

**UNIVERSIDADE DE LISBOA**

Instituto Superior de Economia e Gestão



# Market Shaping and Orchestration in the Retail

## Pharmaceutical Sector:

### Essays on Value within Business Networks

Daniela Filipa Máximo dos Santos

Orientador: Prof. Doutor José Novais Santos

Prof. Doutora Ana Paula Martins

Tese especialmente elaborada para o grau de Doutor em Gestão

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Lisbon School  
of Economics  
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Universidade de Lisboa



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**For you who always believed...**

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## **Abstract**

This thesis explores value creation, market shaping, and orchestration within business networks, specifically investigating the highly regulated Portuguese retail pharmaceutical sector. It aims to elucidate how network actors manage change to foster value in emergent environments. The study adopts a retrospective longitudinal qualitative case study spanning from 2005 to 2022. Data was primarily collected through 22 in-depth interviews with key sector informants, complemented by secondary sources, and analysed using thematic analysis. The thesis comprises three interconnected studies. The first, a systematic literature review, which conceptualizes value in business networks, highlighting the interplay of relationships, resources, and market dynamics as fundamental drivers, while also identifying some research gaps in dynamic value perception. The second study explores how cumulative exogenous (e.g., regulatory shifts, economic crises) and endogenous (e.g., new hub actors, technological innovation) events influence market-shaping strategies. It reveals the emergence of collective strategies—*influencing, resource mobilizing, and orchestrating*—challenging the notion deliberate market shaping and underscoring the adaptive capacity of emergent networks. The third study investigates the evolution of orchestration mechanisms and practices in emergent networks from the orchestrated perspective. It identifies single, multi-, and co-orchestration types, proposing "mandatory relationships" as a novel mechanism where access to critical resources necessitates alignment with specific orchestrators. Overall, this study contributes to understanding the perception of value creation, market-shaping, and orchestration from a business network perspective. It provides practical managerial insights for managers such as strategic decisions about partnerships and their firms' adaptation to market events. It also contributes to the Sustainable Development Goals by promoting resilient business practices.

Keywords: Business Networks, Market Shaping, Orchestration, Pharmaceutical Retail  
Sector, Value

## **Resumo**

Esta tese explora a criação de valor, a modelação de mercado e a orquestração de recursos em redes de negócios, investigando especificamente o setor farmacêutico português de retalho, altamente regulamentado. O objetivo é esclarecer como os intervenientes das redes gerem a mudança para fomentar o valor em ambientes emergentes. O estudo adota um caso de estudo qualitativo longitudinal e retrospectivo, abrangendo o período de 2005 a 2022. Os dados foram recolhidos principalmente através de 22 entrevistas aprofundadas com informantes-chave do setor, complementados por fontes secundárias, e analisados utilizando análise temática. A dissertação é composta por três estudos interligados. O primeiro, uma revisão sistemática da literatura, conceptualiza o valor em redes de negócios, destacando a interação dos relacionamentos, recursos e dinâmicas de mercado como motores fundamentais, ao mesmo tempo identificando lacunas na investigação sobre a perceção dinâmica de valor. O segundo estudo explora como eventos cumulativos exógenos (por exemplo, alterações regulamentares, crises económicas) e endógenos (por exemplo, novos atores centrais, inovação tecnológica) influenciam as estratégias de modelação de mercado. Este revela o surgimento de estratégias coletivas—como influência, mobilização de recursos e orquestração—que desafiam a ideia de modelação de mercado deliberada e sublinham a capacidade adaptativa das redes emergentes. O terceiro estudo investiga a evolução dos mecanismos e práticas de orquestração em redes emergentes, sob a perspetiva dos orquestradores. São identificados tipos de orquestração singular, múltipla e co-orquestração, propondo os "relacionamentos obrigatórios" como um mecanismo inovador, no qual o acesso a recursos críticos exige alinhamento com orquestradores específicos. No geral, este estudo contribui para a compreensão da perceção de criação de valor, modelação de mercado e orquestração na perspetiva de redes de negócios. Proporciona insights práticos para gestores, como a tomada de decisões

estratégicas sobre parcerias e a adaptação das suas empresas a eventos de mercado. Além disso, contribui para os Objetivos de Desenvolvimento Sustentável, promovendo práticas empresariais resilientes.

Palavras-chave: Redes de Negócios, Modelação de Mercado, Orquestração, Setor Retalhista Farmacêutico, Valor

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## **List of Acronyms**

**ANF** – Associação Nacional de Farmácias (Pharmacy National Association)

**ARA** – Actors, Resources and Activities

**B2B** – Business to Business

**CAE** – Classificação das Atividades Económicas (Economic Activities Classification)

**CEO** – Chief Executive Officer

**CSR** – Corporate Social Responsibility

**COVID-19** – Corona Virus Disease 2019

**IMP** – Industrial Marketing Purchasing

**INE** – Instituto Nacional de Estatística (National Institute of Statistics)

**ISEG** – Instituto Superior de Economia e Gestão (Lisbon School of Economics and Management)

**O** – Objective

**OTC** – Over-the-Counter

**SDGs** – Sustainable Development Goals

**WoS** – Web of Science

# CHAPTER I

## 1. Introduction

*"At a certain point in this business model, I decided to join the Group (...)  
Therefore, this [firm's goal] cannot be achieved without partnerships—both short,  
medium, and long-term partnerships—and thus, consistent partnerships and  
always having an alternative strategy. (...) we have lifelong partners."* (Pharmacy  
Owner and Technician Director, 2023)

Over recent decades, the understanding of markets has evolved substantially from a traditional view that treated firms as isolated, self-contained entities, towards conceptualizations that emphasize the market's interconnected nature, wherein inter-organizational relationships and business networks assume a pivotal significance. As Cook and Emerson (1978) originally posited, markets may be understood as sets of interdependent exchange relationships where one relationship has the potential to affect another. Håkansson and Snehota (1995, pp.42) further suggested that *"[...] the activity structures, resource collections and organizational structures of the companies will influence what kinds of links, ties and bonds can develop in a relationship"*. This notion underpins the idea that business dynamics are not a matter of simple bilateral transactions but are instead driven by continuous interactions that foster adaptability and collective progress. Thus, actors are organized in a network-like structure through interaction and business relationships. In this network, actors establish both direct and indirect connections.

Additionally, the structure of the network emerges from an actor's interactions and is the cumulative result of all their relationships. Therefore, this network continuously evolves as the actors engage in new interactions, dynamically reshaping its configuration. *"While*

*the total pattern of business relationships appears relatively stable, new relationships develop and old decay over time and, above all, the existing relationships between companies change in content and strength. [...] Supplier or customer relationships grow stronger or weaker, new customers and suppliers are looked for and approached. The connections that make up relationships, the actor bonds, activity links and resource ties, change more or less continuously. Because of the connectedness of business relationships, the changes propagate throughout the network. [...] The amount of change going on in business networks is at least as striking as their structural stability or continuity.”* (Håkansson and Snehota 1995, pp. 269).

Following this trend, the network dynamics can be caused by both endogenous and exogenous factors, which are interdependent. Endogenous changes are those that originate within the network itself, often emerging from collective learning, mutual adaptation, and the renegotiation of relationships. Conversely, exogenous changes arise from external forces such as technological advancements or regulatory shifts, which actors must integrate through purposeful strategies. Although, Corsaro and Snehota (2012) emphasize that, while exogenous factors may trigger awareness, it is the network’s endogenous capacity to adapt and realign resources that sustains long-term change.

In this context, firms constantly cope with endogenous and exogenous factors in their efforts to shape (e.g., Mattsson and Junker, 2023) or orchestrate (e.g., Al Adem, Schepis and Purchase, 2022) the market. Additionally, relationships can directly or indirectly affect the perception of value in business networks. This perception of value is not static but varies over time and can be influenced by certain market projects or events (such as new technology innovation, new competitor, economic crises) (e.g., Aarikka-Stenroos *et al.*, 2017; Aarikka-Stenroos & Makkonen, 2014; Akhtar *et al.*, 2018; Alinaghian & Razmdoost, 2021; Andersen & Medlin, 2016; Guercini & Runfola, 2009). In summary,

the interplay between market changes, the involvement of actors within business networks, resource acquisition, and activity modifications will significantly impact the value created, over time.

## **1.1.Theoretical Approach**

*"The IMP perspective has introduced the "market as network" approach, in which the "business network "takes on the character of a market model alternative to that defined by the neoclassical conception (market as a price mechanism)" (Snehota, 2004, pp.15).*

The theoretical background of this *Thesis* is the interaction and network approach developed over more than four decades by the Industrial Marketing and Purchasing (IMP) Group (Håkansson and Gadde, 2018). Taking the business network approach into consideration, this section briefly addresses its link with the literature on value, market-shaping, and orchestration.

### **1.1.1. The Business Networks Approach**

*"[...] IMP research has attempted to analyse what it envisions as a single, but rather complex process that takes place between all business actors and which IMP literature refers to as interaction."* Ford and Mouzas (2013, pp. 433)

The business networks approach represents a paradigm shift in how inter-organizational relationships are conceptualized and enacted. Central to this evolution is the ARA (actor-resource-activity) model (Håkansson & Snehota, 1995). As referred, the model identifies three core components that underpin network interactions: activities, resources, and actors.

Activities encompass both the routine operational processes and the strategic collaborations that enable firms to engage in mutual exchange. Every transaction, negotiation, and joint initiative involves a series of interdependent activities that facilitate the flow of information, the mobilization of resources, and the implementation of collaborative strategies. The activities of one firm are inherently linked to and dependent on the activities of others within the network. These interdependencies necessitate continuous adaptation and coordination, as changes in one part of the network can ripple through, affecting others. This interdependency fosters collaboration and collective problem-solving, allowing networks to respond flexibly to internal and external challenges (Håkansson & Snehota, 1995).

Resources within a network include both tangible assets—such as infrastructure, financial capital, and physical equipment—and intangible assets, such as expertise, reputation, and established relationships. The way these resources are allocated, managed, and shared amongst network participants directly influences the capacity for value creation. Firms must not be solely reliant on the possession of resources but also on the interactive ways in which these resources are combined and leveraged to create novel products or processes. Resources heterogeneity allows firms to leverage their capabilities, fostering an environment conducive to value creation. By recognising and combining diverse resources, firms can address complex market demands (Håkansson & Snehota, 1995).

The actors in a business network include firms, teams, and individual decision-makers whose interactions form the core of network dynamics. The heterogeneity among these actors, in terms of size, expertise, and strategic orientation, can affect the resource combination and activity coordination. As actors interact, processes of trust-building and mutual learning are initiated, progressively enhancing the overall efficiency and innovative potential of the network. Actors' jointness emphasises the collaborative

orientation of actors within the network. This underscores the importance of working together towards shared goals and mutual interests. Through cooperative engagements, actors create individual and collective value (Håkansson & Snehota, 1995).

Thus, networks can be seen as sets of interconnected business relationships. Ford, Gadde, Håkansson, and Snehota (2011) present business relationships as strategic resources in themselves, requiring careful management to harness the full potential of activities, links, and resource ties.

It is clear that firms establish and develop business relationships over time. Indeed, business relationships are built on continuous interaction between firms rather than on discrete transactions. This continuous progression is based on commitment, trust, and adaptation between parties, with mutual benefit as a reciprocal requirement (Ford, 1980). Moreover, interactions between firms are the building blocks of business networks, and they provide the foundation for developing long-term relationships. These interactions encompass exchange of information and adaptation and can take many forms such as negotiations and joint projects (Håkansson & Snehota, 1995; Ojansivu *et al.*, 2020). Thus, Ford and Håkansson's (2006) argue that continuous and dynamic business interaction is at the core of value creation within networks, thereby fostering mutual adaptation and interdependence. Furthermore, the development of relationships by network actors influences the entire network, as interactions are not isolated actions but part of a complex whole.

To develop long term business relationships, Håkansson and Snehota (1995) suggest that firms should focus on four main processes: networking, communication, coordination, and adaptation. Firstly, networking involves identifying and building relationships with potential partners and suppliers. Hence, Oberg, Henneberg, and Mouzas (2007) define networking as the strategic activities undertaken by managers and organisations to

interact with and influence the network environment. Secondly, communication involves establishing clear channels of communication between the two firms. Thirdly, coordination involves aligning the goals and activities of both firms. Finally, adaptation involves being flexible and responsive to exogenous and endogenous changes (Håkansson and Snehota, 1995).

According to Håkansson and Snehota (1995), firms can learn more about each other and establish trust and mutual understanding through relationship events. Specifically, a relationship event refers to a specific interaction or transaction between two firms, such as the negotiation of a contract or the delivery of products during a certain time. Furthermore, some events or activities influence the progression or evolution of a business network (e.g., Fonfara *et al.*, 2018; Ford & Mouzas, 2013; Kaartemo *et al.*, 2020). Additionally, relationship events also influence the degree to which a firm is integrated into the social and economic network. Notably, firms that are highly embedded in their networks are more likely to enjoy stable and long-lasting relationships with their partners, as they have a deeper understanding expectation of the network (Alinaghian *et al.*, 2020; Harini & Thomas, 2020).

Nonetheless, business networks are simultaneously characterized by change and stability. On the one hand, business networks are dynamic and constantly evolving. Through business relationships, actors are continually interacting and exchanging resources, knowledge, and information, and these interactions can lead to new relationships and new opportunities. On the other hand, business networks are also characterized by stability and persistence. This is because, actors within a network, are often linked by long-term relationships, and these relationships involve trust and commitment that endures over time. Moreover, the shared norms, values, and practices that emerge within a network can reduce uncertainties and reinforce stability and continuity (e.g., Håkansson & Snehota,

1995; Ford and Mouzas, 2010). Thus, stability is not simply the absence of change, but rather a result of ongoing processes of adaptation and adjustment. For example, actors within a network may engage in collaborative problem-solving to address challenges and opportunities as they arise, and these processes of problem-solving can lead to new forms of cooperation and the emergence of new relationships. Consequently, firms need to adapt their strategy coping with stability and change. This fact will promote specialization, and joint evolution to achieve greater value (Chen *et al.*, 2015; Gadde & Håkansson, 1992; Geersbro & Ritter, 2010; e.g., Sutton-Brady, 2008).

*“While exogenous events and entrepreneurial action can cause change in relationships and thus in business networks, the major source of change is the interaction within relationships. The network structure is in this way inherently dynamic. (Håkansson & Snehota, 1995 pp. 283)*

Håkansson and Snehota (1995) argue that both endogenous and exogenous change are important drivers of network dynamics, and that firms must be able to adapt to both types of change to succeed in the long term. However, they also acknowledge that the two types of change require different strategies and approaches and firms do not react in the same way, in the same situation during different periods of time. To manage endogenous change, firms must be able to navigate the complex social and economic dynamics of the network, and build strong, long-term relationships with their partners.

*“[...] longevity, mutuality and connectivity create a notion of stability, it is argued that the business network is dynamic by nature and do change over time.” (Gercini and Milanesi, 2019, pp 194)*

This requires a high degree of trust, commitment, and flexibility, as well as a deep understanding of the norms and values that shape the network. Conversely, to manage

exogenous change, firms must be able to anticipate and respond to changes in the external environment. This may involve investing in new technologies or capabilities, diversifying their products or services, or even exploring new markets and business models. Moreover, the exploration of business networks underscores the critical role of interaction among actors, as highlighted by Aarikka-Stenroos and Makkonen (2014). Importantly, Ford and Håkansson (2013) illustrate the dual effects of interdependence within networks: constraint and evolution. This interaction often becomes fundamental for adapting to markets that continuously cycle between stability and change.

### **1.1.2. Value Creation in Business Networks**

Value creation in business networks is a dynamic and interactive process that transcends straightforward economic transactions. As articulated by Håkansson and Snehota (1995), value is co-created through a symbiotic exchange that involves quality, reliability, trust, and innovation. Importantly, this process is inherently relational, meaning that the perception and realization of value are contingent upon the evolving interactions and negotiations between network partners.

Notably, value is not static. In fact, in the early stages of network development, value may be primarily demonstrable as cost savings or operational efficiency. However, as collaborative engagements mature, additional dimensions of value emerge, including enhanced product quality, improved responsiveness to market changes, and the generation of innovative solutions that expand market opportunities. It continually evolves with new actors into the network, disrupting established routines and introducing fresh perspectives. This dynamic evolution allows to establish players to be vigilant and adaptive, continuously reconfiguring their strategies to respond to the market demands (e.g., Ehret, 2004; Ekman, 2015; Guercini & Milanese, 2019; Kaartemo *et al.*, 2020; La

Rocca *et al.*, 2019; La Rocca & Snehota, 2014; Leite & Bengtson, 2018; Matinheikki *et al.*, 2017; Pimentel Claro & Claro, 2011; Pulles *et al.*, 2014; Ramaswamy & Ozcan, 2020).

For this reason, the value creation process within the network is further enriched when innovative technologies or novel business practices are integrated. For instance, the introduction of disruptive innovations can provide a catalyst for re-examining and re-engineering traditional value chains. In this context, the collaborative negotiation of value is not only a matter of economic efficiency but also one of strategic action. Therefore, business networks and value have been one of the topics discussed in the literature on organizational strategy. To the ongoing interest among researchers pertains to the evolving perception of value within business networks. Importantly, the actual definition of value is contingent upon the research context and objective, as it may associate the perception of monetary value with brand value, for instance. Clearly defining value and understanding its changing perception, is significant for both research and practice (e.g., Lindgreen *et al.*, 2012; Niesten & Stefan, 2019; Santos & Mota, 2021).

According to Håkansson and Snehota (1995), value is not simply a function of price or cost but rather a complex and multi-faceted concept that encompasses a range of factors, including quality, reliability, innovation, and trust. They argue that value is created through a process of exchange, in which each party in the relationship brings something of value to the table and receives something of value in return. One of the key insights of Håkansson and Snehota's (1995) work is that value is not static but rather dynamic and evolving. As business relationships evolve and change over time, so too does the nature of the value that is exchanged between the parties. This means that firms must be able to adapt to changing circumstances and expectations and continually seek out new ways to create value for their partners.

Furthermore, they argue that firms must have a deep understanding of the needs and expectations of their partners and be able to identify opportunities to create value that is mutually beneficial. Achieving this requires a high degree of trust and collaboration, as well as a willingness to take risks and experiment with new approaches. In addition, Håkansson and Snehota (1995) emphasize the importance of building long-term relationships based on shared values and goals.

By focusing on creating value over the long term, rather than simply maximising short-term profits, firms can build strong and lasting partnerships that are able to weather the variations of the business environment. However, uncertainties arise as to how value emerges, and which factors affect value creation from a network perspective. Taking this into consideration, it becomes important to delve deeper into, how value considering the various actors/organisations in a business network, is affected, over time.

Therefore, it is necessary to understand how the relational dynamics, influence and is influenced, by the processes based on the activities, resources, and actors in a relationship between the different firms (actors) in the network. Over the last two decades, research has emerged on value within business networks.

However, the literature remains fragmented, with limited exploration of the determinants and contingencies shaping firms' relationships over time (e.g., Chen *et al.*, 2015; Geersbro & Ritter, 2010; Mandjaak *et al.*, 2017). As a result, this *Thesis* explores the principal factors affecting value perception and creation from a network-view perspective.

### **1.1.3. Market Shaping in Business Networks**

Network interdependencies play an important role in the market-shaping practices employed by actors (e.g., Mattsson and Junker, 2023). According to Nenonen and

Storbacka (2021), the definition of market shaping is based on the ability of a hub actor to influence or transform the market.

This approach considers three fundamental points: (1) who is involved in the shaping, (2) what they are trying to shape, and (3) how they are doing it. This perspective suggests that markets are no longer stable and deterministic but rather flexible and subject to being shaped through influence among actors.

In particular, actors, focus more on the ability to create value through inter-organisational relationships, rather than merely utilising internal resources. This provides greater efficiency and access to resources that would otherwise be difficult to obtain. Through these interactions, firms can shape the market, drive innovation, orchestrate activities, and influence other firms. However, it is still necessary to understand how the actions of certain actors can effectively change market-shaping strategies in business networks.

In the context of business networks, the most significant mechanisms are those involving collaboration, orchestration, collective influence over institutions and practices, and co-creation of innovations and ecosystems (Nenonen and Storbacka, 2021).

Firstly, collaboration is the joint and coordinated action of multiple actors (companies, clients, suppliers, associations, etc.) to achieve a common goal, manifested through consortia or alliances, knowledge and resource sharing, and coordinated actions.

Secondly, orchestration involves identifying, acquiring, combining, and implementing strategies to leverage the resources of network partners, including the identification of complementary resources, establishment of connections and interdependencies, mobilisation of actors, and quick response to changing market needs.

Thirdly, collective influence over institutions and practices refers to the coordinated effort of actors to shape the "rules of the game" and the practices that govern the market, aiming

to legitimise new approaches, destabilise existing ones, or establish new standards. And finally, co-creation of innovations and ecosystems is the process by which actors not only develop new solutions but also actively shape the environment in which those innovations can thrive.

Moreover, Nenonen and Storbacka (2021) highlight that, besides deliberate efforts to shape the market, emergent events and changes also have a significant impact. Thus, while firms shape the market, the market also influences firms. For instance, in regulated markets, legislation guides firms to adapt, grow, or modify their offerings. In line with this, they identified twelve market-shaping capabilities, including: developing products, adjusting the price of pricing, modifying matching methods, modifying own supply network, modifying customer-side features, modifying provision, influencing representations, influencing norms, exploring, experimenting, expressing and engaging.

According to Storbacka (2019) states that market shaping begins with intentional actions by actors to create links between resources and create value. However, when emergent events occur, this deliberation may not be linear, especially in inter-organisational relationships, according to the IMP approach. Additionally, Fehrer *et al.* (2020) reinforce the importance of institutions in leveraging resources and their role as market shapers through Market actor's emerging engagement.

Flaig *et al.* (2021) highlight four main market-shaping strategies: Widening, Disruption, Maintenance, or Reduction. These strategies are influenced by actors' actions, capabilities and external influences. When we refer to market expansion, we mean its growth, whereas reduction denotes contraction, often implemented by actors aiming to consolidate or enhance their influence and achieve better results.

However, after certain deliberate actions, the market may either stabilise or undergo complete disruption. The variability of these strategies depends on the actors' actions, their market-shaping abilities, intentions, and external influences. Whether the market is in a more defensive or offensive state, or more stable or unstable, the perceptions of the market and its actors will determine the right opportunities for change.

These strategies can lead to four significant outcomes: Market Growth, New Market, Market Resilience, or Monopolisation (Flaig *et al.*, 2021). Nonetheless, the dynamics of these strategies and their outcomes, especially when unforeseen events occur and new actors emerge in this evolving network, still require further exploration.

According to the study by Lundberg *et al.* (2016), a large portion of critical events has an exogenous origin, with only a few occurring endogenously within the company. This underscores the need to understand how market-shaping practice occurs in environments where political innovations have a significant impact, particularly when political agents influence this shaping (Mattsson & Junker, 2023).

Moreover, firms are increasingly engaging in market-shaping strategies to modify market structures and behaviours to create value. Despite recent advances, research often overlooks the embeddedness of actors when strategizing for market shaping in emergent business networks. This study, therefore, explores how market-shaping strategies affect the value creation in emergent networks. Notably, it sheds new light on how market-shaping strategies are framed by policy and the advent of new hub actors, particularly for micro-firms in highly regulated markets.

#### **1.1.4. Network Orchestration**

The relationships enable the expansion and construction of new business opportunities through a process of influencing and being influenced, as actors seek to assert their position in the network (Ford *et al.*, 2011). Consequently, network orchestration deals with the mechanisms used to influence network actors (Al Adem *et al.*, 2022).

Therefore, orchestration focuses on how firms strategically coordinate and manage resources and activities within business networks to achieve common goals. In this context, collaborative activities among different network actors serve various functions, activities, and perceptions (Aarikka-Stenroos *et al.*, 2017). These relationships are often necessary for value creation, innovation, and even market adaptation (e.g., Möller & Haline, 2018; Hurmelinna-Laukkanen & Nätti, 2018). It can be seen as an important aspect of business network management as it helps to ensure that the network operates smoothly and efficiently. Normally, this role is accepted by other members of the network (Perks *et al.*, 2017). There are some key components of orchestration that include a shared understanding of the network's purpose and goals, resource allocation, relationship management, and ongoing communication and feedback.

In orchestrated networks, there is a deliberate intention to coordinate actors, resources, and activities by a leading company. This dynamic approach allows results in each market to be directed towards a specific objective, creating value for all its members (Al Adem *et al.*, 2022).

Perks *et al.* (2017) highlight four orchestration mechanisms: envisioning, which helps to create complementary value, organise roles, and identify misalignments; inducing innovativeness, based on sharing knowledge, processes, and supporting research and development departments; legitimising, involving communication and connection to

generate value; and involving the network, focusing on organisational adjustments and resource sharing.

Al Adem *et al.* (2022) added mechanisms such as planning, which directs the network's organisation by the orchestrator and monitors' processes and tools; mobilizing resources, through selecting and organizing available resources in the network; coordinating, often acting as an intermediary, creating connections between actors; and learning, developing projects and sharing learning channels.

Additionally, strong relationships can influence the direction of change and the degree of stability within the network. For example, actors with greater influence may be able to shape the norms and practices of the network to their advantage, whereas actors with less power may be more likely to adapt to existing norms and practices. This theme leads us to explore the notion of orchestration in the business network in regulated sector. Despite this, most of the research is based on the orchestrator's perspective and the impact of orchestration on the orchestrated is underexplored (e.g., Dessaigne & Pardo, 2020; Kor & Mesko, 2013).

Although, it is emerging the concept of multi-orchestration where two or more players are the simultaneous orchestrators of the same network. In some cases, our results show that the orchestrated player explains the relationship of a "ping-pong ball" between two firms, but their perception of their impact is unclear. Therefore, they do not have the perception of their influence. Regarding this, we consider it to be an important topic to be explored and clarified.

Furthermore, while orchestration has been recently studied in deliberately structured networks, comparatively little is known about orchestration in emergent networks.

Orchestration mechanisms, according to Perks *et al.* (2017) and Al Adem *et al.* (2022), evolve in deliberated networks. Resorting to the notion of orchestration (and to the absence of control within business networks), this research also aims to understand how orchestrated firms strategize in networks when challenged by the emergence of “new” firms as orchestrators (e.g., Andresen, 2021; Perks *et al.*, 2017). Also, how network dynamics, such as orchestration strategies, can affect value perception in business networks.

This research seeks to understand how orchestration mechanisms and practices develop over time within emergent business networks, drawing on the perspectives of those being orchestrated. The principal difference between orchestration in deliberate and emergent networks is resumed in table 1.1.

Table 1.1. Principal Differences Between Orchestration in Deliberate and Emergent Networks (Authors ‘elaboration)

<b>Key Characteristic</b>	<b>Deliberate Networks</b>	<b>Emergent Networks</b>
<b>Origin</b>	Intentionally established and planned by one or more focal actors.	Develop organically and evolve spontaneously, without a pre-determined central plan.
<b>Structure</b>	Designed, often hierarchical or centralized around a "hub".	Initial Decentralized, fluid, constantly evolving; structure emerges from interactions.
<b>Objectives</b>	Clearly defined and pre-determined by founding/focal actors.	Evolve and emerge over time; can be diverse, sometimes misaligned among actors.
<b>Roles and Responsibilities</b>	Clear define and formalize.	Fluid and adaptable; negotiated and redefined through interaction.

<b>Nature of Orchestration</b>	Purposeful, often top-down, managed by the focal actor.	Distributed, dynamic, less predictable; influenced by the responses and actions of multiple actors (bottom-up).
<b>Coordination Mechanism</b>	Centralize control, coordinated planning.	Initial Decentralised, collaborative, based on mutual adjustment and distributed interactions.
<b>Relationships</b>	Often formalised and relatively stable.	Fluid, adaptable, can be temporary or change over time.
<b>Adaptability to Change</b>	Managed and controlled response by the focal actor.	Flexible and responsive, based on the distributed adaptive capacity of multiple actors.

## 1.2. Research Setting

The health sector is frequently characterized by its regulatory, societal, and market demands, which promote the collaboration among actors (e.g., suppliers, distributors, retailers, and service providers).

In Portugal, the pharmacy sector is regulated by the National Authority of Medicines and Health Products (INFARMED). Pharmaceutical retailers, such as Pharmacies, are health establishments that provide pharmaceutical and public health services to the community. In addition to dispensing prescription and over-the-counter medications, pharmacies also provide services such as advice on the use of medications, administration of vaccines, and the performance of clinical tests and health screenings.

