage for firms ([Hazen et al., 2017](#)). The purpose behind dynamic capabilities is to configure or reconfigure or-

ganizational resources, especially in turbulent environments. These architecture of capabilities, are reflecting the ability of firms to quickly achieve new resources configurations as new markets emerge or old markets are destroyed (Hazen et al., 2017). Battistella et al. (2017), argues that successful companies nurture these capabilities in order to act proactively and to be strategically agile. Some of these capabilities are directly participating to the renewing or building of firm's business models (Battistella et al., 2017). While others, are strongly participating to set robust strategies, organizational design, leadership structure, and operational agility (Battistella et al., 2017).

Authors as Gebauer et al. (2012), Doz and Kosonen (2010), and Brueller et al. (2014) have reported a set of capabilities forming strategic agility. Battistella et al. (2017), identified the three key capabilities based on their similarities of enabling strategic change and each set of these capabilities has its own contributions within a companies practices. The first meta capability is the strategy innovation capabilities, it includes capabilities for being innovative, adaptive and absorptive consistently, interpreting and proactively reacting to change (Boonpattarakan, 2012). It contains a set of capabilities that has been defined by previous scholars before, among which we have adapting, autonomy, reconfiguration, acuity and sensing opportunities (Boonpattarakan, 2012).

The second, is resource capitalization capabilities, it includes the ability for an organization to acquire, develop, deploy its resources and capitalize on them, to achieve rapidly competitive advantage relatively to other firms (Boonpattarakan, 2012). This goes in line with Doz and Kosonen (2010), resource fluidity capability, it includes also other capabilities related to human resources like teamwork, technological competences, culture, leadership and strategic unity. The third is networking capabilities,

which focused on specific ability in connecting and creating interdependence, both inside and outside organizational boundaries, and between internal and external organizational system in regard to firm stakeholders (Battistella et al., 2017). It includes coordination, customer connectivity, stakeholder integration.

These capabilities are creating and renewing companies practices on strategic, organizational, and operational levels. Some of these capabilities are allowing firms not only to produce new products and services, but also to renew business models, reinvent the company and its strategy to think and act differently according to environments changes (Battistella et al., 2017). Therefore, strategically agile companies are having necessary capabilities to be deployed in renewing business models blocks. According to the review findings, strategic innovation capability practices are contributing to the value offering, research and development, and social responsibility areas (Battistella et al., 2017). While resource capitalization capability practices are nurturing knowledge management, leadership, and human resource engagements. At the same time, networking capability practices are boosting the branding, retails and networking building blocks firms business models (Battistella et al., 2017).

Strategic agility practices are also an integrated pillar in building change process, generating an agile organizational design with specific features of robust strategies, adaptation and shared leadership identity. According to Worley and Lawler (2010), the robust strategy of agile organizational design and structure is helping firm to adapt quickly to change without losing competitive advantage. Hence, adoption of this agile organizational design as a practice, is allowing firms to have flexibility of structure, transparency of information system, fast decision making process, and rewarding human resources system. These strategic agility practices play an important role in the shaping of firms strategy, design, culture, identity, and leadership style to

be strategically agile (Batra et al., 2010).

Practices of strategic agility capabilities are also shaping organizational side of companies. These practices help to the selection of the talent management approach to be adopted by companies, which is a process composed of attraction, selection, development, and retention of talents (Harsch and Festing, 2020). It considers both employment and work practices, which includes also the configuration and structuring of work, as well as the collective commitment (Thunnissen, 2016). Moreover, leadership commitment as a strategic agility practice based on strengthening strategic influence, exploring internal and external organizational domains, communicating and managing tension within organizations, is maintaining companies performance (Morton et al., 2018). This leadership practice is helping to avoid potential anxiety within the team and to foster defensiveness and counter productive responses that inhibit fast paced and adaptive decision making (Doz, 2020). It is essential to face environment uncertainty and to build a successful agile human resource management (Lewis et al., 2014; Teece et al., 2016).

Ultimately, other strategic agility practices as organizational creativity, focused on purposeful creation and application of novel idea within a job role, is helping firms to anticipate changing market needs (Darvishmotevali et al., 2020). Additionally, agile and flexible supply chain is also securing fluidity of resources, efficiency of project management and maintaining competitive advantage (Gligor et al., 2016). Other strategic agility practices on operational and organization level of companies are oriented toward individual creativity, flexibility of work methods, and social responsibility (Bouguerra et al., 2019). All these practices, presented in Figure 2.4 are participating directly and indirectly to the sustainability of firms strategic agility. Strategic agility of companies can only be achieved through existence of preliminary

micro-foundations such as, information technology infrastructure, needed to nurture and develop capabilities and practices on operational, organizational and strategic level to face environments turbulence and maintain competitive advantage (Lee et al., 2016).

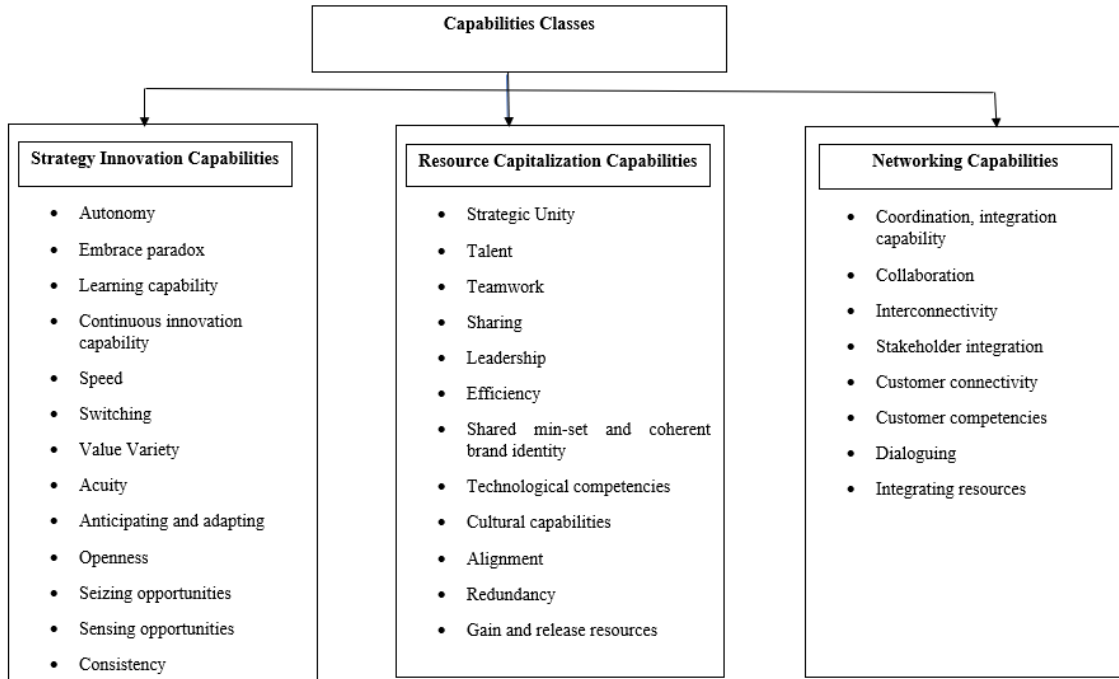


Figure 2.4: Classes of Capabilities Enabling Strategic Agility Inspired by Battistella et al. (2017)

2.4.3 Impact of Strategic Agility on Firm's Performance

For instance, through the theme analysis of the studies third category, it is highlighting the impact of strategic agility on firm's performance. This impact is found to be different depending on the organization type and the performance nature. Clauss et al. (2019), emphasized that strategic agility through its three meta capabilities: strategic sensitivity, leadership unity, and resources fluidity is allowing companies to renew their business model and consequently impacting positively on firm's performance. This suggests that strategic agile companies are able to adopt innovative business model of value creation and value proposition to develop their productiv-

ity and secure growth. Moreover, strategic agile companies with innovative business model are found to be more competitive which is contributing to increase their market share, sales growth, and organizational development. In this research stream, authors as [Weber and Tarba \(2014\)](#), and [Doz and Kosonen \(2008\)](#) confirmed the indirect impact of strategic agility practices on companies growth performance, through renewing business models. On the other side, the impact of strategic agility on the firm's financial performance is still considered an underdeveloped research area ([Ojha, 2008](#)).

Furthermore, drawing on the theoretical insights of companies performance of customer retention and satisfaction, [Shin et al. \(2015\)](#), confirmed that strategic agility through its responsiveness to the market needs and proactive approach of meeting future demands, is giving rise to customer retention and satisfaction performance indicator. Especially, in SMEs context where studies as [Adomako et al. \(2022\)](#), affirmed that strategic agility is playing an important role to retain customers and attract new segments, improving short term financial performance. In the same line, [Roberts and Grover \(2012\)](#), has shown that strategic agility capabilities impacts customer sensing practices within companies and this is directly contributing to growth performance. Thus, strategic agile companies through dynamic capabilities practices, are securing customers satisfaction, loyalty, and business development opportunities as contributing factors to enhance performance ([Chen and Paulraj, 2004](#); [Liker and Choi, 2004](#); [Swafford et al., 2006](#)).

[Figure 2.5](#), reports that strategic agility is directly impacting on the creation and sustainability of competitive advantage. [Kale et al. \(2019\)](#), and [Kumkale \(2016\)](#), argue that strategic agility is enhancing firm's performance through creation of new segments, development of new products, and service as well as securing competitive

advantages ahead of competitors. Evidence suggested that strategic agility capabilities and practices are leading companies to be innovative, quick and flexible, which is necessary helping to develop competitive advantages (Ofoegbu and Akanbi, 2012; Yang and Liu, 2012). Thus, when competitive advantage is considered as a firm performance indicator, it is found to be formed on strategic agility capabilities of every company (Inman et al., 2011; Tallon and Pinsonneault, 2011; Vickery et al., 2010).

Overall, companies in different industries, to respond fast to the fleeting opportunities, they need to be quick to adapt to changes (Debellis et al., 2021; Demir et al., 2021; Shams et al., 2021). To do so, they are required to develop and nurture strategic capabilities and practices. Therefore, being strategically agile for company, is an essential ingredient for value creation and growth opportunities. It is enabling firms to respond strategically and with a larger repertoire of options to environment turbulence, and to secure long term growth (Hagen et al., 2019).

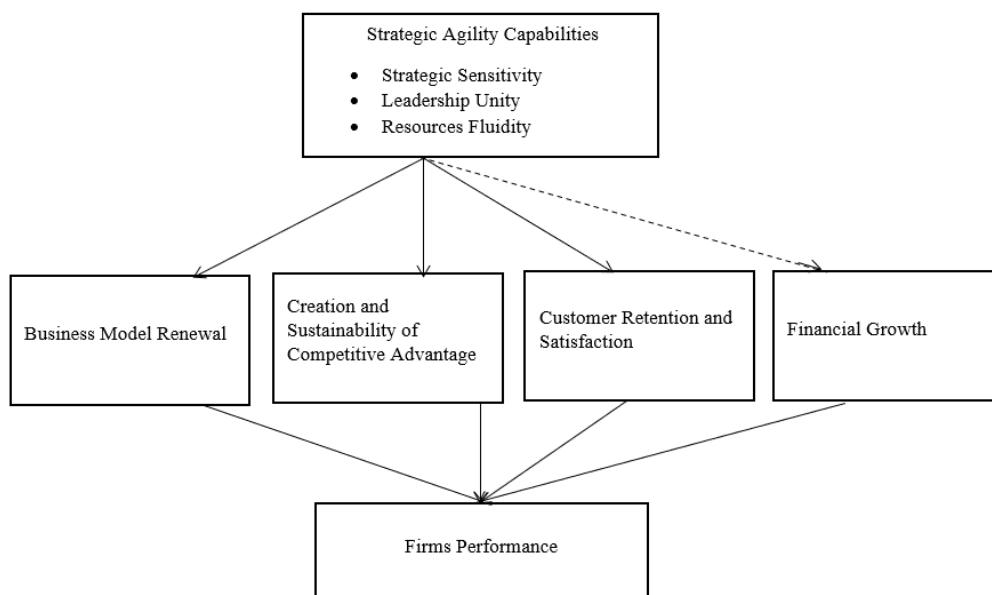


Figure 2.5: Strategic Agility Impacting Firms Performance

2.5 Conceptual Framework and Research Agenda

2.5.1 Conceptual Framework of Strategic Agility

By embracing insights from the review analysis, we therefore, argue that strategic agility as a concept needs further contribution by considering practitioners perspective especial in SMEs boundaries. This is because strategic agility literature has been growing over the last decade, many studies covered strategic agility of big corporate structure in IT and other industries, while only few scholars, investigated SMEs strategic agility (Di Minin et al., 2014; Doz and Kosonen, 2008; Sampath and Krishnamoorthy, 2017). Through the analysis of the reviewed paper, this study's aim is fulfilled by creating a holistic conceptual framework of strategic agility to be adopted in the context of SMEs and to be explored practically.

This theoretical conceptualization concluded from the existing literature of strategic agility, is demonstrating the multidimensional character of the concept as reported in Figure 2.6. It is based on an dynamic interaction of company's culture, structure, human capital, processes, and information and technology (Wendler, 2016). This dynamic interaction prove that firms independently itself cannot be strategically agile but their employees can be, implying that no dimension within the company should be ignored, and the integration of every capability and practice will help to achieve strategic agility and enhance firm's performance.

Therefore, this holistic conceptual framework of strategic agility, is proposing that companies practitioners need to understand strategic agility as a multidimensional business concept and not focused only on two capabilities. Companies by being strategically agile are succeeding in balancing the dynamic interaction between three meta capabilities: strategic sensitivity, leadership units and resources fluidity. Strate-

gic sensitivity presents the sharpness of perception and the intensity of awareness and attention to strategic developments (Weber and Tarba, 2014). Leadership unity, defined as the ability of the top team to make bold, fast decisions with a collective commitments (Weber and Tarba, 2014). Resources fluidity, represents internal capability to reconfigure capabilities and redeploy resources rapidly (Weber and Tarba, 2014). These meta capabilities are developed within companies through existence of essential foundations and executed through practices and mechanisms in strategic, organizational, and operational level to align firms resources with environment changes.

Companies especially SMEs, by adopting the provided holistic conceptualization of strategic agility, will not only develop their capabilities to sense market opportunities and threats, but also to make managers think and act proactively. This deep understanding of necessary conditions, practices, and capabilities to be strategically agile will help SMEs, to renew innovative business model (e.g, Doz and Kosonen, 2008), to consider external environment factors in decision making process and to sustain competitive advantage (Doz and Kosonen, 2010). Therefore, SMEs practitioners need to consider strategic agility as a multidimensional key capability, compositions of routines, processes and activities that nurture the meta capabilities. This implies that the whole SMEs levels should be integrated in this dynamic interaction, and a set of foundations such as, organization ability learning, change culture, market insights generation, flexible information and technology infrastructure are needed to establish a strategic agility culture (Sampath et al., 2021).

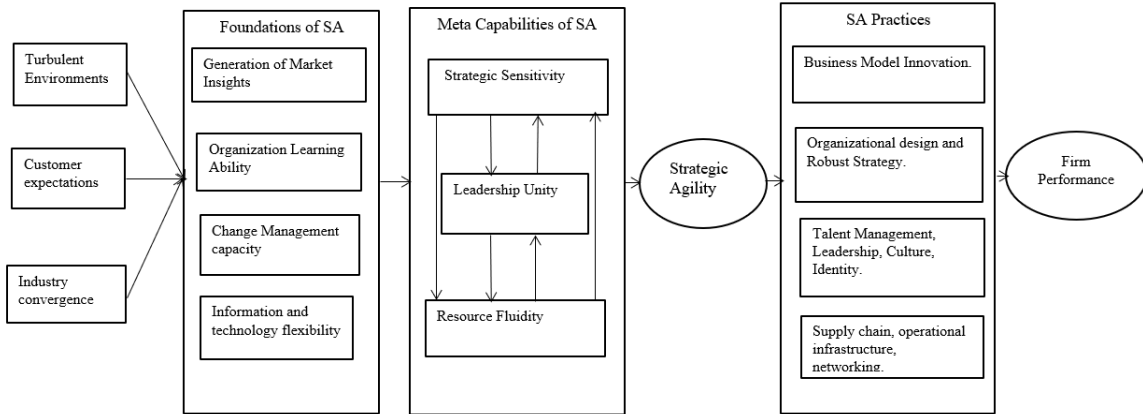


Figure 2.6: Holistic Conceptual Model of Strategic Agility

2.5.2 Research Agenda

Our systematic literature review of strategic agility studies in the management literature, have been found lacking the practitioners understanding of the concept especially in the context of SMEs. Thus, further investigation of strategic agility specifications and practices within these companies is needed, to provide a holistic conceptualization combining theoretical contributions and practical understanding. The next study will be using the theoretical holistic framework, to explore it on SMEs context and to include the external factors to the strategic agility settings. The choice of SMEs as a novel context to investigate the managerial conceptualization of strategic agility, is based on the less conducted studies of SMES strategic agility in the literature especially those operating in the developing markets. Referring also to the fact that strategic agility is originally developed in the context of large and established organizations. While the distinctive specifications of SMEs differ largely from multinational enterprises (Stokes et al., 2016). SMEs are also facing internal and external challenges, making their business sustainability difficult under the continuous environment changing conditions. At the same time, their young structure is allowing them to be faster in decision making, to get adapted to market needs quickly, and to

meet customer requirements. These SMEs, need greater capabilities to manage the increasing complexities embedded in activities and processes that depend not only on strategic planning but much more on flexibility. Thus, it is essential for SMEs to build key capabilities to handle extreme changes, survive unprecedented threats, and capitalize on emerging business opportunities (Gruber, 2004; Singh et al., 2010; Sommer, 2015; Terziovski, 2010).

Some of the literature limitations will be explored in the following studies. Importantly, investigating practitioners perspective of strategic agility in SMEs context will be a rewarding opportunity to combine the theoretical and managerial conceptualizations. In this line, the next study is identifying essential micro-foundations, mechanisms, and practices of strategic agility. Ultimately, the following study is also expanding the concept dimensions in much boarder sense by exploring the interaction between industry context dimensions and SMEs strategic agility.

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CHAPTER III

STRATEGIC AGILITY OF SMEs:

PRACTITIONERS' PERSPECTIVE AND

INTERPLAY PRACTICES-EVIDENCE FROM AN

ITALIAN SME EXPERIENCE

Abstract

Increasingly turbulent environment is reducing time available for SMEs to respond to change. Therefore, being strategically agile and nurturing capabilities seems to be a crucial managerial approach to secure a rapid and proactive response to opportunities and threats, also to surge performance. This, can be effective along with interplay of strategic agility practices in strategic, organizational and operational level of SMEs. To illustrate these dynamic interactions, this study manifest how practitioners perceive and practice strategic agility in SMEs context, and the decisive foundations to these practices contributing to SMEs growth and performance. The strategic agility conceptualization in this study draws on an Italian SME experience found to be strategically agile. This study by investigating real practices of a strategically agile SME, is aiming to draw a holistic theoretical and managerial conceptualization of strategic agility which tend to be limited in the literature.

Key Words: Strategic Agility, Capabilities, Interplay Practices, SMEs.

3.1 Introduction

Contemporary businesses, service organizations and enterprises are facing an increasingly turbulent environment as a result of globalization, this is radically changing the way companies operate and compete. These rising living standards, increased regulations, and less cohesion in social values, are encouraging companies to be innovative and to respond quickly to changes, especially SMEs, are exploiting opportunities to compete equally against big corporate structures. Previous studies, state that SMEs constitute a dynamic and essential part of the economy in most countries. These small and medium enterprises also account for over half of all businesses and employ over half of the work force in developed countries ([Scuotto et al., 2021](#)). This, makes SMEs adaptation to environment changes an essential practice to enable businesses to compete on a global scale, with improved efficiency and closer customer and supplier relationships ([Alam and Noor, 2009](#)). SMEs to continue being competitive and to increase performance, they need also to develop cognitive, managerial, and organizational capabilities.

While attention is focused on SMEs adopting new technologies to face environment incidents, the role of strategic agility and its capabilities remain critical and less explored with a little systematic knowledge about its relevance and practice within SMEs. This lack of knowledge about strategic agility, capabilities and practices made some SMEs not exploiting the full potential of innovation and creativity as much as large companies doing ([Scuotto et al., 2021](#)). Hence, practitioners having a well concise understanding of strategic agility and capabilities, creates a deep gap between companies that have succeeded operating in changing ecosystem, developing new models, and companies that are still stuck to traditional logic. Recently, strategic agility has been studied in SMEs context touching organizational and managerial levels, however, its perception and understanding by managers still present an obsta-

cle to the effective use of SMEs internal capabilities.

Despite the potential strengths and advantages SMEs own, they are still facing performance development challenges. This is due to not so much lack of access to information technology as it is a lack of nurturing dynamic capabilities, including, proper knowledge, education and training, employees skills development and enterprises culture (Scuotto et al., 2021). In many industries, SMEs performance evolution was interrupted, as they suffer from a lack of strategic agility capabilities and practices to face growing environment uncertainty (Cragg and Zinatelli, 1995). Therefore, strategic agility through its foundations, capabilities, and practices is considered as a key factor of SMEs development (Ala-Mutka, 2011; Sarosa and Zowghi, 2003; Southern and Tilley, 2000).

Most importantly, strategic agility in management literature is perceived as a new breed of term whose semantic usage varies by domain of research and area of application (Shin et al., 2015). Studies on strategic agility can be classified in two perspectives. First, considers strategic agility externally focused generic capability, enables a firm to quickly adjust its operations to cope with volatile market conditions and sudden changes in customer requirements (Braunscheidel and Suresh, 2009). Second, views strategic agility as non-restrained capability, it is rather an integrated strategy, paradigm, system, or management practice built upon multifaceted capabilities (Brannen and Doz, 2012). This includes that strategic agile SMEs are not only flexible in operations, but also nimble to re-configuring strategies, and to be responsive and adaptable to environment incidents and to market trends. This perspective of strategic agility seems to be more appealing.

In a chaotic world in which markets and entire industries continuously emerge, collide,

split, evolve, and decline, one of the primary determinants of success is the ability of SMEs to cope with uncertainty, by enhancing its resilience and adaptation to the changing environment (McCann et al., 2009; Teece, 2007; Teece et al., 1997). The challenge of coping with growing environments uncertainty encouraged reconsideration of both, the processes and nature of strategic decision making, including various practices and techniques which today are commonly used in a wide set of industries (Vecchiato, 2015). Strategic agility is one of these practices, where most of extant professionals and scholars review it as a first order capability, and adopt scales often used for flexibility such as manufacturing lead time, delivery speed, customization, and responsiveness (Daft, 1978; Shin et al., 2015). This mixed use of scale, is due to ambiguity between strategic agility and flexibility to certain degree (Swafford et al., 2006). Flexibility, is defined as a responsiveness and adaptability to quickly adjust a firm's objectives to meet new conditions (Gerwin, 1993). While, strategic agility is a multidimensional concept, with a strategic intent to achieve agile operations driven by management emphasis to improve competitive advantage, namely responsiveness and adaptability to customers needs through a set of capabilities, combining cognitive, managerial, and organizational aspects.