Pharmacies in Portugal are owned by pharmacists or societies in which most partners are pharmacists. Currently, there are approximately there are 2920 pharmaceutical retail firms and 198 complementary pharmaceutical posts (INE, 2023), with a relatively uniform

distribution in terms of geography. The regulation model in the pharmacy sector in Portugal aims to ensure the quality and safety of medications and services provided to patients. Furthermore, Pharmacies are also responsible for implementing public health measures, including promoting disease prevention, conducting vaccination campaigns, nutritional counselling, among others.

The pharmaceutical sector, particularly the business relationships between the pharmaceutical industry, pharmaceutical wholesalers, and pharmaceutical retail firms, has undergone significant changes since the early 2000s. Among these changes, the emergence of new firms – purchasing platforms or buying groups – were one of the most significant changes that occurred in the market.

*“Our genesis was almost like creating a group just for us, the partners, family, and friends. [...] This then also brings some problems because the proximity means that sometimes we must solve issues that are not directly related to the pharmacy's relationship with the group, but rather with the pharmacy's relationship with a wholesaler. [...] Provide pharmacies with greater profitability during a time of crisis.”* (Pharmacy Owner, 2023)

Despite these transformations, the retail pharmaceutical sector has very stable relationships.

*“And we don't abandon partners because of trends; we prefer something sustainable over time.”* (Pharmacy Owner, 2023)

Additionally, the pharmacy sector in Portugal has been evolving and modernising due to the implementation of new services and technologies that allow for greater efficiency and safety in serving patients. Despite this fact, the pharmaceutical retail firms' market in

Portugal has been subject to several changes and challenges over the past decade (Costa *et al.*, 2006; Gavilan *et al.*, 2014; Gregorio *et al.*, 2014).

For example, several other changes happened such as market regulations on medicine reimbursements, regulations pressuring down the prices of medicines, and legislation allowing new retail chains to be integrated into food and grocery wholesaling and retailing.

*“Have let the non-prescription medicine go to another channel.”*(Pharmacy Owner, 2023)

One of the most significant changes has been the increasing pressure from online and discount retailers, which resulted in greater competition and lower profit margins for traditional brick-and-mortar pharmacies. This has led to lower profit margins for traditional pharmacies, as they are forced to reduce their prices in order to compete.

*“Every year we had price drops that affected margins.”* (Pharmacy Owner, 2023)

Consequently, online pharmacies appear, and discount retailers are often able to offer greater convenience and accessibility to consumers, as they are not limited to physical store locations or operating hours. Some of these factors are related to political decisions and legislation such as drug prices and actors’ margins, and market entry of retail chains (Martins & Queirós, 2015).

*“In fact, the big impact here with Correia de Campos was the fact that medicines started to be sold in other places.”* (Pharmacy Owner, 2023)

Despite these challenges, the pharmaceutical retail firms’ market in Portugal have continued to grow, driven in part, by an aging population and increased demand for healthcare services. In recent years, there has been a growing trend towards the provision

of specialized services, such as medication therapy management, vaccinations, and health screenings and public health initiatives, which have helped to differentiate pharmacies and drive growth (Costa *et al.*, 2006; Felix *et al.*, 2016; Policarpo *et al.*, 2019).

They embraced new technologies, such as, an electronic prescription system and digital health, shopping centre and hospital pharmacies.

*“We have a lot more work today in this area of communication with the Client. Something we didn't have digitally, therefore, digital communication with the Client.”* (Pharmacy Owner)

Pharmacies are increasingly recognized as an integral part of the primary healthcare system in Portugal. They collaborate with primary care centres and contribute to the overall continuity of patient care.

*“[...] so we do our job, but it is important that they also know what we do and what we can do from the point of view of developing projects in collaboration with ANF that makes their lives easier, not exactly the ones we would like to implement, but perhaps those that make more sense in the Community.”* (Pharmacy Owner, 2023)

### **1.3. Research Purpose and Questions**

This research is grounded on the business network (Håkansson and Snehota, 1995), which provides a rich theoretical backdrop for exploring the network dynamics. By focusing on the activities, resources, and actors, this research investigates the mechanisms through which actors navigate complex network dynamics, adopting market shaping and orchestration strategies aiming to create value.

The overall purpose of this study is to understand how actors cope with network changes, fostering value creation in highly regulated emergent networks. In detail, the research presented examines the Portuguese retail pharmaceutical sector through the lens of business networks and a relational approach. It investigates how firms shape their market, create value, and orchestrate their activities to navigate a dynamic and regulated environment during a certain time event. From the research purpose, three research questions emerged:

Q1: How do firms in business networks perceive and create value, and what factors influence these perceptions?

Q2: How do exogenous and endogenous events affect market-shaping strategies of actors embedded in a business network?

Q3: How do orchestration mechanisms and practices develop over time within emergent business networks?

## **1.4. Methodology of the Research**

### **1.4.1. Research Philosophy and Approach**

In the search for understanding business networks, particularly within the Portuguese retail pharmaceutical sector, this thesis adopts relativist ontology and abductive research strategies grounded in the philosophical paradigms of constructivism (Järvensivu & Törnroos, 2010; Rashid *et al.*, 2019).

These approaches are instrumental in understanding the complex, dynamic, and context-dependent nature of business networks, where subjective experiences and social interactions play a pivotal role in shaping outcomes.

Constructivism is a philosophical paradigm that posits that knowledge and reality are constructed through social processes and interactions. In the context of this research, constructivism underscores the importance of understanding how network participants construct their realities and meanings through their interactions and experiences. The constructivism approach is evident in the analysis of how pharmacies, wholesalers, and other actors within the pharmaceutical network perceive value and orchestrate their activities. By acknowledging that these perceptions are socially constructed, the research highlights the variability and subjectivity inherent in business networks. This perspective allows for a deeper exploration of how shared understandings and collective strategies emerge and evolve over time.

The abductive strategies are employed through qualitative methodologies, including case studies and in-depth interviews. These methods facilitate a rich, detailed understanding of the interactions and relationships within the Portuguese pharmaceutical network. By focusing on specific cases and narratives, the research uncovers how actors within the network perceive and respond to regulatory changes, technological advancements, and market pressures. Abductive research strategies are characterized by trying to contribute to theory through the observation and analysis of empirical data, such as a social phenomenon from a respondent's view explained by the researcher's view (Rashid *et al.*, 2019). Unlike deductive approaches that test existing theories, abductive strategies allow for the emergence of patterns, themes, and insights directly from the data. This approach is particularly suited for exploring new or under-researched areas, such as emergent business network dynamics.

Hence, abduction allows for a gradual movement between an empirical world and a conceptual world, combining deduction and induction. Thus, abduction combines a data-driven investigative process with a focus on theory. Different phases of reasoning are

followed by the researcher: some lean towards abduction in a pure sense, while others may lean more toward deduction or induction (Järvensivu & Törnroos, 2010). This approach, systematic combining, is also suggested by Dubois & Gadde, (2002, 2014) as appropriated for studies in industrial marketing. Thus, based on the interviewees' perceptions of key events, a historical narrative was captured and later analysed upon the researcher's interpretation (e.g., Lundberg *et al*, 2016). This study initiated an analysis of value theory within business networks and its impact. Based on the interviews and their results, we identified two theoretical domains: market shaping and orchestration. The main theoretical contribution emerged predominantly after the data analysis, rather than being derived from a specific theory at the outset.

The integration of abductive strategies with constructivist philosophies provides a robust framework for exploring the dynamic and relational nature of business network. This approach allows for the emergence of new insights and theories that reflect the lived experiences and constructed realities of network participants. Ultimately, it opens avenues for further research (Rashid *et al.*, 2019). It is not the intention of this research to generalise the results.

#### **1.4.2. Research Design**

This study employs a case study methodological approach to explore the dynamics of business networks within the Portuguese retail pharmaceutical sector. Figure 1.1. presents an overview and timeline of the current research. The methodology integrates qualitative research methods, tailored to address the specific research questions outlined in the thesis. The approach ensures a comprehensive and systematic exploration of a phenomenon of market shaping, value creation, and orchestration within the business network.

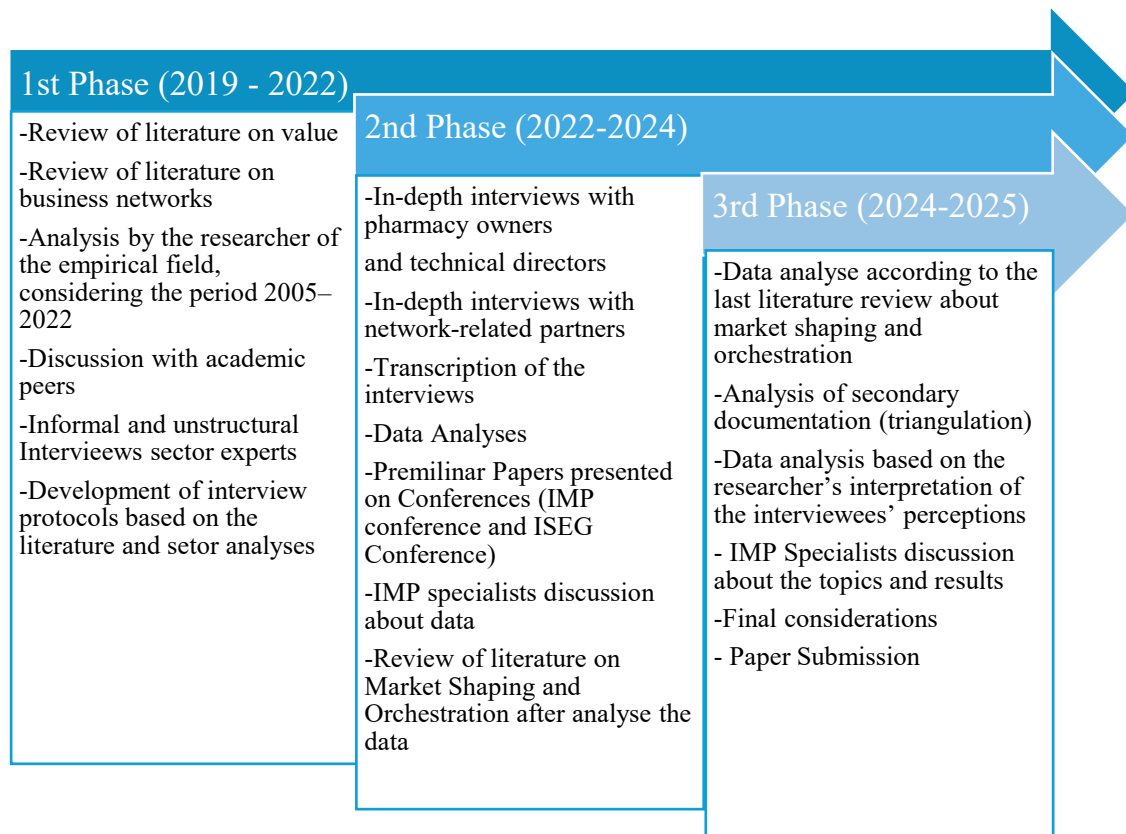


Figure 1.1. Timeline of the research

This research follows a case study strategy. This strategy will allow examining networks in different settings and contexts, as, they allow capturing a given phenomenon in each period, (considering several points of view, perspectives, claims, concerns, and voices of actors) (e.g., Rashid *et al.*, 2019), allowing the researcher a diversity of data. As Graebner *et al.*, 2012 announces, there is no "one recipe" for a qualitative study. This methodology allows theories, concepts, and perspectives to be explored in a rich and highly contributory way (e.g., Graebner *et al.*, 2012). A case study method provides several advantages, such as considering concrete spatial and temporal contexts when addressing events and structures, progressively limiting of the phenomenon, and gradually framing it in terms of theory (Birkinshaw *et al.*, 2011; Yin, 2018). We purposely selected the case

study (Miles *et al.*, 2014; Rashid *et al.*, 2019) based on its revelatory potential (Eisenhardt and Graebner, 2007; Siggelkow, 2007).

The temporal strategy will be conducted in a longitudinal study, collecting data through retrospective analysis up to the time of data collection. This temporal strategy allows for an in-depth study of interpersonal, internal, and external interactions in business networks, actors' interpretation of processes, over time (e.g., Halinen *et al.*, 2012; Malaska *et al.*, 2011).

Hence, this research adopts a retrospective longitudinal qualitative case study (roughly since 2005 until 2022) approach to explore the relational dynamics and impacts of key events within a specific business network. A qualitative methodology is particularly suited to this investigation, allowing for an in-depth understanding of complex phenomena within their real-world context (Rashid *et al.*, 2019). The case study method facilitates a detailed analysis of the interactions and perceptions of the actors involved, providing rich, context-specific insights (Graebner *et al.*, 2012; Yin 2018). A retrospective longitudinal qualitative case study seems to align with the research purpose and the theoretical perspective adopted.

*“Business actors create connected relationships and networks that exist and change as continuous emerging spatial structures and as mental maps in the managerial mindset [...]. extend our current understanding of business networks as emerging and changing spatio-temporal entities with implications for theory development, research and practice.” (Törnroos, Halinen e Medlin, 2017, pp. 61).*

#### **1.4.2.1. Data Collection**

This study includes secondary and primary data. The secondary data has been collected since 2019, which includes several news, industry forums, videos, and industry reports which allow to deepen the understanding of the research context. These data together with the researcher pre-understanding of the empirical context also allows to improve the interview planning.

Primary data collection is the main data source. Thus, data collection will be conducted mainly through in-depth interviews with the retailers, buying groups, wholesalers, and other industry related organizations such as pharmacy associations (see appendix).

Through a historical reconstitution, the main processes and changes in the business relationship, over time and, until the current moment will be understood. (e.g., Koporcic & Tornroos, 2019; Ven & Huber, 1990).

Participants were selected based on their direct involvement with the business network under investigation – pharmacy owners, technical directors and partners. Researchers' prior knowledge of the empirical field was important in identifying these relevant participants and formulating targeted interview questions. This pre-existing understanding also aided in establishing rapport with interviewees and interpreting their responses with greater nuance (Rashid *et al.*, 2019). In table 1.2. we can observe the data collection process.

Table 1.2. Data collection process

<b>Data Source</b>	<b>Secondary Data</b>	<b>Interviews</b>
<b>What/Who</b>	Data from Online database (news, conferences, articles) Conference Presentations Research Study Scientific Publications	Pharmacy Owners Pharmacy Directors Association Director Association President Chief Operations Office Chief Executive Office
<b>When/Why</b>	Seventeen years period (2005 – 2022) Considering the most important events (economic crises, pandemic)	All Interviews were recorded and transcribed.

The interview protocols were structured in distinct phases to comprehensively explore the network's evolution and impact. Firstly, the key actors and partners within the business network by researchers were identified. The Participants were contacted through email, phone or message or LinkedIn message. Prior to conducting the interviews, participants received an email or were asked in person to provide consent for the audio and video recording of the sessions. During the interview, we followed the three previews' protocols determined. During the interview, we asked to the interviewee to describe the structure of the network and the roles of various network actors. Furthermore, we focused on understanding the impact of specific events and actors on their activities, resources, and partnerships within the network. As a result, interviewees were prompted to identify and elaborate on significant events that may influence the network's trajectory and their impact in relationships, resources and activities, since 2005 until 2022. These questions aimed to understand how different actors perceive their roles and contributions to the network's overall dynamics. All interviews were conducted face-to-face or via video conferencing, recorded with the participants' consent, and transcribed using Transkriptor® and Microsoft® Teams' transcription, for subsequent analysis. The names of interviewees and

firms were not disclosed in the results to ensure privacy and confidentiality both during and after the research. Table 1.3. presents a synthesis of interviews carried out.

Table 1.3. Interviews

Interviewee	Interviewee Role in the Firm	Firm Size	Time length (minutes)
1	Association Director	Medium Company	90
2	Pharmacy Owner and Technician Director	Micro Firm	57
3	Pharmacy Owner	Small Business	53
4	Pharmacy Owner and Technician Director	Micro Firm	81
5	Pharmacy Owner and Technician Director	Micro Firm	63
6	Pharmacy Owner and Technician Director	Small Business	53
7	Pharmacy Owner and Technician Director	Small Business	55
8	Pharmacy Owner and Manager	Small Business	70
9	Pharmacy Owner and Technician Director	Small Business	55
10	Pharmacy Owner and Technician Director	Small Business	46
11	Buying Group Director	Small Business	63
12	Pharmacy Technician Director	Small Business	63
13	Pharmacy Owner and Technician Director	Small Business	57
14	Digital Firm Director	Micro Company	72
15	Pharmacy Owner and Technician Director	Small Business	56
16	Pharmacy Partner and Ex-Association Director	Small Business	90
17	Association President	Small Business	47
18	Association President and Pharmacy Owner	Small Business	62
19	Wholesaler CEO	Medium Company	90
20	Pharmacy Owner	Micro Firm	58
21	Pharmacy Owner and Technician Director	Micro Firm	48
22	Buying Group CEO and Pharmacy Owner	Small Business	61

### 1.4.2.2. Data Analysis

We organised the transcriptions in the MAXQDA program, focused on sixteen main codes, as you can observe in figure 1.2. This organisation allowed to organise and link, all main points of each interview to data analysis. Initially, we identified five main codes, and after analysing the data, we organized the information collected from the interviews into sixteen main codes. Therefore, we identified several firms from the retail pharmaceutical market, and expanded our selection to identified partners, pharmaceutical industry, wholesaler, buying groups, regulatory firms, and sectorial associations.

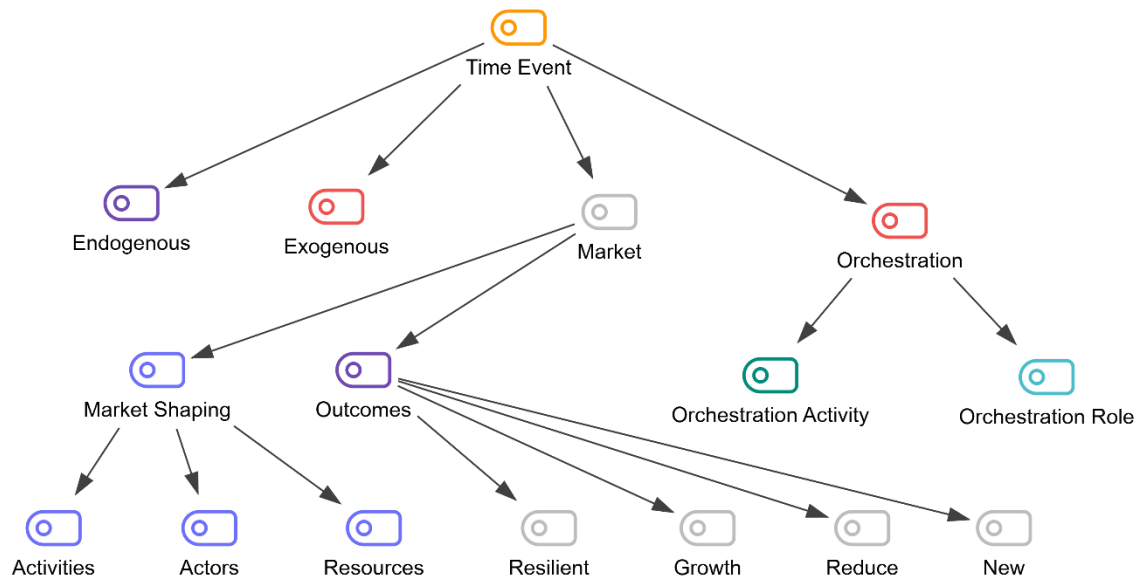


Figure 1.2. First Phase MAXQDA Codification

Participant observation was also important to gather data on the context. Additionally, relevant documents, such as reports, conference papers, research, newsletters, were analysed to supplement data from interviews and observations (Farquhar *et al.*, 2020; Rashid *et al.*, 2019). This analysis served to validate interview findings and identify broader trends and developments within the sector. The casing process flowed a systematic combining approach (Dubois and Gadde, 2002).

After analysing the interviews, we revised resilient code to adapt, as it better reflects the context (table 1.4.). Market resilience refers to the ability of a market or organisation to withstand and recover from crises, such as economic downturns or natural disasters, maintaining core functionality and efficiently bouncing back from disruptions. It involves having robust contingency plans and the capacity to endure economic shocks. In contrast, market adaptation is the ability to proactively adjust to new conditions, trends, or external demands. It requires flexibility in strategies and operations, as well as innovation in products and services, enabling an organisation to evolve continuously and seize new opportunities. While resilience focuses on resistance and recovery, adaptation is about adjustment and evolution in response to shifts in the market environment.

Table 1.4. MaxQDA Final Codification

1 <sup>st</sup> Level	2 <sup>nd</sup> Level	3 <sup>rd</sup> Level	4 <sup>th</sup> Level
<b>Time Event</b>	Exogenous		
	Endogenous		
	Market	Market Shaping	Activities
			Actors
			Resources
		Outcomes	Resilient
			Adapt*
			Growth
			Reduce
			New
	Orchestration	Orchestration Activity	
		Orchestration Role	
*added code			

The collected data was analysed using a thematic analysis approach, guided by the principles of abductive reasoning (Dubois & Gadde, 2002, 2014). This approach allows frame empirical data in the existing theories over time, leading to a refinement of both the theoretical framework and the interpretation of the data. This iterative process allows for a deeper understanding of the phenomenon under investigation and the generation of new theoretical insights (Dubois & Gadde, 2002). The interpretive approach recognises that this process is shaped by the researcher's own values and perspectives. Therefore, data collection relied on three main sources: the researchers' empirical knowledge of the field, in-depth interviews, and secondary data analysis. Rigour and reliability were ensured through triangulation across these sources, critical self-reflection on the part of the researchers, and regular consultations with sector specialists and academic peers, including discussion on conference presentations. Additionally, findings were reviewed with selected interviewees, and secondary sources such as online documents, news articles, and other research were analysed to corroborate and enrich the primary data.

#### **1.4.2.3. Qualitative Research Criteria**

To ensure the transparency and potential for replicability of this qualitative research, the study adhered to the twelve criteria proposed by Aguinis and Solarino (2019). These criteria guided the methodological design and execution, aiming to provide a clear account of the research process.

Firstly, the Study Definition was clearly established by detailing the step-by-step methodology employed for the case study approach (Rashid *et al.*, 2019). This level of detail supports both exact and empirical replication. The research setting was specifically defined as the pharmaceutical sector, focusing on pharmaceutical retail and industry Directors and Owners, Wholesalers, Partners (Logistics, Technology, and

Administrative), Buying Groups, and Sector Associations. This specific delineation allows for potential exact and conceptual replication.

The position of the researchers was identified as *insiders*, drawing upon the researcher's previous professional experience within the sector. This positioning, while inherent to the researcher's background, was documented to allow for potential exact replication, alongside conceptual replication. Sample procedures involved a convenient and snowball sampling approach, utilising Portuguese Economic Activity Classifications in the “Wholesale trade of pharmaceutical and medical products” (CAE 46460), direct LinkedIn contacts with pharmacy owners, and identification of interviewees through existing contacts. The description of these procedures supports potential exact and conceptual replication.

The relative importance of the participants was considered, noting that participants belonged to the pharmaceutical sector business network and that practically all interviewees were present at key events, playing an active role. This aspect supports potential exact and conceptual replication. Documenting interactions with participants was achieved through conducting both presential and online in-depth interviews, guided by four distinct interview protocols.

Interviews were recorded using a sound recorder (face-to-face) or video recording via Microsoft Teams (online), facilitating exact and empirical replication. The saturation point of data was determined after conducting 22 interviews. It is important to note that the availability of potential participants and their responses to invitations ultimately limited the number of interviews conducted, supporting partial empirical replication. Unexpected opportunities or events were acknowledged, including the involvement of different organisations, the impact of the Worldwide pandemic during the interview phase, and the emergence of different opinions from opposing parts of the business network and

varying positions within the same firm. These contextual factors allow for partial replication.

The management of power disparity was addressed by maintaining an independent perspective during interviews, where the interviewer refrained from taking sides despite attempts by interviewees to seek agreement. This approach supports exact and empirical replication. Data coding commenced after the literature review, with initial codes organised using MAXQDA software. These initial codes, derived from the literature, which guided the identification of relevant contexts within the interviews, supporting empirical replication.

Data analysis and second codification involved the transcription of all interviews, followed by text analysis using the initial codes and the addition of new, second-level codes that emerged from the interview data. This process, where initial codes helped identify contexts and subsequent analysis revealed new insights, supports empirical replication. Finally, data disclosure was subject to confidentiality agreements requested by all interviewees, meaning that the raw data cannot be disclosed, thus precluding replication based on direct access to the interview transcripts.

By systematically addressing these twelve criteria, the study aimed to enhance the transparency of its methodological choices and processes, thereby providing a clear basis for evaluating its rigour and considering the possibilities for various forms of replication. Table 1.5. resume the twelve criteria for qualitative research with high quality.

Table 1.5. Twelve Transparency and Replicability criteria in qualitative research according to Aguinis and Solarino (2019)

<b>Transparency Criteria for qualitative research</b>	<b>Study Definition</b>	<b>Criterion is found for replicability in...</b>	<b>Kind of Replication</b>
<b>Kind of Qualitative Method</b>	Case Study	Case Study Step by Step Methodology	Exact Replication Empirical Replication
<b>Research Setting</b>	Specific Pharmaceutical Sector	Pharmaceutical Retail and Industry Directors and Owners sector, Wholesaler, Partners (Logistics, Technology and Administrative), Buying Groups, Sector Associations	Conceptual Replication
<b>Position of the Researchers</b>	Insiders	Experience of the researcher due to his previous professional performance	Conceptual Replication
<b>Sample Procedures</b>	Convenient and Snow-Ball sample	Through the analysis of a database of firms engaged in the wholesale trade of pharmaceutical and medical products (CAE 46460); direct contacts on LinkedIn with pharmacy owners, identification of interviewees from other	Conceptual Replication
<b>Relative Importance of the Participants</b>	Participants belong to the pharmaceutical	Practically all interviewees were present at all events identified considering the	Conceptual replication

	sector business network	temporal strategy and played an active role.	
<b>Documenting interactions with participants</b>	Presential and Online In-depth Interviews. 4 Interview Protocols (see attachment)	The interviews were conducted using a sound recorder (presentially) and video recording, in an online meeting, using Microsoft Teams.	Empirical replication
<b>Saturation Point of Data</b>	22 Interviews	The availability and responses to invitations limited the number of interviews.	Partial Empirical Replication
<b>Unexpected Opportunities or events</b>	Different Organizations. Worldwide Pandemic.	Different Opinions from opposite parts of the business network and different opinions from different positions in the same firm. Pandemic Crises during the interview phase.	Partial Replication
<b>Management of Power Imbalance</b>	Independent View	The interviewer did not take sides, despite attempts to agree with the interviewee.	Exact Replication Empirical Replication
<b>Data Coding</b>	After Literature review, we use the MAXQDA to organise the first codes.	Following the literature review, the initial codes were determined.	Empirical replication
<b>Data Analyses and Second Codification</b>	Transcription of all interviews and Text analyses using first codes and add new ones.	The initial codes allowed us to identify relevant contexts within the interviews. After analysing the interviews,	Empirical replication

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		additional second-level codes emerged.	
<b>Data Disclosure</b>	Confidential Data	All interviews ask for confidentiality	None

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### 1.5. Significance of the study and Main Contributions

Over time, we have observed several changes in the pharmaceutical retail sector. We have witnessed the entry and exit of new players in the business network and often hear pharmacy owners expressing diverse opinions—some positive, others less so. It has become clear to us that a traditionally stable market like this appears to have been compelled to adapt to its current state, with ongoing attempts to return to how things were in the past. Discussions revolve around the emergence of beneficial connections, as well as the loss of others. However, there remains a lingering sense that being part of this new reality may not have necessarily added value to the business.

The thesis draws upon three research articles, each focusing on a specific aspect of business network dynamics. The main objective is to contribute to the network and value creation approaches by understanding the dynamics in business relationships. To expand this objective, we explore four specific objectives: (Objective 1) Identify and understand the evolution of the state of the art regarding the perception of value in business networks; (Objective 2) Identify emerging dimensions within the current themes of value and business networks; (Objective 3): Conduct an empirical study in the pharmaceutical sector in Portugal to understand how firms behave in emergent markets according to certain time events; (Objective 4): Based on the empirical data obtained, contribute to extending our knowledge about the relationship between value and relational dynamics in business networks; and finally, (Objective 5) Propose practical implications for managers about business relationships and value creation.