Some scholars in the management literature referred to strategic agility as a dual capabilities of responsiveness and knowledge management (Khoshnood and Nematizadeh, 2017). It is also considered as a dual capabilities of leadership and organizational design (Weber and Tarba, 2014). While Ivory and Brooks (2018), defined strategic agility as a meta capability formed on a set of capabilities: strategic sensitivity, collective commitment, and resources fluidity. Similarly, Arokodare and Asikhia (2020), suggested that strategic agility is a meta capability composed of strategic insight, internal response orientation, external response orientation, human resource and information technology capabilities. Strategic agility concept, since it was introduced in

the agile manufacturing context, it has been a subject to ongoing debate among scholars providing different definitions according to the context of application (Ogunleye et al., 2021). Based on the above, this study addresses the research gap of considering the practitioners perspective in the conceptualization of strategic agility.

Despite many studies presenting strategic agility from an operational and organizational angle of SMEs, there is still a paucity of knowledge to perceive strategic agility as a holistic concept, combining strategic, organizational and operational level interacting dynamically, and ensuring SMEs to remain competitive, to cope with unpredictable business environment, and to constantly achieve business performance (Ogunleye et al., 2021). The purpose of this qualitative study adopting an ethnography methodology, is to explore and reflect managers perception and practices of strategic agility in each level of small and medium enterprises. It thereby makes a substantial contribution to the ongoing debate of providing a holistic definition and screening practices of strategic agility, especially in SMEs context, and the overarching questions, how practitioners perceive and practice strategic agility in SMEs, and which foundations SMEs needed to nurture strategic agility capabilities. We address these research questions based on a case study of an Italian SME operating in the healthcare industry.

3.2 Theoretical Framework

3.2.1 Strategic Agility in the Management Literature

To date, despite its consistency and pragmatism, strategic agility in the management literature has been explored and applied in relatively few studies such as, Doz and Kosonen (2008), Doz and Kosonen (2010), Fourné et al. (2014), and Lewis et al. (2014). Therefore, referring to the literature knowledge, strategic agility is seen as a

key capability of firms to successfully deal with volatile business environments and various challenges (Doz and Kosonen, 2008; Tallon and Pinsonneault, 2011). It refers to a company's ability to proactively drive its external environment and react flexibly to ever-changing customer demands, competitive moves, or continuous improvements along the value chain (Lim et al., 2017). In this regard, agile organizations manage both supply side uncertainty and demand shocks, also it adjust strategy and technology as necessary and desirable (Mueller and Jungwirth, 2020). Moreover, strategic agility is considered as a critical basis for today's SMEs and needed for their survival (Sanatigar et al., 2017). Cegarra-Navarro et al. (2016) and Bahrami et al. (2016), defined strategic agility as the ability of companies to improve performance and to react quickly and effectively to environments uncertainties.

Similarly, Tallon and Pinsonneault (2011), argues that strategic agility is the ability of a company to respond fast to changes of business environment, and to take fast decisions to control uncertainty. Strategic agility, is also seen as the process of adapting strategic orientations of firms responding to changing business environments (Wojtara-Perry, 2016). Additionally, scholars investigated the connecting link between strategic agility and dynamic capability theory advocating the mechanism that links resources and product markets to competitive advantage and organizational performance (Ogunleye et al., 2021). This connection is growing popularity in management literature, thus revealing new constructs and issues to explore (Ogunleye et al., 2021). More generally, dynamic capability theory aims to enhance firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environment. It is exploring how firms gain sustainable competitive advantage, surviving a competitive and turbulent business environment, by seizing opportunities and re-configuring the enterprise's assets (Teece et al., 1997).

Referring to dynamic capability theory and following the work of [Ofoegbu and Akanbi \(2012\)](#), [Doz and Kosonen \(2010\)](#), [Ivory and Brooks \(2018\)](#), [Doz et al. \(2008\)](#), [Teece \(2007\)](#), [Doz and Kosonen \(2008\)](#), and [Arbussa et al. \(2017\)](#), strategic agility was introduced explaining how adaptive skills are activated in organizations, thus, strategic agility is “the ability to continuously adjust and adapt strategic direction in core business, as a function of strategic ambitions and changing circumstances, and create not just new product and services, but also new business models and innovative ways to create value for a company.” They described strategic agility as the ‘thoughtful and purpose interplay’ on the part of top management between three ‘meta-capabilities’: strategic sensitivity, collective commitment, and resource fluidity ([Doz and Kosonen, 2008](#)). On the other side, strategic agility is also described as a bi-dimensional concept, consist of dual major capabilities. The first is leadership, sensing the direction for a needed change and putting resources together for strategy execution ([Alsharah, 2020](#); [Weber and Tarba, 2014](#)). The second capability, pertains to organizational design that includes the necessary structural adaptation and mechanisms to implement the course of action ([Alsharah, 2020](#); [Weber and Tarba, 2014](#)).

While recent strategic agility literature acknowledges the provided definition and link with the dynamic capability theory, there is still little conceptualization of the construct as an approach and as a strategy explored in relatively few studies (e.g, [Arbussa et al., 2017](#)). Therefore, scholars debate on conceptualization of strategic agility remain open and they generally agree only on its role to prepare SMEs to handle uncertainties ([Schwarz, 2008](#); [Vecchiato, 2012](#)). Moreover, practitioners input in this open debate of conceptualizing SMEs strategic agility is still limited ([Doz and Kosonen, 2008](#)). Therefore, the contribution of this study is twofold. First, building on previous work of scholars [Doz and Kosonen \(2008\)](#) and [Weber and Tarba \(2014\)](#), defining strategic agility as a meta capability and exploring the practitioners

understanding and definition. This research, thus, adds to our knowledge in the field by exploring specifications of strategic agility of SMEs. Second, this study investigates the necessary foundations SMEs need to develop strategic agility capabilities and the practices executed to cope with environments uncertainties.

3.2.2 Strategic Agility in SMEs Context

SMEs role in employment and contribution to economic development are undeniable, however, these firms are particularly facing strong challenges to cope with market changes (Mueller and Jungwirth, 2020). They consider it demanding to detect and respond to ever-changing environments since they lack abundant resources to develop new knowledge, which would be required for any adaptation (Naudé et al., 2014; Nemkova, 2017; Rothwell and Dodgson, 1991). Furthermore, SMEs often operate in niche markets and risk the collapse of their business model if they fail to react to environments uncertainties that call for a major strategy revisions or product portfolio adaptation (Chan et al., 2019). Thus, developing strategic agility capabilities is likely to be a challenging process for SMEs (Mueller and Jungwirth, 2020). Even though, they are typically learners and more flexible compared with big organizations, still resources constraints hinder SMEs in detecting external opportunities and avoid threats (Arbussa et al., 2017; Chan et al., 2019).

In other words, strategic agility literature has to date not reflecting specifications and potential of SMEs being strategically agile. This study aims to bridge this gap, and to reveal SMEs practitioners understanding and practices of strategic agility, pointing out to the dynamic interplay of capabilities in strategic, organizational, and operational level. This lack of practitioners perspective is also confirmed by Arbussa et al. (2017), stating that there is less known about how strategic agility works in an SMEs context, and to the best of knowledge, few academic studies has specifically dealt with

strategic agility in SMEs, when we expect there to have differences in results to the finding of strategic agility in large companies. Even scholars as [Villar et al. \(2014\)](#), [Voudouris et al. \(2012\)](#), [Alegre et al. \(2013\)](#) and [Fernández-Mesa et al. \(2013\)](#), while exploring strategic agility of SMES, were mostly focused on operational practices of supply chain in manufacturing industries.

Management literature identified a series of idiosyncratic aspects and characteristics of SMEs. [Damanpour \(2010\)](#) argues that SMEs have more flexible structures, less bureaucratic procedures, a more responsive climate to go ahead with new and ambitious projects and flatter hierarchies. All these key features are making SMEs more able to accept and implement change. On the other side, [Arbussa et al. \(2017\)](#) and [Gray \(2002\)](#), identified the "endowment effect" in SMEs, which is a psychological factor where the manager's fear of loss is stronger than the "attraction of gain". In this instance, the manager fear of unknown, lack of trust, and cultural or age conservation can result in reluctance to change ([Arbussa et al., 2017](#)). Similarly, [Filson and Lewis \(2000\)](#) and [Arbussa et al. \(2017\)](#), explored cultural aspects as one of the factors that can hinder change in SMEs. In contrast, [Carter \(2000\)](#) and [Arbussa et al. \(2017\)](#), argue that SMEs can be more receptive to change than multinational corporations, thanks to efficient organizational and communication structures. These specifications of SMEs culture, structure, leadership style, and infrastructure, could have an impact on managers perception of strategic agility and they are a source of SMES practices being unique.

Strategic agility literature identified existing differences in practitioners understanding and practices of strategic agility between SMEs and big corporate structures ([Fernández-Mesa et al., 2013](#); [Villar et al., 2014](#)). Particularly, SMEs flexible structure and innovative culture are factors contributing to enable change and cope with

environment uncertainties. They also adjust with greater ease and they can maintain a closer relationship with clients (Arbussa et al., 2017). All above foundations, are helping SMEs to be strategically agile, while their execution mechanisms require further investigations (Cucculelli and Bettinelli, 2015; Cucculelli et al., 2014; Halme and Korpela, 2014). To contribute to this literature criticism and to the existing body of strategic agility research, this study is exploring SMEs typical foundations, thus, revealing the link with strategic agility capabilities and exploring practicing mechanisms.

3.2.3 Strategic Agility as a Meta Capability

Strategic agility is grounded in the concept of dynamic capabilities, which refers to “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece et al., 1997). Dynamic capabilities entail the development of capabilities across functional areas of the business to enhance the sensing, seizing, and transforming capabilities in the firm’s environment to develop market competitiveness (Adomako et al., 2022; Teece et al., 2016; Teece, 2007). By developing such distinctive capabilities, firms can create value by utilizing strategic assets (Helfat and Peteraf, 2009; Narayanan et al., 2009; Teece, 2009). Accordingly, strategic agility is conceptualized as three meta-capabilities, entailing strategic sensitivity, resource fluidity and leadership unity (Adomako et al., 2022; Doz and Kosonen, 2010). Strategic sensitivity, defined as “the sharpness of perception and the intensity of awareness and attention to strategic developments” (Arbussa et al., 2017). Leadership unity is, “the ability of the top team to make bold, fast decisions, without being bogged down in top level win-lose politics” (Arbussa et al., 2017). Resource fluidity is described as “the internal capability to reconfigure capabilities and redeploy resources rapidly” (Arbussa et al., 2017).

Strategic sensitivity combines early and keen awareness of incipient trends and converging forces with intense real-time sense making in strategic situations as they develop and evolve (Doz and Kosonen, 2008). It is a combination of a strong externally oriented and internally participatory strategy process, where both internal and external factors are in a high level of tension and attentiveness, with a rich intense and open internal dialogue (Weber and Tarba, 2014). Leadership unity capability allows decisions to be reached at lightning speed, once a strategic situation has been understood and the choices it opens or closes have been intellectually grasped, this decision stick (Doz and Kosonen, 2008). This collective commitment is not delayed by any personal insecurities at the top (Weber and Tarba, 2014). Furthermore, the implementation of decisions agreed are not subject to any personal agenda or private disagreements that would slow down or scuttle effort. Even when wholehearted commitments are still only as good as the resources put behind them (Doz and Kosonen, 2008).

Resources Fluidity, defined as an internal capability to reconfigure business systems and deploy resources rapidly based on businesses processes dedicated to operations (Doz and Kosonen, 2008). It also combines resource allocation, people management approach to secure collaboration that make business models and activity system transformation faster and easier (Doz and Kosonen, 2008). SMEs to be strategically agile, they need to develop the three meta capabilities together. One or two of these capabilities is not enough, as the decision making process is not sufficient without resources allocation to execute decisions. Accordingly, investing in nurturing only one of the capabilities may lead to a deterioration of other capabilities development, which will make the regaining of strategic agility more difficult.

Apparently, SMEs strategic agility entails identifying and attending to multiple com-

peting forces that affect the business and shape its interactions with different stakeholders to innovate and enrich firm (Adomako et al., 2022; Lewis et al., 2014). SMEs leaders play a key role in driving efforts and instituting processes, developing the knowledge base, expertise, and resource commitments to aid firms to develop agility capabilities and to enhance performance (Lewis et al., 2014). As observed by Lungu (2020), strategic agility influences SMEs performance especially in the information and technology sector. Past studies as Ogunleye et al. (2021), indicate that both capabilities: strategic sensitivity and resource fluidity, enable sustainability of SMEs competitive advantage, thus, impacting SMEs performance. Barreto (2010); Shin et al. (2015), argue that strategic agility is positively impacting organizational performance, confirming the existing link between strategic agility and organizational performance of study. Thus, strategic agility capabilities are major predictors of SMEs organizational performance (Rohrbeck and Kum, 2018; Salih and Alnaji, 2014). Therefore, leadership unity, resources fluidity, and strategic sensitivity are having a significant impact on SMEs business performance (Arbussa et al., 2017).

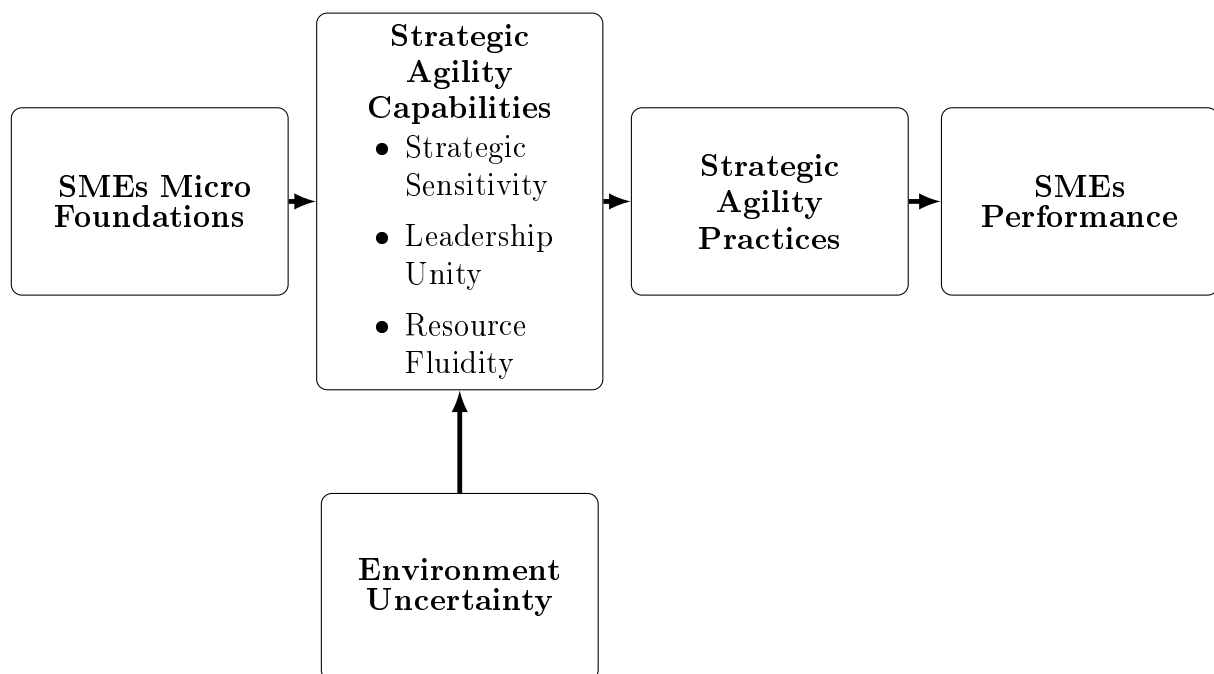


Figure 3.1: Conceptual Model

3.3 Methodology of the Study

Taking the objective of the study into consideration, an in-depth analysis and reflection based on a lived experience and observation of the study's target groups is crucial. More importantly, practitioners understanding and practices of strategic agility and the way how these practices affect the target company's performance needs to be described and analyzed. Accordingly, a qualitative case study approach is being employed. [Starman \(2013\)](#) stated that case study design is not only one of the first types being utilized in the field of qualitative methodology, but it is also the one that draws a detailed and rich qualitative information to accomplish the study's objectives. Case study provides the platform for a close examination of the context and research targets. It also have a great potential to achieve high conceptual validity and addresses causal complexities as identified by [George et al. \(2005, p.19\)](#). Hence, a singular snapshot type of case study is employed as the aforementioned advantages makes it the best fit for this study.

Despite the various ways of defining 'case study' as a choice of what is to be studied, the common stand out feature involves an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular institution in a real life as stated by [Simons \(2009\)](#). With this intent, a single case study of a young and innovative healthcare industry specifically tele-medecine sector based SME, is targeted as the main features of the sector and the particular SME chosen for the case study is described in the sections below.

3.3.1 Target Small and Medium Enterprise (SME)

3.3.1.1 The Telemedicine (TM) Sector

Telemedicine (TM) involves the use of information communication technology to provide healthcare services through over-distance interaction with no need of the traditional face-to-face patient - doctor interaction ([Shaw, 2009](#)). The general description of TM adopted by [WHO \(2010\)](#) as well emphasizes on the use of information and communication technologies by all health care professionals to provide healthcare services, where distance is a critical factor. Exchanging medical information at a distance has been around for quite sometime. Some even relate its beginning with ancient civilizations use of smoke as a way of signaling a contagious illness outbreak to other clans ([Hurst, 2016](#)). The development of television and Internet in the 20th century facilitated the TM services to claim more space in the area of healthcare.

According to the [FBI \(2021\)](#) market research report, the global Telemedicine (TM) sector had a market size of \$ 41.63 billion in 2019 and the sector exhibited a dramatic 92% growth by the end of 2020. This rapid expansion of the sector is not expected to slowdown to the very least until the world gets out of the pandemic. Social distancing regulations across countries have been the norm since the unforeseen outbreak of the COVID-19 pandemic as the virus has brought the whole world to a halt. With the aim to reduce the spread of the virus, social distancing measures restricted the in-person health visits to emergency care services only which led to a critical shift in the way healthcare services are delivered and virtual consultations are gracing the new normal.

Regulatory authorities and major allergy professional societies have developed online resources in the age of Covid-19 which led to a huge boost in the TM sector ([Portnoy et al., 2020](#)). By all accounts, TM services are very much aligned with the conven-

tional healthcare service delivery and the sector is continuously expanding in terms of investment and market share which attracts scholars to deep-dive into the sector and explore more facts. My attraction to this sector is no different from other scholars, but the main focus is directed towards SMEs operating in this sector as such enterprises have a massive participation in the sector. The purpose is also to explore how these SMEs cope with the massive changes and uncertainties happening continuously in TM sector. In this regard, an innovative SME founded by two entrepreneurs, former graduates of Almo Collegio Borromeo in Pavia¹ is the main case study focus for this research.

3.3.1.2 D-Heart SME

Cognizant with the fact that SMEs are a massive part of economic activities, exploring the strategic experiences of such enterprises is vital. More importantly, the TM sector based SMEs have a huge market share and are expected to play an important role in the world's economy. Hence, understanding the strategic practices and how the performances of TM based enterprises are being driven by strategic capabilities and practices has been the central focus for this study. To achieve the objective of the study and considering the innovative nature together with all the interesting facts of the company, D-Heart is chosen to be a target for this case study.

D-Heart is a biomedical SME founded by two vibrant innovative entrepreneurs, in 2015. D-Heart produces a set of medical innovative devices among which the first portable electrocardiogram (ECG) device that is compatible with smartphones or other devices and it provides multiple reliable but easy to use services to patients and medical professionals. For the amazing simple but reliable contribution, D-Heart has

¹With the aim to create an institution that can accommodate young promising students experiencing economic hardship, Collegio Borromeo was founded in 1561 by the estate of cardinal St. Charles Borromeo.

won a bunch of awards that extends across different fields. Recently, D-Heart has been awarded with the 2020 Compasso d'Oro award for its innovative design. The company has developed a strong partnership with various stakeholders worldwide replying to different market changing conditions.

Although still young, D-Heart has evolved through different strategic practices over the last six years which makes it interesting for investigation as the strategic agility dynamics experience and related performance of the company is the main target for the study. The company is located in Genoa and distribute its devices and the software packages worldwide through business partnerships. In terms of structure, the company has a top management team composed of founders, strategic committee members, scientific committee members and strategic consultants. Beyond the top management level, the company has managers of different activities that includes organizational and human resource manager; operation and supply chain manager; and marketing manger.

Accordingly, the case study has been mainly focused on all the levels of practitioners especially managers, that have been addressed through semi structured interviews and ethnographic approach as the details discussed in the section below. The main idea of selecting a particular SME to address my research questions through participatory ethnography and case study approaches undergone through many applications and have been challenging until finally the agreement is reached with D-Heart.

3.3.2 Research Design

Once the targeted SME is selected for the study, a single case study design was chosen upon the use of an exploratory research approach. The overall case study have been undergone through selection of study units, development of data collection in-

struments, field work for data collection, data analysis, validity and reliability checks. Accordingly, a qualitative methods of case study analysis (e.g, [Marton, 1986](#)), and strategic ethnography (e.g, [Aktinson and Hammersley, 1998](#); [Van Maanen, 2011](#)) approaches are adopted to get the basic inputs of the case study. The case study analysis approach is useful to capture the manager's understanding of strategic agility from practitioners perspective ([Forster, 2015](#)). Additionally, the strategic ethnography approach allows a first order perspective as it is used to assess the manager's understanding of strategic agility based on the researcher's direct observation ([Vesa and Vaara, 2014](#)).

According to [Lupson and Partington \(2011\)](#), and [Shahvazian et al. \(2016\)](#), case study analysis in organizational study enables researchers to theorize about how the concept is experienced and understood by members of organizations. The longitudinal nature of the ethnographic approach employed as well, offers the possibility to observe and record changes over time ([Booth et al., 2018](#); [Wolcott, 1999](#)). Based on the ultimate purpose of the study that aims to explore manager's understanding of strategic agility and practices, the study have been able to strategically capture existing micro foundations enabling the development of dynamic capabilities and their participation to enhance the SME's performance.

3.3.3 Data Sources and Data Collection Instruments

In undertaking this study, both primary and secondary data has been collected as the subsections that follow describe the specific data sources.

3.3.3.1 Secondary Data Sources

To understand the aligned linkage between D-Heart manager's practices of strategic agility and performances of the company, a secondary data sources have been con-

sulted to collect data on company’s performance indicators. As per the standard approach in the literature, company sales growth; competitive advantage; accomplished projects; and new product development indicators are used to represent D-Heart’s performance. As a first stage of gathering a secondary data, a list of secondary data sources including company’s periodic reports, project and partnership documents are used in this study. A desk review of these secondary data have been conducted during the data analysis and report writing stage of the study.

3.3.3.2 Primary Data Sources

The study required to collect primary data from the relevant informants within the company. The purpose of primary data collection in management studies is to obtain an in-depth qualitative information from D-Heart practitioners. On the basis of this understanding, a semi structured key informant interview with the relevant managers of the company is believed to be very helpful. The list of key informant managers within the company that are identified for consultation during data collection, and observation during ethnography is summarized in the table below.

| Key Informants | Number | Research Methods Used | Data Collection Instruments Used |
|-----------------------|---------------|------------------------------|---|
| CEO and CMO | 2 | CSA and Ethnography | Interviews and DO |
| Quality Manager | 1 | CSA and Ethnography | Interview and DO |
| Operation Manager | 1 | CSA and Ethnography | Interview and DO |

Table 3.1: List of Key Informants

where CSA and DO respectively stands for Case Study Analysis and Direct Observation.