Considering these objectives, it is presented in the following three main articles. The first article, "*The perception of Value in Business Network: a Systematic Review of key Determinants and Outcomes,*" provides a comprehensive overview of the literature on value creation in business networks. It identifies key drivers, processes, and outcomes that shape firms' value perceptions within these networks, emphasising the importance of relationships, resources, and market dynamics. The review reveals a lack of consensus on the definition of value in business networks, highlighting the need for further research on network-level value and the shifting perceptions of value over time. This article answers to the O1 and O2.

The second article, "Collective Strategies for Shaping Markets: A Network Approach," explores how exogenous and endogenous factors, such as regulatory changes, economic pressures, and technological advancements, impact the actors, resources, and activities within the Portuguese pharmaceutical retail network. It highlights the importance of the dynamics of collective strategies, such as actor influence, resource mobilisation and activities orchestration, in shaping the market and the emerge of business networks. This article answers to the O3 e O4.

The third article, " Orchestrating Emergent Business Networks: A Case Study," delves into the concept of orchestration in business networks, focusing on the role of hub firms in subtly guiding cooperation without exerting overt control. It investigates the dynamics of orchestration in the Portuguese pharmaceutical retail market, revealing the presence of multiple orchestrators operating in a coordinated or uncoordinated manner, driven by shared objectives, in emergent business networks. This finding challenges the traditional view of a solitary orchestrator, suggesting a more complex and dynamic form of network management. This article answers to the objective O3 and O4.

Based on the results obtained, it contributes to extending our knowledge about the relationship between value and relational dynamics in business networks. Proposed value management practices within business networks during situations of uncertainty, rapid paradigm shifts in management, or global emergencies/crises. All four studies contribute to objective 5.

## **1.6. Structure of the Thesis**

This thesis is structured into five chapters: *Chapter 1* introduces the research, outlining the background, purpose, theoretical approach, and methodology. *Chapter 2* presents the systematic literature review (The perception of Value in Business Network: a Systematic Review of key Determinants and Outcomes), offering a comprehensive analysis of the existing scholarship and identifying key research gaps. *Chapter 3* examines the dynamics of market shaping in the retail pharmaceutical market (Relational Strategies for Shaping Markets: A Network Approach), exploring how exogenous and endogenous events affect market-shaping strategies in emergent business networks. *Chapter 4* delves into orchestration mechanisms in emergent business networks (Orchestrating Emergent Business Networks: A Case Study) analysing how orchestration practices develop over time and the roles of different actors from an orchestrated perspective. *Chapter 5* synthesises the research findings, draws final conclusions, discusses the limitations of the study, and suggests directions for future research. By integrating these diverse perspectives, this thesis aims to provide a holistic understanding of value perception, market shaping strategies, and orchestration mechanisms in regulated and emergent business networks, contributing to both theoretical advancements and practical managerial insights.

The formatting of the documents presented in this thesis complies with the publication guidelines of the journals to which they were submitted. Tables and figures are numbered as follows: Chapter number, followed by the sequential number within the original article. All the references of this thesis are listed in a section after Chapter Five.

## CHAPTER II – STUDY 1

### 2. The perception of Value in Business Network: a Systematic Review of Key Determinants and Outcomes

#### 2.1. Abstract

Over the last two decades, research on value within business networks has emerged as an important area of study. Through a comprehensive systematic review, this research summarises the connection between business networks and value creation, regarding the drivers, processes, and outcomes. The analysis reveals that much of the literature concerning value and business networks is based on three dimensions: Market, Resources, and Relationships. Furthermore, our review opens new horizons for research by proposing an in-depth investigation into the shifting perceptions of value across business networks over time, such as the value network strategies and orchestration, over time.

**Keywords:** Business Network, Drivers, Processes, Outcomes, Systematic Review, Value

#### 2.2. Introduction

Business networks have long been a topic of considerable interest to management scholars (Andersen *et al.*, 2020; Biggemann & Buttle, 2012; Chen *et al.*, 2022; Gadde & Håkansson, 2023). Firms are inherently embedded within business networks, establishing and cultivating relationships not only with suppliers, customers, and competitors, but also with non-commercial entities such as governmental agencies and universities. Within this networked environment, firms can access resources, knowledge, and competencies from other actors (Bettis-Outland *et al.*, 2020; Gupta *et al.*, 2010). Consequently, business

networks are pivotal in the development of new processes and activities that emerge from these diverse business relationships (Bocconcelli *et al.*, 2020; Kaartemo *et al.*, 2020; Partanen & Möller, 2012). The concept of value within business networks and relationships has garnered increasing attention, establishing itself as an important area of inquiry over the past two decades. The understanding of how market changes affect the value perception in business networks is a topic that needs to be explored, as it has significant implications on the theory and practice of management. Investigating how value is created, exchanged, and, perceived within these networks is paramount to understanding the dynamics of business practices. However, such scholarly pursuits are challenged by the fragmented nature of the existing literature, which has given rise to a multiplicity of interpretations and understandings. Alinaghian and Razmdoost (2021) contend that the literature has inadequately explored the determinants, outcomes, and contingencies shaping firms' relationships over time. Furthermore, research into the evolving perception of value among different firms within business networks remains limited (Bocconcelli *et al.*, 2020; Chen *et al.*, 2022; Czakon & Kawa, 2018). Thus, a comprehensive appreciation of business network research requires extensive research, recognising the diverse perspectives that each contribution brings to the collective understanding of value. To address these gaps, this literature review explores the principal factors that affect value perception from a network-view perspective. Specifically, it analyses how network strategies and dynamics, actor positions, and business relationships influence the way value is perceived. The review identifies that the existing literature presents a fragmented understanding of these factors, with a significant gap concerning the role of market strategies and relational dynamics. Consequently, this review proposes a future research agenda focused on investigating how network dynamics, such as market strategies and orchestration, can affect value perception in business networks,

contributing to both the theory and practice of management. This systematic review aims to consolidate the existing literature, highlight key areas for future research, and contribute to a more nuanced understanding of value perception within business networks. Further, the objective of this review was to identify and synthesise the major factors of perception of value in the business networks based on drivers, processes, and outcomes. To provide a context for the present research, we initiate this study by identifying the main approaches mentioned in the articles to offer a straightforward connection and analysis to the academic field (e.g., H. Chen *et al.*, 2022; Lindgreen *et al.*, 2012). This section is followed by three more main sections. Section 2 presents the research methodology; section 3 presents the analysed content that is divided into two approaches. Firstly, we present a bibliometric analysis to identify the main topics, theories, journals, and authors associated to this review aiming to compare these with the results of the content analyses. Secondly, we discuss the conceptualisations of value and their relation to the business network. Thirdly, we present the notion of value in business network focusing on the drivers, processes, and outcomes. In section 4 we present the conclusion, limitations, and future paths.

### **2.3. Methodology**

This study is a systematic review of the literature addresses the business network and value; specifically, the relationship value between firms (Perianes-Rodriguez *et al.*, 2016; Tranfield *et al.*, 2003; Williams *et al.*, 2020). Our approach is anchored in a structured protocol that leverages the PRISMA Flow Diagram (Moher *et al.*, 2009; Page *et al.*, 2021) to select articles from the Web of Science (WoS) database. This methodology, widely recognised in management research and specifically within the domain of business network studies, facilitates a comprehensive coverage of the topic, encompassing references to business networks or value in any part of the article.

Table 2.1. Selection and Exclusion Criteria

Selection criteria	Exclusion criteria
Publication type: article	Duplicate articles
All Fields: “Business Network”	Does not specifically mention value between firms
All Fields: “Value”	Mention social value as norms
Publications from 2002 to 2022	Mention value as statistical value
Peer reviewed publications	
Publications in English	
Categories: Management and Business	
ABS ranking from 4* to 2	

The literature search was conducted in two rounds, encompassing articles published over the last twenty years (2002 to 2022), with "Business Network" and "Value" as the primary keywords across all fields. Table 2.1. resumes the selection and exclusion criteria. This strategy was designed to capture a broad spectrum of articles related to business networks and value. The first round was done in May 2021. This review is inserted in the *WoS* categories about Management and Business and, 4\* to 2 ABS ranking, 2018, categories such as ETHICS-CSR-MAN, INNOV, MKT, OPS&TECH, ORG&MANSCI and STRAT. This first section had 242 articles. The second round aimed to update the database and went from May 2021 until October 2022, had 19 articles. Through an analysis of abstract, introduction and conclusion, we excluded all articles that did not refer to any type of value, despite mention of business network, or mention statistical value and, social values as value norms/ethic. We selected peer review journal articles in English. Additionally, we excluded all no access article, probably because of our academic access. We just focused on the relationship value that exists in business network, and we selected 148 articles to assess for eligibility. The systematic collection process is shown in Fig. 2.1.

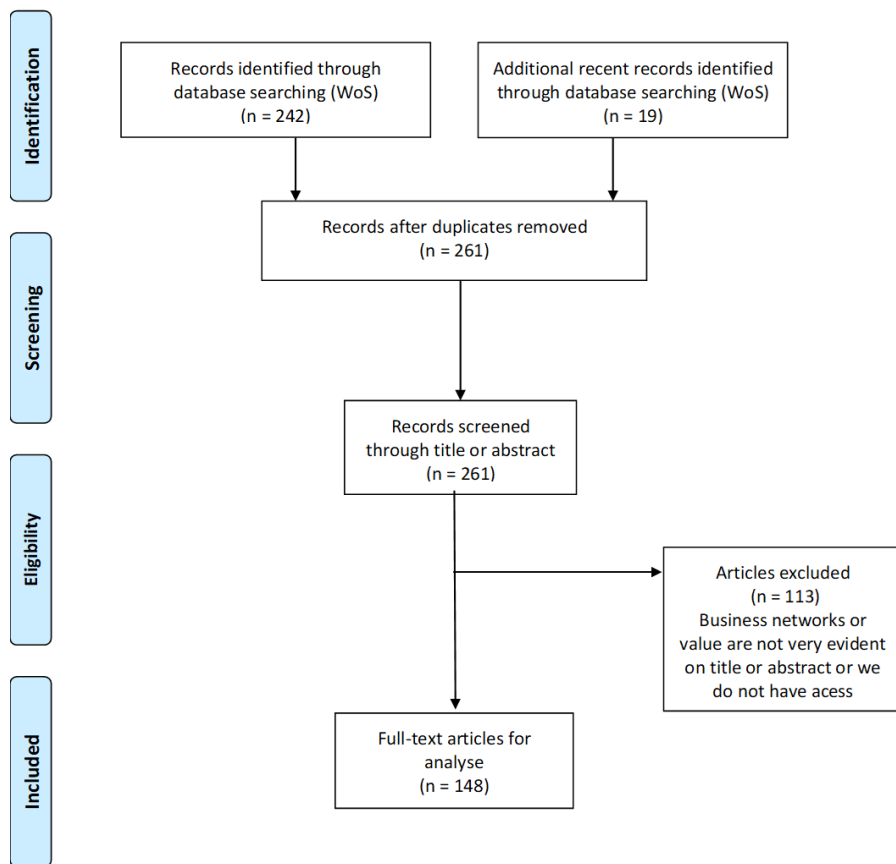


Figure 2.1. Criteria for database in the systematic review according to the Prism Flow Diagram (Moher *et al.*, 2009; Page *et al.*, 2021)

#### 2.4. Data Analysis and bibliometrics

In our systematic exploration of the literature, all 148 articles underwent a detailed analysis framed by both bibliometric and thematic dimensions (i.e., author, publication year, journal, and research method) [Hernández-Alvarez and Gomez (2016)] and thematic characteristics (i.e., value, network, business networks, and value drivers, processes, and outcomes in business networks). The bibliometric analysis covered authorship, publication year, journal outlet, and research methodology, providing a foundational understanding of the landscape of research on value in business networks. Concurrently, our thematic analysis delved into core topics including value conceptualization, network

characteristics, the dynamics of business networks, and the pivotal roles of value drivers, processes, and outcomes within these networks. This dual-faceted approach enabled us to trace the thematic evolution of research over the past two decades, organizing principal concepts and uncovering shifts in the scholarly discourse on business networks and value creation. The analysis showed that from 2002 to 2022, the number of articles published on the topic consistently increased, as shown in Fig. 2.2.

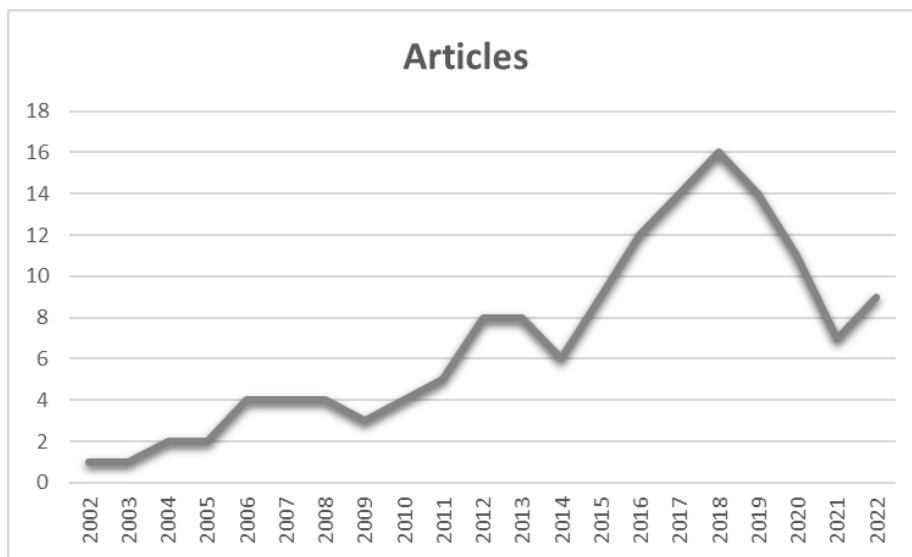


Figure 2.2. Article publication evolution for the last 20 years

Although it was mandatory that value be the topic, most of the articles reviewed were from *Industrial Marketing Management* (64 articles) and *Journal of Business & Industrial Marketing* (44 articles) as shown in Fig. 2.3. These journals have been prominent in the network approach over the last few years.

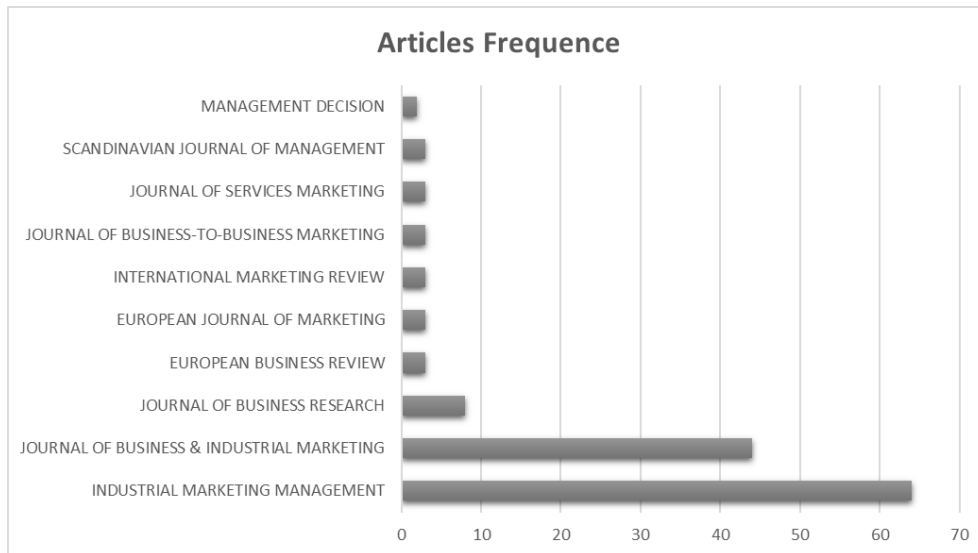


Figure 2.3. TOP 10 journal publication sources in the evaluated articles  
(source: Bibliometrix output)

We also identified several authors who had significantly contributed to the theme from 2002 to 2022. Figure 2.4. highlights the patterns of academic impact and research relevance of the authors within the field of study in question. For instance, Christopher Medlin is the author and co-author of 6 articles, and Kristian Möller is the author and co-author of 7 articles. Some of these authors collaborated or frequently built on each other's research such as Medlin, Möller, Tornröos, Nystrom, and Svahn or the authors Henneberg and Mouzas. In the figure 2.4., each horizontal line represents an individual author. The dots along each line indicate the years in which the author was cited in academic publications. The size of each dot corresponds to the number of citations the author received in that specific year, with larger dots indicating a higher number of citations.

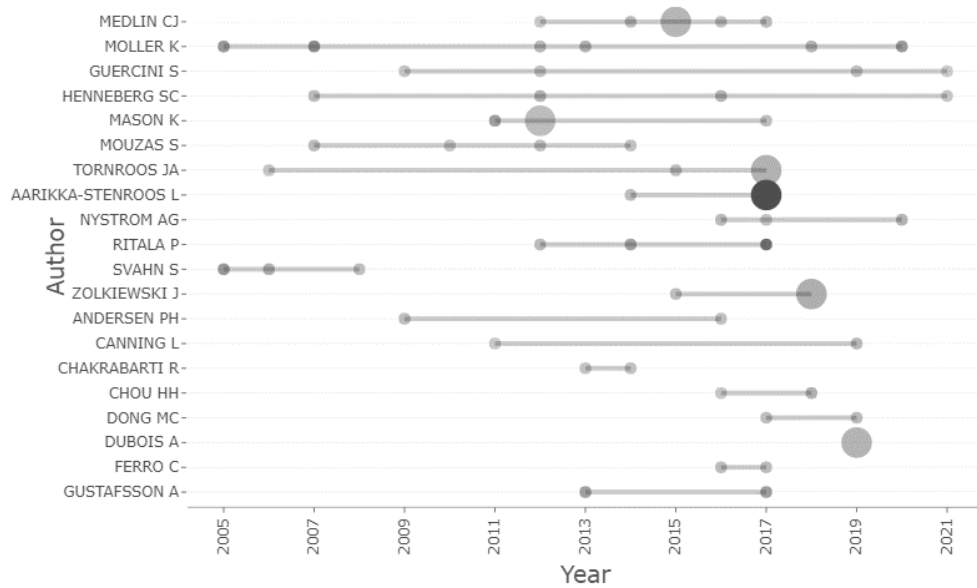


Figure 2.4. Main article citation evolution of top 20 authors since 2002 and 2022 in the analysed articles (source: Bibliometrix output)

We found that regarding the methodology, most of the studies were qualitative (63%), followed by conceptual (18%) and quantitative (15%).

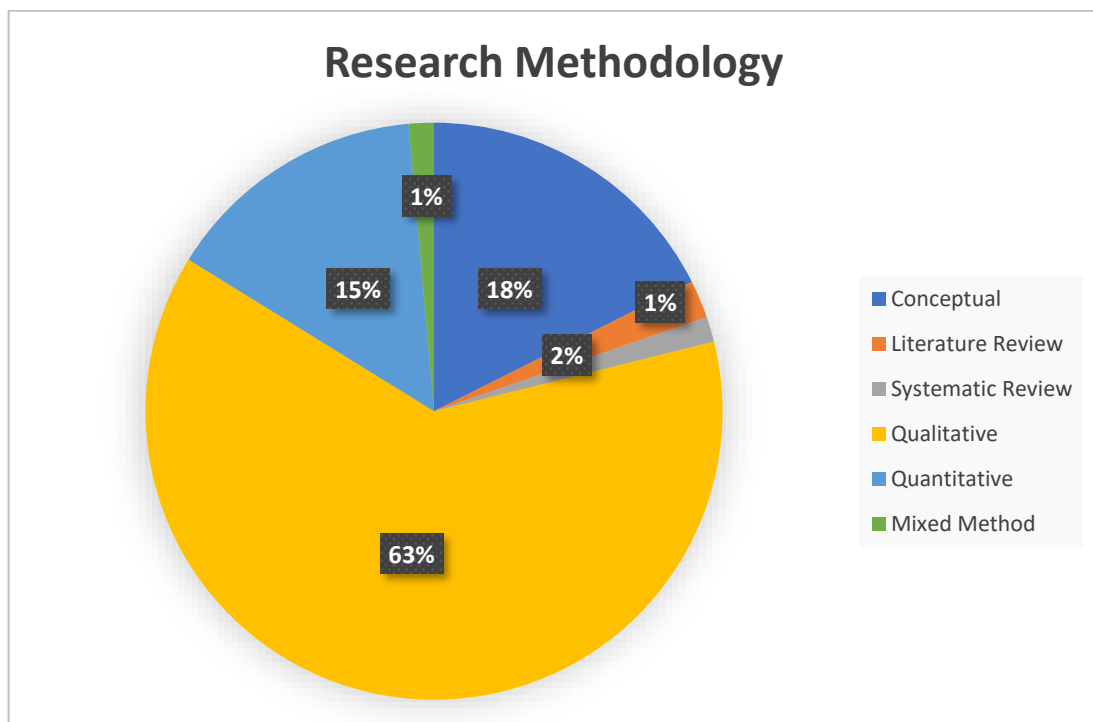


Figure 2.5. Major Research Methodology in the literature reviewed.

Analysing the theories supporting the reviewed articles, we identified seven that were more frequent in terms of number of articles explicitly stating them: business network theory, network theory, social network theory, actor theory, value co-creation theory, institutional theory, and social capital theory (figure 2.6.). Many of the theories refer to the exchange of resources and activities between companies through business relationships.



Figure 2.6. Main theories (number of articles) referred in the literature.

The synthesis of bibliometric and thematic insights, enriched by ontological positioning, facilitated a deeper understanding of the evolving nature of value in business networks. Through this comprehensive analysis, we have charted the intellectual trajectory of the field, identifying key themes, methodological approaches, and ontological perspectives

that have shaped scholarly discussions. Our review posits that the concept of value in business networks is not static but has undergone significant evolution, influenced by changing market dynamics, technological advancements, and shifts in organisational practices.

The main issues and keywords referenced were “business”, “network” and “relationship”. Although as Fig. 2.7 displays, others are emerging such as social, role, and market. The main streams were innovation and business network that were followed by value creation, dynamics/cooperation, and evolution/market.

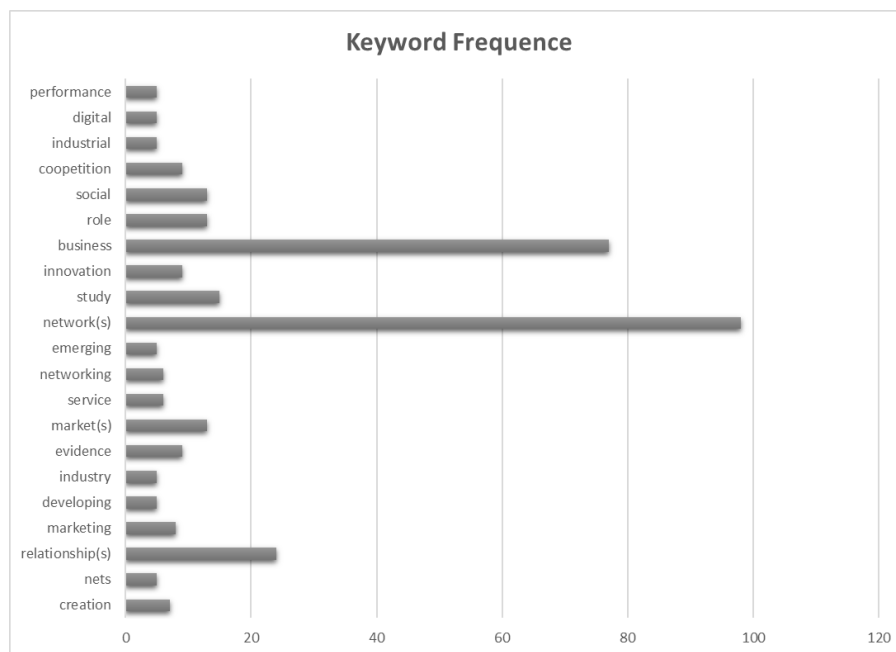


Figure 2.7. Keyword frequency for top 20 authors in the analysed articles (source: Bibliometrix output)

Utilizing VOSviewer, a software tool designed for constructing and visualizing bibliometric networks, we embarked on an in-depth analysis to map out the thematic landscape of research within our domain. VOSviewer stands out among bibliometric mapping tools for its capacity to intuitively represent complex relationships between

research topics, facilitating an accessible interpretation of dense academic datasets (van Eck & Waltman, 2010). Analysing the results from the VOSviewer analysis, we verified the presence of 5 clusters according to these keywords. Cluster 1 refer B2B, behaviour, commitment, CSR, Knowledge, or trust; Cluster 2 is about business relationship, buyer-seller relationship, competitive advantage and growth, market orientation or value co-creation; cluster 3 is about dynamic capabilities, integration, resources, and innovation; cluster 4 refers to coopetition, entrepreneurship, or strategy; and, finally, cluster 5 is about capabilities, evolution, time, or governance. Business networks and relationships, value creation, performance and innovation are central notions that connect the several clusters.

## **2.5.Content Analysis and Discussion**

### **2.5.1. Value in the Business networks**

Analysing the several concepts about value in networks, we can conceptualise it as a multifaceted process, encompassing the exchange and sharing of resources and capabilities, the alignment of interests and benefits, and the facilitation of activities through business relationships with multiple actors, including customers, suppliers, and competitors (Aarikka-Stenroos & Makkonen, 2014; Möller & Torrönen, 2003; Smirnova, 2020).

Value is recognised as an emergent, a co-constructed phenomenon shaped through the interplay of diverse inter-organisational relationships and market dynamics, viewed primarily through two lenses: the firm and the network. However, this binary perspective may be overly simplistic, potentially obscuring the complex interplay between individual actor perceptions and broader network-level dynamics.

Future research should explore more nuanced ontologies that account for the heterogeneity of value perceptions within business networks. Value within business

networks is predominantly framed as "value creation" in the reviewed articles (Corsaro *et al.*, 2012; Lindgreen *et al.*, 2012). However, some authors also consider the capacity for value appropriation (Ritala & Tidstrom, 2014; Zhang & Du, 2019), or value destruction and opportunism (Chou & Zolkiewski, 2018; Park & Lee, 2018).

Several other dimensions are related to the concept of value, such as power, position, brand, or product and innovation processes. The perception of value is inherently tied to the research lens employed. For instance, Santos and Mota (2021) argue that value is related to a network actor's perception of access to new markets and innovation resources, while Redondo and Camarero (2017) suggest that value in networks is a response to emergent relationships offering and sharing services and products.

Some authors view network formation as the process of gathering value through knowledge sharing (Aarikka-Stenroos *et al.*, 2017; Mosch *et al.*, 2022), learning (Bettis-Outland *et al.*, 2020; Eng, 2005), and mobilising capabilities or activities that firms lacked (Akhtar *et al.*, 2018). Furthermore, market change can promote a firm's reaction to create value, such as gaining market visibility, becoming more efficient, increasing product or service attributes, or securing supplier or customer commitments (Aarikka-Stenroos & Makkonen, 2014; Laya *et al.*, 2018).

This emphasis on firm-level reactions, however, may neglect the collective responses of networks to market changes. Future research should investigate how networks adapt and reconfigure their value propositions in response to exogenous and endogenous changes. The literature, mainly adopting a network-centred view, identifies three principal types of inter-organisational relationships critical to value emergence in business networks: Customer-Supplier, Supplier-Supplier, and Partner/Competitor-Supplier (Table 2).

Most authors emphasise value creation through relationships with customers, underlining the cooperation needed to adjust offerings to the customer's context (Gupta *et al.*, 2010; Hamalainen & Salmi, 2022; Steenstra *et al.*, 2020).

Relationships with customers are often based on shared capabilities or services to generate processes or products and to access high-tech markets (Swaminathan & Moorman, 2009; Tura *et al.*, 2019). Therefore, customers often seek new offerings to improve process efficiency and network positioning (Swaminathan & Moorman, 2009; Lindström & Polsa, 2016; Mota & de Castro, 2019; Smirnova, 2020).

Additionally, value is linked to supplier and competitor relationships, with the former focusing on capability sharing and market access (Swaminathan & Moorman, 2009; Tura *et al.*, 2019), and the latter on knowledge sharing to mitigate value destruction and opportunism (Zeng *et al.*, 2017).