3.3.4 Case Study Approach

Case study analysis is used to have a positive revelation to qualitative research methodology (Feagin et al., 1991; Flyvbjerg, 2011). In this study's context, this research design, is exploring practitioners understanding and experience of practicing strategic agility, to qualitatively map this perceived understanding (Forster, 2019; Heale and Twycross, 2018; Marton and Pong, 2005; Tight, 2010). The approach provides a second-order perspective of strategic agility understanding and practices at D-Heart based on the manager's own conceived experiences.

3.3.4.1 Data Collection

As part of the data collection process in a case study approach, semi structured interviews are the main tools used in the literature (Åkerlind, 2005; Flyvbjerg, 2011). Hence, a semi structured interview is used to explore D-Heart manager's reflection on strategic agility and its practices within an SME. The interviewed managers have been approached in an open and friendly manner to capture their understanding and practices of strategic agility.

A total number of four detailed and comprehensive interviews have been administered. Though four interviews seems a small number for the study, the data collection through interviews has been terminated only after the necessary information is found to be saturated and there was no need to conduct more interviews as all the levels of management in the company have been addressed.

3.3.4.2 Data Analysis

A key aspect of analyzing a semi structured interview responses of study target units, involves qualitative identification of study subject's experiences. Therefore, a thematic analysis technique composed of the following axes: managers conceptualization

and understanding, SMEs micro foundations, and strategic agility practices, is used to analyze the interviews based qualitative information. Once the interviews are conducted and recorded electronically, verbatim transcribes are produced as an initial stage of the data analysis process. More specifically, the data analysis of the study closely followed the approach used by [Gerring \(2008\)](#), [Sjöström and Dahlgren \(2002\)](#), [Stake \(2013\)](#), and it has gone through 7 steps as described in [Figure 3.2](#) below.

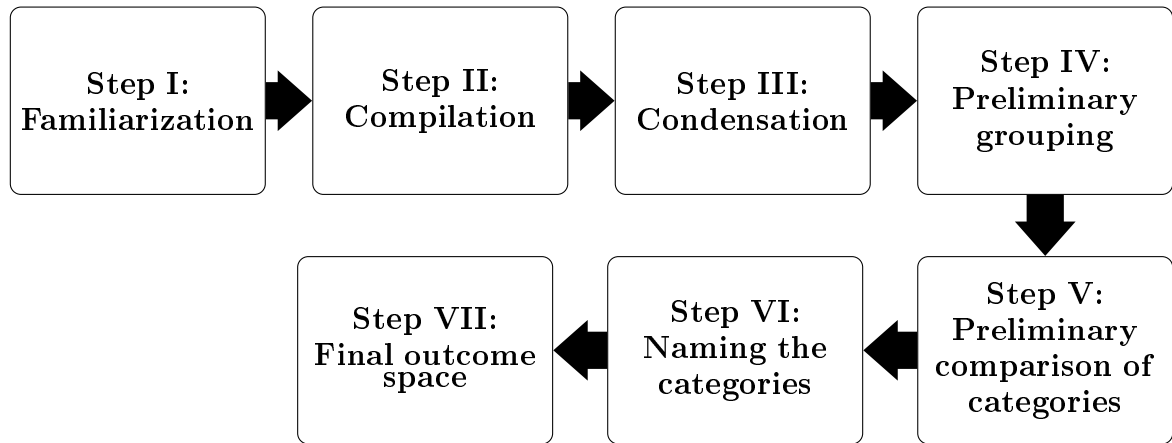


Figure 3.2: Data Analysis Process

During the familiarization step, the transcripts was read carefully to familiarize myself with the contents of the managers responses and corrected any divergence between the transcribes and the original responses. With the aim to identify the most valued content of the manger’s responses and deduce similarities, as well as differences between managers answers, a more detailed and focused reading is conducted during the compilation stage. Furthermore, the condensation stage is used for filtering the most relevant and central elements of manager’s responses which led to classification, naming and comparison of categories in the subsequent stages. Finally, an ultimate outcome that shows the manager’s understanding of strategic agility, SMEs micro-foundations nurturing dynamic capabilities, and strategic agility practices is produced using the specified categories.

3.3.5 Ethnography Approach

Geertz (1982) used the analogy “to know a city is to know its streets” to describe the value of ethnography in management and organizational research as it allows to have an in-depth and detailed analysis of a social phenomenon. Additionally, to the triangulation role of complementing data generated through interviews, the direct participation in a strategic ethnography offers the researcher an immense and meaningful insight into the daily life of the target organization from the inside (Yin, 2009). Ethnographic methods play a vital role in management studies (Rouleau and Balogun, 2011; Vesa and Vaara, 2014), and hence an auto-ethnographic approach is employed based on my own direct observation of D-Heart manager’s experiences and practices under different settings.

The auto-ethnography approach of the study is based on my own direct participatory observation and informal interviews of managers for a total of 4 months and 3 days a week. During my time at D-Heart, I spent enough time to capture the practitioners practices in their daily tasks. Throughout my time at the company, I also provided my own assistance to the company in various strategic internationalization projects as a way to get involved deeply and collect detailed information. The manageable size of the company has been an advantage to have a direct contact to all the managers within the company and have deeper observation of their capability practices. The overall auto-ethnographic approach employed for the study closely followed the approach used by Rouleau and Balogun (2011) and it has undergone through the five stages depicted in Figure 3.3 below.

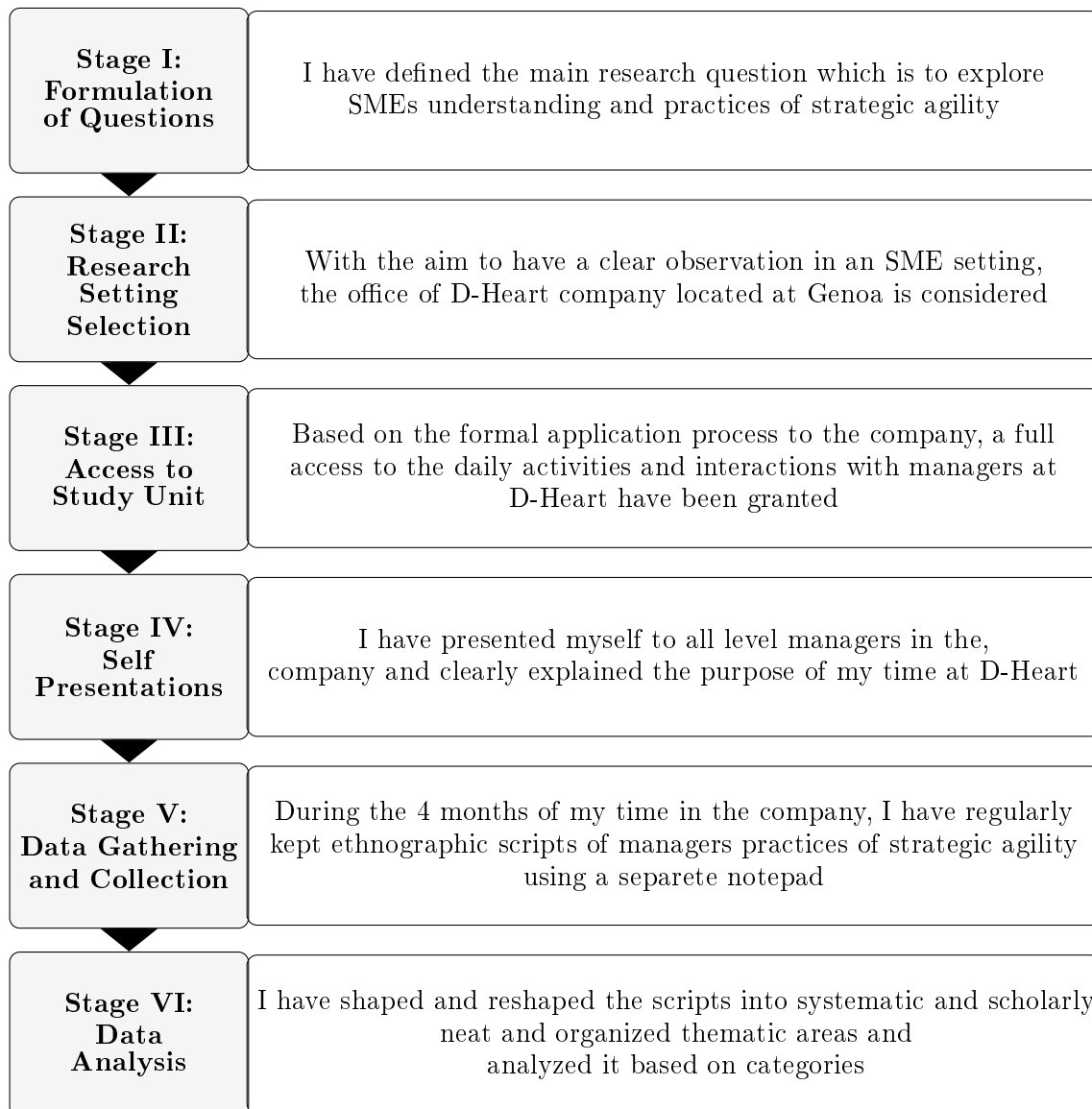


Figure 3.3: Stages of Auto-Ethnography Research Approach

3.4 Study's Results

3.4.1 Ethnographer Perspective of SMEs Strategic Agility

In contrast to the more widespread use of direct non participant observation, this paper's ethnography method is based on a participant observation approach, to give the researcher a chance to describe strategic agility practices in D-heart company with

objectivity and to explore practitioners understanding of the concept in different level of the SME. To understand better the lived experience of strategic agility foundations and practices in an SME, I selected D-Heart company as a young SME operating in the tele-medicine sector, well known by its proactive strategy toward the market needs, and its reactivity to any environment uncertainty. Since it was created, D-Heart is a manufacturing company of medical devices. The company demonstrated a flexible ability during the COVID time, by responding to the market emergency needs, introducing new platform of tele-cardiology service, and launching new product line for home care to keep the patient well connected with doctors from home. Thus, spending the period of four months of active participation and observation, allows to summarize the practices of strategic agility according to the three meta capabilities, strategic sensitivity, leadership unity, and resources fluidity.

3.4.1.1 Strategic Sensitivity Practices of SMEs

To observe practices of strategic sensitivity capability in an SME context as D-Heart, I actively participated with the team under CEO and CMO supervision in some strategic decisions making, thus, observations presume that strategic thinking is one of this capability practices. It is executed through set up of a long term strategy and implementation of continuous changes into the strategic vision. The top management team with the assistance of a strategic consultant, demonstrated an awareness of market changes that include introduction of some new technologies in the healthcare industry, or new entrant changing the market structure, or any legal rule coming from healthcare authorities which could change the industry regulations.

During the observation period, the proactive approach was also noticed as practice used to fulfill the future market needs of healthcare devices in local as well as in international markets. Additionally, throughout my participation to the set up of

internationalization strategy of some product lines, observations indicate that top management team is mainly opting for a participatory approach with an open dialogue in decision making. Most importantly, the company illustrated a flexibility capability to implement strategic changes when noticing new environment threats or opportunities. This flexibility exists also in working methodology, where human capital is not restricted to follow working scripts, they are rather encouraged to be creative and innovative while exercising professional activities. At the same time, existence of a solid communication and coordination mechanism is allowing this SME's team to be aware of market up dates and to keep achieving strategic objectives. [Figure 3.4](#) reports observed strategic agility practices on SME's strategic level, which are found aligned with the theoretical insights presented by [Doz and Kosonen \(2008\)](#), [Ogunleye et al. \(2021\)](#), and [Arbussa et al. \(2017\)](#) about strategic sensitivity capability.

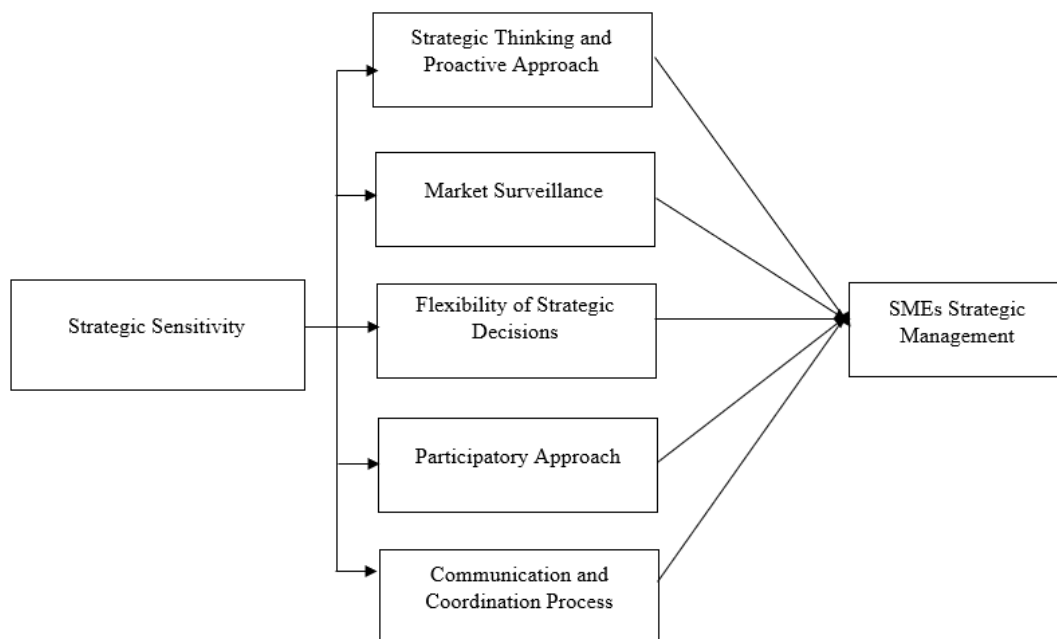


Figure 3.4: SMEs Strategic Sensitivity Practices

3.4.1.2 Leadership Unity Practices of SMEs

In order to investigate practices of leadership unity in an SME, my active participation and observation of internationalization projects implementation was done closely in a teamwork context on a daily basis. This active participation purpose is to seize managers practices on SMEs organizational level. Accordingly, the top management team role seems to be essential to keep the group cohesive and well focused on objectives achievements. They also demonstrate an active market surveillance practice combined with fast decision making when market turbulence may impact on SME's position in the market. These reactions toward environment uncertainty was undoubtedly generating other internal changes that concerns management working approach, and the team was always informed and aligned with adaptation decisions. These practices demonstrate the team flexible capacity and change culture. A key feature observed of the team, is the ability to distinguish between critical adaptations that requires a huge set of micro capabilities engagement and slight change that is relatively requiring less involvement, and they react accordingly.

The greatest specification observed from this SME's team management, is the strong commitment with a sense of sharing responsibility to achieve common objectives. Moreover, when they are making strategic plans of market penetration, they are always ready to adapt into unpredictable incidents, at the same time, they are rigid to objectives accomplishment. Thus, they often achieve objectives and conclude projects within deadlines without any delay, while nurturing shared responsibility and cooperation values. The boundaries between this SME and its partners are blurred, they are mostly initiating propositions with an open dialogue and communicative approach, combined with problem solving skills. All above practices as illustrated at [Figure 3.5](#), are dynamically interacting between teams operating in strategic, organizational, and operation level of the company. Therefore, building on [Lewis et al. \(2014\)](#), and [We-](#)

ber and Tarba (2014) theoretical contributions of leadership unity capability, these observations of SMEs practices found to be consistent with the theory inputs.

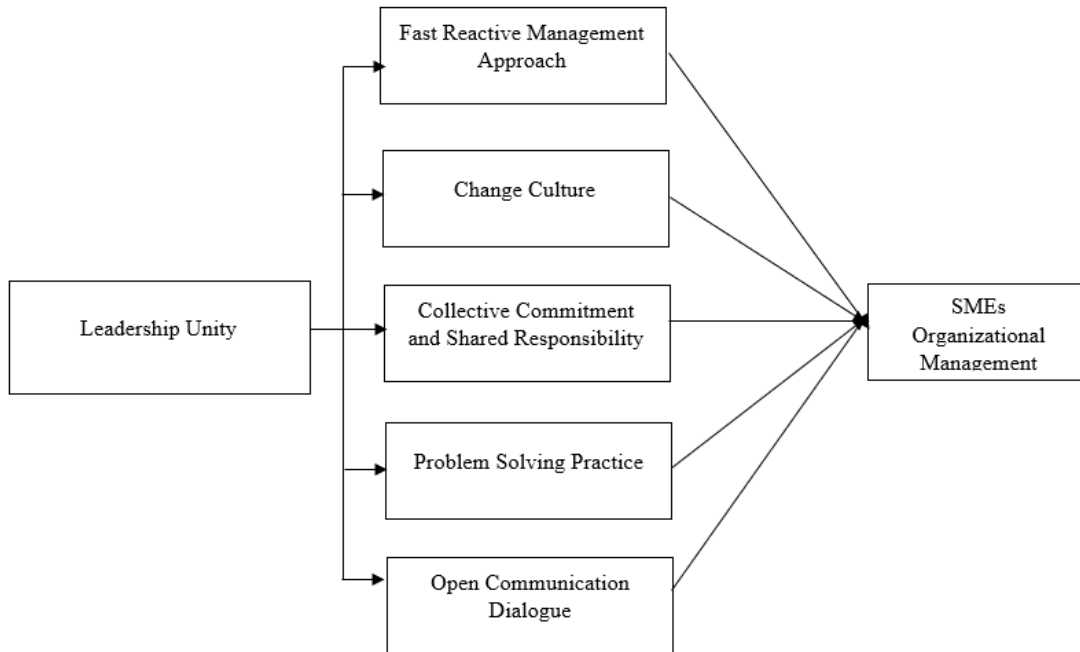


Figure 3.5: SMEs Leadership Unity Practices

3.4.1.3 Resource Fluidity Practices of SMEs

To observe practices of resource fluidity, an active participation to projects implementation was conducted collaboratively with supply chain and project manager. In a noticeable way, the team has the ability to manage and execute various projects simultaneously including technology production and service providing activities. This project management strategy, is allowing the SME to generate resources needed for further development. The allocation of resources generated is done by top management team through a participatory approach including other practitioners. Thus, the chosen development opportunity is usually based on priority, importance, emergency and other criteria. Equally important, the team while planing and allocating resources to new projects, they demonstrate an awareness of failure risk, especially,

when it comes to disrupted innovative projects. In these cases, it is noticed that each project study includes risk management approach and alternative action plan to cope with unpredictable incidents.

During this observational period in the SME environment, the business model has accommodated changes in core business activities and value creation dependently on new healthcare demand. This implies the changes in segment growth opportunities, especially during COVID crisis, where the healthcare industry is focusing on digital innovative medical solutions. This process of resources flowing smoothly is formed on the team's entrepreneurial spirit. They tend to take first mover advantage, by introducing new healthcare technologies to the market with a capacity to balance between rigidity of plans and flexibility of execution. On the other side, the leadership style with incentive approach adopted by the SME, is playing a key role in the human resource engagement, and acquisition of healthy work environment. These observed practices as reported at [Figure 3.6](#), are aligned with theoretical specifications of resource fluidity capability introduced by [Teece \(2007\)](#) and [Weber and Tarba \(2014\)](#).

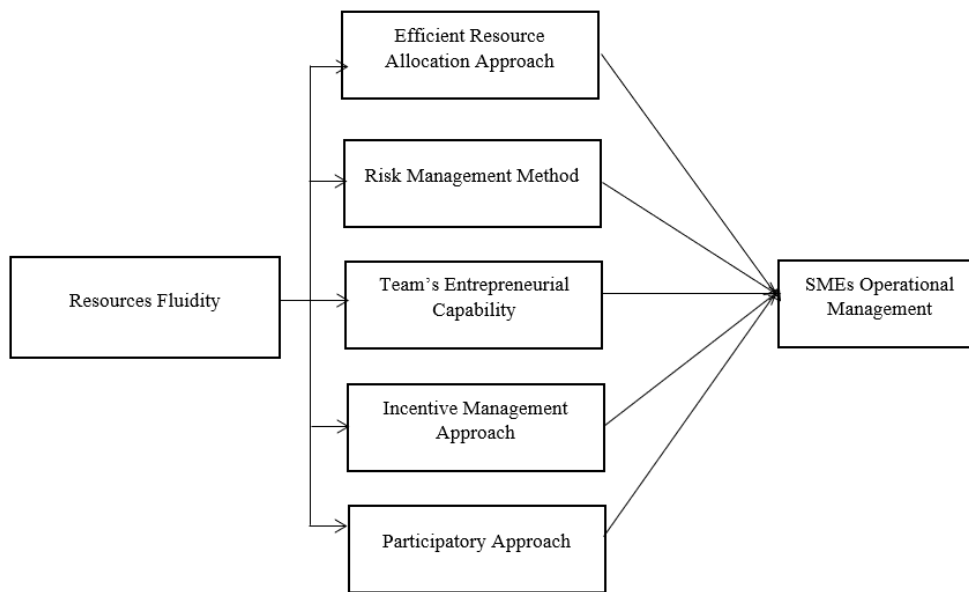


Figure 3.6: SMEs Resources Fluidity Practices

3.4.1.4 Key Features of SMEs Strategic Agility

The observation period of SME strategic agility, manifests that managerial practices of the above capabilities keep evolving through time. To do so, developing some individual skills such as, learning capacity and company's networking are considered key factors to improve SMEs capabilities practices, and to grow new organizational capabilities. Therefore, according to the SME practitioners, these explored managerial practices present an execution of set of individual and collective capabilities, together constituting the meta capabilities of strategic agility. D-Heart as an SME through these practices is adopting a working professional approach distinguished by rigidity of defined objectives and flexibility of execution.

More specifically, these capabilities practices are noticed to be dynamically interacting within SMEs strategic, organizational, and operational levels. They are also in continuous development process, especially when the SME is gaining external sup-

port. The expansion of these strategic agility capabilities is found to be helping SMEs to seize opportunities and to secure growth performance. Therefore, the active observation of strategic agility, understanding and practice within an SME context as illustrated at Figure 3.7, demonstrates that practitioners perspective is not different from scholars as Doz and Kosonen (2008), and Weber and Tarba (2014) conceptualizing strategic agility as a meta capability concept. The most relevant managerial contribution is based on specific execution and interconnection mechanisms of these capabilities and their key development factors.

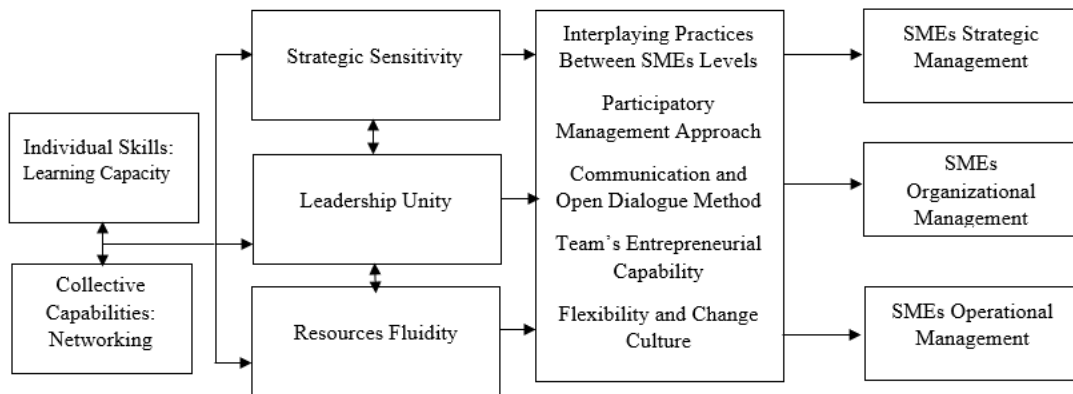


Figure 3.7: Unique Features of SMEs Strategic Agility

3.4.2 The Case Study Finding

3.4.2.1 Case Background

D-Heart SME is founded in 2015, started its business activity as a medical device manufacturing company producing medical devices to be used by patients and health care professionals. The founders realized existence of demand on the Italian market on such kind of devices and they concentrated the research and development effort to diversify their products line. After some period of operating in other international

markets, company's acted proactively and introduced another business activity of providing medical service platform, where the patient can meet Doctors. The company is a small structure in a continuous progress with a motivated team and strong partnership networking. This is allowing the company to keep developing business activities, through creation of new product line, increasing manufacturing efficiency, and providing customized medical services according to international market needs.

3.4.2.2 Strategic Sensitivity Capability: Foundations and Practices

To support the reported ethnography perspective of SME strategic agility practices and understanding, to secure research objectivity, and to triangulate the data, this interviews data analysis is serving this purpose. The findings illustrate that strategic sensitivity of the studied SME is being practiced through a set of capabilities. First, market surveillance of top management team among these practices that keeps the SME following new business regulations and market changing conditions. Through this market awareness, the team have a strong commitment to follow on daily basis local and international market incidents to implement change. This capability practice is translated into internal knowledge of right timing to introduce new strategy or to launch new products. Additionally, this practice is allowing the SME to recognize its strengths and weaknesses while facing environments dynamism. More importantly, this capability is being developed through networking and systematic approach foundations encouraging change mechanism. An interviewee commented:

Our team is aware of the strengths and weaknesses we have, and I think this coming through our knowledge about our position in the market, and we employ it to develop the company's capabilities to be on the top of the competition.

Second, Flexible strategic vision and proactive approach are considered practices of

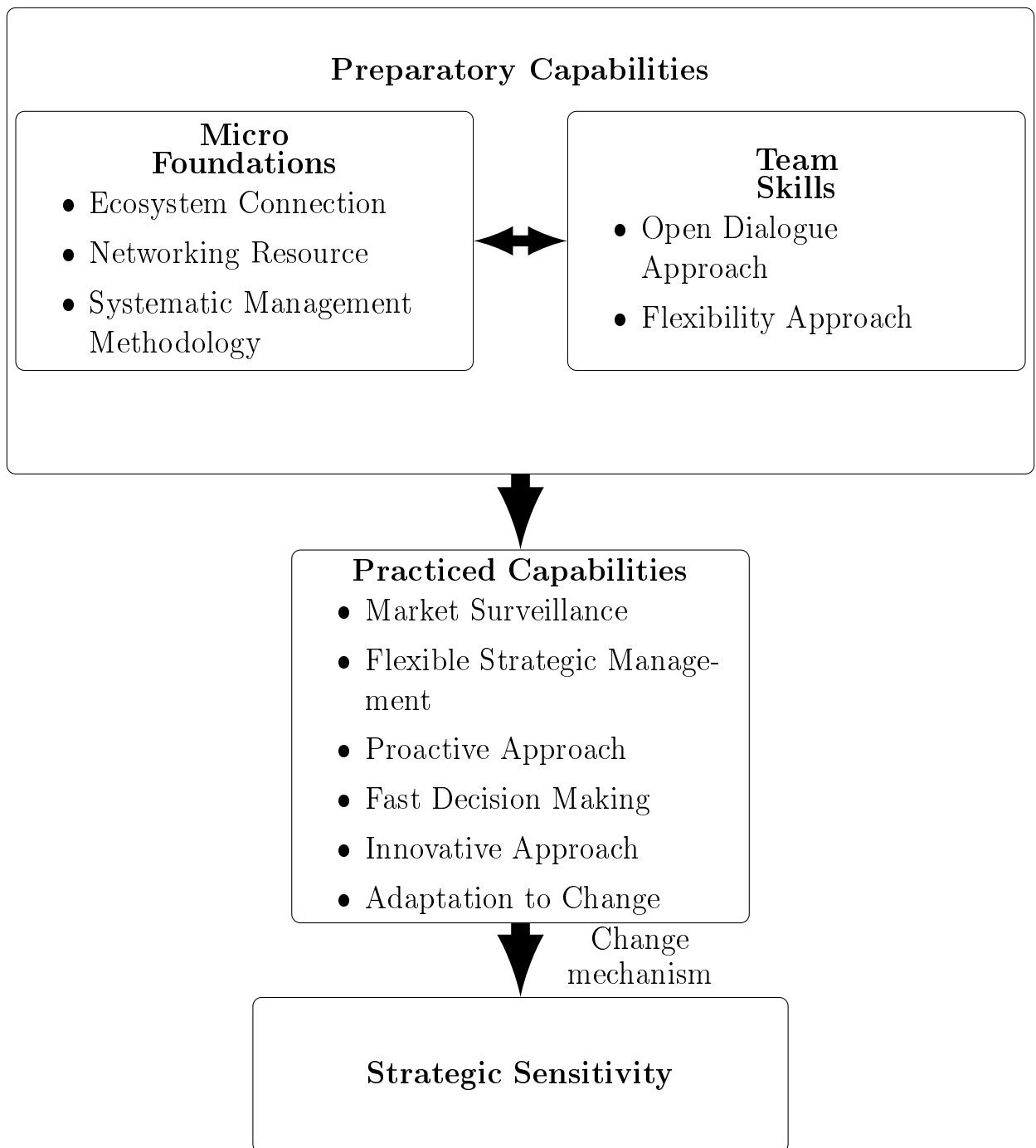


Figure 3.8: Strategic Sensitivity Foundations and Practices

strategic sensitivity capability. It is demonstrated through strategic decision taken by the team to develop the company's business activity and to anticipate future demands of healthcare industry. By doing so, the company is taking the first mover advantage at the same time bearing the failure risk. Third, quick decision making is a practice of the company to face environment uncertainty, dynamism and to respond to new growth opportunities. This was the case during COVID crisis when the healthcare industry started focusing on tele-medecine solutions, thus, the company responded immediately by developing further the tele-cardiology service. An interviewee added:

I think the most biggest advantage we have in a comparison with big market players in the healthcare system that we can be faster to take decision according to the markets trends... I think we should keep taking advantage of our flexibility and make investments on the right choices.

Fourth, adaptation to change seems a very crucial practice of strategic sensitivity capability. It is illustrated through changing long term strategic goals whenever an unpredictable incident emerges. This was the case when D-Heart decided to change its internationalization entry mode from exportation to joint venture based on market attraction and growth opportunities. Changes also implemented continuously on the marketing strategy to meet stakeholders requirements. Fifth, innovation as a practice consists of the team ability to innovate new technological solution, services, and development of existing business activities.

To develop these strategic sensitivity practices within an SME, it needs to have a micro foundations constituting a crucial conditions. In the SME being studied, it is demonstrated that being connected to the ecosystem and developing a strong networking is providing a platform to develop market surveillance and knowledge, Thus,

seizing growth opportunities becomes relatively easy for SMEs. More importantly, Some individual skills as strategic thinking, and open dialogue approach are contributing to the development of the team capabilities as depicted in [Figure 3.8](#).

3.4.2.3 Leadership Unity Capability: Foundations and Practices

[Figure 3.9](#) reports, the outcome of leadership unity practices in D-Heart company. In this sense, collective commitment is a practice that engage SME's team from strategic, organizational, and operational levels to have a dynamic interaction. This commitment is allowing the SME to achieve common objectives without any delay. A practitioner highlighted:

I haven't seen something personal stopping us from our objectives ...obviously there are some days where someone is a bit down but I haven't seen someone totally not committed to work.

This general commitment is also demonstrated through providing continuous support to the SME partners and stakeholders, which is helping to strengthen the company's networking and gaining access to market information. More importantly, this commitment implies the sense of dependency on each other and the importance of top management team to keep the group cohesive and well focused as the SME's team confirmed.

It is super important the existence of the top management, if they were not there, the team will loose motivation and they also work hard for keeping the team together, engaged, and happy.

Shared responsibility and participatory leadership approach are also a relevant prac-

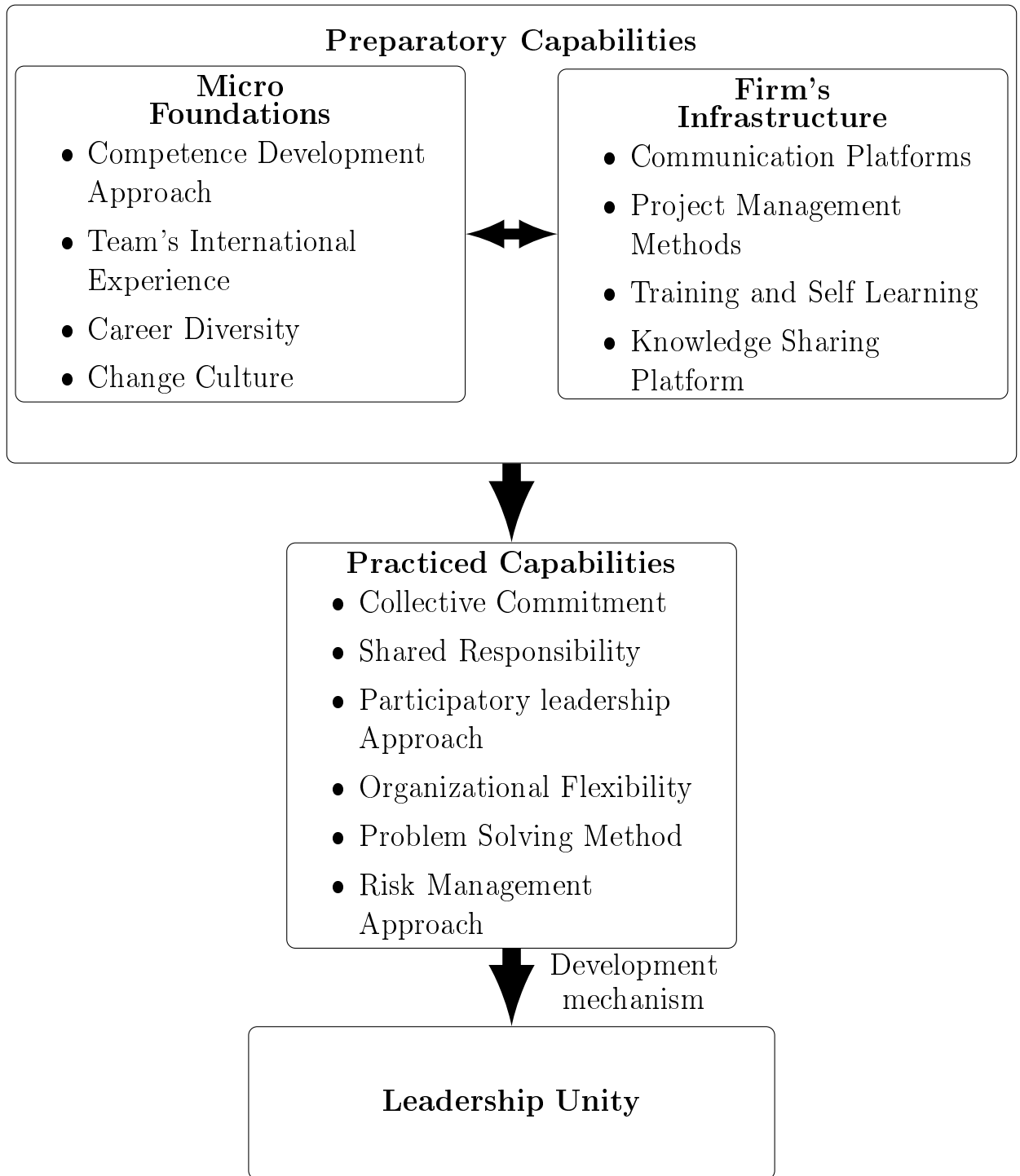


Figure 3.9: Leadership Unity Foundations and Practices

tices of leadership unity. Through these practices, teams are able to take decision based on open discussions from various perspectives, at the same time, they are able to share responsibility with the top management when it come to critical decision taking, as D-Heart practitioner stated “with the team opinions, the top management is having a better vision and tools to take the right decisions”. On the other hand, sharing responsibility is considered a daily practice within SMEs to enhance the work performance, to meet deadlines, and to contribute with valuable inputs to innovation process. Additionally, organizational flexibility is considered as valuable capability, allowing SMEs to change strategic directions according to the environment incidents. It concerns also the practice of changing short term objectives, as stated by an organizational manager “in general we go with the flow, we try to adapt”. This flexibility plays an essential role to succeed partnership projects with other stakeholders, by having a common agreement on strategic objectives and allowing the execution plan to be different based on the working methodologies adopted within companies. A practitioner commented :

Flexibility is our organizational skill, demonstrated through changes adopted according to market needs while executing projects.

Together, problem solving and Failure acceptance practices are contributing to the strategic agility of SMEs. In the case of contradictory objectives between the SME and its partners, problem solving based on an open dialogue approach is the employed practice to reach a common understanding satisfying all stakeholders requirements. Additionally, SMEs team are knowledgeable about the notion of experience learning effect, thus, every failure is considered as an opportunity to get more knowledge and to be strategically selective.

These leadership practices of SMEs are formed on requisite foundations as efficient communication and coordination skills, “there is always a communication flow of everything happening”, team competences development is also contributing to evolve individual capabilities and to have an agile human capital, “we do self learning taking online courses, training and we hire some consultant to learn some specific skills”. Furthermore, international experiences and carrier diversity are foundations encouraging innovations and creativity practices, a practitioner related:

International experience helps a lot in business to understand the market needs and the career diversity gives us the opportunity to see things from different perspective, it allows us to bring different knowledge on the table, and in some ways it makes you indispensable and unique which is needed for innovation.

3.4.2.4 Resource Fluidity Capability: Foundations and Practices

Resources fluidity practices in SMEs include developing a networking with private and public stakeholders to collect market information, and to take decisions accordingly. In this regards, networking is also helping to bridge between SMEs and international partners and to develop new growth opportunities. Moreover, networking is allowing SMEs to have information about recent changes of healthcare regulations and to adapt consequently. SME’s Managers stated:

We are well connected with private stakeholders and with the government institutions, this is helping our firm to develop new business opportunities and to take fast strategic decision before competitors.

Furthermore, efficiency of resources allocation and management practice is illustrated through the team’s ability to manage various projects simultaneously and to assign

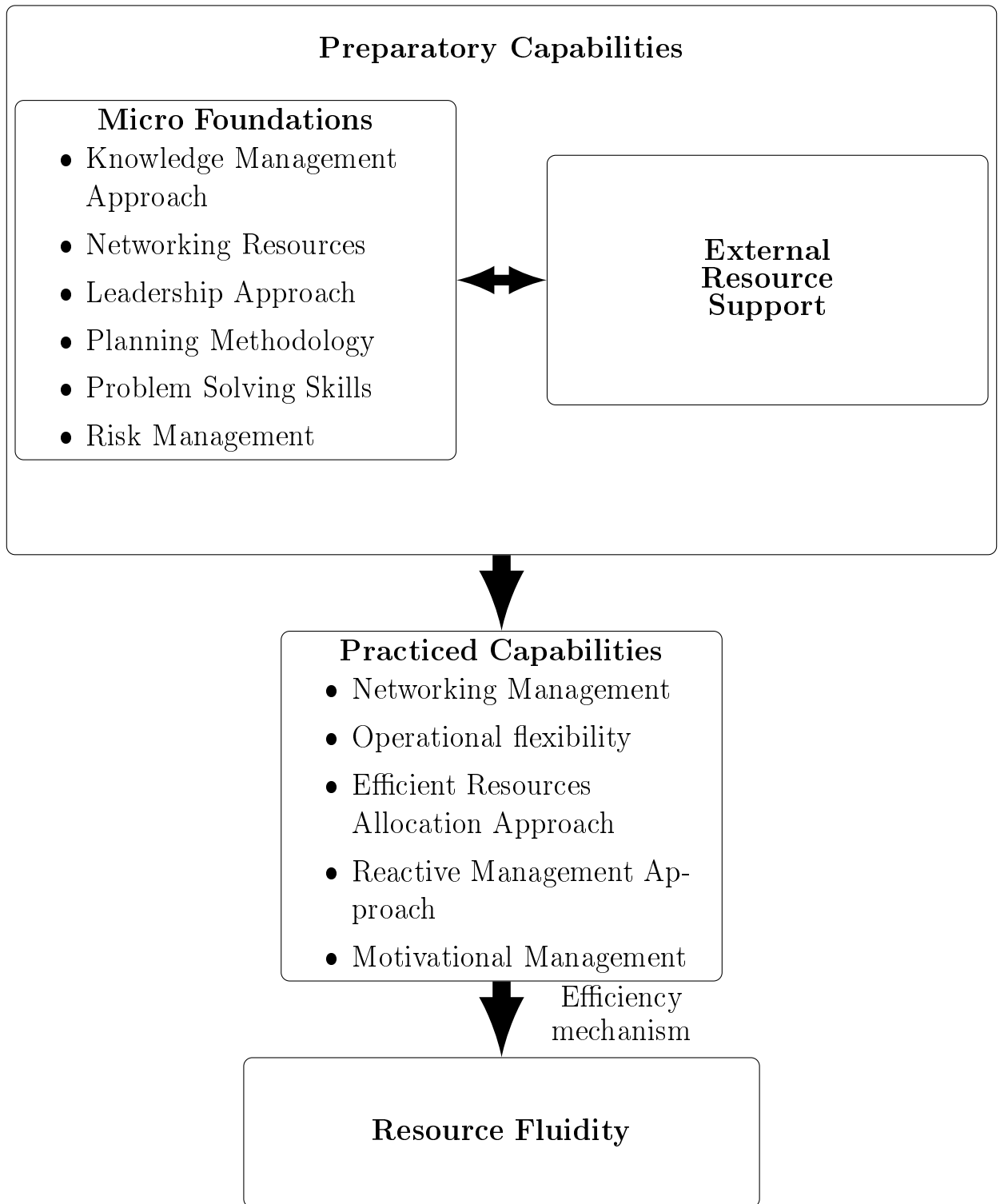


Figure 3.10: Resource Fluidity Foundations and Practices

resources based on specific criteria of priority, emergency and importance. This practice is empowering flow of resources within SMEs and boosting investment into growth opportunities. Manager commented in this regard:

We have many projects managed simultaneously, and we have a huge opportunity to grow in every direction

Additionally, motivational resources management approach based on a participatory and motivational system, is a crucial practice of SMEs strategic agility. It is a an approach that considers team members inputs and opinions are valuable, and it grants an active participation to each individual in every decision making. Specifically, top management team adopt this motivational approach to keep the team cohesive, engaged and productive. Similarly, nurturing change culture and change acceptance within the firm, is an essential practice to develop a flexible SME able to respond proactively and re-actively to environment hostility. In this context D-Heart team highlighted that :

The internal culture is based on flexibility and change, which is allowing our company to react and take decisions based on what is happening in the external environment.

Operational flexibility practice consists of operations and supply chain efficiency permitting SMEs to retain customers through efficient lead time and balanced management of supply and demand. Flexibility of operations, includes also implementation of change in the production system according to market regulations and customer demands, “changes in the production system are difficult but we have a flexible operation management system”. Ultimately, resources fluidity practices as illustrated in [Figure 3.10](#), are based on micro foundations such as knowledge management, infor-

mation and technology structure, failure acceptance, planning skills and transparency values. These operational routines are traditional, they can be easily developed into dynamic capabilities and converting SMEs to be strategically agile.

We have a good technology and knowledge infrastructure to be innovative and to respond to market needs.

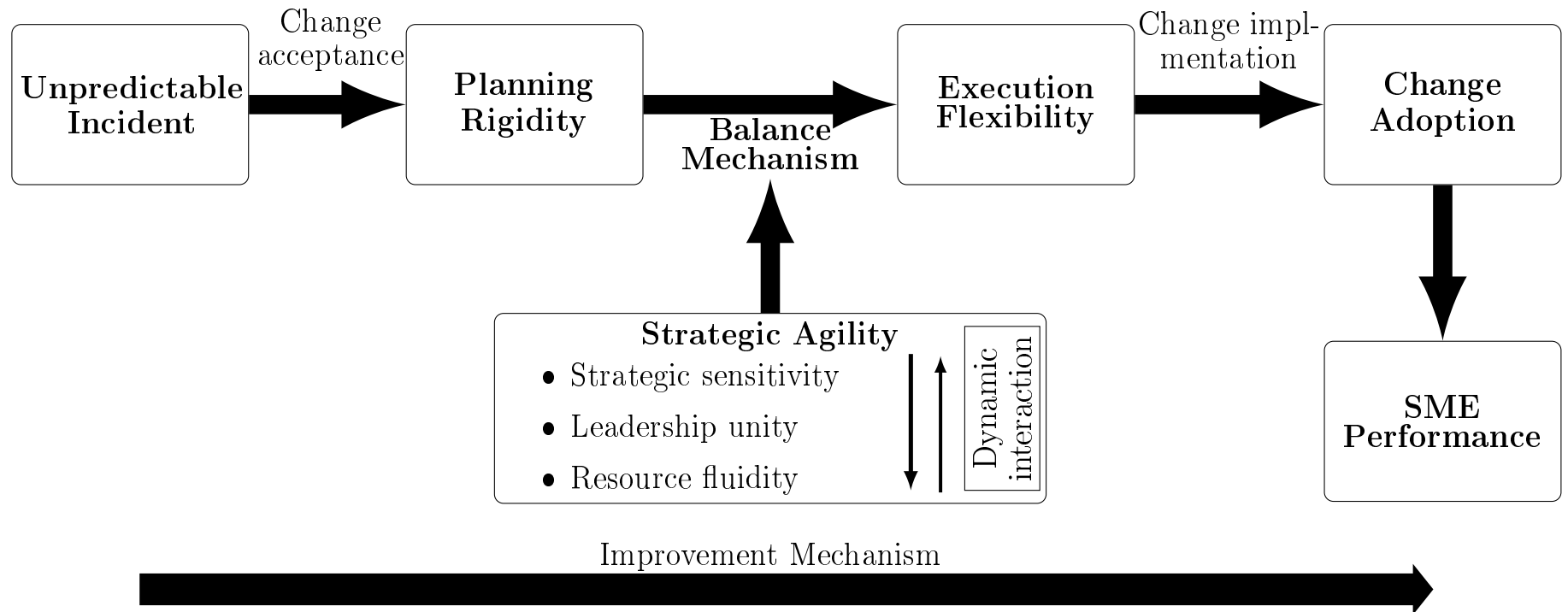


Figure 3.11: Strategic Agility Impacting SMEs Performance

3.4.2.5 Strategic Agility: Practitioners Perspective

SMEs' practitioners suggest that strategic agility is as a set of capabilities being practices on a daily basis to respond quickly to market uncertainties. These capabilities incorporate strategic sensitivity, leadership unity, and resources fluidity associated with firm flexibility and change capability. According to practitioners perspective, each meta capability of strategic agility require a key foundations and practicing mechanism for SMEs adaptation to external environments. SME's manager stated:

Strategic agility is a set of capabilities that we keep employing to stay flexible and adaptable to environment.