Suppliers seek to develop strong relationships to enhance stability (Ritala *et al.*, 2012) and reduce logistical costs (Moller *et al.*, 2020; Park & Lee, 2018; Perks *et al.*, 2017; Mosch *et al.*, 2022). Trust and commitment are central to developing business relationships, while competitors aim to improve network positioning and access resources, innovation, or technology (Medlin, 2012; Medlin & Ellegaard, 2015; Ritala & Tidström, 2014; Standing & Standing, 2015; Park & Lee, 2018; Perks *et al.*, 2017; Pulles *et al.*, 2014; Steenstra *et al.*, 2020). For example, information, resources, customers, and suppliers are drivers for new venture firms to join a network (McGrath *et al.*, 2019). However, the literature often presents these relationships as discrete dyads. Future research should focus on how these relationships interconnect within the market strategies to a business network's structure and how these interconnections influence the different value perceptions and outcomes.

Table 2.2. Seeking value in business relationships

Relationships	Major source of value	Authors
Customer-Supplier		
	Innovation	(Kragh & Andersen, 2009; Mason & Mouzas, 2012)
	Products/services	(Kowalkowski <i>et al.</i> , 2013; Lindström & Polsa, 2016; Moller, 2013; Smirnova, 2020)
	Learning	(Mota & de Castro, 2019)
Supplier-Supplier		
	Stable ties with other important suppliers	(Liao <i>et al.</i> , 2022; Mason <i>et al.</i> , 2012; Moller <i>et al.</i> , 2020a)
	Resources	(Moller <i>et al.</i> , 2020a; Moller & Torronen, 2003)
	Technology	(Park & Lee, 2018; Perks <i>et al.</i> , 2017)
	Reduced number of logistical processes and costs	(Mosch <i>et al.</i> , 2022; Ritala & Tidstrom, 2014)
Partner/Competitor		
- supplier		
	Market position and customers	(Medlin, 2012; Medlin & Ellegaard, 2015)
	Resources	(Ritala & Tidström, 2014; Standing & Standing, 2015)

### 2.5.2. The Business Network: Main Trends

The reviewed literature presents various definitions of business networks, depending on network-view or perception. A network-view often emphasises the links between actors for a specific purpose, such as economic, political, or technological objectives (Kragh & Andersen, 2009; Lavissiere *et al.*, 2019; Mandjaak *et al.*, 2017).

In contrast, a business network can be conceptualised as a collection of business relationships involving a diverse set of actors coordinating activities and exchanging resources (Bocconcelli *et al.*, 2020; Kowalkowski *et al.*, 2013; Santos & Mota, 2021). These networks evolve through sustained business relationships, enabling actors to share and combine resources and processes (Pulles *et al.*, 2014), often deepening into trust-based, over time (Harini & Thomas, 2020; Westerlund & Svahn, 2008).

Future research should explore the degree to which different types of networks exhibit characteristics associated with business networks, such as the value perception of these relationships in terms of shaping market.

Collaboration within these networks, particularly with customers and suppliers, fosters innovation and specialisation as actors co-develop new solutions (Chevallier *et al.*, 2016; Peruchi *et al.*, 2022). For instance, customer relationships facilitate the development of new offerings and more efficient processes (Kowalkowski *et al.*, 2013; La Rocca *et al.*,

2019; Lindström & Polsa, 2016). Even temporary relationships, based on contracts or specific socio-economic environments (Lindfelt & Tornroos, 2006), enable risk sharing and cost reduction (Park & Lee, 2018). Moreover, business relationships confer upon network actors the ability to influence each other's decisions, power, and market visibility (Schepis, 2020).

Therefore, the business network integrates relationships among suppliers, customers, competitors, governmental organisations, and any actor playing a role in identifying and developing business opportunities, thereby generating value. Extant research also highlights the importance of the actor's role and position, often relating these to network structure and actor centrality (Lindkvist *et al.*, 2022; Pimentel Claro & Claro, 2011), branding, and competitive advantage (Jussila *et al.*, 2016; Malaska *et al.*, 2011; Schepis, 2020).

However, the focus on individual actor characteristics may overshadow the relational aspects of value creation. Future research should investigate how the configuration of relationships within a business network rather than just networks, such as, the attributes of individual actors and, the way that firm obtains value and its impact. In the literature, we noticed the role of orchestration within business networks.

Orchestration can be understood as a process to obtain value through strategic management. We noticed that the influence of orchestration into the actions of actors, obtaining resources, and shaping activities, is unclear (Hurmelinna-Laukkanen *et al.*, 2022).

Future research must focus on what value strategies can, for example, influence the mobilisation of actors, resources, or even partners or customers' activities. Network

actors establish communication channels to coordinate and align goals, where critical decisions and resources are essential (Ekman, 2015; Leek & Canning, 2011).

The dynamic evolution of business networks is often propelled by self-interest, with actors seizing opportunities through collaborative advantage (McGrath *et al.*, 2019; Munksgaard & Medlin, 2014; Peruchi *et al.*, 2022).

These networks can be borderless and formally organised through contracts, or informally through word-of-mouth referrals (Pimentel Claro & Claro, 2011). Both formal and informal relationships involve trust (Bettis-Outland *et al.*, 2020) and commitment through social exchanges, word-of-mouth (Aarikka-Stenroos *et al.*, 2017), reputation (Aarikka-Stenroos & Makkonen, 2014), and a balance of self-interest and common ground (Butler & Purchase, 2008).

Through these relationships, firms aim to enhance market visibility or position, sustainability (Alinaghian & Razmdoost, 2021; Landqvist & Lind, 2019), and brand positioning (Czakon & Kawa, 2018; Malaska *et al.*, 2011). Firms establish and develop business relationships to cope with market changes, solve problems, or reduce uncertainty (Mandjaak *et al.*, 2017).

Moreover, through the network perspective, firms may obtain power, innovate (Moller & Rajala, 2007), seek sustainable solutions, gain new customers, develop temporary projects, and internationalise (Schepis, 2020; Vedel & Servais, 2019). Nevertheless, resources such as competences (Akhtar *et al.*, 2018), knowledge (Chevallier *et al.*, 2016), offerings, and even processes are major value drivers within the network.

Firms may also seek efficiency by redesigning processes or business models for value creation (Bocconcelli *et al.*, 2020). The reviewed articles predominantly assume the emergent nature of business networks (Bocconcelli *et al.*, 2020; Håkansson & Snehota,

1995; Santos & Mota, 2021). However, a contrasting perspective highlights that networks can also be deliberately constructed, often termed "nets," created to address specific challenges such as innovation or strategic objectives (Moller & Rajala, 2007; Nystrom *et al.*, 2017). In terms of value processes within business networks, the literature frequently refers to knowledge and learning processes (Bettis-Outland *et al.*, 2021; Eng, 2005).

These processes are particularly salient when firms interact to solve problems (Skarp & Gadde, 2008) or to innovate (Olaru & Purchase, 2015; Ostendorf *et al.*, 2014). Firms share knowledge, ideas, and learn from each other to create new services or products (Kowalkowski *et al.*, 2013), often using guidelines or contracts.

Network actors aim to generate value through processes associated with resource development and integration (Bocconcelli *et al.*, 2020), leveraging resources like branding (Malaska *et al.*, 2011) or developing new ones to enhance market visibility (Mason *et al.*, 2017). Specific projects prompt targeted collaborations, employing a project-specific approach to cooperation (Partanen & Möller, 2012).

Some authors consider network dynamics as a process related to the type of interaction needed, such as customer-supplier, supplier-supplier, or supplier-partner/competitor relationships (La Rocca & Snehota, 2014; Pimentel Claro & Claro, 2011). Coopetition – simultaneous competition and collaboration – is highlighted as a strategy for value creation (Blanka & Traunmueller, 2020; Ritala & Tidström, 2014).

Furthermore, the concept of a value system is important for creating and sustaining value through activities informed by knowledge that affects decisions and attitudes across the network (Heidari *et al.*, 2018; Tura *et al.*, 2019).

Social media platforms have an increasing influence on these value creation processes, facilitating social exchanges and interactions within institutional rules or for signalling

and screening (Drummond *et al.*, 2018; Mei *et al.*, 2022). This value system aims to achieve sustainable value through strategic interactions (Zondag *et al.*, 2017). These interactions significantly impact performance, leading to transformation, innovation in processes, products, or the entire network, and improvements in trade effectiveness, sales growth, and resource acquisition (Bettis-Outland *et al.*, 2021; Leminen *et al.*, 2016a, 2020; Matinheikki *et al.*, 2017).

They can also stem from trade effectiveness, sales and growth, and new resources (Bocconcelli *et al.*, 2020), creating a privileged competitive position and advantage (Camanzi & Giua, 2020) that mobilises customers (Guercini & Runfola, 2012) and reduces risks and costs (Jussila *et al.*, 2016).

Operationally, the network becomes more effective by solving problems or making processes easier and more agile. Beyond performance and operability, the literature mentions value creation, appropriation, and social outcomes, which refer to social connections (Bondeli *et al.*, 2018).

These connections involve trust, solidarity, and integrity that lead to network engagement and consolidation (Lindfelt & Tornroos, 2006; Mandjaak *et al.*, 2017), attracting investment and promoting new ventures (La Rocca & Snehota, 2014; Sadeh & Kacker, 2020). Further research can explain the relationship between these facts with network strategies, for example, that results from emergent business networks to adapt to a market change.

Summarising, relationships, resources, and market dynamics are central to understanding value in business networks. These elements, detailed in Table 3, present an overview of key drivers, processes, and outcomes, underscoring the multifaceted nature of value. As Table 3 illustrates, the connections between drivers, processes, and outcomes can be

mixed. For example, value in a business network, viewed through relationship and resource lenses, can be driven by trust and commitment and by sharing resources, leading to outcomes such as an easier buying process. However, Table 3 presents a somewhat static view of these relationships.

Future research should adopt a more dynamic perspective, examining how the drivers, processes, and outcomes of value creation evolve over time and in response to changing network conditions.

Table 2.3. Drivers, Processes and Outcomes of Value in the Business Network (evidence from the review literature\*)

<b>Value</b>			
<b>in</b>	<b>Drivers</b>	<b>Processes</b>	<b>Outcomes</b>
<b>business</b>			
<b>network</b>			
<b>Relationship</b>	Contracts	Guidelines	Attract
	Investments	Learning and sharing	investment,
	Experienced-based information	knowledge	new ventures
	Value creation	Coopetition	Social
	Trust and commitment	Project-specific	connections
	Personal references, word-of-	collaboration	Network
	mouth, reputation/image,	Institutional/government	engagement,
	trust	rules	consolidation
Culture/ethics	Signalling and screening	Network	
Self-interest	Orchestration	Behaviour	
		Solving	
		problems	
		Innovation	

<b>Resources</b>	Competences	Using resources	Easier buying
	Knowledge and learning	Through actors and	process
	products	activities	Logistics
	Processes/logistics	Through brand or	agility
<b>Market</b>	Innovation	marketing process	Reducing costs
		Using platforms	
	Change/problem/uncertainty	Sharing knowledge	Transformation
	Crises to obtain	Sharing resources	Trade
	Sustainability/power/strategic	Sharing actors and	effectiveness
	position	activities	Generation
	Customer's needs	Contracts or processes	sales/growth
	Projects		New resources
	Internationalisation		Competitive
	Innovation		advantage
		Mobilise	
		customers	

\*see appendix

## 2.6. Conclusion

This article explores the complex landscape of value within business networks, revealing the nuanced interplay between relationships, resources, and market dynamics. Through a detailed analysis of diverse perspectives and processes, it underscores the pivotal role of creating value inside the firms to the business network or vice versa. By aligning closely with a value perspective – relationships, resources and the market - the study results not only enrich our understanding of value creation and exchange through knowing the main drivers, processes and outcomes, but also sets a foundational framework for future research in the evolving domain of business networks. This research has three main contributions.

First, the study advances both methodological and conceptual understanding by elucidating the distinction business networks trends or perspectives. Although networks

inherently involve connections among various actors, business networks are distinguished by the coordinated integration of activities, the exchange of tangible and intangible resources, and the consequent economic and social value creation. This clarification directly addresses the research questions concerning how the literature differentiates between perceptions of business networks, and how these conceptualisations translate into practical implications for the actors involved. Moreover, the analysis of previous studies underscores the need for a dynamic and relational approach—a point that has been further corroborated through a critical comparison with the established literature (e.g., Aarikka-Stenroos & Makkonen, 2014; Möller & Törrönen, 2003; Smirnova, 2020).

Secondly, it provides empirical and processual contributions by demonstrating that value creation in business networks emerges from the interplay of resource integration, collaborative learning, and innovation processes. The findings indicate that both formal and informal interactions—encompassing cooperative and even competitive elements such as cooptation and orchestration—are fundamental to achieving a sustainable competitive advantage. These results not only align with the research questions but also confirm the central role of inter-firm relationships as highlighted in the literature (e.g., Medlin, 2012; Medlin and Ellegaard, 2015; Ritala and Tidström, 2014; Standing and Standing, 2015; Park and Lee, 2018; Perks *et al.*, 2017; Pulles *et al.*, 2014; Steenstra *et al.*, 2020). Nevertheless, the study also identifies areas where the extant literature falls short, particularly in adequately addressing the empowerment and influence of diverse network actors.

Thirdly, the study offers practical insights for strategic management by suggesting that firms should prioritise the cultivation of trust, effective coordination mechanisms, and dynamic orchestration processes. Such practices are essential for seizing emerging opportunities and fostering resilience amid market changes. The alignment between the

research questions and these managerial implications is apparent, as the findings reinforce the importance of integrating resources, processes, and interpersonal relationships as a critical competitive differentiator. This practical contribution further refines and extends the managerial perspectives prevalent in current academic discourse.

Finally, the research contributes for future research by highlighting significant gaps and limitations within the existing literature. Notably, there is a clear need to explore the dynamic and temporal effects of value strategies within business networks, as well as to examine the varying influences of different types of inter-organisational relationships. This suggestion directly responds to the research questions, which demand for a more nuanced analysis of the interplay between network strategies and their structures and extends the literature by proposing alternative perspectives that challenge traditional assumptions.

In summary, the contributions of this investigation enhance the understanding of business networks by differentiating them from general network constructs, emphasising the importance of coordinated relationships, and underscoring the interplay between resource sharing, learning, and strategic management. When compared with the initial research questions and the analysed literature, the results offer clear, coherent insights that not only validate the theoretical framework but also identify promising directions for future scholarly enquiry.

### **2.6.1. Managerial Implications**

Managers can gain a comprehensive understanding of the key drivers, processes, and outcomes within a business network by analysing how these elements interconnect and influence their firm's value perception within that business network.

This research delves into the notions of value and business networks, providing a structured overview of the literature while identifying future research avenues. Although we highlight some core determinants of business network dynamics, the study stops short of an in-depth examination of the underlying influence of market strategies within the network, presenting an opportunity for future inquiry.

Moreover, this study enhances our grasp of how actors, activities, and resources impact business networks, pinpointing essential considerations for establishing a new network or modifying an existing one.

### **2.6.2. Limitations and future research**

Our research has some limitations, as we do not consider any business networks that do not refer to the word “value”. That is, selecting articles by combining “Business Network” and “Value” provided a richer database, however, this can also lead to the exclusion of other articles that deal with value on networks.

For instance, an article on innovation in networks without the word value is excluded. Despite this fact, we believe that will not change some of the major results. We noticed that most of the articles (e.g., Lindgreen *et al.*, 2012) refer to the customer’s value, and the monetary value for the firms. Regarding this fact, this study highlights the importance of the business network on value creation and shows the need for future research on value taking into consideration the “network level” and the “firm level”. Despite the monetary, economic or customer value creation that a business relationship can establish, it is not clear what the perception of value to the business network in terms of identity, attractiveness, mobilization, actually is. For example, future research is needed on network orchestration and the role of non-business actors in orchestrated networks. Further, network dynamics is referred in recent articles (e.g., Chen *et al.*, 2022; Gadde &

Håkansson, 2023), and future research may explore how value is associated with stability and change in business networks, or how business network outcomes and their perception of value, change by some new or old network actors when generating a new action space.

Furthermore, despite some recent research on economic or pandemic crises from a network perspective, future research is needed on how the network deals with a rapid exogenous change.

## **CHAPTER III – Study 2**

### **3. Collective Strategies for Shaping Markets: A Network Approach**

#### **3.1. Abstract**

Market Shaping has recently been a highly sought-after topic by researchers. This research aims to understand how endogenous and exogenous events affect market shaping strategies in business networks. We conducted a retrospective longitudinal case study in the pharmaceutical retail sector. Data was collected mainly through 22 in-depth interviews, focusing on policy and other exogenous events from 2005 until 2022. We show that a succession of changes induces several collective strategies. These collective strategies are pivotal for firms to cope with the change in a highly regulated business landscape. We identified three collective strategies for market shaping in emergent networks: influencing, resource mobilizing, and orchestrating. These strategies can take place simultaneously and evolve over time according to the actors' intentions of promoting new, adapted, reduced, and growth of highly regulated markets. This research shows that firms can strengthen or abridge their capacity for networking through collective strategies for market shaping.

**Keywords:** Business Networks; Case Study; Market Shaping; Pharmaceutical Retail Sector; Collective Strategies

### 3.2.Introduction

Firms increasingly engage in market-shaping Market shaping is an emergent concept in strategic management that refers to deliberate efforts by firms or collectives to modify market structures and behaviours to create more favourable outcomes through activities and actors (e.g., Fehrer *et al.*, 2020; Flaig & Ottosson, 2022; Ottosson *et al.*, 2020).

This approach emphasises that markets are not static or given; instead, they are systems that can be intentionally shaped through strategic actions that lead to institutional changes and increased engagement among actors (Fehrer *et al.*, 2020). This stream of research emphasises the dynamic nature of market shaping, highlighting how firms not only respond to markets but actively participate in their construction and evolution (e.g., Purchase *et al.*2024).

Despite the growing interest in market shaping (Fehrer *et al.*, 2020; Flaig & Ottosson, 2022), research does not often take into consideration the influence of both exogenous (e.g., economic crises, pandemic, regulation) and endogenous (e.g., new hub firm, new products, new procedures) events (Håkansson & Snehota, 1995) in shaping the market.

Furthermore, a deep understanding of how collective strategies emerge and evolve within business networks is missing, particularly in response to a cumulative succession of exogenous events (such as policies and crises) and endogenous ones (like the entry of new players or technological innovations) (Leonidou *et al.*, 2006).

How market shaping strategies unfold in emergent business networks remains underexplored (e.g., Corsaro, 2014; Flaig *et al.*, 2021; Nenonen *et al.*, 2019). This study addresses the call for research on how emergent events could shape the market, and the dynamics between firms (Fehrer *et al.*, 2020; Leonidou *et al.*, 2011). These events are expected to affect the market shaping strategies (Beninger & Francis, 2021; Flaig *et al.*,

2021) regarding business relationships development, resource mobilisation, and activity coordination.

Therefore, this study aims at understanding how exogenous and endogenous events cumulatively affect the market-shaping strategies of actors embedded in a business network. It explores the emergence of collective strategies and their role in reshaping markets over time. We address these research gaps by developing a longitudinal case study in the pharmaceutical retail market. Focusing on an emergent network, we identify a combination of collective strategies for coping with endogenous and exogenous events, and we examine the interaction between the cumulative nature of these events and the resulting strategic responses.

The pharmaceutical retail market (where pharmacies are included) serves as an appropriate context for analysis as it is a highly regulated industry, dominated by micro and small firms. Considering the changes in terms of actors, resources, and activities, three distinct collective strategies emerge which shape the market over time in response to multiple events. These strategies produce network transformations and enhance the networking capacity of small firms.

### **3.3. Theoretical background**

#### **3.3.1. Market Shaping Strategies**

Market shaping can be seen as agential efforts to influence both the formation and transformation of markets (Nenonen & Storbacka, 2021). This goes beyond incremental changes resulting from market evolution. The market shaping strategies involve deliberate actions by actors to change the structure, dynamics, and even the perception of a market. Flaig *et al.* (2021) identify four generic market-shaping strategies – market reduction, market disruption, market maintenance, and market widening – considering

dimensions, two dimensions, namely the perception of market configuration (stable and unstable) and the market-shaping intention (defensive and offensive).

Market reduction strategy (unstable and defensive) focuses on consolidating and increasing power through patenting, influencing regulation, forming alliances, among others. Market disruption (unstable and offensive) strategy often leads to market creation triggered by irreconcilable market views, introduction of radical innovations, and new business models (Flaig *et al.*,2021). In times of constant change and uncertainty, firms tend to find within the network a way to respond (e.g., Fehrer *et al.*, 2020; Ford & Mouzas, 2010) and when it does not happen, new players may emerge in the business network.

Market maintenance strategy (stable and defensive) takes place when attempting to stabilise the market vision and configuration, for instance, through routinisation. Market widening (stable and offensive) strategy focuses on value creation through modifying the market for instance by removing barriers, developing infrastructures, introducing standardisations, and pursuing deregulation (Flaig *et al.*,2021).

Thus, the success of market shaping strategies often hinges on the relational dynamics among the participants. Key relational factors include trust, which reduce the perceived risks of collaboration; shared norms, which facilitate coordination and cooperation; and effective communication, which ensure alignment of goals and expectations (e.g., Bettis-Outland, 2021; Flaig & Ottosson, 2022). Firms tend to adapt to market challenges by creating or maintaining lasting relationships among partners or competitors (Beninger & Francis, 2021). This could provide the opportunity to mobilise resources (e.g., Mouzas & Naudé, 2007; Ritvala & Salmi, 2010) and access by all, according to needs (e.g., Chou & Zolkiewski, 2016). This coordinated approach allows firms to respond to disruptions, ensuring that the market remains operational (Fehrer *et al.*, 2020). For Managers, understanding and leveraging relational dynamics can enhance their market shaping actor,

resources, and activities, allowing them to build stronger coalitions and achieve more sustainable market changes. For policymakers, recognising the power of price-taker or market-shaper through legislation and regulation (e.g., Hamilton, 2022) can guide the development of policies that support collaborative market shaping efforts, thereby enhancing economic innovation and competitiveness (e.g., Flaig & Ottosson, 2022; Nenomen *et al*, 2019).

### **3.3.2. Market Shaping between Stability and Change**

The stability and change of business networks have been crucial for organizational growth (e.g., Eklund & Waluszewski, 2017; Kaartemo *et al.*, 2020; Teece *et al*, 1997). Academics and practitioners alike, have long debated the balance between stability and change within networks (Mandjaak *et al*, 2017). Stability fosters trust and maintains relationships, while change drives innovation and market adaptation (e.g., Kragh & Anderson, 2009; Waluszewski *et al.*, 2017). From a business network perspective, markets are seen as networks (Håkansson & Snehota, 1995; Johanson & Vahlne, 2011).

Håkansson and Snehota (1995) introduced "stabilizing mechanisms" like trust, commitment, and shared values, which are essential for sustaining long-term business relationships by fostering predictability and security for all parties involved. Nonetheless, change remains fundamental as it introduces new opportunities and innovations, though it can also cause disruption if not managed well. The business network perspective underscores this by focusing on interaction processes as the main drivers of change within business networks, considering their context and structure (e.g., Abrahamsen & Håkansson, 2016; Wang *et al*, 2008)

To navigate the challenges of change and stability, Håkansson and Snehota (1995) proposed a framework centred on structure, process, and behaviour. This includes

managing formal and informal aspects of relationships, such as contracts and communication, ongoing interactions like negotiation and service delivery, and the attitudes and actions of individuals involved (e.g., Pimentel Claro & Claro, 2011). Ojansivu *et al.* (2020) furthered this concept by emphasising the interplay of agency, structure, and practice within business networks. Firms can manage their relationships effectively by establishing robust communication channels, resolving conflicts efficiently, and nurturing trust through shared values, thereby maintaining stability while staying open to innovation.

Gadde and Håkansson (1992) highlighted the dual nature of relationships in distribution channels as both stabilizing and potentially resistant to change. Long-term contracts and partnerships, for instance, ensure reliability and reduce conflicts but may also hinder adaptation to new technologies or models. Understanding these dynamics, recognizing interdependencies within the network, and fostering collaboration are key to managing the tension between stability and change (Guercini & Milanesi, 2019).

In their discussion on network dynamics, Håkansson and Snehota (1995) distinguish between endogenous changes arising from within the network and exogenous changes driven by external factors like policy, (Abrahamsen & Håkansson, 2016), technological shifts or global events (e.g., Pedersen & Ritter, 2022). They argue that successful long-term adaptation requires strategies to handle both types of changes effectively, demanding flexibility, trust, and a deep understanding of network dynamics (e.g., Guercini & Runfola, 2012; Kaartemo *et al.*, 2020).

The change within business relationships is not a purely objective phenomenon (e.g., Guercini & Milanesi, 2019). Instead, it is subject to individual interpretations and sense-making processes. Different actors within the same relationship may have divergent understandings of how the relationship evolved, which events were critical, and what the

outcomes signify (Flaig *et al.*, 2021). The actors' intentions and desired results can shape their interpretations of past events. Rather than viewing the past objectively, individuals may reinterpret events in a way that aligns with their current goals and aspirations for the relationship (Perks *et al.*, 2017). The notion that changes in business relationships can be solely explained by individual cognitive maps emphasizes the importance of interaction and network evolution (e.g., Harini & Thomas, 2021). The way actors behave towards each other, the events they experience together, and the shared meanings affect the development of the business relationship (e.g., Corsaro & Snehota, 2012).

The successful market shaping initiatives must not just account for the subjective perceptions and interpretations of change but take into consideration the different network actors' perspectives (Flaig *et al.*, 2021). It's crucial to understand how these perceptions are formed, how they influence behaviour, and how they can be aligned to support collective action towards a shared market vision, goals and value creation. The market vision and transformation are essentially processes of collaborative or individual relationship changes. And the strategies of market shaping could be a driver of change and value capture influenced by these relationships. For example, a transformative change, which represents profound and systemic shifts in market structures, practices, and social arrangements. These transformations go beyond incremental adjustments and involve fundamental reconfigurations towards sustainability (e.g., Lacoste, 2016; Möller & Rajala, 2007; Mota & Castro, 2019). Additionally we have the agents of change, as key actors in driving these market transformations such as an influencer or a visionary (Westman *et al.*, 2023).

How change events over time drive market shaping, particularly through the influence of relationships between network actors in emerging networks, remains unexplored.

### **3.4. Methodology**

This study aims at understanding how exogenous and endogenous events affect market shaping strategies in a business network, over time. Hence, this research adopts a retrospective longitudinal qualitative case study (roughly from 2005 until 2022) to explore the relational dynamics and impacts of key events within a business network (Andersen *et al.*, 2018; Graebner *et al.*, 2012; Halinen *et al.*, 2012). A case study method allows to consider the concrete spatial and temporal contexts when addressing events and structures, to gradually limit the phenomenon, and framing it in terms of theory (Birkinshaw *et al.*, 2011; Yin, 2018). This qualitative methodology allows an in-depth understanding of complex phenomena within their real-world context (Rashid *et al.*, 2019).

The case study was purposely selected (Rashid *et al.*, 2019) considering its revelatory potential (Eisenhardt & Graebner, 2007; Siggelkow, 2007). The pharmaceutical retail market is seen as an emergent network constituted mainly by micro and small firms. This is a highly regulated market that balances strong pressures both for stability and for change over the past 20 years. As the market is pressured to change by regulation, crises, pandemics, new relationships, and new actors, the market is also influenced by the stability provided by the regulation, the “same old” actors, and long-standing relationships.

This study triangulates several types and sources of data. The primary source of data are in-depth interviews with retailers, buying groups, wholesalers, and other industry-related organizations, such as pharmacy associations. Participants were chosen for their direct involvement in the business network under investigation—namely, pharmacy owners, technical directors, and partners. Three semi-structured protocols were used according to the actor being interviewed (associations, retailers, and retail partners). These protocols were focusing on contextual description, main actors, changes over the last years,

strategies for addressing stability and change. Interviews took place mainly online and were conducted, recorded and transcribed. The researchers' prior familiarity with the empirical field played an important role both in identifying the relevant participants and in crafting focused interview questions. Table 3.1. presents a synthesis of the interviews carried out.