More importantly, Strategic agile SMEs are firms who successfully developed most of the meta capabilities and their practices routines by which SMEs achieve new resources configurations, sense and shape opportunities and to maintain competitiveness. "I think at certain level, SMEs need to develop all capabilities to implement change and to face external environment". At the same time, these capabilities need to continuously adjust, evolve, and adapt according to the context development "we keep developing our capabilities to enhance productivity standards and company's performance".

Practitioners described strategic agility practices as a meticulous interplay between: (a) strategic level, where top management uses strategic sensitivity capabilities to take decisions and change directions, (b) organizational level, gathering the team's capabilities of leadership unity and (c) operational level, where flexibility of resources allocation and efficiency are operational routines of resources fluidity. Through the employment of strategic agility practices, SME's are structuring a distinguished competitive advantage. At the same time, these practices are also boosting SME's growth

performance as reported in [Figure 3.11](#) and confirmed by a strategic manager:

I think we need the three capabilities, they are indispensable to keep developing our competitive advantage and to grow our sales performance.

3.5 Discussion of Results

One of the key challenging features of strategic agility literature, is spotting its practices in SMEs context which considered to be different from practices in big corporate structure ([Adomako et al., 2022](#)). Together, findings of the case study interviews and ethnography approach, illustrate SMEs practicing mechanisms and capabilities of strategic agility composed of: strategic sensitivity, leadership unity, and resources fluidity. These findings are considered, to explore practitioners understanding of strategic agility from the researcher perspective and from the practitioners perspective to fulfill the study's objective. Consequently, strategic sensitivity practices from ethnographer and practitioners perspectives found aligned, and the managers findings suggest that this capability is developed through necessary micro foundations and various mechanisms.

Likewise, both perspectives underline importance of balancing between plan rigidity and execution flexibility of leadership unity capability as confirmed previously by [Chan et al. \(2019\)](#). Additionally, communication and coordination platforms are among the relevant micro foundations of this capability. On the other hand, study's analysis of resources fluidity demonstrated the role of interdependence of resource and efficiency of allocation to capture growth opportunities as confirmed earlier by [Doz and Kosonen \(2008\)](#). Consequently, knowledge management and information and technology infrastructure are considered crucial micro foundation to grow this capability.

Referring to the theoretical contribution of [Doz and Kosonen \(2008\)](#), and [Arbussa et al. \(2017\)](#), defining strategic agility as the ability to continuously adjust and adapt strategic direction in core business, as a function of strategic ambitions and changing circumstances, to create not just new product and services, but also new business models. This study findings, confirm that practitioners understanding of strategic agility is mostly aligned with the theoretical conceptualization. As reported at [Figure 3.12](#), managerial perspective identifies the crucial role of micro foundations and practicing mechanisms as indispensable factors for SMEs strategic agility. It also highlights the balance achieved of plan rigidity and execution flexibility through strategic agility practices. This contribution is a key features distinguishing strategic agility of SMEs from other firm categories.

Both scholars and practitioners illustrate the impact of strategic agility practices on SMEs competitive advantage and growth opportunities. [Ogunleye et al. \(2021\)](#) and [Priyono et al. \(2020\)](#), consider strategic agility as a capability to sense environments conditions, to respond to opportunities, and to embrace change by re-configuring business process and enhances SMEs performance. In the same line, [Cegarra-Navarro et al. \(2016\)](#), and [Bahrami et al. \(2016\)](#), state that strategic agility is allowing the firms to react quickly and effectively to market uncertainties and to growth opportunities.

According to [Arbussa et al. \(2017\)](#), strategic agility has been explored in relatively few studies, thus, this study contribution comes to build knowledge about key features of SMEs strategic agility focusing on practitioners perspective. This study finding is also contributing to demonstrate the complimentary and dynamic interplay feature of strategic agility capabilities contradictory to the paradoxical approach of conceptual-

izing strategic agility adopted by Lewis et al. (2014). Inherent to these contributions, our study implications for practitioners, it offers a holistic framework consists of theoretical and empirical perspective of strategic agility in SMEs context. It advises manager of these firms to develop micro foundations as crucial foundation to grow individual and collective capabilities. It also focus on the importance of inter-playing practicing mechanisms of capabilities in strategic, organizational and operational level of SMEs. Ultimately, this study has a limitation of using a single case study from specific sector, although this method is useful for the purpose of exploring and ground new theoretical insights of SMEs strategic agility literature.

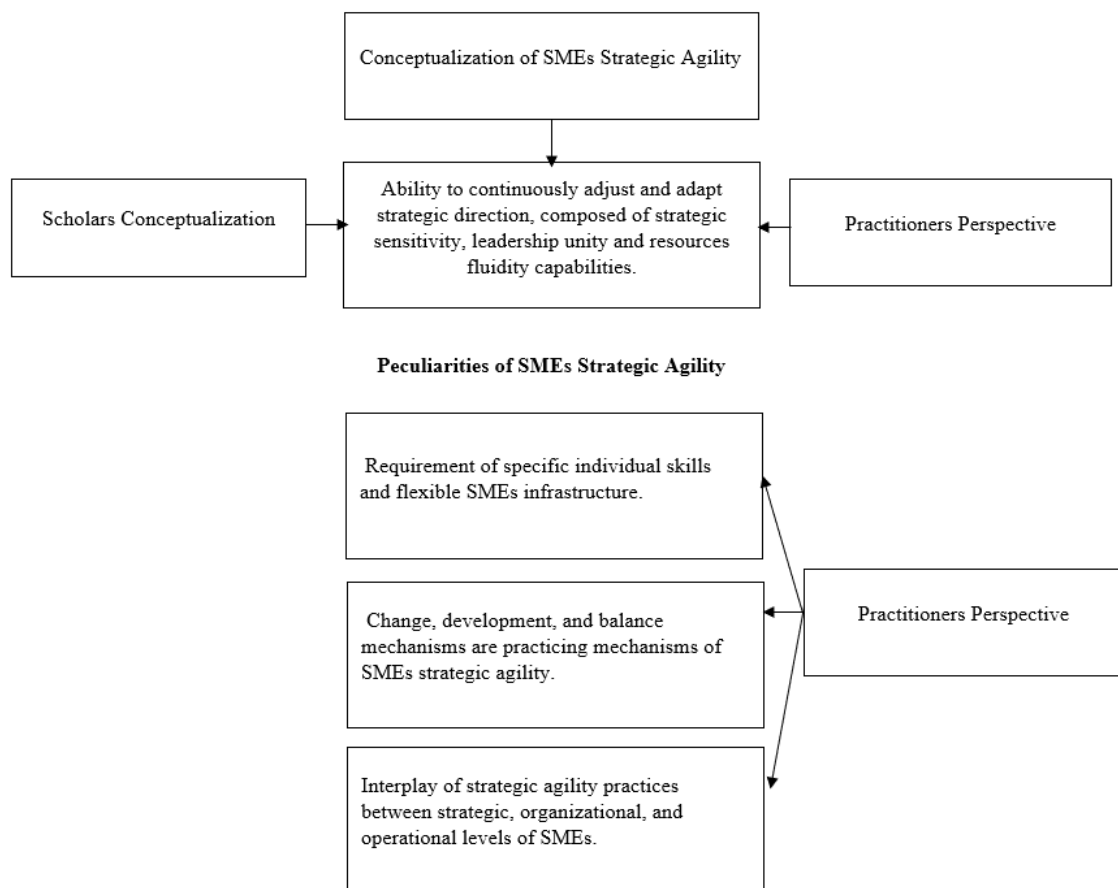


Figure 3.12: Scholars and Practitioners Perspectives of SMEs Strategic Agility

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CHAPTER IV

INTERACTION DYNAMICS OF SMEs

STRATEGIC AGILITY AND CONTEXT

DIMENSIONS

Abstract

Few scholars have examined the strategic agility of SMEs in developing markets and few research encountered the context effect and interaction with SMEs practices of strategic agility. This study seeks to supply what is absent in the literature, by investigating the dimensions of healthcare industry context in developed and developing markets and capturing the impact and created interaction with strategic agile SMEs. The result indicate that the environment dimensions features appear to be heterogeneous in developing markets and homogeneous in developed markets. This existing differences are leading to a various capabilities practices of strategic agile SMEs, to face environment uncertainties.

Key Words: SMEs Strategic Agility, Industrial Context, Dimensions and Practices

4.1 Introduction

Coping with environment uncertainty is one of the urging issues for SMEs, and organizational theorists emphasize that organizations must adapt to their environment to remain viable (Duncan, 1972). This coping mechanism requires existence of certain capabilities to ensure flexibility towards changing conditions. Thus, Scholarly interest in strategic agility has been rising continuously in the last decade from various academic disciplines such as management and strategy (Christofi et al., 2021). Adding to this, the entrepreneurship research is paying also increased attention to the concept. In both research and practice, these interests have been associated with strategic agility due to today's turbulent and highly competitive environment, where firms demand a differing set of capabilities for effective and efficient organizational responses towards such increased level of uncertainty, complexity and unpredictability (Brozovic, 2018; Fayezi et al., 2017; Purvis et al., 2014).

According to Doz and Kosonen (2010), Lewis et al. (2014), Clauss et al. (2019), and Hock et al. (2016), strategic agility is considered as a set of organizational capabilities established on micro-foundations. These basic underlying capabilities described in the literature are: strategic sensitivity, leadership unity, and resources fluidity (Doz and Kosonen, 2010). In Some recent research about strategic agility in the entrepreneurship as Liljenberg (2022) study, a special attention was given to the interaction of SMEs behavior and practices with the context. This research line, is recognizing the business environment dynamics and expressing strategic agility as a set of inbound capabilities without denying the external reality of the environment. This is leading the small and medium enterprises to have a creative market representations, and to deploy the entrepreneurship alertness and organizational capabilities in response to the market incidents. It represents a prompt and responsive preparedness to act in relation to a group of interdependent environment conditions (Liljenberg, 2022).

SMEs strategic agility understanding and practices differs based on the company's context, thus, [Jones et al. \(2011\)](#), recognized that research on SMEs strategic agility often fails to account for their context and its role. Usually, firms context reflects complexities and subtleties driven both from its multi-faceted composition and from the way its spans different levels of analysis ([Baker and Welter, 2020](#)). Corresponding to [Shapiro et al. \(2007\)](#), the existence of qualitatively different facets of context, each contributing to the SMEs practice, made the investigation of this interaction notable. Previously, there has been a tendency to look at one contextual variable at a time, even in instance where they are obviously connected, as in the case of culture and institutions ([Guiso et al., 2015](#)). This, made the focus on the interaction between all the context dimensions and SMEs strategic agility practices in developing and developed markets is inviting.

One of the shortcomings of much of the theoretical and empirical research on organizational environments, has been the failure to conceptualize organization context or the elements comprising it ([Lawrence and Lorsch, 1967](#); [Spender and Kessler, 1995](#); [Terreberry, 1968](#)). Authors have conceptualized the context as a total entity but have looked only at the context from the organization outward ([Tosi et al., 1973](#)). The focus was always on the external element of the context which was relevant to the organization's goals achievements. In the present study, context is thought as of totality of both external and internal dimensions that are taken directly into consideration in the practice of SMEs strategic agility and behaviour of the organization. Believing that within the boundaries of the organization there must be a context dimension.

Theorizing about context and strategic agility of SMEs is a challenging task, due both to the inherent complexity of the interaction and to the multifarious range of

perspectives brought to bear on it (Child et al., 2022). Moreover, the existence also of relevant perspectives brought by different disciplines and deriving from a focus on different contextual levels, generates a considerable range of theories to consider (Child et al., 2022). Despite all these theoretical challenges, the knowledge paucity to capture the existing interaction with a focus on the industry as a context is notable.

Over and above that, among recent studies conducted by Doz and Kosonen (2008) and Arbussa et al. (2017), on SMEs strategic agility have involved SMEs in developed countries and much current theorizing still drives from research in this line. Furthermore, research on SMEs strategic agility does not have strong roots in other context like developing countries. It may well be necessary to target both markets and explore the context dimensions impacting SMEs strategic agility practices. This, will be significant in terms of theoretical contribution and knowledge void. Therefore, in an effort to identify the interaction of the context and SMEs strategic agility practices, this research was carried out to reply to the missing substantial refinement being nurtured by an empirical study (Liljenberg, 2022). In an attempt to present a holistic model of the existing interaction between SMEs strategic agility practices and the context dimensions, the following paper aims to fill this void, through a qualitative study to explore the context dimensions behind the differences in strategic agility practices of SMEs in both developing and developed markets. This does, however, raise the question of how context affects SMEs practitioners conceptualization and practices of strategic agility?

4.2 Theoretical Background

4.2.1 Context in Organization and Management Literature

Earliest research on organization environment, defined context as a totality of physical and social factors that are taken directly into consideration in the decision making behavior of individuals in the organization (Duncan, 1972). It is a system composed of internal environment, consists of those relevant physical and social factors within the boundaries of the organization, and external environment consists of those relevant physical and social factors outside the organization (Duncan, 1972). In organization theory and strategic management, the context has long been considered one of the critical contingencies (Child, 1972), and many conceptualizations of the context are largely consistent with Dess and Beard (1984) three dimensions, munificence, complexity, and dynamism. These dimensions draw on two common used approached to conceptualizing context: (1) as a source of information, and (2) as a stock of resources (Aldrich and Mindlin, 1978).

Many scholars describe the firm's context as the environment in which the company is operating, and many scholars as such Cappelli (1991), portray context as 'the surroundings associated with phenomena which help to illuminate that phenomena, typically factors associated units of analysis above those expressly under investigation'. Moreover, Mowday and Sutton (1993), defined context as 'stimuli and phenomena that surround and thus exist in the environment external to the individual, most often at different level of analysis', they go on to describe context as consisting of constraints versus opportunities and similarities versus dissimilarities. Furthermore, context is a multidimensional concept, comprising diverse sub-contexts, ecological, economic, cultural, institutional, political, social, and technological interlaced with one another (Cheng, 1994). Context is also considered as situational opportunities

and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationship between variables (Johns, 2006).

Therefore, calls for greater sensitivity to 'context' are increasing in the management literature (Baker and Welter, 2020). Nevertheless, it is a major challenge to capture the context, which will literally refers to all aspects of situation within which something exists (Child et al., 2022). The search for context is not unique to management literature, in entrepreneurship calls to bring the environment back in (e.g, Teece, 1987), and bring the context back in (e.g, Sorenson and Stuart, 2008) are also common. The challenge of identifying firms context in the management literature is greater, especially in the case of SMEs that differs in size and capabilities across markets. Thus, challenging a comparison of SMEs strategic agility conceptualization and practices in developing and developed markets without mentioning the context, is limiting our ability to depict the existing impact of the context dimensions. It is perhaps not a surprise, as Jones et al. (2011) noted, that research on entrepreneurial firms often fails to account for their context.

To capture the context interaction with SMEs strategic agility practices, this study is adopting the firm's environment theory, consists of dynamism and complexity dimensions which reflect the degree of uncertainty facing an organization, and munificence dimension signals a firm's dependence on those environments for resources (Lumpkin and Dess, 2001). This research uses the two environments constructs consistent with such earlier theory building: dynamism and hostility. Dynamism relates to the rate of unpredictable change in a firm's context (Child, 1972; Duncan, 1972; Tosi et al., 1973). It indicates also uncertainty that erodes the ability of managers to predict future events (Khandwalla, 1977). Hostility, is often considered the observe of munificence, it is indicative of scarcity and intensity of competition for environment

resources (Covin and Slevin, 1989; Zahra and Covin, 1995).

The firm's context is a multi-level phenomenon. The macro level reflects the environment in which a firm is located, particularly its country and its industry (Hitt et al., 2007). Most theorizing research work at the macro level were conducted in developed countries (e.g, Meyer and Peng, 2005), and it requires a consideration of developing countries where SMEs interact differently with their environment. The meso level, refers to the immediate organizational context in terms of factors such as firms' ownership and technology (Child et al., 2022). However, some SMEs are centered on their leading entrepreneurs which has encouraged interest in what maybe called the context of the entrepreneur (Child et al., 2022). Acknowledging that entrepreneurs personality traits and formative backgrounds can be significant antecedents for decision making of SMEs practices. It is only recently that scholars have come to appreciate the significance of the broader macro and meso levels of firm's context for entrepreneurship (Welter et al., 2019). This consideration, made the scope of the study include the macro, meso and the entrepreneur levels of SMEs context.

Additionally, the literature recognize an existing question of how context differs from related concepts particularly embeddedness. The highly socialized interpretation of human behavior, embeddedness has been taken to mean that human actions and decisions, particularly those of an economic natures, are heavily influenced by the social structures, institutions and cultures in which they are located (Granovetter, 1985). Embeddedness is not an attribute of context itself, but rather of the relationship between a unit of study and its context (Child et al., 2022). It is rather relevant to the latitude SMEs can create in adjusting to their contexts. Hence, acknowledging the 'polycontextuality' complexity, this study may fall back on specific context aspects that are likely to be more critical to SMEs strategic agility. This, includes taking due

account of context aspects that have been under-researched, notably industry, and further identifying other context features connected to SMEs practices.

Over and above that, reasoning with [Aldrich \(2009\)](#) logic, 'Decontextualization' results from the repeated tendency to study a phenomenon with the assumption that 'all are alike', which is the case of research about SMEs strategic agility mostly driven by SMEs in developed countries contributions. Recently and according to [Low and MacMillan \(1988\)](#), trend toward more contextual and process oriented research as important advancement, is allowing researcher moving closer to a position of being able to explain rather than merely document the phenomenon. [Welter \(2011\)](#), suggests that 'context is important for understanding when, how and why the phenomenon happens and who becomes involved'.

Therefore, According to [Rousseau and Fried \(2001\)](#), 'context entails linking observations to a set of relevant facts, events, or points of view that make possible research and theory a part of a larger whole'. This optimistic conceptualization, will allow better assembly of piece parts into a coherent whole, it fits well with the Latin roots of the term, which refers to something that is woven together (come-together=to weave) ([Welter et al., 2019](#)). ultimately, context is an important factor when fracturing and emphasizing on differences.

4.2.2 Importance of Context Studies

The management literature keeps the call open to context and 'polycontextuality' research to have a better understanding of ongoing phenomenons. Some scholars as [Blair and Hunt \(1986\)](#), argues that the management literature appears to be biased towards context-free knowledge or knowledge that is universal and not subject to specific contextual influences ([Shapiro et al., 2007](#)). However, [Tsui \(2004\)](#) stated that

management field has different populations, and therefore contexts, which demand higher levels of context identification for accuracy in empirical generalization (Shapiro et al., 2007). Hence, focusing on SMEs strategic agility within a specific context will strengthen the understanding of the concept and its practices in SMEs through various levels of analysis (e.g, individual, organizational and national levels).

Discussing 'Context' as a concept and highlighting contextualizing process through an emphasis on the interactions between contexts and individuals was an active agenda during the 1980s (Baker and Welter, 2020)(P.4). In succession, Rosnow and Georgoudi (1986), denotes the Latin root 'contextus' as meaning 'a joining together', asserting that this draws attention to a continuously changing reality, 'the relative and interpersonal nature of human understanding' and the 'inseparable link between practical knowledge and fundamental knowledge'. Thus, neither contexts nor actions can be assessed without consideration of the other (Rosnow and Georgoudi, 1986). In the same line, Rosnow and Georgoudi (1986) alleges that 'contextualism views human beings not as separate from the world they know'; individuals are active in constructing contexts and contexts are not out there, but part of the act. Early research understood context and contextualization as a means to advance the field towards explanations of the entrepreneurial phenomenon, rather than mere description (Low and MacMillan, 1988). Management scholars also pointed to the multiplicity of sites where SMEs takes places (e.g, Steyaert and Katz, 2004) as an important reason to relate it to context, suggesting that contextualizing organization research can add to both rigor and the relevance of the research.

Pugh et al. (1969), have studied organizational contexts, that is, origin and history, ownership control, size, location and so on the sitting within which organization structure is developed (Duncan, 1972). While, Lawrence and Lorsch (1967), have

studied how organizations segment their context into related sectors but have not clearly conceptualized the environment or its makeup. Numerous, have analyzed the context and its impact on SMEs strategies and structures. [Boter and Holmquist \(2002\)](#), studied the importance to consider the multilevel aspects of context, focusing on the context effect on firms internalization process. In another study, [Plambeck \(2012\)](#), demonstrated the role of context in both sense, for executives interpretation of environment changes, and the triggered entrepreneurial actions, thus, the finding confirmed the influence of the firm's context on managerial cognition and product innovation as crucial practices to understand the corporate entrepreneurial actions. Furthermore, [Liljenberg \(2022\)](#), in a conceptual research about the context and firm's agility, argues that market sense making in particular of turbulence conditions, can be regarded as a facet of entrepreneurship, and this aptitude to see what others do not see around the corner as a precursor to strategizing is labeled contextual agility. Ultimately, most of management studies done on SMEs and context specifications, confirmed existence of this latest impact on the firm's strategies and practices.

4.2.3 Context Dimensions and Types

The range of the context dimensions according to the monumental review of the literature is wide. However, there is an emerging consensus among organization theorists (e.g, [Starbuck, 1976](#)) to represent in a more parsimonious set, composed of: Munificence (Capacity), Dynamism (stability-instability, turbulence), and Complexity (homogeneity-heterogeneity, concentration) ([Dess and Beard, 1984](#)).

According to [Starbuck \(1976\)](#), Munificence, is the extent to which the context can support sustained growth, which [Aldrich and Reiss Jr \(1976\)](#), described it as environmental capacity, and both state that organizations seek out contexts that permit organizational growth and stability. The organization literature and business pol-

icy, suggest that context dynamism should be restricted to change, which is hard to predict and it heightens uncertainty for key organizational members, it represents absence of pattern and unpredictability (Dess and Beard, 1984). Child and Mansfield (1972), Duncan (1972), Milliken (1987), Tung (1979), and Dess and Beard (1984), define context complexity as the heterogeneity of a range of an organizations' activities, and they confirmed that managers facing more complex environment will perceive greater uncertainty and have greater information-processing than managers facing simple environment.

Firm's context is typically used to point to firm's specifications at a higher level of analysis than the focus of a given study (e.g., how an industry affects an organization) (Johns, 2006). At the same time, authors as Baker and Welter (2020), demonstrated how context also point to specifications at lower level (e.g., how employee demographics affect organization). It is a multilevel analysis, able to capture all possible factors impacting a phenomenon, in an attempt to avoid the traditional type of context that is limited insofar as a singular phenomenon (e.g, Shapiro et al., 2007), and this approach fails to capture the multiple qualitatively dimensions that are inherently present in any setting.

Context typology description provided by some scholars tend to favor some specific context types such as people's gender or race, social, cultural, legal, and economic (e.g, Kirkman and Shapiro, 2001; Tinsley and Brett, 2001), while, there still some other qualitative type of context such as the cognitive, emotional and spiritual not taken into consideration. All context typologies have served to shape the direction of research by motivating scholars to ask questions about who, what, when, where and why, also by serving as a checklist and analytical toolbox of factors to consider (Welter et al., 2019).

Context has also shown to cut across levels, and [Welter \(2011\)](#), illustrated how context on a higher level of analysis (e.g., institutional at the national level) interacts with individual level (e.g., entrepreneurs opportunity recognition), resulting in a context specific outcome. More importantly, the context typology outlines four contexts, namely spacial, time, social and institutional ([Welter, 2011](#)). Accordingly and referring to [Zahra and Wright \(2011\)](#) study, there is a call for greater attention to context heterogeneity in the future theory building and testing. Additionally, [Zahra et al. \(2014\)](#), extended this by calling for explicit consideration of the business industry, markets, organization ownership and governance dimensions. At the same time, [Shapiro et al. \(2007\)](#), suggests that scholars shall define the context in ways that address as many of the contextual dimensions as possible. Inspired from [Shapiro et al. \(2007\)](#) study, [Table 4.1](#) reports some different categories of context with illustrated dimensions and variables contributing to each category, although, it represents categories with its dimensions to be independent, in practice these dimensions are often co-mingled.

| Category | Possible Contextual Dimensions |
|------------------|---|
| Temporal-Spacial | Historical, Geographical, Time, Personal Space |
| Environmental | Technical, Economic, Political, Social |
| Cultural | Behaviours and Artifacts, Values, Assumptions and beliefs |
| Psychological | Cognitive, Affective, Emotional |
| Philosophical | Aesthetic, Moral, Spiritual |
| Communication | Verbal, Facial Expression, Gestures, Body Language |
| Sensory | Visual, Auditory, Olfactory, Kinesthetic |

Table 4.1: Categories of Context and Contributing Dimensions Inspired from [Shapiro et al. \(2007\)](#)

4.2.4 Industry Context

According to [Plambeck \(2012\)](#), industrial context as any other type of context, it provides managing directors and executives with a set of values and evidences that help them rank the importance of the incidents and the legitimacy of possible responses.

This context factors allows the evaluation of the incidents and the corresponding responses. In particular, organizational capabilities play an important role in responding to the industry context incidents. Accordingly, in this study we analyze how the industrial context factors through different levels interact and shape strategic agility of SMEs in developing and developed markets. Additionally, we will examine the existing similarities and differences in healthcare industry context as well as in SMEs practices in both developing and developed markets.

The focus on the industry as a context in this study came after considering the existing differences of industry life cycle in developing and developed markets. In fact, the industry life cycle may also affect SMEs emphasis on proactivity or competitive aggressiveness as crucial drivers of strategic agility (Lumpkin and Dess, 2001). Scholars as MacMillan and Day (1987), have consistently argue that the most successful firms are those launched in the growth stage of an industry's life cycle. Nevertheless, the majority of new business and SMEs generally occur in mature industries (Acs, 1992). Growth stage industry is regraded attractive where demand is growing and there enough market opportunity available for multiple entrants to succeeded (Lumpkin and Dess, 2001). Therefore, to achieve lasting success in a growth industry, SMEs need to be strategically agile and behave proactively (Lumpkin and Dess, 2001). Through this anticipation of market needs, SMEs can secure a 'first mover' advantage (Lieberman and Montgomery, 1988). However, the same advantage of proactivity, may not occur for SMEs operating in mature industry where growth is slow and successful entry is often possible only by taking market share from an existing competitor (Lumpkin and Dess, 2001).

4.2.5 Context and Strategic Agility of SMEs

According to [Aldrich and Reiss Jr \(1976\)](#), context uncertainty is the degree to which future states of the world cannot be anticipated and accurately predicted, this uncertainty implies the changes in the organizations resources and decisions to cop with the external environment. Strategic management theorists as [Bourgeois III \(1980\)](#), [Dess and Origer \(1987\)](#), and [Elbanna and Fadol \(2016\)](#), consider context dimensions as initiating factors of SMEs strategic agility practices. Additionally, ([Darvishmotevali et al., 2020](#)), stated that contingency theory is helpful to explain the existing link between context and SMEs strategic agility. Thus, contingency theory is an approach that explains how contingent factors such as the market and the external environment influence the design and the behavior of an organization ([Schiffres et al., 2012](#)). According to the contingency theory, there is no best way to develop and implement strategies, the most appropriate way to develop and implement strategies depends on the specific situations ([Yasarata et al., 2010](#)). In this study, the contingency consideration of context is helping to seize its influence and interaction with SMEs behavior, especially strategic agility practices.

The ability to reply on the external environment depends on SMEs strategic agility, defined as a firms' capability to rapidly change and rearrange the strategic orientation by adjusting proactively to shifting requirements, opportunities, and trends ([Battistella et al., 2017](#)). It also prevents firms stagnation and it enables small and medium firms to react flexibly to developments that result from dynamic markets and shifting competition ([Weber and Tarba, 2014](#)). This, makes strategically agile SMEs have the capacity of remaining competitive focusing on their objectives, while simultaneously being responsive to unforeseeable volatility within the business context ([Clauss et al., 2021](#)). Strategic agility configurations differs across type of organizations, in particular SMEs which are more flexible in their goals, structure and internal values

(Debellis et al., 2021).

Strategic agility is less explored in SMEs context (Arbussa et al., 2017). This construct, has a variety of definitions based on the context and the field in which it is investigated. In the management literature, strategic agility of SMEs is seen as a key capability of firms to successfully deal with volatile business environments and various challenges (Doz and Kosonen, 2008; Tallon and Pinsonneault, 2011). It refers to an SME's ability to proactively drive its external environment and react flexibly to ever-changing customer demands, competitive moves, or continuous improvements along the value chain (Lim et al., 2017). This ability, is conceptualized as set of capabilities of strategic sensitivity, leadership unity and resources fluidity (Arbussa et al., 2017; Doz and Kosonen, 2008, 2010; Ivory and Brooks, 2018; Ofoegbu and Akanbi, 2012).

Strategic sensitivity, is defined as "the sharpness of perception and the intensity of awareness and attention to strategic developments" (Arbussa et al., 2017). This rapid fire world of breakthrough innovations in which companies compete creates the constant urgency to pursue growth opportunities, where urgency is intended as understanding that strategic opportunities fly away faster and faster (Kotter, 2012). Therefore, the agile firm is not only able to nimbly adjust to change, but is also able to take advantage of emerging strategic opportunities (Debellis et al., 2021; Thrassou et al., 2018). To become agile, a firm needs to stand 'outside' its own organization, gaining different perspectives to identify and asses strategic opportunities (Ferraresi et al., 2012), hence enriching the network of external contacts, and adopting an 'outside-in' perspective (Doz and Kosonen, 2010). Leadership unity is defined as, " the ability of organization members to understand and trust each other, enabling firms to quickly take bold strategic decisions and pushing firm members to collectively commit to the

agreed strategic changes ([Arbussa et al., 2017](#); [Doz and Kosonen, 2010](#)).

Leadership unity is a determinant of a firm's ability to fulfill collective commitments (e.g, [Doz and Kosonen, 2010](#); [Ivory and Brooks, 2018](#)), meaning "common ground, common interest, empathy and trust in order to increase the engagement of organizational members" ([Junni et al., 2015](#)). Resource fluidity, is the ability to implement the agreed strategic changes by deploying resources and being flexible to adjust, adapt, and reconfigure the business model ([Amit and Zott, 2001](#); [Gurkov et al., 2017](#)). It involves the swift deployment of resources and reconfiguration of business systems to capitalize on strategic opportunities ([Brueller et al., 2014](#); [Doz and Kosonen, 2010](#); [Ivory and Brooks, 2018](#)). When SMEs nurture all the above capabilities within its boundaries, they are more able to proactively meet the environments changes and to remain competitive.

SMEs are particularly facing strong challenges while being strategically agile ([Mueller and Jungwirth, 2020](#)). The process is demanding to detect and respond to ever-changing environments, and these firms still lacking abundant resources to develop new knowledge which would be required for any adaptation ([Naudé et al., 2014](#); [Nemkova, 2017](#); [Rothwell and Dodgson, 1991](#)). SMEs often operate in different contexts with diversified risks and challenges, which requires to be continuously reactive to the unpredictable context incidents ([Chan et al., 2019](#)). These circumstances is making the existence and development of strategic agility capabilities is likely to be a challenge for these firms ([Mueller and Jungwirth, 2020](#)). Even though, they are typically learner and more flexible compared with large organizations, but, still resources constraints and lack of slack resources hinder SMEs in detecting external opportunities or in responding to environments incidents ([Arbussa et al., 2017](#); [Chan et al., 2019](#)).

These challenges SMEs are facing to be strategically agile differs from one context to another and it makes the construct of strategic agility having variant understanding and practices. On the top of the above challenges, knowledge paucity of SMEs strategic agility and context dimensions is appealing (Arbussa et al., 2017). Thus, this paper contribution will focus on the context impact and interaction with SMEs strategic agility practices. This contextualizing perspective of SMEs strategic agility encourages us to see, consider, and analyses varieties of practices and understanding that too often remain invisible to us. This is not only about expecting and finding differences across markets, it is also about identifying and developing theoretical framework to understand differences where we might otherwise expect sameness (Welter et al., 2019).

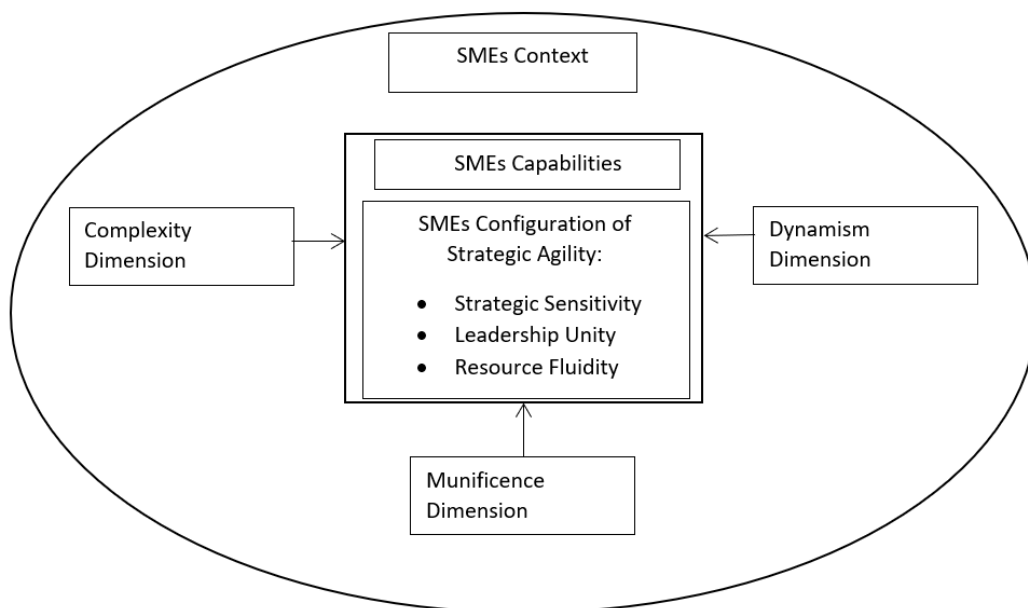


Figure 4.1: Strategic Agility of SMEs and Context Dimensions

4.3 Research Design

Following the path of the theoretical background of context and SMEs strategic agility interaction, and after posing a thoughtful research question, the evidence from multiple cases is often considered more compelling, and the overall study is therefore regarded as being more robust (Herriott and Firestone, 1983). Especially, when it comes to the healthcare system that links multiple components of great complexity with continually and rapidly changing rules (Yin, 1999). All of these conditions, favor the use of multiple case study design over other empirical methods, to gain insight into the mega systems and to assess them (Neustadt and Fineberg, 1983; Yin, 1999). The choice of this research design is backed by its intense focus on single phenomenon (e.g, Yin, 1999) which is in this study, SMES strategic agility and context interaction .

The empirical focus of the study is limited to SMEs operating healthcare industry in developing and developed markets, distinguished by their ability to respond to context incidents. The research question as well as the conceptual and empirical of this research, made us to adopt a qualitative, exploratory research methodology. This exploratory study is providing a description of SMEs strategic agility practices and context influence objectively, while adopting a multiple case study research design (e.g, Pauwels and Matthyssens, 2004). Yet flexible enough, to allow for a research design to meet the challenges of the actual research question combining the construct of strategic agility and the context.

Within the current niche of qualitative research in the management literature, multiple case study methodology remains the most important research method by far (Werner, 2002). Through this research design, this study is aiming to have a objective investigation using various data from a group of SMEs operating in healthcare industry context. By doing so, our aim is to construct an explanatory driven theory

(e.g, [Bourgeois III, 1979](#); [Peterson, 1998](#)) able to capture differences in SMEs conceptualization and practices of strategic agility, also to provide an explanation of these differences based on context dimensions contribution.

In the present section, we discuss the methodological architecture of this study and we present how case selection, data collection, analysis, and generalization were performed following the standard pillars of multiple case study research design of [Pauwels and Matthyssens \(2004\)](#), [Yin \(2009\)](#), and [Ghauri et al. \(2020\)](#). Referring to the under-investigated interaction of the context and SMEs strategic agility, the purpose behind choosing multiple case study research design is to provide an extensive description of different strategic agility practices, also to produce possible interaction with industry context. Since the aim is to deal with the link needed to be traced between context and strategic agility, a multiple case is the fit design to provide an explanation to the study's research question. The multiple case study research design is a suitable methodology to this study, also with the fact that it is examining a contemporary event without manipulation of relevant behaviors. The chosen design is strongly distinguished by the ability to combine a variety of evidence including interviews and documents which will give a better chance for an efficient data triangulation process.

4.3.1 Case Selection

To reach to a study generalization from our case study design, it is accomplished by using a replication logic ([Yin, 1994](#)). The choice of the SMEs cases considered to be critical to our theoretical framework was done according to [Small \(2009\)](#) logic of case selection, describing the interdependence relationship of SMEs strategic agility practices and context. Initially, eight cases of small and medium enterprises were selected, in which four are located in the developed countries (Sweden, France, Netherlands, Italy) and other four are located in developing countries (Kenya, Singapore, Ghana,

Nigeria). The companies size ranges between small firms with 15 employees and medium firm with employees up to 50. These SMEs are operating in the healthcare industry and their business activity include service providing, equipment supplies and device manufacturing. All of these firms are founded before COVID crisis and they all demonstrated acquisition of certain dynamic capabilities able to interact with the market unexpected incidents in the last period. To select the SMEs as study's unit, five dimensions were used: the market typology includes developing and developed ones, company's size, industry focus, flexibility to change, and existence in the market for a period not less than 3 years to demonstrate firm's ability to cope with healthcare industry latest incidents. To do so, accessible database was used to collect all these information about the selected cases.

The focus on the healthcare industry in this study came to reply to the knowledge paucity of industry as a context, also due to the succession of events and changing conditions happening from the COVID crisis in this industry. According to 'Deloitte global healthcare outlook 2021', the vulnerability of healthcare industry to shock became painful apparently during the pandemic. It caused a shortage in medical equipment, devices, and pharmaceutical products which resulted to volatile marketplace. This led the medical manufacturing companies, distributors, and service providers to struggle with costs inefficiencies and disrupted supply chain which made the whole system to loose significant amount of resilience.

A 'control tower' approach can help medical companies to proactively manage their supply chain and can adopt a proactive strategy to recognize the extraordinary cases and identify the right triage and solutions as Deloitte experts suggest in their latest report on global healthcare. However, effectively managing both short term complications and long term expectations, is requiring specific skills and capabilities to

interact with environment advanced technologies and to co-exist in the competitive markets. These skills were demonstrated when providers embraced virtual technology in unprecedented numbers, so they could continue to serve patients despite restrictions. In doing so, they packed a decade's worth of reforms into a few short months, as Deloitte experts confirmed. Players across the industry boosted many capabilities to respond to ongoing shifts in healthcare needs, consumer behavior, and disruptive innovative solutions.

Now, as we start to move from crisis response to recovery and reform, a lot of changes took place in this industry and a set of long standing common issues is still affecting the health ecosystem, a series of transformations has been altering the traditional paradigms and they will continue in coming years. Despite all these challenges 'Pwc Global Top Health Industry Issues 2021', noted that the industry has the potential to re-imagine healthcare as it progresses to a new normal, to build a more resilient and dynamic system open to new possibilities and providing a better experiences to patients. This is expected to seen on projected revenue to reach US459.70bn in 2022, and to show an annual growth rate (CAGR 2022-20225) of 11.8 percent according to 'Statista Healthcare worldwide report, June 2022'. The attraction and the focus of this study is directed towards SMEs operating in this industry, as these enterprises have a massive participation in the healthcare industry. Additionally, to an intensive environments changes, all these factors made the healthcare industry a suitable field to explore SMEs proactive and reactive approach toward unpredictable incidents.

4.3.2 Data Collection

In an effort to identify context and SMEs strategic agility interaction, this research was carried out in a small and medium enterprises operating in healthcare industry in developing and developed markets. Eight individual in decision main units, man-

aging directors, co-founders and Chief executive officers were interviewed. A semi structured interview was conducted, focused on the industry context dimensions (on macro, meso and entrepreneur levels) combined with the practices of strategic agility, to capture the possible existing interactions, differences and similarities in developing and developed markets. From this research a list of internal and external dimensions of industry context interacting with SMEs strategic agility was constructed.

As difficult as it was to identify cases, so smooth it is to select the appropriate respondent, all managers that are playing an important role in change making and decision taking in these SMEs were interviewed. In the majority of the cases, the interviews were performed in top management level. Interviews were performed online in two languages (French and English). The Semi-structured interviews as a dominant data collection method were lasting between 40 minutes to 1 hour. Following [Flinders \(1997\)](#) guidelines and considering the triangulation purpose of the data collection, interviews as a first stream were combined with a secondary stream of data composed of healthcare reports as a references to gather macro-level data, and companies profiles, and some shared documents were also consulted to strengthen the evidences of case studies. In using multiple sources of evidence, the goal during the data collection process is to amass converging evidence and to triangulate over a given fact ([Yin, 1999](#)). Moreover, to secure the formality of the study design, a case study protocol was used to define data collection process and to promote triangulation following [Yin \(1999\)](#) guidelines. By doing so, the purpose was not only to gather the data but also to make the respondent aligned with the research agenda and inquiries to get a various evidences to triangulate.

4.3.3 Strategy of Analysis

One of the important features of case studies design is tolerating the condition whereby boundary between a phenomenon and its context is not clear (Yin, 1999). This method has sufficient flexibility to cope with this uncertainty and through its analysis this study is aiming to describe the interaction happening between SMEs strategic agility as a phenomenon and the healthcare industry as a context in developing and developed countries.

This study initiated by spotting an existing gap in the literature of context and strategic agility referring to the contingency theory, this review of the literature got presented in a research question that shaped the data collection plan and therefore yielded analytic priorities. This gap combined with the unclear stated interaction in the literature between context and strategic agility of SMEs in developing markets made also the data to suggest useful relationships. Thus, to secure the link of the case studies to some interesting concepts and referencing to Tight (2010); Yin (1998, 2009) strategies, this study is adopting deductive analytic strategy relying on some theoretical background and exploring the possible existing interactions among the concepts.

The multiple case study design of this research have started with a predefined groupings of SMEs located in developing and developed countries. This has facilitated the task to create categories and feature for the data analysis among both groups. Opting for a cross case synthesis method of Yin (2009) and Yin (1998), each case data is analyzed independently and a comparison of all cases findings allowed to explore whether cases being studies is replicating or contradicting each other in each category's finding. By doing so, the aim is to reach to a confirmation or contrast of the original expectation and to connect to prior research that has been reviewed while

developing this study. The result of the data analysis is a theoretical contribution that considers case studies from the stand point of study design (Yin, 1994).

4.4 Study's Findings

4.4.1 Interaction of SMEs Strategic Agility and Context Dimensions in Developing Countries

In this study, we investigate the context with a focus on the healthcare industry in developing markets and the strategic agile SMEs as a key player of this industry. The study include four agile SMEs operating in Singapore, Kenya, Nigeria, and Ghana markets. The analysis done on the macro and organizational level reflected that the four developing markets are resulting into two groups, each of them is having different specifications of healthcare industry dimensions and this is impacting on the startegic agility behavior and practices of SMEs. The first group includes healthcare industry context and SMEs operating in the Singaporean and Ghanaian markets, these two contexts illustrate similarities in dimensions and specifications. In both contexts, the healthcare industry is in growth stage regarded as attractive with growing opportunities. The sales performance of SMEs is also appealing and encouraging companies to be innovative. the healthcare industry in these markets is well structured and managed collaboratively among private and public sectors. In the other side, there is enough market opportunities for new entrants which made these contexts to be considered as hub of healthcare technologies. This includes the immense growth of digitization and personalized healthcare solutions.

Furthermore, this healthcare industry contexts are found to be unstable with some environment turbulence, including appearance of new rules in healthcare regulations, changes in market demands with strong orientation toward digital primary care fa-

cilities. These contexts are exploring variety of emerging technologies and providing open opportunities to SMEs to launch new innovative medical solutions, trajectories, and competencies. However, when it come to the context complexities and challenges, the healthcare industry in Ghana and Singapore found to be a supportive environment, with less entry barriers. These contexts in growth stage, are distinguished by modest level of competition among SMEs in healthcare industry where innovation initiatives are strongly supported. Additionally, the healthcare regulations found to be robust, but the institutional support provided by governments or private institutions is helping SMEs to faster legal processes and get connected within the local and international markets.

Evaluating strategic agility of SMEs in healthcare contexts in Ghana and Singapore, on the strategic level, these firms are having a long term vision despite the dynamic character of the environment. They tend to balance a hybrid approach combining a proactive planing toward long term growth and reactive approach when it comes to unpredictable market changing trends. This ensure SMEs flexibility and anticipation to market needs, to remain competitive and secure first mover advantage when it is needed. Over and above that, SMEs in these context adopt an efficient management of resources allocation and flexible in assigning resources to projects based on industry incidents. Furthermore, these SMEs internal working methodology is well structured, based on a horizontal communication process. These SMEs are achieving a growth in sales performance and they are also securing an abundance of human capital knowledge, networking, and IT solution resources.

The leadership practices within these SMEs are strongly influenced by leaders international experience and understanding of the local market. The leader role as a first mover to initiate change within the company, his intangible knowledge about inter-

national healthcare industry is nurturing SMEs resources. Additionally, the culture adopted drew on loyalty, involvement and change mindset, securing collective commitment of human capital. Quite aligned with the adopted participatory management approach formed on delegation and shared responsibilities. Building on the above finding, the dynamic interaction between these supportive contexts and SMEs strategic agility is constant in Singaporean and Ghanaian markets as [Figure 4.2](#) illustrating. The growth opportunities, modest competition, market uncertainty and supportive system are allowing SMEs to have a balanced proactive-reactive approach to face environments challenges and secure abundance of resources to encourage innovation productivity of healthcare solutions.