Table 3.1. Interviews detail

Interviewee	Interviewee Role in the Firm	Firm Size	Time length (minutes)
1	Association Director	Medium Company	90
2	Pharmacy Owner and Technician Director	Micro Firm	57
3	Pharmacy Owner	Small Business	53
4	Pharmacy Owner and Technician Director	Micro Firm	81
5	Pharmacy Owner and Technician Director	Micro Firm	63
6	Pharmacy Owner and Technician Director	Small Business	53
7	Pharmacy Owner and Technician Director	Small Business	55
8	Pharmacy Owner and Manager	Small Business	70
9	Pharmacy Owner and Technician Director	Small Business	55
10	Pharmacy Owner and Technician Director	Small Business	46
11	Buying Group Director	Small Business	63
12	Pharmacy Technician Director	Small Business	63
13	Pharmacy Owner and Technician Director	Small Business	57
14	Digital Firm Director	Micro Company	72
15	Pharmacy Owner and Technician Director	Small Business	56
16	Pharmacy Partner and Ex-Association Director	Small Business	90
17	Association President	Small Business	47
18	Association President and Pharmacy Owner	Small Business	62

19	Wholesaler CEO	Medium Company	90
20	Pharmacy Owner	Micro Firm	58
21	Pharmacy Owner and Technician Director	Micro Firm	48
22	Buying Group CEO and Pharmacy Owner	Small Business	61

As referred, interviews were triangulated with secondary data, such as documents from the firms, websites, news articles, public sectorial studies, press releases, and policy documents. Results were validated with interviewees and supported by analysis of secondary materials such as documents and news articles as suggested by Aguinis & Solarino (2019).

A retrospective analysis allows us to examine various events that have occurred in the pharmaceutical sector in Portugal over the last 17 years. Additionally, a historical reconstruction will be carried out to identify the key processes and changes in business relationships over time, leading up to the present moment (Halinen *et al*, 2013). This pre-understanding of the empirical setting by the researchers facilitated rapport-building with interviewees and enabled a more nuanced interpretation of their responses (Rashid *et al.*, 2019). The casing process followed a systematic combining approach (Dubois and Gadde, 2002).

### 3.5. Findings

#### 3.5.1. Contextualising the pharmaceutical retail market

Nowadays, pharmacies in are an integral part of the healthcare system, offering a wide range of services beyond dispensing medications, including health screenings and vaccination services. The integration of digital technologies has further transformed the sector, enhancing the efficiency and accessibility of pharmaceutical services.

The pharmaceutical sector consists of several stakeholders, including pharmacies (retailers), wholesalers' distributors, pharmaceutical firms (such as the pharmaceutical industry), intermediary purchasing groups, sectorial associations such as the Nacional Pharmacy Association and the Portuguese Pharmacy Association, and sectorial regulatory bodies (INFARMED). Pharmacy associations have provided significant financial relief by advancing government reimbursements for medications, allowing pharmacies to meet their financial obligations. That is, *“Paying the distributor and the industry, and receiving from the client, the patient at the point of sale, the non-reimbursed portion, and receiving from the Government, where, for example, in the case of pharmacies, the National Association of Pharmacies, plays a significant role.”* (Pharmacy Owner and Technician Director). This sector extends across various product categories like cosmetics, medications, over-the-counter products, and medical devices.

Despite its conservative nature, this highly regulated sector has experienced significant transformations in recent years, which some stakeholders view negatively while others perceive as opportunities for growth and market expansion – *“That is, on the one hand, we could own more than one pharmacy, and on the other, there was a significant opportunity here – minor crises, become opportunities.”* (Pharmacy Owner and Manager). The regulatory changes and healthcare policies, evolving consumer behaviours, technological advancements, propel the development of the Portuguese retail pharmaceutical market. The retail sector is a pillar component of the healthcare system, with pharmacies serving as primary access points for medications and health products nationwide. There are around 2900 pharmacies (a stable number over the last 20 years). These pharmacies, predominantly family businesses, small and widely dispersed, play an essential role in delivering healthcare services to local communities. Pharmacies in

Portugal are governed by strict regulations that ensure patient safety, medicine price, reimbursements, and the number of retailers matching the population size, among others.

### **3.5.1.1. The beginning of the 21<sup>st</sup> Century**

In the 21st century, the pharmaceutical sector has undergone most of its significant transformations. Traditionally considered a stable sector with limited innovation processes, it was particularly through regulation, and market changes, that these pharmacies found themselves compelled to seek new solutions in order to adapt to the rapid changes taking place.

A notable change occurred in mid-2005 with the implementation of Decree Law 124/2005, which permitted the sale of non-prescription medicines outside pharmacies, something which was previously exclusive to them. This legislation facilitated the emergence of large health stores in commercial centres and petrol stations, as well as expanding the market niche for para-pharmacies, which until then focused on natural and wellness products. This reconfiguration induced tensions in the long-standing relationships between pharmacies and suppliers, particularly regarding pricing and commercial conditions – *“With the issue arising after the entry of so-called “discount” pharmacies, therefore, it is fundamentally a business model that destroys value.”*

(Pharmacy Owner and Technician Director)

Over time, pharmacies adapted by developing new clinical follow-up programmes for their clients and implementing loyalty cards, initially promoted by the National Association of Pharmacies. In detail, the pharmacy associations promoted a collective loyalty card program with the aim of retaining OTC customers in pharmacies (as opposed to other locations such as para-pharmacies) and to compensate for some losses that were

occurring at the time. Later, loyalty cards were independently adopted by some pharmacies.

Another significant regulatory milestone occurred in 2007 when the exclusivity of pharmacy ownership by pharmacists was abolished, allowing new players to enter the market. Although there was initial concern that large retail managers would dominate the sector, interviewees revealed that small owners appreciated this deregulation as a growth opportunity, allowing them to expand from the single pharmacy, as it is not necessary to be a pharmacist. Instead, anyone could be the owner without a special qualification. The change in pharmacy ownership coincided with adjustments in pharmacy profit margins for prescription medicines, where the main client is the Government – *“Simply put, these regulatory events represent the government's power over pharmacies, as the sector is regulated. This is undeniable and the primary driver of these changes.”*. (Pharmacy Owner and Technician Director)

Despite some of these initiatives not having the expected impact due to sector fragmentation, they highlight the resilience of pharmacies in the face of a growing competitive environment from large retailers. This competition encouraged pharmacies to explore alternatives through their suppliers and partners, such as new promotional methods, merchandising plans, and exclusive services – *“I think if it weren't for the industry partners, (...), who shaped how we see the pharmacy: some cosmetics partners made us see the cosmetics area in a certain way, and the generic drug manufacturers also taught us to work in a particular manner.”*(Association Director).

All interviewees agreed that the new regulation is the major source for market change, such as sales of over-the-counter medications outside traditional pharmacy settings and the emergence of new players or organizations within the business network.

The aim was to reduce public health expenditures, regressive margins were introduced for pharmacies and wholesalers, and the cheapest medicines available became the reference for reimbursements for a particular disease. Pharmacy Owner and Technician Director states: *“So, when Correia de Campos arrived at the pharmacy, my pharmacy was brand new, and the pharmacy's stock price dropped by more than 50% (interviewee 3).”* Most of the interviewees identified the main partners and stakeholders in their business as distributors. Distributors, or wholesalers, traditionally supply pharmacies for many years, and are a major source for credit. Besides distributors, pharmacies identify associations, banks and pharmaceutical producers (particularly generic medicines ones) as their key partners.

These changes had a significant financial impact on the sector, leading to difficulties that affected the entire market, from pharmacies to distributors and the pharmaceutical industry. The financial consequences of these changes were severe, resulting in negative cashflows, staff reductions, and credit renegotiations, bankruptcy, mergers and acquisitions.

However, the difficulties also generated opportunities for some, with the acquisition of businesses at reduced prices and the emergence of buying groups – *“The group arose, initially, with economic intentions—to enable us to buy better. But it also arose out of camaraderie, to exchange ideas.”* (Pharmacy Owner). These entities, formed by pharmacy owners, centralised negotiations with suppliers, allowing for more favourable commercial conditions and more efficient stock management *“With the group handling negotiations, the laboratories also benefited from this cut.”* (Association Director) *“[...] partners supply the products, preferably with commercial conditions that are attractive to our business. (Association Director2).*

Buying groups propelled the adoption of innovative management practices by pharmacies, which was previously characterised by an individual practices. These new entities negotiated, managed stocks, campaigns, and distributed products, providing a competitive advantage in terms of pricing and allowing pharmacies to focus on sales and patient care. With the growth of these groups, substantial changes emerged in the business structure of pharmacies and their relationships with their partners. Some pharmacies adopted the image and branding of the groups, while others, although recognising the benefits, felt compelled to join due to economic and legislative pressures.

#### **3.5.1.2. After 2010**

After 2010, the financial crisis started to affect the pharmaceutical retail market. Associations representing the sector, endeavoured to mitigate the consequences of the sudden decrease in prices and margins for prescription medicines, which constitute between approximately 80% of pharmacies' revenue. The economic crisis and the intervention of Troika exacerbated these difficulties, leading to a cycle of bankruptcies. During the austerity measures under the Troika's oversight, drastic changes impacted the pharmacy sector, with Pharmacy Owner and Technician Director noticing: *"There is a change, because in that period there were a series of measures that directly affected the economy of the pharmacy, in a very violent and very strong way"*.

This period also saw significant healthcare budget cuts and increased co-payments for prescriptions, described by another as, *"any measure that the Government took was super disruptive in the sector, because it took a huge percentage off the drug margins and, with that, a brutal impact on the economy of the pharmacies"* (Pharmacy Owner and Technician Director).

These changes prompted a strategic realignment among pharmacies, distributors, and pharmaceutical firms, aiming for stabilizing their businesses *"The pharmacy looked to*

*the distributor, the distributor looked to the pharmaceutical industry...*”( Pharmacy Owner and Technician Director). Considering the increased risk associated with credit given to pharmacies, the distributor also adopted more restrictive measures regarding access to credit. Thus, payment terms were renegotiated to shorter terms.

The entities representing them consistently failed to maintain the financial integrity of the sector, accepting measures imposed by the Government, without any room for negotiation. The associations themselves also faced structural challenges, lacking negotiation capacity. Aiming to restore some bargaining power, the associations felt the need to ask market studies demonstrating that pharmacies could save the Government money. Such studies highlighted that pharmacies are central in selling medicines, but also to promote and provide health services, such as vaccination – “...*the pharmacy is more integrated into public health policies than it was previously.*” (Association Director). However, some pharmacies reported that the gains from such contributions did not offset the expenses incurred.

Despite the financial burden, the retail sector continues to be composed predominantly of micro-enterprises, which still implement promotional discount policies to attract customers. Initially, this was done on an individual basis without any major planning, with every customer receiving a discount, revealing the sector's weak strategic planning capabilities, particularly in terms of dealing with customer loyalty. As some interviewees noted, offering just 1% more in discounts could cause customers to switch pharmacies, resulting in a greater loss of margin without increasing customer retention. This led to the dissemination of individual loyalty cards (initially as a collective measure, but later, on an individual basis by each firm).

Some interviewees considered that the general loyalty card did not promote loyalty to their specific pharmacy and required them to stock certain products for customers to

"redeem their points". They deemed this approach ineffective. Conversely, some interviewees argued that the sector would never agree on a collective approach for these points, which continues to erode its bargaining power.

Remarkably, pharmacies joined buying groups that promoted their brands, partners, and products. Here, the financial compensatory factor is indeed predominant. In other words, there is adherence to certain services, products, or decisions only if there is financial compensation or indirect financial benefits (e.g., vaccination brings new clients to the pharmacy even if the compensation does not cover the costs).

With the emergence of the first buying groups and the introduction of organised marketing plans in the sector, a strong branding strategy, and a strong common objective emerged. This is particularly interesting considering that, despite the associations representing the sector being highly respected and well regarded, they never succeeded in garnering such collective support. In contrast, the associations now find themselves surrounded by representatives from various pharmacies who organise themselves into smaller groups, with different visions but convergent missions, defining future directions. However, when asked whether they believe the future lies with these groups rather than associations, responses were unanimous: groups are important for obtaining product conditions and services, but it is the associations that represent them before the Government.

With the recovery of many pharmacies' economic capacity and the rapid evolution of information technologies, new businesses began to emerge associated to the development of online stores. Online sales, and the professionalisation of social media, brought new ideas to pharmacies for selling their services and products, attracting a new generation of younger professionals, the first digital marketing plans, webinars, and communication with clients outside the pharmacy. This shift drew other digital firms into the network, introducing new IT firms providing services to the pharmacies. These new firms

providing services in the sector allowed them to adapt to the rapid changes and market demands.

In 2012, regulation allowed each entity to own up to four pharmacies. The first groups, belonging to the same family, began to emerge. We can call these the first family pharmacy groups. They are oriented towards a model similar to the buying groups. Still, some of these family groups are members of buying groups, often due to the services they provide, such as screenings, training, and merchandising.

Regulation, wholesalers and the pharmaceutical industry influence pharmacy operations. For instance, a wholesaler cooperative has played a significant role in providing business training “...we primarily work with the cooperative. Because our concept and training were geared towards the cooperative (...). And we must have been the last ones to leave there(...)” (Pharmacy Owner and Technician Director). Nevertheless, interviewees emphasised that all business operations are ultimately focused on serving the patient, with one stating, “... the person with an illness and the way they behave may come to have an impact on the pharmacy business...” (Pharmacy Owner).

However, there is a notable preference for maintaining longstanding partnerships, rarely switching allies abruptly, and always striving for alignment in objectives. Associations have become increasingly crucial, not just for financial support but also in advocating for regulatory changes with the government – “We cannot negotiate with the Government individually; we need the associations that represent us” (Pharmacy Owner and Technician Director).

Additionally, pharmacies are not very sensitive to changes, in terms of actors, of their distributors or representatives of purchasing groups, unlike their relationship with associations. A large part of the decisions regarding keeping the same distributors and

purchasing groups is price and availability. *“The best product on the market (...) provides favourable commercial conditions for us to develop our business (Pharmacy Owner and Manager).”* - *“I can get better prices by having a preferred supplier (Pharmacy Owner and Technician Director).”*

The effect of the pandemic on the business network did not have a major impact on the management of pharmacy resources and activities. During it, the network remained united trying to respond to the needs of the population. However, some players who emerged were part of the network but increased their expression and presence, who were managers of social networks and online stores. With the restriction on the population's exit, some pharmacies decided to bet more on their online stores and social networks (Facebook and Instagram), bringing another business vision to the business. Thus, was born the Era of the sector's presence in social networks, bringing the influencer's version to the professionals who collaborate in these firms. In addition, with the need to meet the population's needs, certain services that were in pilot and trial period became effective, as was the case of extending vaccination in pharmacies and the distribution of hospital medicines in pharmacies. With the need to distribute products at home, the sector ended up bringing distributors to its network that were outside the circuit, such as CTT (a private parcel and correspondence distribution firm). Figure 3.1. resumes the major events.

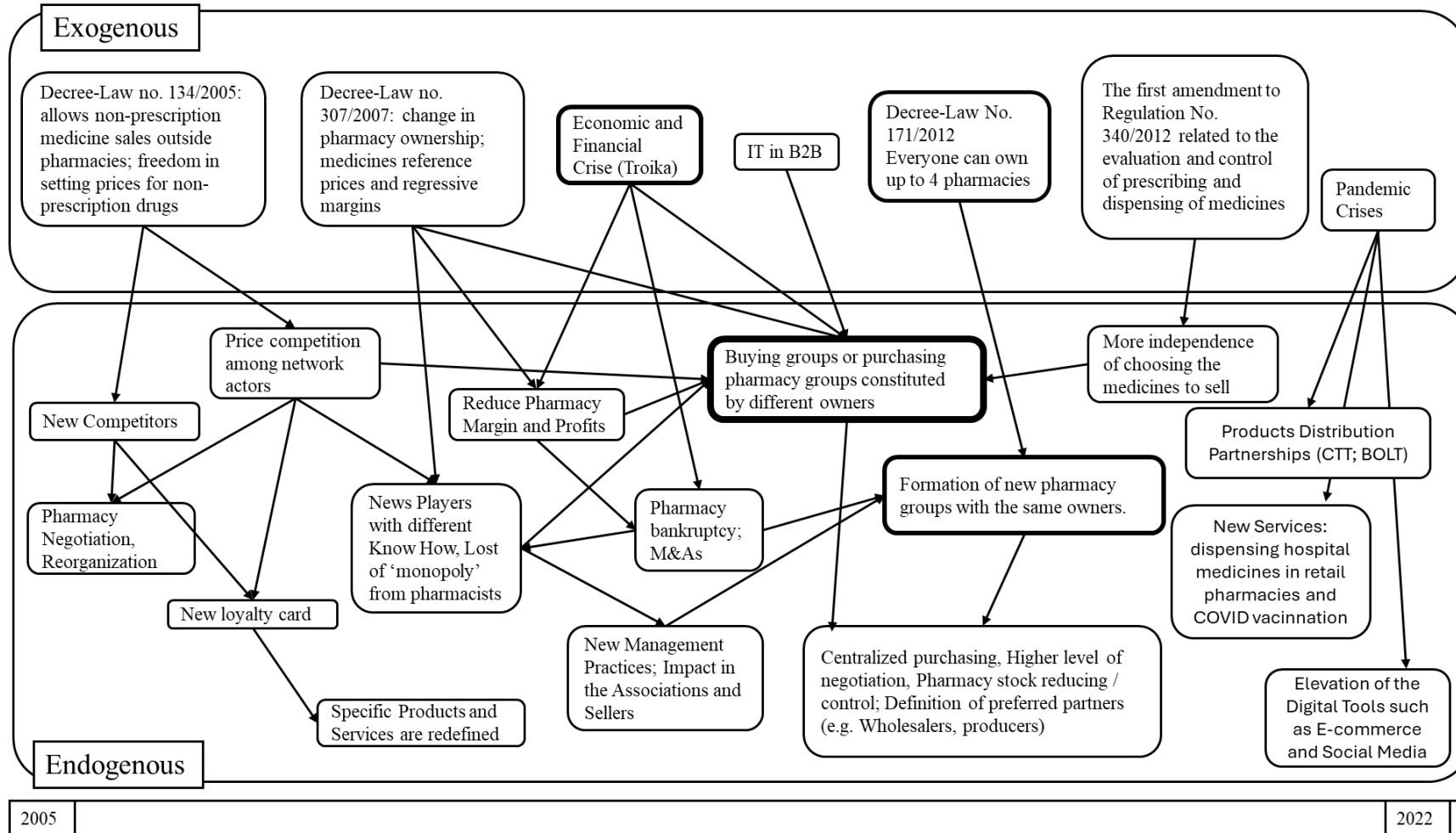


Figure 3.1. Exogenous and Endogenous Events from 2005 and 2022 in the pharmaceutical retail sector

### 3.5.2. Data Analysis

Various market-shaping events have impacted the actors, resources, and activities within business networks, thereby promoting “the change”. For instance, the pharmaceutical market is a highly regulated market, which determines the number of retailers, distributors, representatives and producers, as well as all legal requirements associated with their operation and prices.

Regulatory changes have a major impact on the business network. Additionally, we identified exogenous events external to the network, such as the financial crisis, and the impact of the COVID-19 pandemic, which brought widespread disruptions. Endogenous events seem to stem from the actors’ reactions to exogenous events. Moreover, the case shows a cumulative effect that leads to major events in terms of the business network. To clarify, several smaller (exogenous and endogenous) events over time trigger continuous adjustments in the business landscape. These events seem to lead to a major change in the business landscape.

Consequently, each of the events that occurred has different effects on the actors, resources, and activities of the network. Table 3.2. presents the market shaping strategies (Flaig *et al.*, 2021) associated with actors, resources and activities. Additionally, it also links those strategies with market shaping outcomes. For most actors (partners and pharmacy) some of the changes were considered an opportunity to grow and innovate. However, it is notable that for long periods these actors tend to promote stability.

This stability is often a result of the time actors take to react to events. Once they do respond, they tend to remain stable, refraining from significant future projections and actions in the network for another long period of time. It is important to note that major

changes in the market seem to be linked to collective market-shaping strategies. Some of these can introduce new players into the network or bring closer partners who are currently more distant. In other words, several actors end up forming a consensus and pooling joint efforts through associations or buying groups.

In the context of emergent networks, hub firms seem to emerge out of the necessity of many small firms. That is, small firms can cope with regulatory changes through collaboration. By doing so, these hub firm earns their “hub” status over time by building a network identity. As trust builds, the hub firm becomes trustworthy, representing the small firms, even these are not always fully aligned (eg., Håkansson & Snehota, 1995; Johanson & Vahlne, 2011).

As a result, the hub firms are left with the main decisions and market evolution in their hands. Small retailers focus on their service and daily activities, prioritising sustainability, but often operating without a long-term resource and activity strategy.

Table 3.2. Impact of Market Shaping Factors - Exogenous and Endogenous Changes - in the Actors, Resources and Activities and, Market Outcomes

Market Shaping factors and Impact in...	Actors	Resources	Activities	Market Shaping Outcomes			
				New	Growth	Adapt	Reduce
<b>Exogenous Change</b>							
Decree-Law allows non-prescription medicine sales outside pharmacies.	Market disruption and widening		Market disruption and widening		X	X	
Decree-Law allows freedom in setting prices for non-prescription drugs		Market disruption	Market disruption		X	X	
Decree-Law on alteration of the legal regime of pharmacy ownership	Market widening						X
Decree-Law on Medicines reference prices and regressive margins.		Market reduction and disruption	Market Reduction and disruption			X	X

Economic and Financial Crise (Troika)		Market reduction and maintenance	Market Widening	X		X	X
Emerging the first buying groups or purchasing pharmacy groups without being the same owner.	Market disruption and widening	Market disruption and widening	Market disruption and widening	X		X	X
Decree-Law on everyone could be a Pharmacy Owner, despite being a pharmacist or not and you could have up to four pharmacies for identity.	Market widening		Market widening			X	X
The first amendment to Regulation No. 340/2012 related to the evaluation and control of prescribing and dispensing of medicines		Market Maintenance				X	X
Pandemic Crises			Market Maintenance			X	X
<b>Endogenous change</b>							
Technology Innovations	Market disruption	Market disruption	Market disruption	X	X	X	X

	and widening	and widening	and widening			
New Players with Different Know How from Pharmacists (Lawyers, Managers)	Market widening			X	X	
New Competitors	Market maintenance and widening	Market maintenance and widening	Market maintenance and widening	X	X	X
New Loyalty Card		Market Maintenance	Market Maintenance		X	
Emergence of Buying Groups	Market disruption and reduction		Market disruption and reduction		X	X

Three significant market-shaping events can be identified. Two of these are exogenous—regulatory and external crises—and one is endogenous—internal to the network (table 3.2.). By analysing these events in combination and linking the information from interviews with the events that have occurred over time, we understand that not all events had the same market outcome. It becomes especially apparent with regulatory events and external occurrences, such as economic and pandemic crises, these have the most substantial impact on the network's dynamics in terms of actors, resources, and activities. When we examine Table 3.2. more closely, in terms of actors, exogenous events introduced new firms to the market, such as buying groups and new technology firms. These actors drove the modernisation of pharmacies and enabling them to offer services beyond the dispensing of medicines and wellness products, thereby supporting, for example, market disruption and widening strategies (eg., Flaig et al., 2021).

However, it is important to consider that the measures taken, and decisions made by firm managers led to the dissolution of some relationships. For example, certain actors exiting the relationship, as seen with some players in the pharmaceutical generic drug industry. These changes created a gap, which resulted in the entry of new players within pharmacies, such as outsourcing services provided by other healthcare firms.

This event not only disrupted the market by introducing new business models into the network but also reduced the number of other players. This occurred due to the centralisation of negotiations between the purchasing group and suppliers, which diminished the need for multiple sales representatives, for instance, to visit pharmacies. In terms of resources, this allowed for the acquisition and access to a portfolio of new products, the possibility of developing a unique own-brand product line, leading to improved internal resource management and better resource allocation. For example,

there was no longer a need for monthly, semi-annual, or annual stockpiling, enabling daily purchases under the same commercial conditions. As a result of these changes, pharmacies adjusted their activities, prompting the surrounding partner network to align with this new reality and sector needs (network orchestration) (eg., Flaig & Ottosson, 2022; Nenomen *et al*, 2019).

Notably, the emergence of buying groups centralised negotiation in the procurement of products and later services, enabling partners to focus on community service (mobilizing resources). However, this centralisation also introduced a new reality for pharmacies, independent and private businesses, in adhering to certain standards, brands, and partners suggested by these new sector players (network influencers). While some pharmacy owners saw this situation as an evolution and market opportunity, while others view it merely as a necessity to meet customer demand and price requirements in an increasingly competitive market (e.g., market widening).

Overall, most of the events promoted an adaptation of the market, generating few new businesses. When compared to the growth of the market, the measures implemented, especially the legislative ones, contributed little to its reduction. Instead, these measures facilitated a better adaptation of processes, products and services with greater efficiency and value to the market. This adaptation also went hand in hand with innovation in what was previously a stable and accommodating sector.

In fact, it is widely considered that if the measures had not been implemented, the sector could not be at this level of evolution. This argument applies not only to legislative measures but also to the impact of the economic and financial crisis, as well as the pandemic. Taking this into consideration, it becomes clear that market shaping, through emerging measures, has a greater impact, promoting emergent business networks and not

as deliberate as stated in studies on market shaping. Such as, we can observe some network strategies emerging in the emergent business network (figure 3.2.).

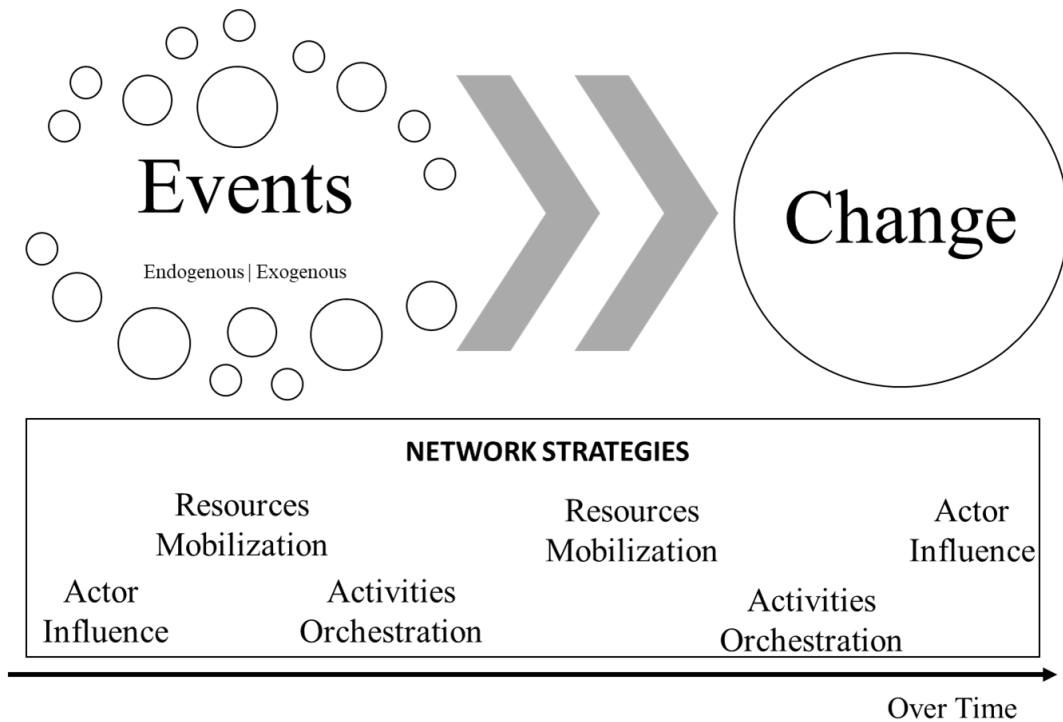


Figure 3.2. The Network Strategies from a Market Shaping Perspective

The model illustrates the process of market shaping through various stages of change and the roles of actors, resources, and activities. At the initial stage, there are several minor changes, both endogenous and exogenous, which refer to impact events, such as business or regulation changes. Following this, the intermedium change stage represents the interaction of these endogenous and exogenous changes, leading to significant market change.

This process culminates in a major change, resulting in substantial transformations and reconfigurations within the business network. Therefore, it becomes evident that despite certain measures aimed at shaping the market in a consistent and deliberate manner,

multiple and more drastic events are required to achieve this market shaping. Consequently, instead of deliberate business networks emerging in accordance with continuous market changes, emergent networks arise in response to the most disruptive events. These networks either promote market reduction, adaptation for maintenance, or anticipated opportunities for genuine market growth.

These major changes are the key elements to create different concepts of market shaping strategies (Flaig *et al.*, 2021) like actor as a market influencer, who are key market participants driving and shaping change through their influence and leadership; resource mobiliser, involving the effective gathering and utilisation of resources to support and implement market changes; and activities focused on the orchestrator, which involves coordinating and managing various activities to ensure successful implementation and adaptation to market changes.

Ultimately, the market outcomes include the introduction of new products, services, or market practices, growth through expansion and development within the market, adaptation by market actors to align with new conditions, and reduction by streamlining inefficiencies to enhance performance and sustainability (Perks *et al.*, 2017). This model emphasises a strategic approach to market shaping, involving the interplay of actors, resources, and activities to achieve desired market outcomes, highlighting the importance of understanding and managing both internal and external changes to effectively shape and influence market evolution.

### **3.6. Conclusions**

This study aims at understanding how both exogenous (e.g., policy) and endogenous (e.g., new hub firm) events affect the market-shaping strategies of actors embedded in a business network. By adopting longitudinal research, the present study contributes in

three ways. First, corroborating the findings of Abrahamsen & Håkansson (2016), this research demonstrates that policy and the business landscape are intimately related.

Changes in regulation are major market-shaping drivers as they propel the retailers to cope with them by changing the actors, resources, and activities' structures. We deepen the extant knowledge by showing that regulatory changes accommodate previous regulation and incorporate sequential adjustments. These sequential adjustments tend to promote cumulative changes in the business landscape.

These cumulative changes in the business landscape can then lead to a bigger event, that is, an event that fosters a more significant impact on the network. For instance, the emergence of the buying groups is a consequence of several exogenous and endogenous factors. Furthermore, regulatory measures largely intend to deliberately shape the market to align with adopted policies.

However, we find that multiple regulatory interventions are needed to trigger significant network impacts. These do not always produce deliberate networks, as researchers (e.g., Purchase, S., Schepis, D., & Ellis, N. ,2024), have shown, but rather emergent networks using collective strategies. Small firms seem to have reduced their networking capacity over time following the implementation of collective strategies.

Second, the most significant changes in the emergent business network are the consequence of a collective network strategies, such as market influencer, mobiliser, and orchestrator. These strategies allow for the rapid market response that firms are requiring and drive business opportunities within the network. The market influencer refers to key actors within a network who leverage their strategic positioning, expertise, or decision-making authority to shape market trends and drive systemic change.

The resource mobiliser denotes actors capable of sourcing, allocating, and deploying financial, human, and technical resources to enable market transformation, innovation, and the scaling of new practices. Finally, an activity orchestrator encompasses actors who coordinate and manage activities, ensuring alignment, efficiency, and adaptive responses to evolving market conditions.

This study supported four different outcomes, namely, new, grow, adapt and reduce. The findings of the study indicate that in some aspects, the market demonstrates a more adaptive capacity rather than resilience. A resilient network can withstand immediate shocks, creating the space and time needed for adaptation (e.g., Fehrer *et al.*, 2020; Flaig *et al.*, 2021; Nenonen & Storbacka, 2021; Perks *et al.*, 2017)

Conversely, an adaptive network can develop new capabilities that enhance its resilience to future disruptions (e.g., buying groups are adapting their services to the new reality after their emergent arise). Such a characteristic is discernible within these emergent networks, characterised by the emergence of new enterprises to address evolving needs, alongside the acquisition of new capabilities within the sector to facilitate adaptation to change and market dynamics.

### **3.6.1. Managerial Implications**

The findings reveal that regulatory changes, such as the introduction of new laws and economic crises, serve as significant drivers of market transformation. These changes compel actors within the network to adjust their resources and activities, leading to a reconfiguration of market structures.

The study highlights the importance of collective strategies in fostering market adaptation, growth, and innovation. By aligning interests and actions, network actors can effectively respond to disruptions and shape market evolution. These strategies are

important in adapting to regulatory changes and evolving business landscapes, particularly for micro-enterprises and policymakers in highly regulated markets.

This research also responds to the SDG goals such as third goal (ensure healthy lives and promote well-being for all ages) through a contribution to regulation decisions in healthcare sectors and, seventeenth goal (strengthen the means of implementation and revitalize the global partnership for sustainable development) through the importance of the policymakers' decisions about finance resources, coherence in sustainability decisions to the healthcare sector and the public-private partnerships.

### **3.6.2. Limitations and Future Research**

Hence, this researcher has some limitations such as, relying on a single-case study methodology, focusing on the pharmaceutical retail sector in Portugal, that may limit the generalisability of the findings to other sectors or geographical regions; the period of research is not fully accounted for recent developments of emerging trends, such as the latter impact of pandemic consequences; data was primarily collected through in-depth interviews and secondary sources, while these methods provide rich qualitative insights, they may be subject to biases or inaccuracies and it may not capture the full complexity of market interactions and strategies.

Considering the previous limitations, future studies could benefit from a comparative approach, examining multiple cases across different industries and countries; the impact on these strategies after a pandemic or recent war should be analysed; and it should be done by a quantitative analysis to confirm some of these results. The loss of networking capacity, along with its underlying drivers and outcomes, should be explored. Finally, future research can consider exploring the link between the loss of networking capacity by small companies over time following the implementation of collective strategies.



## **CHAPTER IV – Study 3**

### **4. Orchestrating Emergent Business Networks: a Case Study**

#### **4.1. Abstract**

This research aims at understanding how orchestration mechanisms unfold over time within business networks. Orchestration has been associated with practices of hub firms within deliberate networks. We develop a case study in the retail pharmaceutical market supported by 22 in-depth interviews, secondary data, and observation. The research highlights change in orchestration practices over time. Considering the orchestration mechanisms and how these affect actors, resources, and activities, we classify orchestration in three types, namely, single orchestration, multi-orchestration, and co-orchestration. These orchestrators can work concurrently or independently, influencing and being influenced by private and mutual goals. This nuanced understanding of orchestration mechanisms reveals a more complex, multi-faceted approach to strategising in emergent networks. In contrast with deliberate networks, in the emergent networks we observed different orchestration mechanisms.

**Keywords:** Business Networks; Case Study; Orchestration; Pharmaceutical Retail Sector

## 4.2. Introduction

Orchestration, originally a metaphor for musical coordination, has thus often been applied to contexts where central actors manage and align network participants for collective value creation (e.g., Hara *et al.*, 2015; Perks *et al.*, 2017). Research has been studying orchestration in deliberate networks (Moller *et al.*, 2020), in which most existing studies concentrate on how hub firms exert influence, coordinate activities, and shape relationships within deliberately assembled networks where goals and roles are clearer (e.g., Faccin *et al.*, 2020; Ritala *et al.*, 2012; Grange *et al.*, 2020). Coordinated actions facilitate the orchestrator's role in aligning objectives and meeting various actors' expectations (Hurmelinna-Laukkanen *et al.*, 2021, 2022; Jussila *et al.*, 2016). These interactions, both formal and informal, are vital in adapting to market changes and creating value (Dessaigne & Pardo, 2020).

Thus, deliberate networks are intentionally designed, facilitating centralised control and purposeful orchestration, contrasting emergent networks, which develop spontaneously. Within the business network, deliberate networks, such as issue-nets (e.g., Brito, 1999; 2001; Ritvala & Salmi, 2011; Ford & Mouzas, 2010), innovation networks (e.g., Mota *et al.*, 2023), or platforms (e.g., Fehrer & Nenomem, 2020; Perks *et al.*, 2017) can arise over time (Moller *et al.*, 2020).

However, very little is known about orchestration in emergent networks (Al Adem *et al.*, 2022; Moller *et al.*, 2020; Perks *et al.*, 2017), where structures, objectives, and roles evolve organically, and coordination tends to be distributed among multiple actors (e.g., Al Adem *et al.*, 2022; Moller *et al.*, 2020). Additionally, most orchestration research adopts the perspective of the hub firm, and the orchestrated perspective has been missing when it comes to orchestration mechanisms (Perks *et al.*, 2017). Consequently, recent studies highlight the orchestration practices to develop a vision, achieve alignment

(envisioning), implement shared processes, innovate funding processes, coordinate responsibilities, manage actors' relationships (mobilising resources and actors), develop knowledge and learning capacities, and encourage innovativeness (Al Adem *et al.*, 2022; Perks *et al.*, 2017).

The present study seeks to understand how orchestration mechanisms and practices develop over time within emergent business networks, drawing on the perspectives of those being orchestrated. Through a case study in the retail pharmaceutical market, we examine the dynamic evolution of orchestration types, providing fresh insights into the emergence, transformation, and succession of orchestrating actors. Grounded in a business network perspective (Bocconcelli *et al.*, 2020; Håkansson & Snehota, 1995) and orchestration (Al Adem *et al.*, 2022; Moller & Svahn, 2003), we classify orchestration in single orchestration, multi-orchestration, and co-orchestration.

The following section presents a literature review mainly emphasising orchestration dynamics, mechanisms, and practices. Section three. presents details on the research methodology. Section four presents a case on the retail pharmaceutical market. Section five discusses network orchestration focusing on the actors, activities, and resources. The following and final section concludes with implications for theory and practice.

### **4.3.Literature Review**

#### **4.3.1. Deliberate versus Emergent Networks**

From a business network perspective, actors combine resources and coordinate activities. Thus, business networks are composed of three fundamental elements: actor bonds, resource ties, and activity links. Actor bonds are grounded in trust and mutual commitment, enabling firms to influence one another and build long-term relationships

(Håkansson & Snehota, 1995). These bonds can be technical, planning-related, knowledge-based, socioeconomic, or legal in nature, reflecting the diverse interests stemming from interaction among organisations (Holm *et al.*, 1999). Resource ties emerge as firms adapt and combine their assets over time, while activity links refer to the combined and coordinated efforts that impact costs, efficiency, and value creation. The resources sustain the coordination of activities (Håkansson & Snehota, 1995). The activity links over time result in processes of increasing or decreasing specialisation (Ford & Mouzas, 2010). Firms frequently strategise in developing such relationships and networks (e.g., Anderson *et al.*, 1998; Bocconcelli *et al.*, 2020; Ford & Mouzas, 2013; Koporcic & Tornroos, 2019; La Rocca *et al.*, 2019).

Emergent networks develop organically and evolve in a decentralised manner, without a central controlling entity or a pre-determined plan (Håkansson & Ford, 2002). Participants' relationships, roles, and responsibilities are fluid and adaptable, fostering flexibility and responsiveness to environmental changes. By contrast, deliberate networks are inter-organisational structures that are intentionally established and managed by one or more focal actors (such as hub firms or orchestrators) with the express objective of achieving defined goals. Within these networks, relationships, roles, and responsibilities are clearly defined and formalised, supporting centralised coordination and control. Purposeful orchestration in deliberate networks centres on constructing, maintaining, and optimising the network for synergistic value creation (Perks *et al.*, 2017).

#### **4.3.2. The Dynamics of Orchestration**

Orchestration metaphorically draws on the concept of a maestro leading a symphony, with the central firm coordinating, guiding, and integrating the activities of diverse actors to

achieve or create value (Harima *et al.*, 2024). Moller and Svahn (2003) highlight that orchestration is inherently dynamic, involving the attraction and engagement of capable participants to create value within the network. In this context, knowledge and experience are integrated to generate value. The possession of resources alone is insufficient. The orchestrator's vision, specific competences, and strong reputation are fundamental to making others follow up. The orchestrator shapes the network's direction by articulating a vision and exerting strategic influence. The networking ability of firms is central for managing the business landscape. Business networking refers "to the conscious attempts of an actor to change or develop the process of interaction or the structure of relationships in which it is directly or indirectly involved" (Ford & Mouzas, 2013, p. 433).

Thus, orchestration refers to the strategic coordination and management of multiple actors to achieve synergistic outcomes, particularly within deliberate networks (Dellestrand, 2011; Pinnington *et al.*, 2021; Ritala *et al.*, 2012). He assumes a focal role, responsible for coordinating activities, managing resources, and facilitating interactions. Through purposeful and collaborative efforts, the orchestrator aligns objectives and mediates expectations among network participants (Andresen, 2021; Windahl *et al.*, 2020; Zaoual & Lecocq, 2018).

Orchestration within business networks is subject to continuous evolution. Initially, efforts centre on establishing connections and resource integration. As networks mature, orchestration expands toward solidifying shared objectives, fostering collaboration and innovation, and establishing systems of governance regarding rules and roles. It must adapt to emerging challenges and opportunities, ensuring that the network remains agile and capable of transformation (Aarikka-Stenroos *et al.*, 2017; Al Adem *et al.*, 2022). Activities include building connections, negotiating collaborations, facilitating relationship development, creating value, and sharing knowledge. Such coordinated

processes motivate actors towards common purposes, such as market adaptation, value creation, or sustainability (Baert *et al.*, 2016; Chadwick *et al.*, 2015; Grange *et al.*, 2020; Pinnington *et al.*, 2021; Tabas *et al.*, 2023).

Notably, orchestration can also involve a collaborative, self-organised approach, where responsibilities are coordinated without the presence of a dominant or hierarchical actor (Reypens *et al.*, 2016). It might struggle with the dynamic demands of evolving ecosystems, necessitating a more flexible and adaptive approach, especially in emergent networks. Teece (2018) outlines that orchestration facilitates agility and resilience in deliberate networks by distributing coordination responsibilities among various actors, enabling quicker responses to market shifts and fostering innovation. Thus, in dynamic markets, orchestration provides a flexible approach, enabling businesses to swiftly respond and adapt to changing conditions.

Although, in emergent networks, Orchestration can involve distribution and coordination among multiple actors and processes, aiming to facilitate innovation, adaptation, and collective value creation in a short period of time. This perspective contrasts with the traditional model of a single hub firm, representing a shift toward coordination among several orchestrators (Asmussen & Fosfuri, 2019; Reypens *et al.*, 2016; Lundberg *et al.*, 2016; Blazevic *et al.*, 2021). Despite the central role often attributed to orchestrators, their position does not necessarily imply hierarchical power. Recent approaches emphasise collaborative facilitation, where all participants are encouraged to contribute meaningfully (Schepis, 2021). Concepts such as keystone actors illustrate the distributed nature of influence within networks, emphasising functionality over authority (Iansiti & Levien, 2004). From the perspective of the orchestrated actor, this involves responding to, adapting to, and being shaped by the coordination efforts of others, which in turn

impacts their strategic choices, interactions, and potential value capture within the network dynamics (e.g., Pinnington *et al.*, 2021; Reypens *et al.*, 2016).

All things considered, orchestration, in rapidly changing business ecosystems, faces dynamic and complex demands, underlining the need for flexible and adaptive strategies, especially in emergent contexts (Teece, 2018). Distributed orchestration allocates coordination responsibilities across multiple actors, promoting agility, responsiveness, and innovation. However, the mechanisms by which orchestration emerges and evolves in multi-centric, emergent networks remain underexplored, particularly from the perspective of the orchestrated actors.

#### **4.3.3. Orchestration Mechanisms**

As highlighted above, orchestration refers to the process of mobilising and coordinating stakeholders across organisational boundaries to achieve common objectives (Perks *et al.*, 2017; Mosch *et al.*, 2022). A network mobilizer needs to be aware of other actors' concerns, capabilities, and available options. This is called network insight by Mouzas and Naudé (2007) and is considered the first challenge of a mobiliser. For a leading firm, it is mandatory to develop knowledge that contributes to the process of value creation within a set of contextual contingencies.

Adem *et al.* (2022) identify five key mechanisms underpinning orchestration: envisioning, planning, mobilising resources, coordinating, and learning. *Envisioning* entails developing a shared vision that aligns with the network's collective identity and ambitions. This includes efforts to establish coherent branding, consistent communication, and potential strategic partnerships. However, the successful realisation of the envisioned direction relies on effective alignment across the distinctive identities and objectives of participating firms (Aarikka-Stenroos *et al.*, 2017). Effective orchestration relies on

fostering a common understanding and shared orientation among network participants (Antunes *et al.*, 2021; Roehrich *et al.*, 2023). This is accomplished by developing shared cognitive frameworks and promoting a unified vision and purpose within the network. The matching between actors' values and identity and the network's goals, values, and image plays a significant role in the willingness to participate in deliberate networks (Ritvala & Salmi, 2011).

*Planning* is shaped by a strategic framework generated by the orchestrator, aiming to direct procedures, resource acquisition, and daily activities towards common goals. While such planning offers strategic value, its effectiveness often diminishes in contexts where firms operate autonomously, resulting in planned objectives frequently remaining unrealised. In emergent networks, initial benefits of centralised strategic planning may erode as the network evolves (Aarikka-Stenroos *et al.*, 2017; Al Adem *et al.*, 2022).

*Mobilising resources* requires the orchestrator to negotiate and coordinate the acquisition and allocation of resources, leveraging established relationships and network objectives. Communication is essential in enabling actors to access these resources and engage in collective action (Aarikka-Stenroos *et al.*, 2017). Additionally, value is needed to be understood by all the actors involved, the leading firm (Mouzas & Naudé, 2007), and by the actors being mobilised (Ritvala & Salmi, 2011). In detail, "network mobilisation starts at the time when organisations introduce their business propositions to suppliers or customers. Usually, the organisations present business propositions that bring concrete issues, which might refer to the product or service quality, prices, terms of payment or the launch of a new product" (Mouzas & Naudé, 2007, p. 64).

*Coordination* involves facilitating partnerships and relationships among network members, frequently serving as an intermediary. Ford and Mouzas (2013), emphasise that in an interactive business landscape, actors could access resources and implement

strategies multilaterally. While coordination can build new connections and add value, it may also disrupt existing, long-standing relationships — particularly when initiated by third parties in response to shifts in market demands or identified misalignments within the network (Al Adem *et al.*, 2022). Facing specific challenges, firms must decide which relationships to leverage, whether to establish new connections, or whether to disengage from existing ones. Some of the challenges can be collective ones, requiring firms to manage their interactions with a broader portfolio of relationships. Thus, coordination requires choices about how to act and react, reinforcing interactions within current relationships or modifying the existing relationship structure (Ford & Mouzas, 2010). These choices affect the way activities and resources of multiple actors are coordinated in the business network (Ford & Mouzas, 2013).

*Learning* is supported by the orchestrator's efforts to establish frameworks for knowledge acquisition and capability development. This mechanism enables organisational modernisation, the introduction of new services or products, and the recruitment of specialised talent, and contributes to ongoing innovation. Collectively, these mechanisms depend on the quality of inter-organisational relationships and the specific goals pursued by network actors over time. Orchestrators, occupying focal positions within the network, play an instrumental role in influencing value creation, fostering trust, and enhancing collaboration and cohesion among participants. Their actions can be observed in the increased resilience and agility of the network, the integration of local actors, and the reduction of dependency on external resources (Aarikka-Stenroos *et al.*, 2017; Al Adem *et al.*, 2022).

#### **4.4. Methodology**

Aiming to explore how orchestration mechanisms unfold within emergent business networks from the orchestrated perspective, this research adopts a process-based case study method (Andersen *et al.*, 2018) focusing on the retail pharmaceutical market from 2005 until 2022. The case study method facilitates a detailed analysis of the interactions and perceptions of the actors involved, providing rich, context-specific insights (Graebner *et al.*, 2012; Yin, 2018). A case study method provides us several advantages, such as considering concrete spatial and temporal contexts when addressing events and structures, progressively limiting the phenomenon, and gradually framing it in terms of theory (Birkinshaw *et al.*, 2011; Yin, 2018). We purposely selected the case study (Miles *et al.*, 2014; Rashid *et al.*, 2019) based on its revelatory potential (Eisenhardt and Graebner, 2007; Siggelkow, 2007).

The collected data was analysed using a thematic analysis approach, guided by the principles of abductive reasoning (Dubois & Gadde, 2002, 2014). This approach allows comparison of existing theories, leading to a refinement of both the theoretical framework and the interpretation of the data. This iterative process allows for a deeper understanding of the phenomenon under investigation and the generation of new theoretical insights (Dubois & Gadde, 2002).

Data collection relied on three main sources: in-depth interviews, secondary data and the researchers' pre-understanding of the empirical setting. Interviewees were selected based on their direct involvement with the business network under investigation – pharmacy owners, technical directors, and partners. We also identified firms from the retail pharmaceutical market through convenient and snowball sampling, and expanded our selection to partners, pharmaceutical industry, wholesaler, buying groups, regulatory firms, or sectorial associations. Table 4.1. presents a synthesis of interviews carried out.

Table 4.1. Interviews

Interviewee	Interviewee Role in the Firm	Firm Size	Time length (minutes)
1	Association Director	Medium Company	90
2	Pharmacy Owner and Technician Director	Micro Firm	57
3	Pharmacy Owner	Small Business	53
4	Pharmacy Owner and Technician Director	Micro Firm	81
5	Pharmacy Owner and Technician Director	Micro Firm	63
6	Pharmacy Owner and Technician Director	Small Business	53
7	Pharmacy Owner and Technician Director	Small Business	55
8	Pharmacy Owner and Manager	Small Business	70
9	Pharmacy Owner and Technician Director	Small Business	55
10	Pharmacy Owner and Technician Director	Small Business	46
11	Buying Group Director	Small Business	63
12	Pharmacy Technician Director	Small Business	63
13	Pharmacy Owner and Technician Director	Small Business	57
14	Digital Firm Director	Big Company	72
15	Pharmacy Owner and Technician Director	Small Business	56
16	Pharmacy Partner and Ex-Association Director	Small Business	90
17	Association President	Micro Company	47
18	Association President and Pharmacy Owner	Small Business	62
19	Wholesaler CEO	Big Company	90
20	Pharmacy Owner	Micro Firm	58
21	Pharmacy Owner and Technician Director	Micro Firm	48
22	Buying Group CEO and Pharmacy Owner	Small Business	61

The interview protocol was structured in three distinct phases: (1) Network Composition, through this initial phase, key actors and partners within the business network were

identified from the perspective of the interviewees. Participants were asked to describe the structure of the network and the roles of various network actors. (2) Impact Assessment, where the second phase was focused on understanding the impact of specific events and actors in their activities, resources, and partnerships within the network. Interviewees were prompted to identify and elaborate on significant events that shaped the network's trajectory, from 2005 until 2022. (3) Relational Influence was analysed in the final phase. Selected partners identified in the earlier stages, were interviewed to gain insight into their perceptions of their relational influence within the network. This phase aimed to understand how different actors perceive their roles and contributions to the network's overall dynamics.

All interviews were conducted face-to-face or via video conferencing, recorded with the participants' consent, and transcribed using Transkriptor® and Microsoft® Teams' transcription for subsequent analysis. We organized the transcriptions in MAXQDA program, focusing on four main codes: time event, orchestration, orchestration activity and orchestration role. Participant observation was also important to gather data on the context. Additionally, relevant documents, such as reports, conference papers, research, newsletters, were analysed to supplement data from interviews and observations (Farquhar *et al.*, 2020; Rashid *et al.*, 2019). Researchers' prior knowledge of the empirical setting was important in identifying these relevant participants and formulating targeted interview questions. This pre-existing understanding also aided in establishing rapport with interviewees and interpreting their responses with greater nuance (Rashid *et al.*, 2019).

The casing process followed a systematic combining approach (Dubois and Gadde, 2002) and the qualitative research criteria proposed by Aguinis and Solarino (2019), were validated. While additional data were being collected, the theoretical frame evolved to

highlight the orchestration mechanisms and practices over time. Findings were reviewed with selected interviewees, and secondary sources such as online documents, news articles, and other research were analysed to corroborate and enrich the primary data.

#### **4.5. A case on the Retail Pharmaceutical Market**

##### **4.5.1. Describing The Retail Pharmaceutical Market**

The Retail pharmaceutical market includes pharmacies, wholesalers, distributors, pharmaceutical industries, and associations like the Nacional Pharmacy Association. It has experienced significant changes, which some firms viewed as negative, while others saw opportunities for growth and expansion. The market operates under strict regulatory frameworks impacting pricing, competition, and accessibility. Technological integration presents both opportunities and challenges, with pharmacies adopting digital platforms but facing privacy and security concerns. Changing demographics and consumer behaviours propel adaptations in services and product offerings. Allowing sales of non-prescription medicine outside pharmacies, and medication discounts have introduced greater competitiveness and accessibility, altering economic dynamics. Regulatory and business-related events have been pivotal in shaping the sector over the past two decades. Table 4.2. summarises those main events.

Table 4.2. Main Events that Happen in the Pharmaceutical Sector between 2005 and 2022

<b>Timing</b>	<b>Event</b>
<b>Events</b>	

2005	Decree-Law no. 134/2005 allows non-prescription medicine sales outside pharmacies.
2005-2023	Technology Innovations
2005	Decree-Law no. 134/2005, allows freedom in setting prices for non-prescription drugs
2005-2012	New Competitors
2007	Decree-Law no. 307/2007, alteration of the legal regime of pharmacy ownership
2005-2020	New Players with Different Know How from Pharmacists (Lawyers, Managers)
2008	New Loyalty Card
2007	Decree-Law No. 307/2007 Medicines reference prices and regressive margins.
2007-2020	Reducing Profits
2007-2014	Economic and Financial Crise (Troika)
2007-2011	Emerging the first buying groups or purchasing pharmacy groups without being the same owner.
2007- 2020	Emerging of Buying Groups
2012	Decree-Law No. 171/2012 Everyone could be a Pharmacy Owner, despite being a pharmacist or not and you could have until 4 pharmacies for identity.
2017	The first amendment to Regulation No. 340/2012 related to the evaluation and control of prescribing and dispensing of medicines
2020	Pandemic Crises

#### 4.5.2. The Orchestration Dynamics

The primary activity of pharmacies is selling medicines. However, in the last 17 years, there has been a focus on the development of other services, many of them pharmaceutical

services such as the administration of vaccines and injectable medicines, individualised medication preparation, preparation of personalised medicines known as magistral medicines, wound care and dressings, pharmaceutical consultation, among others.

Community pharmacies are retail sellers of medicines and well-being products directly to the community. Most of these pharmacies are street shops, while others are in shopping centres. Until recently, there were retail pharmacies inside hospital centres, separate from the hospital pharmacies that exclusively supply the hospital and its patients.

The pharmaceutical retail sector has undergone several changes over time, driven not only by legislative modifications but also by economic and financial events. Around 2005, the sector appeared relatively stable, both in terms of well-established businesses and economic conditions. Some legislative changes began to occur, leading to the first subtle alterations in the business network. The government, the sector's main client, significantly influenced decisions guided and discussed by the associations relevant to the sector.

As an interviewee referred, *“We depend on the Government for 50% of our Billing.”* and *“Absolutely, absolutely, and in this case, I am identifying what is obvious. From installation, regulation, activity... everything is regulated by the Government. (...) I must look for the one who gives me a bit more profitability within the values the Government is willing to pay (...) in search of better partners or within the current ones (...)”*.

For many years, these pharmacy owners' associations were the principal actors wielding negotiation power and decision-making authority regarding government measures impacting the sector's activities and resources. No other actor was identified with such a central role. However, between 2010 and 2015, additional legislative measures emerged, linked to the economic and financial crisis that affected various European countries. During the period when the country was under Troika intervention, various measures

were implemented that changed the sector – *“There is a change, because in that period there were a series of measures that directly affected the economy of the pharmacy, in a very violent and very strong way...”*, highlights one of the interviewees.

This refers to the need for savings in healthcare and the co-payments for prescription drugs – *“Any measure that the Government took was super disruptive in the sector, because it took a huge percentage off the drug margins and, with that, a brutal impact on the economy of pharmacies...”*. Therefore, buying groups emerged and thrive.

#### **4.5.2.1. Long-term marriage**

Many pharmacies choose their partners with common objectives in mind. Some of these common objectives include the supply of medicines and health products under the best possible conditions and with the least possible delivery failure. Therefore, as one of the interviewees states, *“the most important aspect is the community”* (Pharmacy Owner and Technician Director), emphasising that the selection of participants or partners that the pharmacy has, is due to the need to serve this community.

Market stability is often seen as dependent on government decisions and legislation. Pharmacies trust in the associations that represent them and their long-standing partners, whether they be the pharmaceutical industry or wholesalers/distributors. The trust they place in the decisions of those who represent them is evident, although many of them affirm that the final decision on how they manage their business is theirs. Trusting the associations began in the 1980's, they helped pharmacy owners to get reimbursement paid by the Government.

The associations allowed pharmacies to fulfil their commitments to employees and suppliers: *“Paying the distributor and the industry, and receiving from the client, the patient at the point of sale, the non-reimbursed portion, and receiving from the*

*Government, where, for example, in the case of pharmacies, the National Association of Pharmacies, plays a significant role” (Pharmacy Owner and Technician Director).*

Thus, one of the partners that pharmacies have been considering as significant in the sector are their associations which represent them. This is not only in terms of logistical support and financial aid but also in negotiating with the government on regulatory measures and the implementation of new services. *“We cannot negotiate with the Government individually; we need the associations to represent us.” (Pharmacy Owner and Technician Director).* However, throughout the interview, and in recent years, there has been some discontent with these associations.