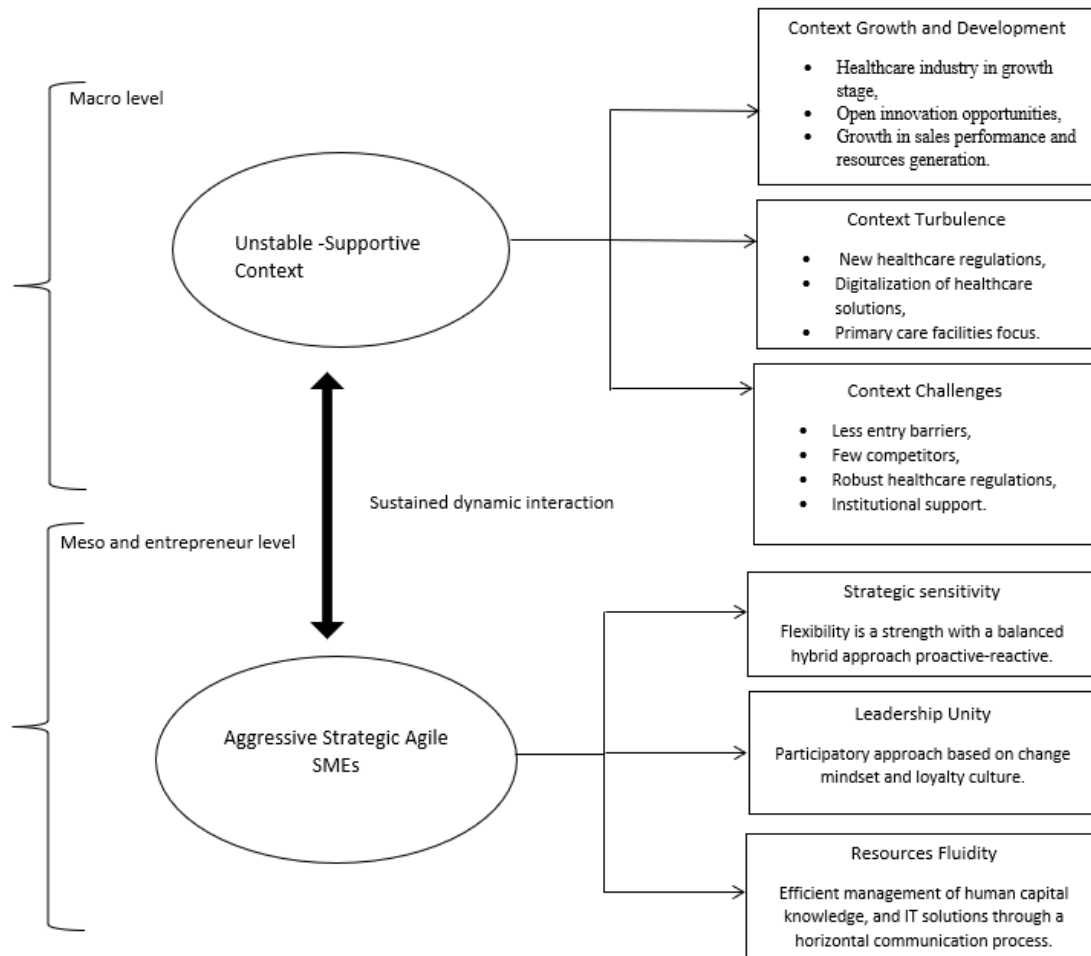


Figure 4.2: Sustained Dynamic Interaction of Healthcare Industry and SMEs Strategic Agility in Developing Countries

The analysis of the finding revealed a different specifications of the healthcare industry context in Nigeria and Kenya markets, impacting on the companies strategic agility performance. On the macro level, the healthcare industry is having a similar growth opportunities as the first group and attractiveness of new entrants, as well as openness toward innovative solutions. However, despite the increasing tendency of healthcare digitization demand, the sales performance of SMEs in these markets is considered to be low, impacted by the dominance of the public institutions providing healthcare services and owning huge market share. This in combination with

COVID crisis made SMEs to have less growth and generate few resources. In term of dynamism, the industry in this second group seems to be stable with slow changing trends in market demands. This is also linked to the governmental control on the sector, leaving small margin to the launching of new healthcare technologies by SMEs and other companies.

Assessing the context complexity and challenges of this group, the findings illustrate similarities between both groups in term of strict regulation of the industry and less competitive environment. However, in Kenya and Nigeria, SMEs do not get any institutional support to boost their innovation process or to generate more resources. This lack of support consolidated by public service providers dominance, is making the environment challenging for these firms. On the other side, SMEs under these conditions tend to be strategically agile with some existing limitations. Their strategic sensitivity practices, are conservative with tight flexibility and proactive vision. The SMEs expressed that lack of some resources and institutional support is making their reactive approach to be slow toward unpredictable market changes.

SMEs resources fluidity capability, found consistent with the first group in term of resource management efficiency and allocation, also in communication fluency. Unlike the other context, in Nigerian and Kenyan markets, SMEs are facing a scarcity of networking resources and IT skills. However, they always tend to have a structured and connected working methodology within the company. Similarly, SMEs in both groups, their leadership unity appeared to be similar in appreciating the international experience and the market knowledge of leaders, also in adopting participatory management approach and the change mindset culture as reported in [Figure 4.3](#). In this second group of developing markets, the healthcare industry in Nigeria and Kenya noticed having an interrupted dynamic interaction between the industry as a con-

text and the SMEs strategic agility practices. This is due to the lack of providing networking resources and institutional support to improve SMEs performance, which made these firms to be conservative in being strategically agile, seeking to nurture more resources and lift their reactivity towards the market turbulence.

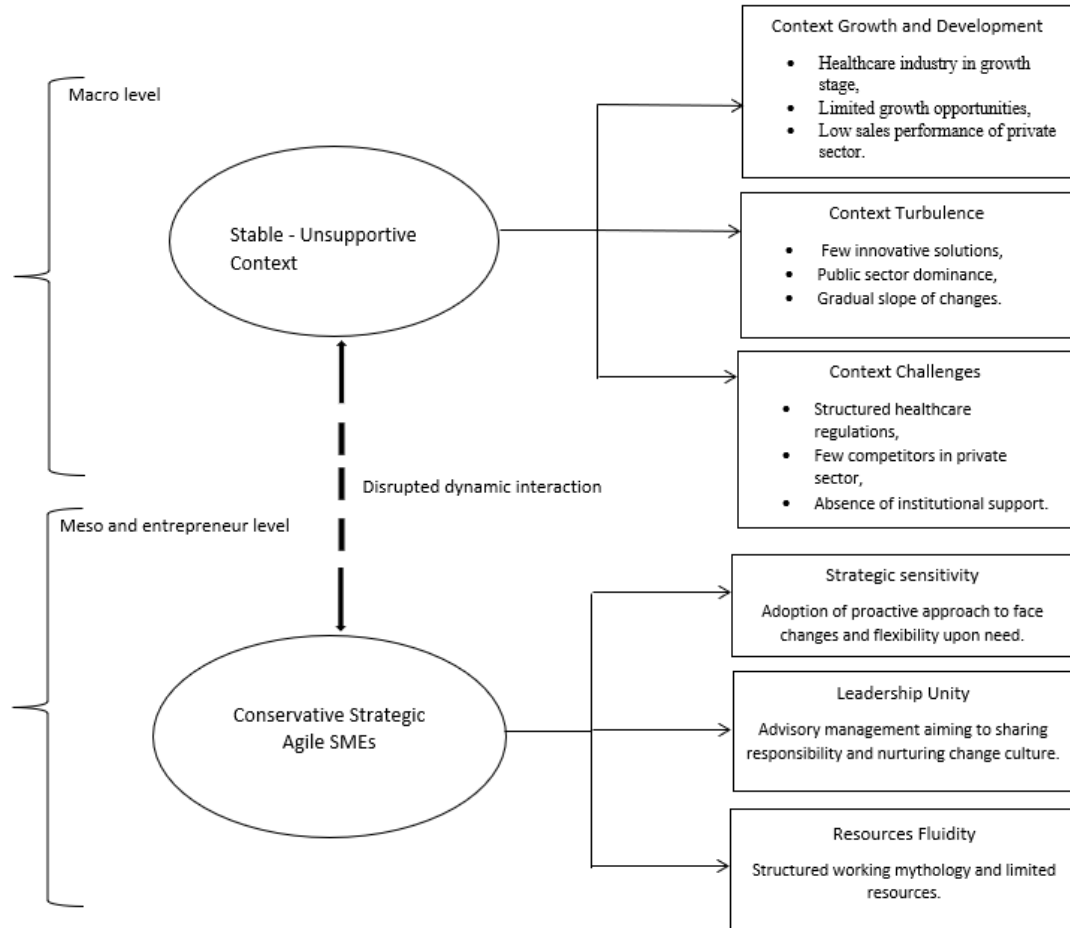


Figure 4.3: Disrupted Dynamic Interaction of Healthcare Industry and SMEs Strategic Agility in Developing Countries

Ultimately, Figure 4.4 reports the finding regarding the relationship of healthcare industry as context and strategic agility of SMEs. We argue that context dimensions specifications differs in developing countries and firms tend to behave differently according to the context circumstances. In the first group of supportive and unstable environment, the healthcare industry is in growth stage, providing support to compa-

nies and boosting innovation opportunities and companies performance. Under these conditions, SMEs behave aggressively to deliver change, to develop flexibility and agility practices. They are able to balance their strategy opting for both approaches, proactive to anticipate change and reply to future needs, and reactive to respond to unpredictable incidents. This is achieved through abundance of resources.

While the second group of analysis in developing market, is illustrating a stable and non supportive context, where the public sector is controlling the healthcare industry limiting changes, intensity of unpredictable incidents, innovation opportunities, and not providing support to SMEs. Additionally, the challenges of facing robust regulations and less growth opportunities are impacting on strategic agility performance of these firms. They are decent with conservative approach toward change adoption. They are liable on the proactive approach and they take long time to respond to industry changing trends due to resources limitations. Furthermore, SMEs managers and co-founders in both groups of analysis provided an awareness of the strategic agility as a daily practice stating that 'It is a set of capabilities driven by an approach to interact with the environment and to achieve goals'. The aggressive agile SMEs are achieving the balance of strategic sensitivity, leadership unity and resources fluidity, while conservative agile SMEs requires some supportive contextual conditions to generate resources and internal initiative to take risk, to make changes and to get the first mover advantage.

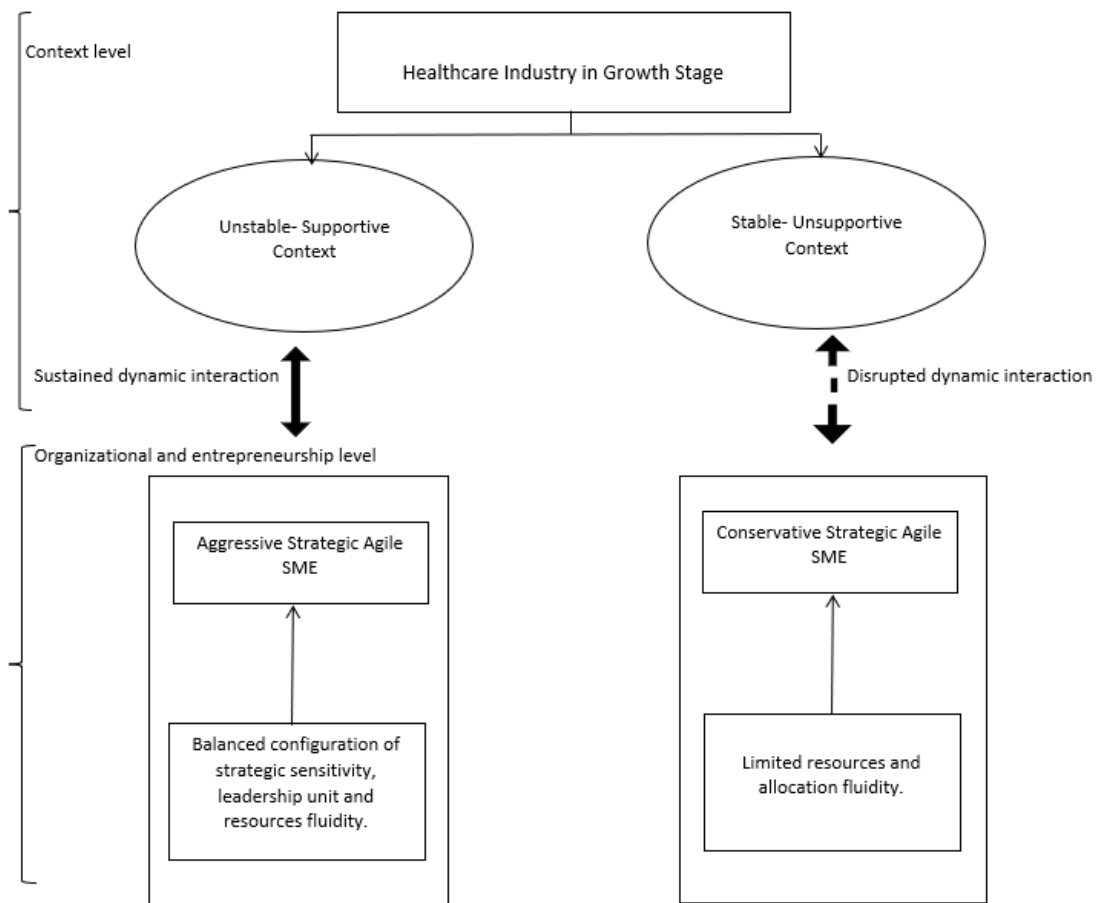


Figure 4.4: Context Classification and Interaction with SMEs Strategic Agility in Developing Countries

4.4.2 Interaction of SMEs Strategic Agility and Context Dimensions in Developed Countries

The macro analysis of the healthcare industry dimensions and the micro analysis of SMEs strategic agility in developed countries, including Italy, Sweden, France and Netherlands, issue similarities in both level of analysis among all interviewed companies. On the context level, the healthcare industry is considered well developed and rich of innovative solutions. This led to high entry barrier for new innovative firms willing to launch new healthcare solutions as the market is well dominant by

big players like Siemens and Philips. In addition, the healthcare industry in these countries is in a mature stage of growth with a small market share for SMEs. This made these company's sales performance smaller in the local market comparatively to their performances in other international markets.

Context dynamism dimension is distinguished by sustainable changes in healthcare demands and provided solutions. Many trends emerged in healthcare industry in these countries since COVID crisis which increased the needs of tele-medicine solutions with personalized features. The changes reached also to the regulations and certification process by introducing GDPR(General Data Protection Regulation) and MDR (Medical Device Regulation)rules, which imposed on SMEs to adapt to these changes to keep performing in these markets. Unpredictable incidents are also key features of these of industries structure, where it manifests through a decline of sales in hardware solutions due to financial restrictions, while the software demand trend is in a continuous growth. Regarding the complexity of healthcare industry in developed countries, the findings disclose high level of competition as a consequence of substituting solutions.

Furthermore, SMEs are having a specific growth time to develop their innovative solutions, and they get acquired by big player of the industry to avoid competition threats. Moreover, it is a heavily regulated environment, requiring quality and efficiency in growth performance for SMEs to remain competitive. On the top of that, Securing a competitive advantage is difficult under the existence of imitation risks. Despite all these challenges, healthcare industry context in developed markets is extremely supportive, in providing local and international networking facilities, funding resources, and professionals training from public and private experts.

In parallel to the context dimensions, SMEs in healthcare industry in four countries behave similarly towards environments dynamism and hostility. On the strategic level, SMEs are always seeking balance between proactive vision by listening to stakeholders needs in their ecosystem, and reactive approach to cope with new regulations and unpredictable incidents. They are flexible in adaptation to change when it comes to providing solutions to external environment, as well as to adjust internal working approach. Flexibility is key strength for these SMEs. On the organizational level, internal culture is established on common consensus of collective goals achievements, value creation to healthcare industry, well being, work quality and change mindset. Likewise, the participatory and advisory management approach is letting the decision making process more inclusive. More importantly, the leaders international and local experience matter for the flexibility and the strategic vision of the SME.

Along with these capabilities, the operational practices of SMEs strategic agility, manifest an efficiency in allocating and reallocating resources to projects based on healthcare industry requirements. Communication as crucial process is well structured within and outside the firm securing needed connection to implement change. Furthermore, these SMEs expressed the importance of human capital, intellectual property, knowledge, learning skills, and agile working methodologies as compulsory resources to remain flexible, agile and competitive in such challenging markets. All analysis considered as presented in [Figure 4.5](#), SMEs manger's operating in this context are having an agile mindset with advanced knowledge about the concept of strategic agility, providing a practitioner understanding as 'a multi-factorial approach composed of set of capabilities, executed in a non linear process to face environments incidents and to deliver change'. These SMEs practitioners manifest existence of all capabilities, while their importance percentage differs based on the SMEs life cycle. Specifying strategic sensitivity and leadership unity as essential capabilities in the

creation and start up phase because of the essential role of setting a long term vision and leadership guidance at this stage. Unlike, in growth and maturity stage, the SMEs are requiring all capabilities balanced to have a long term vision, to secure growth and to initiate change.

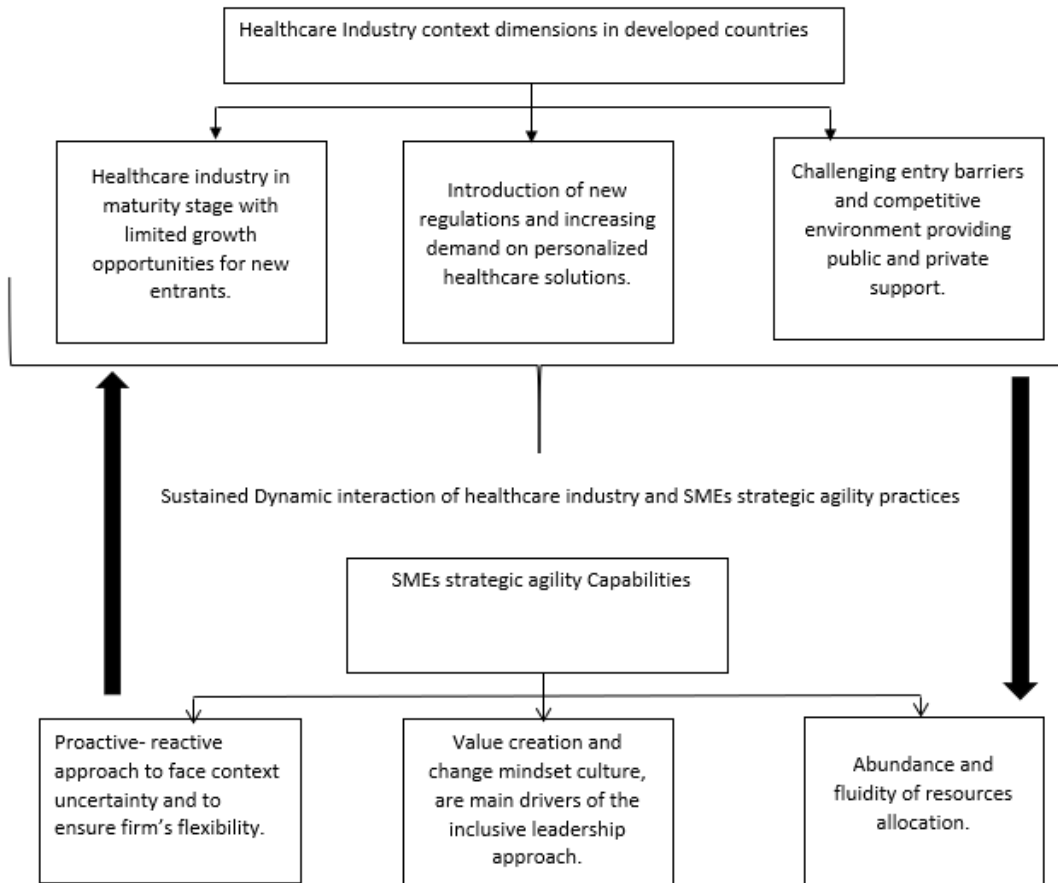


Figure 4.5: Sustained Dynamic Interaction of Healthcare Industry and SMEs Strategic Agility in Developed Countries

4.4.3 The Proposed Model

Figure 4.6 reports the key dimensions of healthcare industry as a context and SMEs strategic agility in both developing and developed markets. Two components are integral to this model. The first is the context features different within the devel-

oping market, which created two context categories, supportive-unstable and stable-un-supportive environment. This made SMEs having divergent behavior as well, recognized as aggressive and conservative in strategic agility practices. Unlike the developed markets sharing the same context features and SMEs tend to behave in a homogenous way toward external conditions.

The second component is the dynamic interaction of the context and SMEs strategic agility practices. This interaction in some developing countries observed to be disrupted, being interrupted by the lack the environment support, and low growth performance. This is demonstrated immediacy by less reactivity from the SMEs side toward market incidents and small change initiatives due to scarcity of some resources as essential foundation to nurture strategic agility capabilities. Contrasting to the interaction of context and SMEs practices of strategic agility in developed markets and in other developing markets. It seems to be sustained through a continuous supports from public and private institutions, building internal and external networking with a continuous growth opportunities. SMEs in this last scenario found to be strategically agile with daily practices of strategic sensitivity, leadership unity and resources fluidity capabilities.

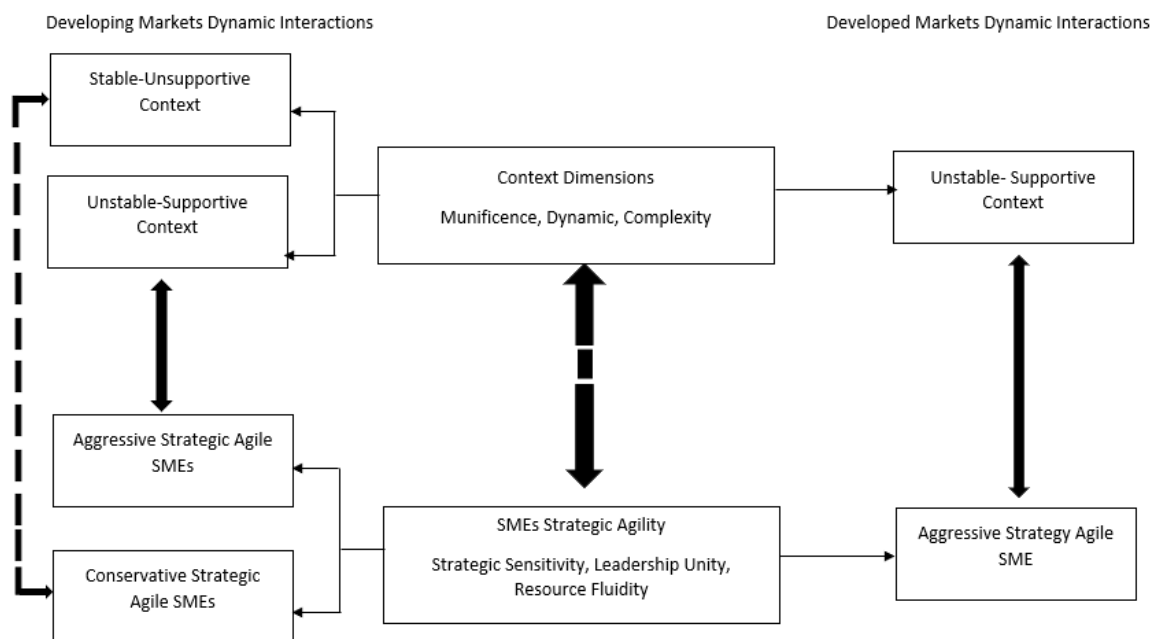


Figure 4.6: Interaction of Context Dimensions and SMEs Strategic Agility in Developing and Developed Markets

4.5 Discussion of Results

The present research investigation is a responding attempt to one of the literature gaps declared by [Jones et al. \(2011\)](#), stating that research on small and medium enterprises often fails to account for their context. Thus, this study is formed on a multilevel analysis: the context of SMEs on the macro level, in parallel with the organization and entrepreneurs as meso and entrepreneur level of analysis. This study explores the multidimensional features of the healthcare industry as a context contributing to the literature call of [Zahra et al. \(2014\)](#), by extending the consideration of other context typologies as the business industry and markets. The dimension features found in the industry context in developed and developing markets are aligned with the organizations theory dimensions of context of [Aldrich and Reiss Jr \(1976\)](#) and [Dess and Beard \(1984\)](#). It incorporates growth of industry, development and

sales performance, allowing SMEs to generate resources, described as the munificence in [Starbuck \(1976\)](#) study. Through this dimension, the healthcare industry in developing countries is considered in growth stage but differs in features which is impacting on the proactivity and reactivity of SMEs in these markets.