Pharmacies also trust their partners, namely, distributors and the pharmaceutical industry. The reason why many pharmacies change partners is rare, they always seek to find a common ground – *“And we know that, sometimes even without having better financial or commercial conditions, there is a relationship of trust here—a relationship of availability of resources, of activities, in other words, support for the partner.” (Pharmacy Owner and Manager).* The possibility for over-the-counter medicines not being exclusively sold in pharmacies, shifted some suppliers’ interests, like the pharmaceutical industry. Pharmacies shaped some activities to cope with the changes. However, they consider that if the market operates smoothly and fluidly, *“All agents are relatively well.” (Pharmacy Owner and Manager)*

#### **4.5.2.2. Consortiums Emergence**

Around 2010, buying groups started to establish themselves, growing initially as a bottom-up strategy. A buying group, operating in community pharmacies, emerges as a service provider, centralising negotiation within the network with pharmacy partners to

secure resources under better commercial terms. These groups, acting as an outsourcing entity, represent a group of pharmacies to other network actors.

Some pharmacy owners identify buying groups as strategic partners where *“We have an attitude of aligning with the group's objectives within our strategic independence...”* (Pharmacy Owner and Technician Director), further emphasizing that for everything to work smoothly, everyone must row towards the same goal, and not in a way to *“parasitise the pharmacies”*. Despite the *“pressure from some buying groups to try to increase the market share with the partners they work with, they also stress that, whether these partners are buying groups or even partners in the pharmaceutical industry, breaking the link with the pharmacy could have a very negative impact on it”*.

Apparently, the discontent with some representative associations stems from a tendency to favour the decisions of the buying groups that have emerged in the meantime, even to the extent of representing them in front of these associations. *“Pharmacies need to band together to make the business more sustainable.”*, explained a pharmacy owner. Despite this fact, pharmacy owners continue to respect and integrate with the associations, their representatives, asserting that *“Unity says it all, because if we didn't have a strong association, we would all be lost.”* (Association Director0).

Some instability in the strong connection between the associations and their members appears to be weakening, reinforcing the bond between pharmacies and these intermediary firms that represent them. Some of the critical points highlighted during the interviews are the diminishing power of the associations in negotiations and the fragmentation of a sector that was once united with a single objective, represented by an association, into distinct objectives driven by these buying groups. We can observe an apparent coordinated orchestration between the representatives of buying groups and

associations, aimed at meeting the common objectives that their members, who belong to both sides, wish, or do not wish to achieve.

The pharmaceutical industry, as one of the business network actors, also adapted their activities so that the long-standing partnerships they had with pharmacies were not broken. Some interviewees mentioned that their long-standing relationships allowed for adaptation to the different “consequences” of this resource, sharing with other actors outside the “old” pharmacy network.

That is, despite much of the decision-making being centralised, according to the observed perception, where sales occur, the long-term relationship, trust, and the ability to negotiate positively and constructively, brought a desired stability to the network during a time of change. For instance, one interviewee points out *“that there are rationed drugs or with a limited quota per pharmacy and we cannot get access, but a group that has 15 pharmacies, has more negotiating power or more importance, managing to get more drugs from the wholesaler.”* (Pharmacy Owner and Technician Director).

#### **4.5.2.3. Mediated Collaboration**

The establishment of buying groups not only created new relationships that were previously improbable but also felt that support in times of crisis and difficulties facilitated the entire logistics – *“After all, together we can make better decisions”*. All these previously events led to a reflection on the management of pharmacies at the time, mainly regarding access to resources and the mobility of some network partners, although this change was referred to as unlikely.

At this point, to achieve better commercial and supply conditions, buying groups have emerged to complete this link between pharmacies and producers more efficiently- *“... with economic and financial concerns, pharmacy groups that emerged gained size,”* and

*"Focused, almost all, eventually on being buying and management groups. Obviously, in this context, they gained bargaining power, negotiating capacity with the industry and distribution, because they began to negotiate in an integrated manner..."* (Association Director1).

However, currently, buying groups have taken on other roles, such as providing additional services, adapting their activities to the resource needs of their member pharmacies. One of the directors of a buying group stressed, *"If we continue to think only about price, we can quickly disappear."*, explaining that *"It's enough for the Pharmaceutical Industry to give pharmacies directly the same commercial and financial conditions. Therefore, we need to innovate and be capable of being more than just buying groups."* (Association Director1).

Apparently, buying groups have emerged from an opportunity for market change, ultimately benefiting the business through their negotiation capabilities, innovation, and services. Although buying groups emergence was propelled by the economic crisis, it was observed that often pharmacies already made joint purchases. This collaborative group occurred among pharmacists, former college classmates, or long-standing friends.

The common goal is to obtain better commercial and financial terms for all. Currently, what began as merely an agreement among friends has evolved into formalising a firm, a buying group. Although independent pharmacies are asked to meet certain sell-out objectives to maintain the commercial and financial conditions, these trade-offs are something that pharmacies take into consideration calmly over time.

Currently, *"thanks to the intervention of the association, the groups take on an important role and help the pharmacies; but here the relationship is already more symbiotic, whereas before it was more about taking advantage of what was not being done."*

(Pharmacy Owner and Technician Director<sup>2</sup>). However, there is nothing to suggest that at the time these groups emerged, negotiation could not have taken place directly between the pharmacy and its partners, without resorting to a third party. In fact, one interviewee highlights that it has maintained negotiation and all decision-making on purchases and services independent of these buying groups.

#### **4.6. Discussion**

Network orchestration aims at achieving synergistic outcomes, share knowledge, or for example, define vision and strategy. We observe a specialisation of the firms to ensure products, services and resources, and also, a co-evolution through business networking. (Ford & Mouzas, 2013). And not only mobilised resources or activities (Aarikka-Stenroos *et al.*, 2017; Al Adem *et al.*, 2022). This study shows the emergence of hub firms and how network orchestration practices emerge and unfold over time.

In the context of emergent networks, the actors, in this case the retailers, realise that they do not have the capacity to negotiate, acting each on their own when receiving reimbursement for medicines sold. The lack of negotiating capacity with the government and banks is limited. This situation causes many disruptions in the small firm management. Thus, with a strong incentive and common goals, actors feel the need for networking aiming to empower an actor they have learned to trust.

As a result, the activities of negotiating financial conditions began to be carried out by a single actor and, in this dimension, a new division of labour occurred. The division of labour between small actors (retailers) and the actor (association) resulted in the concentration of a central activity in a single actor, thus generating a hub firm.

Initially, the hub firm (association) only aims to centralise negotiations, streamlining payment terms and conditions. However, its role evolves by understanding the needs of

small actors, for example, the modernisation of facilities and the incorporation of information technologies to improve their management. With these practices, the hub firm (association) grows in terms of the trust placed in it, seeing its capacity to influence the business network strengthened. The hub firm becomes a major supplier of construction services, hardware, and software.

New actors (buying groups) began their embedding process in the network, gradually affecting the structures of resources and activities. The small actors (retailers), who until then had to deal with the pharmaceutical industry and wholesalers handed over their negotiation activity to the buying group). Just like before with the association, small actors experience difficulties when they act on their own. Facing contextual adversities, such as a financial crisis, small firms through networking empowered another actor. Once again, at the genesis of the hub firm, is a new division of labour with a concentration of a central activity. However, the characteristics of the activities concentrated in the hub firm are distinct in the two situations. Herein, the negotiation of commercial terms affects more significantly the long-term relationships developed by small retailers (e.g., Al Adem *et al.*, 2022; Håkansson & Snehota, 1995; Mollér *et al.*, 2020).

Regarding the dynamics associated with orchestration in emergent networks, this study shows the link between policy, orchestration and network changes. Being a highly regulated sector that promotes the maintenance of installed retailers, policy changes seem to propel the network to adjust in order to find sustainable ways for all these actors. A balance between activities and resources among all actors was sought. The commitment and trust that small firms placed in buying groups to manage their activities over time conferred on them, orchestration capabilities. The sector shifted from having one hub firm that centralised key aspects of business organisation and negotiation to involving multiple actors in these processes. This dual orchestration primarily aimed to address emerging

market conditions. The network responded to emergent needs diverging from key orchestration objectives such as vision alignment, common goals, and innovation leverage. Figure 4.1. shows three main orchestrated perceptions: a singular orchestration by a dominant actor, a multi-orchestration by more than one orchestrator and a co-orchestration by one dominant actor influenced by another.

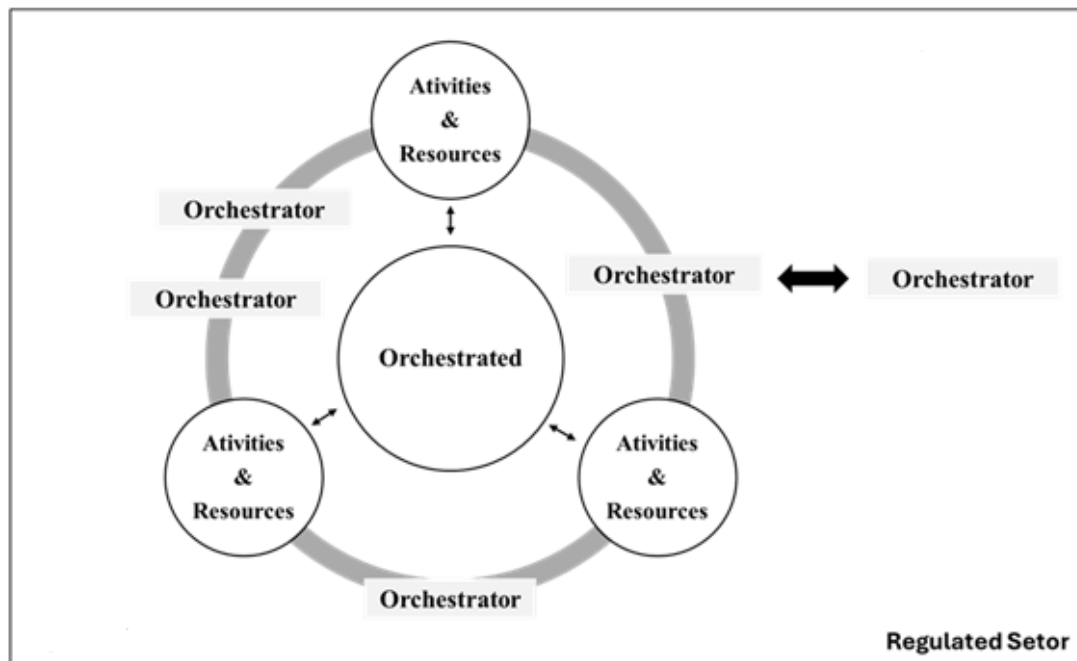


Figure 4.1. Network Orchestration in a Regulated Sector

Multi-orchestration and co-orchestration emerge over time with the buying groups. That is, initially the buying group appeared organically – remember that this hub firm developed because of informal practices that already took place in the business network – with the sole objective of improving the purchasing conditions of small businesses dealing with the industry and wholesalers. The concentration of activity in these hub firms (buying groups) and the perception that they were essential for the performance of small businesses supported a growing trust in them. These hub firms are also beginning to reestablish the division of labour by expanding their operations into the areas of marketing and training. The arrival of hub firms (buying groups) is closer and less comprehensive

in terms of network members does not replace the incumbent orchestrator (association). In contexts where multiple orchestrators are present, there is a clear tendency for the orchestrators to derive more benefits for themselves, often overshadowing the advantages for the orchestrated entities. These orchestrators typically focus on mobilising resources, activities, and participants to serve their individual interests. Unlike this multi-orchestrator arrangement, a single orchestrator often contributes uniquely to the network by fostering a shared vision and facilitating learning experiences for all participants involved (Perks *et al*, 2017).

Thus, orchestrators over time develop their networking ability, aiming to change the network structure (Ford & Mouzas, 2013). Table 3 systematically compares the presence of orchestration mechanisms across single, multi-, and co-orchestration arrangements. The case shows that mechanisms like vision-setting and collective legitimisation are unique to single orchestrators, while planning, resource mobilisation, and innovation induction are more widely distributed. The emergence of “mandatory relationships” is identified as a new orchestration mechanism in co-orchestration settings, whereby access to critical network resources can only be ensured through alignment with key orchestrators. In a deliberate network, a single orchestrator can plan common goals, promote collaboration, integration of activities and synergies.

Nevertheless, when we have an emergent network where multiple actors emerge in the networks with the role of orchestrator. Most of the orchestration mechanisms defined in previous research (e.g., Al Adem *et al*, 2022; Perks *et al*, 2027) do not happen. Let’s analyse the multi-orchestration mechanisms. We observe that planning, mobilising resources and induce innovation are present. Mainly based on the common objectives that the firms must play in that type of sector. In other words, they need to maintain these activities to ensure the network continues to function and remain sustainable. It is part of

the common activities of many firms in the pharmaceutical retail sector to have products and services that serve their customers to maintain profitability. They operate in parallel without coordinating activities. We might call this a natural multi-orchestration. Table 4.3. presents the connection between mechanisms and type of orchestration.

Table 4.3. Orchestration Mechanism and Types from an Orchestrated Perspective

Orchestration Mechanisms	Orchestration type			Data
	S-	M-	Co-	
Emergent Networks	S- O	M- O	Co- O	Interviewees References
<b>Envisioning</b> “Set the Vision and Strategy to the business network.”	X			<p><i>“We have an attitude of aligning with the group's objectives within our strategic independence...”</i></p> <p><i>"ANF has played a very important role over the years because it enabled economies of scale. For example, when we had services available, I believe this was—and still is—a major asset: having the possibility to carry out our renovations under better conditions."</i></p> <p><i>“For this type of service, for this kind of organisation that supports pharmacies, it is somewhat similar to how pharmacies used to view wholesalers in 2006, and then eventually ended up creating groups.”</i></p>
<b>Legitimizing</b> “Acquire impact to the market collectively.”	X			<p><i>“Paying the distributor and the industry, and receiving from the client, the patient at the point of sale, the non-reimbursed portion, and receiving from the Government, where, for example, in the case of pharmacies, the National Association of Pharmacies, plays a significant role”.</i></p>

				<p><i>“We cannot negotiate with the Government individually; we need the associations that represent us.”</i></p> <p><i>“There are rules that ANF is able to implement with good judgment; if ANF did not exist, we would obviously have to adapt on our own. However, I believe that the absence of this association would have a significant impact on our business.”</i></p>
<p><b>Mandatory Relationships</b></p> <p>“Orchestrators set the relationships to be developed.”</p>			X	<p><i>“Pressure from some buying groups to try to increase the market share with the partners they work with, they also stress that, whether these partners are buying groups or even partners in the pharmaceutical industry, breaking the link with the pharmacy could have a very negative impact on it”.</i></p> <p><i>“Even the pharmacies in the south don't join the group without being visited by us, without having our phone number, without everything and more. Therefore, it's a relationship of close proximity.”</i></p>
<p><b>Planning</b></p> <p>“Same strategic plan and goals.”</p>	X	X	X	<p><i>“Pharmacies need to band together to make the business more sustainable.”</i></p> <p><i>“And we know that, sometimes even without having better financial or commercial conditions, there is a relationship of trust here—a relationship of availability of resources, of activities, in other words, support for the partner.”</i></p>
<p><b>Mobilizing Resources</b></p> <p>“Obtain resources, with commercial</p>		X	X	<p><i>“The pharmacy looked to the distributor, the distributor to the pharmaceutical industry...”.</i></p> <p><i>“the fact that there are rationed drugs or with a limited quota per pharmacy and we cannot</i></p>

and financial conditions.”		<p><i>get access, but a group that has 15 pharmacies, has more negotiating power or more importance, managing to get more drugs from the wholesaler.”</i></p> <p><i>“We started to realise that if we joined forces and bought for 10 pharmacies, we could reach the higher thresholds that we couldn't achieve alone, and we were able, we managed, we began to talk a little among ourselves and decided at that time.”</i></p> <p><i>“In this context, the groups gain strength because they help—in terms of relationships with these entities—by optimising and minimising the impact on pharmacies, improving cash flow, bringing modern practices, and reducing inventory and administrative costs in dealings with the industry.”</i></p>
<p><b>Activities</b></p> <p><b>Coordination</b></p> <p>“Align activities, brand, and planned actions.”</p>	<p>X</p> <p>X</p>	<p><i>“Unity says it all, because if we didn't have a strong association, we would all be lost.”</i></p> <p><i>with economic and financial concerns, there emerged pharmacy groups that gained size,” and “Focused, almost all, eventually on being buying and management groups. Obviously, in this context, they gained bargaining power, negotiating capacity with the industry and distribution, because they began to negotiate in an integrated manner...”.</i></p> <p><i>“Thanks to the intervention of the association, the groups take on an important role and help the pharmacies; but here the relationship is already more symbiotic, whereas before it was</i></p>

				<i>more about taking advantage of what was not being done.”</i>
<b>Inducing Innovation</b>	X	X	X	<i>“Therefore, we need to innovate and be capable of being more than just buying groups.”</i>
“Create innovation to all firms that must adapt.”				
<b>Share Knowledge</b>	X			<i>“I believe that if it were not for the industry partners—not just each other, but those within the network—some of them have shaped the way we view the pharmacy business. Certain partners from the cosmetics sector helped us see this area differently, and partners dealing with generics also taught us to work in a particular way.”</i>
“Knowledge Impact, Share Processes and impact learning.”				
Note: S-O: single orchestration; M-O: multiple orchestration; Co-O: Co-orchestration				

Our findings reveal that orchestration mechanisms are not static but dynamically manifest and evolve across different orchestration types (single, multi, and co-orchestration) over time, reflecting the changing structure and needs of the emergent network. In the initial phase of single orchestration, mechanisms like envisioning and legitimising are central, as a dominant actor (the association) establishes a shared purpose and gains collective acceptance, often driven by critical needs like securing government reimbursement.

As the network evolves and new actors emerge, mechanisms like planning, mobilising resources, and inducing innovation take on different forms. In multi-orchestration, these mechanisms operate in parallel, driven by the common objectives of coexisting orchestrators (associations and buying groups). For instance, the way mobilising resources occurs, it shifts dramatically; while the association might focus on broader regulatory access, buying groups excel at leveraging collective purchasing power to

secure better commercial terms and access to scarce resources for their members, a capability individual pharmacy lacked. Similarly, planning in multi-orchestration involves separate strategic efforts by different orchestrators rather than a unified network-wide plan.

In co-orchestration, mechanisms like planning, mobilizing resources, and inducing innovation become more collaborative between specific orchestrators, yet the innovation and resource benefits may be directed more towards the collaborating orchestrators and their immediate partners, potentially leading to the emergence of new mechanisms like mandatory relationships, where access to critical resources is contingent on aligning with certain orchestrators. This temporal evolution and differential manifestation of mechanisms across orchestration types is a key theoretical insight into how coordination functions in dynamic, emergent network contexts (Perks *et al.*, 2017).

Additionally, our study introduces "mandatory relationships" as a potentially novel orchestration mechanism, particularly salient in emergent, co-orchestrator networks.

Theoretically, mandatory relationships represent a situation, where orchestrated actors, such as small retailers, must align with specific partners or entities, often chosen or favoured by an orchestrator (or collaborating orchestrators), to gain access to critical resources or favourable conditions within the network (e.g., Al Adem *et al.*, 2022; Perks *et al.*, 2017). This mechanism emerges not from a collective vision or broad legitimisation, as seen in single orchestration, but often arises in dynamic, emergent contexts (like economic crises) where certain orchestrators (e.g., buying groups in co-orchestration) consolidate dominance over resource mobilisation.

The impact on network dynamics is significant: it can reshape existing relationships, concentrate resource flow through specific channels, and potentially create dependencies that limit the choices of orchestrated entities.

For the orchestrated actors, this mechanism directly affects their firms; while they may perceive benefits in terms of resource access or improved conditions, this comes at the cost of reduced autonomy in partner selection and the necessity to align with the orchestrator's chosen partners, sometimes under pressure to increase market share with them. This contrasts clearly with mechanisms in deliberate networks, where orchestration often focuses on aligning diverse actors towards a shared, pre-defined vision or facilitating broad network learning.

Mandatory Relationships instead, appear more transactional and instrumental, driven by the orchestrator's (or co-orchestrators') specific interests in leveraging resources and potentially securing private benefits, highlighting a distinct form of influence and coordination in complex, emergent network landscapes.

In contexts where multiple orchestrators are presented, there is a clear tendency for the orchestrators to derive more benefits for themselves, often overshadowing the advantages for the orchestrated entities. These orchestrators typically focus on mobilising resources, activities, and participants to serve their individual interests. Unlike this multi-orchestrator arrangement, a single orchestrator often contributes uniquely to the network by fostering a shared vision and facilitating learning experiences for all participants involved (e.g., Al Adem *et al*, 2022; Hurmelinna-Laukkanen *et al.*, 2021, 2022; Jussila *et al.*, 2016; Perks *et al*, 2027).

Regarding co-orchestration, we have observed a greater interest in mobilising resources and activities and conducting long-term planning in collaboration with another

orchestrator, ultimately fostering innovation. However, this innovation is more self-directed, aimed at delivering new services to other elements of the network rather than a broad strategy for network-wide evolution and innovation.

For some retailers, these partner as service providers to whom they delegate certain negotiation decisions, allowing them to select on strategic partners. In this context, the orchestrated entities follow the orchestrator they believe can mobilise more resources and share common objectives with them.

Thus, in co-orchestration these hub firms negotiate, and mobilise resources with other actors who also have the power to coordinate the network, obtaining personal benefits that allow them to further leverage resources and activities. Herein, a new mechanism in orchestration emerges mandatory relationships. Without these partnerships, the orchestrated entities cannot obtain the resources they desire through their business relationships, particularly when policy propels abrupt network changes, potentially jeopardizing the sustainability of some businesses.

Even though most of the interviewees acknowledge that the associations' work is more connected to lobbying for regulation stabilizing the market, they also must negotiate with other players within the sector. About “being orchestrated”, this research explores the experience of network actors whose activities, resources, and relationships are influenced and coordinated by a leader firm. It reveals that the meaning and impact of being orchestrated vary significantly depending on the orchestrator’s objective and the orchestration arrangement (single, multi-, or co-orchestration).

The orchestrated actors see themselves as active forces shaping the network's dynamics. Their assessment of the orchestrator's effectiveness is linked to the perceived value derived from their relationship (e.g., access to resources, negotiation power, trust), and

their alignment with shared or private goals. These factors influence their willingness to be orchestrated. Their collective or individual decisions to shift allegiance, seek alternatives, or adapt their practices in response to perceived benefits or drawbacks of orchestration, fundamentally impact the orchestrator's influence and can even catalyse the emergence of new orchestrating entities within the network.

Also, becoming orchestrated seems to lead to new positioning encompassing the loss of networking capabilities. Thus, orchestrated actors lose their ability to strategise in their relevant network. In line with Ford and Mouzas (2013), sequential business networking leads to specialisation in the activity layer, path of resources, and co-evolution of actors. However, it seems that for small firms it is challenging to be aware of the shifting positions in network time and space of participating actors. Consequently, when a small firm perceives value loss associated with the buying group, it tends to change group, not stay on its own.

#### **4.6. Conclusion**

This study explores the mechanisms and practices of orchestration developed over time within emergent business networks. Considering mainly the perspectives of those actors being orchestrated, this study's contribution is threefold. First, our findings corroborate the previous research about orchestration mechanisms (Al Adem *et al*, 2022; Perks *et al*, 2017). Thus, the orchestration mechanisms and practices seem to be similar in both deliberate and emergent networks. However, we also extend previous research by showing that small businesses, although pressured by contextual conditions, have the option to choose the orchestrator and the level of adaptation and alignment of their practices with the orchestrator's practices. Thus, as an orchestration in an emerging network, the small business seems to have more degrees of freedom concerning the rules and conditions requested by the orchestrator.

Second, this study shows how orchestration practices not only emerge but also unfold and transform overtime within emergent business networks.

Particularly in the context of emergent networks, orchestration capability seems to be grounded in the activities resulting from the division of labour over time between the orchestrator and the small firms. The orchestration's practices change over time in response to specific events and opportunities to reinforce its positioning as a leading actor. However, these seem to be associated with the main goals of the other network actors in a certain period.

Furthermore, orchestrated actors aiming for efficiency assume a new position in the network which over time is characterised by the loss of networking capabilities and network awareness. This limitation, results in operational disruptions and strategic constraints for small firms, especially in times of contextual adversity. On the contrary, the orchestrator as a central actor, goes beyond mere control as it involves fostering collaboration, shaping network dynamics, and optimising operations to drive collective success in an ever-evolving business landscape (eg., Ford & Mouzas, 2013).

Thirdly, contrary to the traditional view of a singular orchestrator, our study reveals the presence of multiple orchestrators within the emergent network. These entities, operating either in coordination or independently, exert influence over the network dynamics. This finding challenges the conventional understanding of orchestration, suggesting a more distributed and dynamic form of network orchestration.

As markets continue to evolve, the adoption of orchestration practices stands as an important element for future business success, through coordination, facilitating, intermediate or connections between actors. These can emerge in a context of a single orchestration, multi-orchestration, and co-orchestration. In the context of multi-

orchestration and co-orchestration, several orchestrators coexist, each potentially exercising influence with different orchestration mechanisms. While multi-orchestration supports the sector's common objectives (such as maintaining profitability and service provision), it often leads to parallel rather than deeply integrated collaboration.

Co-orchestration is marked by joint long-term planning between orchestrators, though the innovation generated tends to be directed towards individual benefits and service provision rather than comprehensive network transformation, such as Mandatory Relationships. Further, in a context where we have more than one orchestrator who concentrates the source of their leadership on different activities, dissimilar connections are promoted. In other words, orchestrators who support activities more related to day-to-day activities are considered closer and of greater added value.

The division of labour affects how mechanisms like planning and resource mobilisation manifest themselves. This highlights that orchestration in emergent networks is less about enforcing a singular, pre-defined vision and more about navigating complex interactions, adapting to changing dynamics, and facilitating coordination among actors whose roles and relationships are constantly evolving, a process significantly influenced by the responses and choices of the orchestrated actors themselves.

#### **4.6.1. Managerial Implications**

This study highlights that orchestrators end up influencing the activities performed by other actors on connected business relationships. Specifically, managers seem to perceive their relationship with orchestrators as service suppliers over relying on the long-standing trust and feeling of belonging to an association. In this context, managers assess the value based on achievements from a more distant past and not on contemporary events or future opportunities. However, the findings emphasise the importance of trust and commitment

in maintaining long-term relationships within the network. It shows how these elements facilitate stability and coherence, even amidst market and regulatory changes. By applying these insights, managers can effectively navigate the complexities of their business networks, foster productive collaborations, and maintain a competitive edge in a dynamic business environment.

Additionally, orchestrators do not coordinate their efforts even though sharing similar goals and orchestration mechanisms. Thus, orchestrators carry out their activities without a common agreement among the orchestrators. That is, hub firms simply follow an objective that ultimately becomes common, as in multi-orchestration. However, we must consider that certain orchestrators collaborate towards common goals with efficacy and efficiency gains, as noted by some owners in purchasing, marketing, and commercial objectives: co-orchestration. Nevertheless, the orchestrated parties tend to accept this situation if they keep the perception of private value creating and capturing. Thus, they assess, in terms of resources, what they can gain with greater benefit, even if it means adjusting their activities.

#### **4.6.2. Research Limitations and future research**

While this research provides valuable insights into orchestration mechanisms and network dynamics in emergent networks, several limitations must be acknowledged. Firstly, the study focuses exclusively on the pharmaceutical retail sector within a specific regional and institutional context.

As a result, the findings may not be directly generalisable to other sectors or countries where network structures, regulatory environments, and market dynamics differ. Secondly, the research reconstructs and analyses events and network evolution over a period of approximately 17 years (2005–2022). Although secondary documentation was

used to corroborate interview data, some retrospective accounts depend on participants' recollections, which can be imperfect or incomplete. The study opens avenues for future research, particularly in exploring the dynamics of orchestration in emergent networks and highly regulated markets. In the context of an emerging network, future research may investigate the perceptions of orchestrated actors regarding the actions of network orchestrators and understanding the impact of multiple orchestrators on network efficiency and effectiveness are potential areas for further study.

In scenarios with multiple orchestrators future research may aim at understanding the relationship between orchestrators within the network where it is observed that various participants can concertedly orchestrate a certain set of partners in a planned and coordinated manner. Alternatively, this orchestration could happen in a fluid and natural way due to the common objectives they share. It could be interesting to compare this research with another high regulated sector.