The second dimension related to environment turbulence and unpredictability is also confirmed as dynamism in [Dess and Beard \(1984\)](#) study. This context feature is creating differences in healthcare industry across markets. In some developing markets, the industry is controlled by public sector not allowing frequent appearance of changes initiative and innovation opportunities. Unlike, other developing and developed markets, where the private sector is dominating and competing in initiating change through launching innovative solutions. The third context dimension is identified as competition level, and market challenges aligned with complexity dimension of ([Dess and Beard, 1984](#)) study. Through this dimension, we explored also an essential context feature making healthcare industry in the same category of developing markets to be inconsistent and impacting differently SMEs strategic agility. This is due to the support provided by public and private institutions to SMEs, allowing resources generation, and providing facilities for capabilities development. This made the contexts to be divided into supportive and un-supportive environment.

These contexts dimensions that tend to vary independently in developing and developed markets are impacting SMEs behavior and practices of strategic agility. The finding on the organizational and entrepreneurship level of analysis is confirming the contingency theory statement of contextual factors, such as market and external environment influencing the design and the capabilities of an organization ([Schiffres et al., 2012](#)). The study finding reveal also a fundamental difference between strategic agility of SMEs operating in healthcare context in developing and developed markets. Thus,

the stable and un-supportive healthcare industry in some developing markets, like Kenya and Nigeria, is letting SMEs to be reluctant towards external incidents due to limitation of resources and networking. Although the proactivity attribute, flexibility, and change mindset are demonstrated within the organization, but they remain insufficient to face environment uncertainties. This is supporting [Naudé et al. \(2014\)](#) and [Nemkova \(2017\)](#) earlier finding, stating that SMEs lack of resources abundance may slow the knowledge development required in market adaptation. Consequently, in this contexts SMEs are employing strategic sensitivity and leadership unity capabilities openly, unlike the restricted practice if resources fluidity. [Aldrich and Mindlin \(1978\)](#) conceptualization of environment role in generating resources and information to organizations support this view.

However, the unstable and supportive healthcare industry context in developing and developed countries like (Ghana, Singapore, Italy, France, Netherlands, and Sweden), SMEs are found to be aggressively agile and flexible exploiting a balanced approach of proactivity and reactivity, to face external uncertainty and to deliver change. The trend of our finding with regard to the SMEs proactivity and reactivity being impacted by the three context dimensions (munificence, dynamic and complexity) is contributing on previous findings of [Lumpkin and Dess \(2001\)](#), arguing that the industry life cycle as a growth dimension is affecting the SMEs emphasis on proactivity and flexibility.

Furthermore, responding to the literature gap of research scarcity exploring SMEs strategic agility in developing markets (e.g, [Arbussa et al., 2017](#)), this study is contributing in this theoretical line, revealing heterogeneity of SMEs capabilities practices in developing markets due to some diversity of context features. Although, the finding of practitioners understanding and conceptualization of SMEs strategic agility in de-

veloped and developing countries found to be similar and consistent with the dynamic capability literature definition of strategic agility of [Ofoegbu and Akanbi \(2012\)](#), [Doz and Kosonen \(2010\)](#), [Ivory and Brooks \(2018\)](#), [Doz and Kosonen \(2008\)](#) and [Arbussa et al. \(2017\)](#), described as 'a multifactorial approach composed of capabilities, practiced in a non linear process to face environment uncertainty and to deliver change'. Additionally, confirming the fact of SMEs facing environment challenges and lack of resources, The study's finding is spotting a crucial criteria of capabilities importance throughout the company's life cycle. The finding suggest that SMEs in the start up phase employ strategic sensitivity and leadership unity capabilities, while in the growth and maturity phase they tend to exploit all the capabilities to secure growth and flexibility.

In summary, this study has found that the three dimensions of healthcare industry in growth stage tend to vary of each other. This is leading to have two different type of strategic agile SMEs, aggressive and conservative. While the three dimensions of healthcare industry in maturity stage are similar developing a homogeneous behavior of SMEs being aggressively agile, the same dimensions are being heterogeneous in healthcare industry in growth stage impacting SMEs behaviors. The interaction of the context and the SMEs strategic agility is also having the tendency to be sustained and disrupted based on the context dimensions features. Future research may benefit from our findings, from considering the similarities and differences of the same context across developing and developed countries, also from exploring strategic agility with an external-internal perspectives confirming that its practices is strongly related to the environment conditions. Our finding suggest, that a somehow extending the investigation on new developing and developed markets and inclusion of industry experts from both markets may be useful to generate more specifications that could create context differences also in developed markets. For SMEs co-founders and

managing directors in developed markets, this study suggests that going international with all your capabilities to face change will secure more growth opportunities. For practitioners and co-founders of SMEs in developing markets, this study suggests that to secure a first mover advantage is requiring a balanced proactive-reactive approach that may require an independence in resources generation.

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CHAPTER V

CONCLUSION

This thesis contributes to the ongoing debate of SMEs strategic agility conceptualization and practices in several ways. First, we provide a systematic review of all existing definitions of the concept in the literature and we drew our holistic theoretical framework. Focusing on the dynamic capability theory, we identify strategic sensitivity, leadership unity, and resource fluidity as capabilities based on micro foundations and executed through different mechanisms allowing SMEs to be strategically agile. The inclusion of the micro-foundations and the practicing processes, helps to provide the understanding of strategic agility as a systematic and structured interplay of capabilities requiring specific foundations to ensure SMEs flexibility toward uncertain environment incidents.

Second, we provide theoretical reasoning and empirical evidence (e.g. [Clauss et al., 2019](#)), for all strategic agility dimensions and practices within SMEs. Third, we extend the conceptualization and definition of strategic agility into the practitioners side to capture managers understanding of the concept and to combine it with the scholars conceptualization. Our empirical findings also support the fact that strategic agility practices within SMEs differs than the practices of big corporate structures. Hence, we broaden the scope of strategic agility and we advance previous knowledge by showing that SMEs have different foundations, practices, and processes to be

strategically agile.

Each of the three meta capabilities of strategic agility is being achieved through certain micro capabilities. 'Strategic sensitivity' is practiced through continuous surveillance and market knowledge of the top management team. Rapid decision making and flexible strategic vision, are also among the practices of strategic sensitivity. Not only these, but also the adoption of the proactive-reactive approach is allowing SMEs to anticipate market needs and plan it, at the same time, to adjust its direction according to unpredictable incidents. SMEs strategic sensitivity practices require a preliminary foundations, enabling the company to nurture its capability and to facilitate change mechanism. The foundations include the firm's strong networking and connection to the ecosystem, combined with good knowledge about external environment, which secures efficiency of market surveillance. Moreover, adoption of an inclusive decision making approach and responsibility sharing, is also letting top management team to respond quickly to environment changing conditions.

The second capability 'leadership unity' practices, are formed on ensuring collective commitment and group objective oriented team. Adding to this, sharing responsibility and adopting fluid communication process within and outside the firm, is letting SMEs to secure unity of the human capital. Furthermore, leadership style and participatory approach practices are also contributing to the organizational flexibility of SMEs. These practices, are achieved when SMEs are having a divergent team with all necessary skills from different background, and when top management team is having an international experience and market knowledge allowing the leaders to have a better understanding of the market trends and changing demands.

'Fluidity of resources' as another capability is considered as a challenging practice for

SMEs, due to the limited resources of these companies. However, as SMEs are found to be strategically agile, they are finding some practices facilitating resources reallocation without impacting the performance of the firm. These practices depend on SMEs having a strong networking with the ecosystem from where they can generate tangible and intangible resources and avoid restricted situations. Moreover, adopting an efficient method of resources allocation to projects based on priority and emergency is letting these companies to invest correctly and respond to market needs. Therefore, since agility of companies depends on agility of its human capital, a motivational, inclusive management approach, and adoption of change culture within SMEs are also considered essential practices of resources fluidity. This capability found to be dependent on certain foundations, like failure acceptance as an crucial value helping SMEs to be strategically agile.

Logically extending from the finding of our empirical investigation and considering the external factors impacting SMEs strategic agility, this thesis is also contributing to reflect the context impact and interaction with SMEs strategic agility. In this regard, we are contributing to the knowledge advance about context by considering the industrial context as a focus of the empirical investigation. We referred to the context dimensions in the literature: dynamism, complexity, and munificence and we noted that these dimensions features are heterogeneous when it comes to healthcare industry context in developing and developed markets. However, they are homogeneous among healthcare industries in mature developed markets.

Our finding add also to the contingency theory by providing impacts and interaction between industry context and SMEs strategic agility. The interaction classification, generated from this study is helping to demonstrate that SMEs in developing healthcare industry are lacking the reactivity aspect toward the market incidents due to

limited resources. This is leading to unbalanced practices of strategic agility, letting these firms to leverage more on strategic sensitivity and leadership unity, while it requires further support to develop their resources fluidity capability.

On the other side, the impact and interaction between developed healthcare industry and SMEs strategic agility, findings demonstrate that these firms are having an equilibrium of practicing strategic sensitivity, leadership unity, and resource fluidity thanks to the institutional support helping SMEs to generate resources. This interaction is letting SMEs to create market in mature industry context and to secure competitive advantage. More importantly, another finding of our empirical investigations, prove that leaders background, international experience, and market knowledge is strongly influencing the strategic agility practices of SMEs. This is aligned with the finding of [Lewis et al. \(2014\)](#) study, stating that leadership is central to maintaining practices and tensions of strategic agility, defining it as a dynamic competence and a relational process. Through leadership, SMEs have the ability to identify and leverage opportunities and threats, also to exploit internal and external competencies ([Lewis et al., 2014](#)). Especially, in the case of great uncertainty context as the healthcare industry, leaders can set a strategic vision for the followers, also they can foster commitment to its execution and they anticipate change.

SMEs practitioners and founders can draw useful implications from our studies. First, managers who wants to successfully have a strategic agile SMEs, they should make sure they have all necessary foundations and mechanisms, and they attempt to develop the practices. They may not have all the capabilities and they may need only to focus on strategic sensitivity and leadership unity if they are on a start up or launching phase. These capabilities are considered crucial to set a long term-flexible vision. However, if the SME is on the growth and maturity stage, practitioners can nurture

the three capabilities, strategic sensitivity, leadership unity, and resources fluidity, to develop the firm's performance and generate resources to keep facing context turbulence.

Second, SMEs managers in mature industry context having few growth opportunities and facing competitive environment, they should be aware of the importance of being strategically agile and developing a balanced proactive-reactive approach to help in anticipating market needs, create new markets, new segments, and to secure a competitive advantage. Finally, in light of our findings, SMEs managers in both growth or mature industry context, and to secure firm's strategic agility and responsiveness to market uncertainty, they should recognize the importance of having an efficient leadership guidance with a strategic and flexible vision and a leader who will secure the collective commitment of tangible and intangible resources.

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APPENDIX A

STRATEGIC AGILITY OF SMEs:

PRACTITIONERS' PERSPECTIVE AND

INTERPLAY PRACTICES-EVIDENCE FROM AN

ITALIAN SME EXPERIENCE

A.1 Key Informant Interview Questions To D-Heart Team

| | |
|------------------------|--|
| Organization | |
| KII Name | |
| Position | |
| Contact details | |
| Interview date | |
| Interview Time | |

Identification Questions

1. Can you describe briefly D-Heart business activity and sector?
2. For how long the company is operating in the industry?
3. How many people are working in D-heart?
4. What is your responsibility within the company?

Strategic Agility Practices

Practices in Strategic Level

1. Does the team follow the economic and business incidents of the healthcare industry?
2. Do you have a knowledge about latest updates of the tele-medicine sector?
3. How does the directory board know the suitable time to introduce innovative solution or to implement new strategy?
4. What are the company's strengths and weaknesses? how does the company employ strengths to face environment uncertainties?
5. What are the new technologies the company is launching soon in the market? which type of innovation?
6. Does the company take quick strategic decision according to markets incidents? can you give an example of a similar situation.
7. Does the top management team have a clear strategic vision for the next five years? do you intend to change the strategic vision based on environment incidents?
8. Does the company have a knowledge about the future healthcare customers demands?
9. Does the company have a sales forecast for the next business years?
10. Situation like the following: COVID crisis caused an expected shortage of electronic components in the international supply chain, how did your company react to this incident?

11. Being a global SME, does it require from the firm to react to every change happening in each single market? or do you intend only to react to local market incidents?
12. Do you keep having an eye on new entrants' and competitors in the market?
13. How often does the company adjust the strategic objectives? and on which basis adaptation could happen?
14. Is the company open to adopt changes in business model activities to meet customer requirement or to respond to market changing conditions?
15. Does the company adapt internationalization strategy based on each market conditions? can you give an example in this context.
16. Did the company recently change any of its core business activities?

Team's Basic Capabilities in Strategic Level

1. Does the international networking of the company help in gathering healthcare industry knowledge? does the company keep exchanging information with other partners?
2. How often the company's get external support (From public or private institutions)? does it help the company to develop growth opportunities?
3. Which management approach is used in the company while taking strategic decision to change company's direction?
4. Is the top management team flexible to change decision based on other team members inputs?

Practices in Organization Level

1. Strategic decision of the company are taken by top management team or by the whole team?
2. Which type of situation oblige the top management team to take fast decision?
3. Does the team share working responsibilities and duties collectively?
4. When the team is executing projects, do you usually commit collectively to conclude it without any delay?
5. Does team members usually share their expectations from each other in every project?
6. To which extent team members are ware of the tasks dependency to accomplish common objectives?
7. How often the project objective achievement can be destructed by team member's personal agendas?
8. How the top management contributes to secure team member's commitment to project achievements?
9. Which communication approach is used within the company to secure daily communication?
10. While taking fast strategic decision, does the top management take inputs from the team?
11. Do you think international experiences of the team members help in developing company's leadership approach?
12. Is the team adopting a flexible project execution method or usually it is a planned script?

13. How does the company secure communication and coordination of project progress internally and with partners?
14. In case of contradictory objective situation between the company and its partners, which skills are used to manage such situations?
15. Which method the team is adopting to face project failure? can you give an example in this regard?
16. While facing environment incidents like the case of COVID crisis, does it impact negatively on the working environment within the company or it is rather making the commitment stronger?

Team's Basic Capabilities in Organizational Level

1. Does the company often secures team's training to keep developing employees skills?
2. To which extent international experience of top management team is helping the company to keep the team cohesive and to size international growth opportunities?
3. Does the diversity of academic and professional career of the team contribute to the company's innovation?

Practices in Operational Level

1. Does the company's networking help to get knowledge about unpredictable market incidents?
2. Does the various public and private networking help the company to generate resources? can you give an example in this regard.

3. How is the networking and connectivity of the company with private stakeholders?
4. Does the digital networking help to accumulate knowledge and experience, to create new business opportunities in some foreign markets?
5. Based on which criteria the team allocate resources to projects in the company?
6. Which human resource management approach is adopted within the company?
7. Does the team usually get incentives on projects achievements and success?
8. In case of facing conflicting situation while working on common project, how do you get out of it?
9. How can you define the company's structure?
10. How can you describe the company's culture? and what are the main team values?
11. Is the team flexible to adopt change on the business model core or support activities? how often this happen?
12. Does the team usually work on achieving project simultaneously or by priority?
13. Does the resources generated from the projects allows the company to develop new growth opportunities?
14. How efficient the company's supply chain when it comes to respecting lead time and distribution process?
15. Do you often implement change in the company's production systems?
16. Does the company adopt changes in the supply chain according to stakeholders requirements?

17. Is the supply and demand operations of the company's are often balanced?
18. Does the operational team follows a planned activities or they adopt a flexible working method?
19. Is the flow of resources coming from different projects encouraging innovation and efficiency of services provided by the company?

Team's Basic Capabilities in Operational Level

1. How does the company manage the knowledge gathered from external environment?
2. Does the company have a developed information and technology infrastructure? does it help to cope with competitive healthcare technologies?
3. Is the international partnerships providing some market knowledge to the team to face competition?
4. Does international partnerships help the company to get some complementary skills?

Concept of Strategic Agility

1. Which one of the following approach is mostly used when facing unpredictable environment incidents: proactive or reactive approach? can you give an example on this regard.
2. How flexible the company toward environment uncertainty?
3. Does the team consider flexibility and change adoption contradicting to strategic planing?

4. According to your last three years experience within the company facing health-care turbulence, how can you define strategic agility? (Below are some propositions to help you to develop your conceptualization).
 - As a strategy adopted by the company to face environment incidents,
 - As a set of capabilities being practices to improve firm's performance
 - As a strategic process with systematic planing and flexibility of execution,
 - As a contradictory ability combining strategic commitment and flexibility.
5. Do You consider your company strategically agile? can you develop further why?
6. To face healthcare industry unexpected incidents, according to your experience, which team capabilities are essential to be employed?
7. Does the company adopt any strategy of developing the team capabilities?

Strategic Agility and SMEs Performance

1. Can you share some inputs about the company's performance in the last three years?
2. Is the development of the team capabilities helping to increase the company's growth?
3. How can you define your competitive advantage in the local and international markets?
4. Which of the team practices is directly impacting the firm's competitive advantage?

5. Do you consider it possible for a company to be strategically agile with strategic practices only? why?
6. Does the development and practices of the team capabilities contribute to generate growth opportunities to the company?

Interview Confidentiality

The interview answers and data will be reported anonymously, and it will only serve the research work purpose.

APPENDIX B

INTERACTION DYNAMICS OF SMEs

STRATEGIC AGILITY AND CONTEXT

DIMENSIONS

B.1 Key Informant Interview Questions

| | |
|------------------------|--|
| Organization | |
| KII Name | |
| Position | |
| Contact details | |
| Interview date | |
| Interview Time | |

Identification Questions

1. What is the company's business activity?
2. For how long the company is operating in the healthcare industry?
3. How many people are working in the company?
4. What is your responsibility within the company?

SMEs Context: Multi Level Approach

Macro Level

1. Can you describe the healthcare industry in your country? does the industry face unpredictable changes? can you give an example.
2. How is the healthcare regulations in your local market? does it impose changes often?
3. How is the competition level in your local market? how many key player represents your main competitors?
4. To which extent the government institutions in your country are helping SMEs to connect with the international market? does these institutions help your company to explore growth opportunities?
5. Does your company get other supports from private institutions or stakeholders? if yes, which type of support?
6. What are the main changes implemented in your local healthcare industry market during COVID crisis? how did the industry react toward such incident?

Meso Level

1. How connected your company is with the healthcare industry players? can you describe the networking resources of the company?
2. What are the other the most valuable resources of the company (tangible and intangible ones)?
3. What are the main origins of this resources?

Entrepreneur Level

1. Can you share a brief view about your professional experience and educational background?
2. Do you have an international professional experience?
3. Which management approach is adopted within the company? and why?
4. How did your company react toward the COVID crisis, in terms of business solutions?
5. How does the company face the appearance of new competitors and healthcare changing demands?
6. Can you describe the company's culture? what are the company's valuable values?
7. Can you describe the communication mechanism and platform used for that within the company?

Context Conceptualization

1. How do you define company's 'context' or environment as a concept?
2. Can you describe healthcare industry context?
3. How does your company face the healthcare industry changes and incidents?

SMEs Strategic Agility

1. How flexible is your company toward the changes in the healthcare industry?
2. Does your company react to each incident happening in the local healthcare industry?

3. Does your company follow a proactive or reactive approach to adapt to health-care industry turbulence?
4. Which organizational capabilities your team employ to face healthcare industry incidents?
5. How do you define 'strategic agility' as a concept?
6. Does your company have the following capabilities: strategic sensitivity, leadership unity, resources fluidity? does the company adopt any approach to keep developing these capabilities?
7. Please describe a great example of a reaction to market change done by your company in the last 3 years?

Interview Confidentiality

The interview answers and data will be reported anonymously, and it will only serve the research work purpose.

B.2 Summary of Interviewed SMEs

| Company name | Position | Company size (No. of employees) | Business Activity | Country | Year of Foundation |
|---------------------|-------------------|--|--|----------------|---------------------------|
| Ilara health | Co-founder | 20 | Ilara Health is a leading medical products and solutions company that equips healthcare professionals to achieve the best patient, clinical and economic outcomes. | Kenya | 2018 |
| Delft Imaging | Managing Director | 20 | Delft Imaging (Delft) envisions a world in which everyone can benefit from the modern world's medical advances, wherever they live. Delft is specifically dedicated to improving people's quality of life around the world by means of its diagnostic solutions. Through affordable and innovative diagnostics, our mission to strengthen healthcare systems globally. | Ghana | 2003 |
| Carepay | Managing Director | 50 | Trusted by over 4.7 million lives, CarePay gives access to the healthcare people need and deserve. In 2015, the CarePay platform launched the mobile health wallet under the brand name M-TIBA in Kenya and Nigeria. Combining mobile technology and -money so people could save up for future hospital expenses. | Nigeria | 2015 |
| Drop | Co-founder | 15 | Drop's mission is to save lives, by the ability to vector the-nearest-doctor-to-patient during emergency situations, we were literally able to shave minutes and that breakthrough has bought precious extra minutes for surgeons, specialists, ER doctors alike. Doctors are able to get to patients quicker. Nurses are now able to quickly find medical supplies, surgical tools, blood bags, doctor personnel. | Singapore | 2014 |

Table B.1: Companies Interviewed in Developing Countries

| Company name | Position | Company size (No. of employees) | Business Activity | Country | Year of Foundation |
|--------------|-------------------|---------------------------------|--|-------------|--------------------|
| Tessan Booth | Satretgic Manager | 50 employee | Tessan facilitates the deployment of telemedicine and democratizes access to primary care with phygital solutions of teleconsultation augmented proximity in general and specialist medicine. L'expertise technique et l'innovation au service des patients ! | France | 2018 |
| Imaginecare | Vice President | 27 employee | ImagineCare offers a leading digital healthcare platform where patients measure their values from home with direct contact to the healthcare provider via an app.Our platform is developed with healthcare professionals and is fully scalable to constantly meet new needs. | Sweden | 2016 |
| D-Heart | Co-Founder | 15 employee | D-Heart company is producing healthcare innovative solutions. The designed devices are used both by chronic heart patients and by primary health care professionals like general practitioners, pharmacists, caregivers, nurses, and paramedics. | Italy | 2018 |
| Goal3 | Managing Director | 20 employee | GOAL 3 develops durable and easy to use patient monitoring systems for environments with limited resources. Through predictive algorithms we enable health workers to detect acute illnesses when they can still be treated. GOAL 3's vision is: We All Health | Netherlands | 2019 |

Table B.2: Companies Interviewed in Developed Countries