## **CHAPTER V**

### **5. Conclusion**

#### **5.1. Main Conclusions**

This thesis explores the interconnected themes of value creation, market shaping, and orchestration within complex business networks. By integrating insights from a systematic literature review and empirical case studies, this research enhances our understanding of how firms navigate and influence their environments aiming to create value. This chapter synthesises the key findings from the three studies, directly addressing the research questions posed and highlighting the implications for theory and practice.

This research finds that firms in business networks perceive and create value through a complex interplay of relationships, resources, and market dynamics. Value perception is significantly influenced by factors such as trust, commitment, shared objectives, and the ability to access and leverage resources (Håkansson & Snehota, 1995). The systematic literature review revealed that value creation is not a static condition but a process evolving over time in response to changing network factors. Firms that prioritize building strong relationships, fostering collaboration, and adapting to market changes are better positioned to create and perceive value within their networks.

This research demonstrates that both exogenous (e.g., regulatory changes, economic crises) and endogenous (e.g., new hub actors, technological innovations) events significantly affect the market-shaping strategies of actors embedded in business networks. These events can trigger a range of strategic responses, including influencing, resource mobilising, and orchestrating. The market-shaping study revealed that firms often adopt collective strategies to respond to disruptive events and shape their environments in a more favourable way. The research also highlighted the role of

emergent networks in facilitating these responses, demonstrating that market-shaping is not always a deliberate, top-down process but can also arise organically from the collective actions of network actors.

This research extends orchestration theory (e.g., Al Adem *et al.*, 2022; Möller *et al.*, 2020; Perks *et al.*, 2017) by examining how orchestration mechanisms and practices develop over time within emergent business networks. The orchestration study identified three types of orchestration: single orchestration, multi-orchestration, and co-orchestration. It found that orchestration mechanisms evolve in response to changing network conditions and that the perspective of orchestrated actors is crucial for understanding the effectiveness of these mechanisms. The research also highlighted the importance of trust, commitment, and shared objectives in maintaining long-term relationships within emergent networks.

Several overarching themes emerge from these findings. Firstly, relationships are the cornerstone of value creation, market shaping, and orchestration within business networks. Secondly, emergent networks play an important role in responding to disruptions and shaping markets, often challenging traditional, deliberate approaches. Thirdly, dynamic and adaptive strategies are essential for navigating the complexities of business networks and achieving sustainable success. Finally, the effectiveness of strategic actions is highly dependent on the specific context of the business network.

This research makes significant contributions to network theory, market-shaping theory, and orchestration theory by providing a comprehensive framework for understanding value creation, identifying collective market-shaping strategies, extending orchestration theory to emergent networks, and emphasizing the perspective of orchestrated actors.

This research equally offers actionable insights for managers seeking to create value, shape markets, and orchestrate resources within complex business networks. These insights include the need to: understand and leverage key value drivers; capitalise on market-shaping opportunities; implement effective collective market-shaping strategies; adapt to emergent network dynamics; implement effective orchestration mechanisms; tailor orchestration strategies to specific network contexts; and consider the perspective of orchestrated actors. It is hoped that this research will inform future studies and inspire managers to create more sustainable and equitable business practices.

## **5.2. Main Contributions**

### **5.2.1. Theoretical Contributions**

This thesis avows to understand how firms create value, shape markets, and orchestrate actors, resources and activities within emergent business networks. By integrating insights from a systematic literature review and empirical case studies, this research contributes to the domains of network, market-shaping, and orchestration perspectives from a relational approach.

Therefore, this research offers interconnected scientific contributions that enrich our understanding of business networks and strategic management. Firstly, it provides a comprehensive framework for understanding value in Business Networks from relationships approach. The systematic review consolidates fragmented literature to provide a structured overview of the drivers, processes, and outcomes of value perception in business networks. By synthesising diverse perspectives, the review offers a holistic framework for understanding value that integrates relationships, resources, and market dynamics. This framework serves as a foundation for future research on value creation in

business networks and the different interconnections between drivers, processes and outcomes.

Secondly, this research integrates market-shaping with network perspectives, providing a nuanced understanding of how firms, collectively, can proactively influence their networks. Additionally, it contributes to understanding how firms create more favourable outcomes, over time, during emergent changes in highly regulated context. It demonstrates how market-shaping strategies are shaped by policy and the advent of new hub actors, enriching the theoretical understanding of market dynamics.

Thirdly, this study offers an identification of collective market-shaping strategies. The research identifies three collective strategies of network in shaping markets: influencing, resource mobilising, and orchestrating. These strategies can take place simultaneously and evolve over time according to the actors' intentions of promoting new, adapted, reduced, and growth of highly regulated markets. This framework offers a practical guide for firms seeking to shape their markets over time.

Fourthly, the research offers an emphasis on emergent networks. The study challenges the traditional view of deliberate market-shaping by highlighting the role of emergent networks in responding to disruptive events. It demonstrates that market-shaping is not always a deliberate, top-down process but can also arise organically from the collective actions of network actors. This perspective broadens the scope of market-shaping insights and highlights the importance of understanding of the impact of emergent collective strategies.

Fifthly, the research identifies three types of orchestration: single orchestration, multi-orchestration, and co-orchestration. It analyses the characteristics of each type and their implications for network dynamics and value creation. This typology provides a more

nuanced understanding of orchestration mechanisms. Additionally, the study result demonstrates a new orchestration mechanism that emerge from these emergent networking – “Mandatory Relationships”. In this context, the notion that firms are losing their networking capacity is a fact and it must be explored in further research.

In summary, this research contributes to a more holistic understanding of how firms create value, shape markets, and orchestrate resources within regulated and emergent business networks. The studies highlight the importance of relationships, resources, and market dynamics in value creation and demonstrate how market-shaping and orchestration strategies can be used to navigate and influence the environment. The significance of losing their networking capacity is an area that justifies further exploration in future research. The studies also challenge traditional views of market-shaping and orchestration by emphasising the role of emergent networks and distributed coordination. They provide valuable insights for managers seeking to create sustainable business practices and resilient network structures.

### **5.2.2. Managerial Contributions**

This research offers seven interconnected managerial contributions that enrich our understanding of business networks and strategic management.

Firstly, managers can gain a comprehensive understanding of value drivers in Business Networks. The systematic review provides a structured overview of the drivers, processes, and outcomes of value creation in business networks. By synthesising diverse perspectives, the review offers a holistic framework for understanding value that integrates relationships, resources, and market dynamics. This enables managers to identify and leverage key value drivers to enhance their competitive advantage.

Secondly, this research provides the ability to identify and capitalise on market-shaping opportunities. The study integrates market-shaping with network perspective, providing a nuanced understanding of how firms can proactively influence their environments to create more favourable outcomes. It demonstrates how market-shaping strategies are shaped by policy and the advent of new hub actors, enriching the theoretical understanding of market dynamics. This enables managers to identify and capitalise on market-shaping opportunities to create more favourable outcomes for their organisations.

Thirdly, this research offers the ability to understand the collective market-shaping Strategies. The research identifies three collective strategies of network actors in shaping markets: influencing, resource mobilizing, and orchestrating. These strategies can take place simultaneously and evolve over time according to the actors' intentions of promoting new, adapted, reduced, and growth of highly regulated markets. This framework offers a practical guide for firms seeking to shape their markets. It demonstrates that market-shaping is not always a deliberate, top-down process but can also arise organically from the collective actions of network actors. This enables managers to develop more flexible and adaptive strategies to respond to dynamic market conditions.

Fourthly, this research provides the ability to understand orchestration mechanisms in emergent networks. It challenges the traditional focus on deliberately structured networks and highlights the importance of distributed coordination among multiple actors. This enables managers to check the influence and impact of effective orchestration mechanisms in emergent networks, promoted by change events. Fifthly, this research provides the ability to tailor orchestration strategies to specific network contexts. The research identifies three types of orchestration: single orchestration, multi-orchestration, and co-orchestration. It analyses the characteristics of each type and their implications for

network dynamics and value creation. This typology provides a more nuanced understanding of orchestration mechanisms, enabling managers to tailor their orchestration strategies to specific network contexts. It highlights the importance of trust, commitment, and shared objectives in maintaining long-term relationships within the network to value creation.

In light of the above, this research provides actionable insights for managers seeking to create value, shape markets, and orchestrate actors, resources and activities within business networks. By understanding the drivers of value creation, implementing effective market-shaping strategies, and tailoring orchestration mechanisms to specific network contexts, managers can enhance their competitive advantage and create sustainable business practices. The insights from this research can also be used to apprise policy decisions and promote more effective collaboration among network actors.

### **5.2.3. Sustainable Development Goals Contributions**

This thesis not only advances theoretical knowledge and provides actionable managerial insights but also contributes to the achievement of several Sustainable Development Goals (SDGs). By examining value creation, market shaping, and orchestration within complex business networks, this research offers pathways for promoting sustainable business practices and resilient network structures.

Specifically, this research contributes to four SDGs:

Firstly, it contributes to SDG 3 by examining the dynamics of the retail pharmaceutical market, which plays a critical role in delivering healthcare services to local communities. By understanding how market-shaping strategies and regulatory changes impact the availability and accessibility of medicines, this research can inform policies and practices

that promote good health and well-being for all. For example, the study highlights the importance of maintaining a stable and efficient pharmaceutical supply chain, which is essential for ensuring access to essential medicines.

Secondly, this research contributes to SDG 8 by exploring how firms create value, shape markets, and orchestrate resources within complex business networks. By identifying key drivers of economic growth and promoting sustainable business practices, this research can apprise policies and practices that promote decent work and economic growth. For example, the study highlights the importance of fostering innovation and entrepreneurship within business networks, which can lead to the creation of new jobs and economic opportunities.

Thirdly, it contributes to SDG 9 by examining how firms leverage technology and innovation to improve their operations and create new value propositions. By understanding how market-shaping strategies and orchestration mechanisms can promote innovation, this research can inform policies and practices that support sustainable industrial development and infrastructure. For example, the study highlights the role of digital technologies in transforming the retail pharmaceutical market, enabling pharmacies to offer new services and improve their efficiency.

And finally, it contributes to SDG 17 by emphasising the importance of collaboration and partnerships among network actors. By understanding how firms can work together to create value, shape markets, and orchestrate resources, this research can apprise policies and practices that promote effective partnerships for achieving the SDGs. For example, the study highlights the role of buying groups in enabling pharmacies to negotiate more favourable terms with suppliers, which can lead to more sustainable and equitable business relationships. To conclude, this research contributes to the achievement of several SDGs by providing insights into how firms can create value, shape markets, and

orchestrate resources in a sustainable and responsible manner. By promoting sustainable business practices, resilient network structures, and effective partnerships, this research can caution policies and practices that contribute to a more sustainable and equitable future.

### **5.3. Research Limitations**

While this thesis offers valuable insights into the interconnected themes of value creation, market shaping, and orchestration within business networks, it is important to acknowledge certain limitations that may influence the interpretation and generalisability of the findings. These limitations are presented below to provide a balanced and transparent assessment of the research.

Firstly, the empirical research is primarily based on case studies conducted within the retail pharmaceutical market. While this sector provides a rich and complex setting for examining network dynamics, it is important to recognise that the findings may not be directly transferable to other industries or geographical regions. The retail pharmaceutical market is characterised by specific regulatory frameworks, competitive landscapes, and cultural norms that may not be representative of other business contexts. Therefore, caution should be exercised when extrapolating the findings to other settings. Future research should explore a quantitative study to confirm some of these results.

Secondly, the sample may not fully capture the diversity of perspectives within the business network, and the voices of certain actors (e.g., consumers, regulatory bodies) may be marginalised. Future research should consider expanding the sample size and including a wider range of actors to enhance the representativeness of the findings.

Thirdly, the empirical research focuses on a specific period (2007-2022) in the retail pharmaceutical market. While this longitudinal perspective provides valuable insights into the evolution of business networks over time, it is important to recognise that the findings may not fully capture recent developments or emerging trends. Future research should consider extending the temporal scope to incorporate more recent data and explore the long-term implications of the identified dynamics.

By acknowledging these limitations, this thesis provides a balanced and transparent assessment of the research findings. These limitations also highlight avenues for future research, which can build upon the contributions of this thesis and further advance our understanding of value creation, market shaping, and orchestration within complex business networks.

#### **5.4. Further Research**

Building upon the findings and acknowledging the limitations of this *Thesis*, several avenues for future research emerge as particularly promising. These suggestions aim to extend the theoretical and practical understanding of value creation, market shaping, and orchestration within business networks.

Firstly, given the contextual specificity of the empirical research, future studies should explore these themes in different industries and geographical regions. Comparing and contrasting the dynamics of value creation, market shaping, and orchestration across diverse sectors and national contexts would enhance the generalisability of the findings and identify potential contingencies. For example, research could examine these themes in the technology sector, the energy sector, or other regulated sector, in emerging markets.

Secondly, to address the limitations of relying solely on qualitative data, future research should consider adopting mixed methods approaches. Combining qualitative methods (e.g., in-depth interviews, case studies) with quantitative methods (e.g., surveys, statistical analysis) would provide a more robust and comprehensive assessment of the relationships between key variables. This could involve using quantitative data to validate the qualitative findings and to test specific hypotheses derived from the theoretical framework.

Thirdly, future research should expand the scope of analysis to incorporate the perspectives of a wider range of actors. Additionally, to firms within the business network, it is important to consider the perspectives of consumers, regulatory bodies, and other relevant actors. This would provide a more holistic understanding of network dynamics and the impact of strategic actions on different actors. Fourthly, while this thesis identified three types of orchestration, future research should delve deeper into the specific mechanisms and practices that underpin effective orchestration within emergent networks. This could involve examining the role of communication, trust-building, knowledge sharing, and conflict resolution in facilitating coordination among network actors. Furthermore, the apparent decline in the orchestrator's capacity to independently engage with the network actors should be further explored in future studies.

Lastly, the role of multi-orchestrators in emergent networks appears to be fundamental in shaping both, the market and their own resources and activities. The impact on network dynamics, the evolving roles assumed by these multi-orchestrators over time, and their capacity for adaptation warrant further investigation in future studies.

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## Appendix

### Interview guide

#### 0. Opening Remarks and Project Presentation.

Thank you for accepting this invitation to participate in this interview. As I mentioned earlier, I am currently enrolled in the PhD program in Management at ISEG – University of Lisbon. My objective is to understand how different organisations create value in the pharmaceutical sector from a business network and relationship perspective, focusing on community pharmacies and the companies that collaborate directly or indirectly with them.

- I estimate that this meeting will last approximately 1 hour.
- The information collected in this interview is confidential and will be used solely for academic purposes.
- The treatment of the collected data guarantees anonymity for both you and the individuals you mention.
- With your consent, I would like to record the meeting/interview and take notes during our conversation.
- Your participation in this interview is essential for my doctoral research. Participation is voluntary, and your contribution is greatly appreciated.

### Interview protocol 1 – Associations

#### **1. Regarding the composition of the business network – main companies and actors around community pharmacies:**

- a. What is the association's perspective regarding the main actors in the sector and their current roles? And how was it 10 years ago? (Identify the actors that make up the network; their impact and influence.)
- b. What is the association's perspective on the main activities of these actors and their impact? Who does what, and who coordinates what? How was this 10 years ago, and how is it now?

c. What is the association's perspective on the main resources arising from network relationships (products and services circulating within the network; what has changed in the past 10 years, and why)?

**2. About the relationship of pharmacies with each of these actors:**

a. What impact did these actors have on the development of products and services 10 years ago, what has changed in the last 10 years. What impact did the pandemic have on these relationships? Did it enable greater efficiency, innovation, or value creation?

b. Have activities changed over the years due to these actors? In your perspective, what effect have these changes had on the sector?

c. Did these activities change the way the sector acquired products or services 10 years ago? And today? Did the pandemic have any impact?

**3. About the actors identified:**

a. Who do you identify as the actor with the most influence over decisions, and what do you consider to be the outcomes of those decisions? (Do they create value?)

b. Do you believe pharmacies are aware of the decision-making power of these actors? What is the impact of this?

c. Do you think that 10 years ago pharmacies had the same perception of this power as they do today? Please explain.

d. How has the pandemic (or any other previously identified change) affected actors' perception of value?

**4. Description of the main changes that have occurred in the past 10 years:**

a. Describe the pharmacy sector 10 years ago and today.

b. What do you consider to be the most impactful changes?

c. Did these changes alter the sector or not? Please explain.

d. From a value perspective, has anything changed in the past 10 years ago? And with the impact of the pandemic?

e. What do you consider to be the future prospects for the sector?

## **5. Documents proving some of the changes mentioned**

### **Interview Protocol 2 – Retail Pharmacies**

#### **1. Regarding the composition of your business network:**

- a. Who do you consider to be the main companies and actors you currently collaborate or do business with? Were they the same 10 years ago? What has changed? Why?
- b. What were the main reasons for choosing to collaborate with these companies or actors 10 years ago? Would you choose the same ones today? Please explain.
- c. Do you believe this relationship brought you more advantages 10 years ago? And now? Please explain.

#### **2. About your pharmacy's relationship with each of these actors:**

- a. What do you consider to be the main activities you carry out with these companies and actors? Has anything changed in the last 10 years? If so, what were the main changes?
- b. What impact did these actors have on the development of services and products 10 years ago, and what has changed in the last 10 years?
- c. What impact did the pandemic emergency have on these relationships? Did it change the companies you collaborated with? If so, please explain. Did the services and products provided change? If so, what impact did these changes have? (Did it allow for more efficiency, innovation, or value creation?)

#### **3. Regarding the actors you identified:**

- a. Who do you identify as the actor with the greatest impact on your activities nowadays, and what do you consider to be the results of their decisions on your business? (Do they generate value?) Has this always been the case in recent years?
- b. Regarding your partners, have you ever changed or considered changing them at the suggestion of others? (ANF, Groups, Suppliers, Producers) Please explain.
- c. Have any of the activities you perform been suggested by others? Please explain.

- d. And regarding products? Please explain.
- e. Do you believe the same happened 10 years ago? Please explain.

**4. Description of main changes that have occurred in the last 10 years:**

- a. Describe the pharmacy sector 10 years ago and currently.
- b. What do you consider to be the most impactful changes?
- c. Did these changes alter the sector? Please explain.
- d. From a value perspective, has anything changed over the last 10 years? And with the impact of the pandemic?
- e. What do you consider to be future prospects for the sector?

**Interview Protocol 3 – Retail Pharmacy Partners**

**1. Regarding the composition of your business network:**

- a. Who do you consider to be the main companies and actors you currently collaborate or do business with? Were they the same 10 years ago? What has changed? Why?
- b. What were the main reasons for choosing to collaborate with these companies or actors 10 years ago? Would you choose the same ones today? Please explain.
- c. Do you believe that these relationships brought you more advantages 10 years ago? And what about now? Please explain.
- d. Do you consider community pharmacies as your partners? Why?

**2. About the relationship between partners and each of these actors:**

- a. What do you consider to be the main activities you carry out with these companies and actors? Has anything changed compared to 10 years ago? If so, what were the main changes?
- b. What impact did these actors have on the development of services and products 10 years ago, and what has changed over the past 10 years?

c. What impact did the pandemic emergency have on these relationships? Did it change the companies you collaborated with? If so, please explain.

d. Did the supplied services and products change? If so, what impact did these changes have? (Did it allow for more efficiency, innovation, or value creation?)

**3. Regarding the actors you identified:**

a. Who do you identify as the actor with the greatest impact on decisions and what do you consider to be the results of those decisions? (Do they generate value?)

b. Do you consider that the activities of pharmacies have shaped your activities? Please explain.

c. And the resources? Please explain.

d. Was your perception of this influence the same 10 years ago as it is today? Please explain.

**4. Description of the main changes that have occurred in the last 10 years:**

a. Describe the pharmacy sector 10 years ago and currently.

b. What do you consider to be the most impactful changes?

c. Did these changes alter the sector? Please explain.

d. From a value perspective, has anything changed in the last 10 years? And with the impact of the pandemic?

e. What do you consider the future prospects for the sector?

**Interview Protocol 4 – Orchestration**

**1. Regarding the composition of the business network: main companies and actors around community pharmacies**

a. Can you identify the key actors in the sector and their current roles? And what about 10 years ago? (Identify the actors that comprise the network, their impact and power within the network)

b. Can you identify the main activities of these actors and their impact? (Specify the activities and who performs what, and who coordinates what; how was it 10 years ago and how is it now?)

c. Can you identify the main resources that derive from the network relationship? (Which products and services circulate within the network; what has changed in the last 10 years and why?)

## **2. About the relationship between pharmacies and each of these actors:**

a. What impact did these actors have on the development of services and products 10 years ago, and what has changed over the last 10 years? Do you think some of these actors influenced the relationships pharmacies have with other actors? If so, how? If not, please justify.

b. Have the activities changed due to these actors over the years? In your opinion, what have these changes brought to the sector?

c. Have these activities altered the way pharmacies acquired products or services 10 years ago? And what about now?

## **3. About the actors you identified:**

a. Who do you identify as the actor with the greatest impact on the way pharmacies interact with partners? What do you consider to be the results of this influence? (Does it generate value?)

b. Do you believe that pharmacies are aware of the influence these actors exert? What is the impact of this awareness?

c. Do you think 10 years ago pharmacies had a greater perception of this influence compared to today? Please explain.

d. We have noticed that owners with the highest number of pharmacies are less affected by the influence of others in their relationships with other market actors. Do you agree? Could you comment on this?

#### 4. Description of the relationships between the various actors

a. Who do you think has the greatest influence over whom pharmacies interact with? And why?

b. What role do you assign to each of the actors you identified? What activities do you think their role generates? Do you think having this role generates more resources? If so, how? If not, please explain.

c. In your opinion, do you believe that those actors who play a more active role in network relationships will change in the coming years? Please explain.

Table A.1.

Main topics of Business Network Relationships

The main terms	Conceptualization	Authors
Resources	Firms' relationships based on adding products or/and processes	(Malaska et al., 2011; Moller & Rajala, 2007; Nordin et al., 2018; Peruchi et al., 2022; Standing & Standing, 2015; Zhang & Wu, 2017)
	Firms' relationships based on innovation (products or processes)	(Leminen et al., 2020; Lind et al., 2012; Mason & Chakrabarti, 2017; McGrath et al., 2019; Pulles et al., 2014; Ramaswamy & Ozcan, 2020; Ritala et al., 2012; Santos & Mota, 2021; Tornroos et al., 2017) (Chakrabarti et al., 2013; Chevallier et al.,

	Firms' relationships based on knowledge, competences, or capabilities	2016; Kowalkowski et al., 2013; Leminen et al., 2016a; Mason et al., 2012; McGrath et al., 2019; Moller, 2006; Park & Lee, 2018; Peruchi et al., 2022; Ricciardi et al., 2018; Ritala et al., 2012; Toth et al., 2021; Wang & Lestari, 2013) (Moller, 2006; Mota & de Castro, 2019;
	Firms' relationships based on technology and projects	Sharafizad & Brown, 2020; Zhang & Wu, 2017)
Position	Firms' relationships by a group of nodes and position in the network and organized activities	(Jussila et al., 2016; Medlin, 2012; Medlin & Ellegaard, 2015; Michel et al., 2019; Mota & de Castro, 2019; Redondo & Camarero, 2017; Schepis, 2020; Windahl & Lakemond, 2006; Zeng et al., 2017)
	Firms' relationships based on centrality or decentralization	(Leminen et al., 2016a) (Malaska et al., 2011,
	Firms' relationships based on brand and attractiveness positioning	2011)

Structure	Firms' relationships can be characterized for multiple actors	(Chakrabarti et al., 2013; Leminen et al., 2016a; Ricciardi et al., 2018; Sharafizad & Brown, 2020; Vedel & Servais, 2019)
	Firms' relationships based on ecosystems	(Mason & Chakrabarti, 2017; Moller et al., 2020; Veal & Mouzas, 2010)
	Firms' relationships based on platforms	(Perks et al., 2017; Ramaswamy & Ozcan, 2020)
Role	Firms' relationships based on network behaviour	(Pimentel Claro & Claro, 2011; Mandjaak et al., 2017; Ritala et al., 2012)
	Firms' relationships based on actor's role in products, services, or information	(Chakrabarti et al., 2013; Mason & Spring, 2011a; Moeller & Svahn, 2006; Ricciardi et al., 2018; Salehi et al., 2018)
Social	Firms' relationships based on trust, local links, contracts	(Hyder & Fregidou-Malama, 2009; Mei et al., 2022; Ricciardi et al., 2022; Sharafizad & Brown, 2020; Windahl & Lakemond, 2006; Zeng et al., 2017)
	Firms' relationships based on personal/social identification	(Gao et al., 2016; Leek & Canning, 2011;

	Firms' relationships based on socioeconomic environment	Westerlund & Svahn, 2008) (Laya et al., 2018; Lindfelt & Tornroos, 2006; Martins de Resende et al., 2018)
Risk/Costs	Firms' relationship based on sharing risk/costs	(Pimentel Claro & Claro, 2011; Czakon & Kawa, 2018; De Klerk & Kroon, 2007; Felzensztein & Deans, 2013; Harvey & Novicevic, 2002; Medlin & Ellegaard, 2015; Park & Lee, 2018; Simmons et al., 2013)
Internationalization	Firms' relationship based on reaching international markets	(Schepis, 2020; Vedel & Servais, 2019)

Table A.2.

Major Drivers of Value in Networks

Drivers	Conceptualization	Authors
Relationship		(Aarikka-Stenroos et al., 2017;
Formal	Contracts, investments, experienced-based information, value creation, trust, and commitment	Aarikka-Stenroos & Makkonen, 2014; Akhtar et al., 2018; Alinaghian & Razmdoost, 2021; Andersen & Medlin, 2016; Bettis-Outland et al., 2021; Bocconcelli et al., 2020; Butler & Purchase, 2008; Camanzi & Giua, 2020;
Informal		

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Personal references, word-of-mouth, reputation/image, trust, culture/ethics, self-interest.	Chakrabarti et al., 2013; Pimentel Claro & Claro, 2011; De Klerk & Kroon, 2007; Dong et al., 2019; Ekman, 2015; Felzensztein & Deans, 2013; Freytag & Mikkelsen, 2007; Gao et al., 2016, 2016; Guercini & Runfola, 2009; Harvey & Novicevic, 2002; Hyder & Fregidou-Malama, 2009; Ivanova-Gongne & Torkkeli, 2018; Leek & Canning, 2011; Leite & Bengtson, 2018; Leminen et al., 2016a; Lindfelt & Tornroos, 2006; Martins de Resende et al., 2018; Mattsson & Salmi, 2013; Mei et al., 2022; Oberg et al., 2007; Sadeh & Kacker, 2020; Sharafizad & Brown, 2020; Vedel & Servais, 2019)
Market	Change/problem/uncertainty/crises (Baraldi & Nadin, 2006; Bortoluzzi et al., 2015; Davey et al., 2022; Ehret, 2004; Ferro et al., 2017; Guercini & Runfola, 2012; Hallen & Johanson, 2004; Hamalainen & Salmi, 2022; Heidari et al., 2018; Jussila et al., 2016; Karayanni, 2015; Kowalkowski et al., 2013; Kragh & Andersen, 2009; Lacoste, 2016; Lindkvist et al., 2022; Mandjaak et al., 2017; Mason et al., 2017; Mitrega & Pfajfar, 2015; Moller & Rajala, 2007; Peruchi et al., 2022; Sustainability/power Customers Strategic Position Projects Internationalisation

Resources	Competences	Ritvala & Salmi, 2010; Scandeliu & Cohen, 2016; Simmons et al., 2013; Skarp & Gadde, 2008; Swaminathan & Moorman, 2009; Zeng et al., 2017; Zhang & Du, 2019; Zhu & Zolkiewski, 2015)
	Knowledge and learning	(Akhtar et al., 2018; Alinaghian & Razmdoost, 2021; Andersson et al., 2019; Blanka & Traunmueller, 2020; Butler & Purchase, 2008; Chevallier et al., 2016; Chou, 2016; Corsaro et al., 2012; Czakon & Kawa, 2018; Drummond et al., 2018; Ekman, 2015; Eng, 2005; Ford & Håkansson, 2013; Freytag & Mikkelsen, 2007; Guercini & Ranfagni, 2020; Gupta et al., 2010; Harvey & Novicevic, 2002; Hedvall et al., 2019; Heinrich et al., 2011; La Rocca & Snehota, 2014; Landqvist & Lind, 2019; Lavissiere et al., 2019; Laya et al., 2018; Leite et al., 2018; Leminen et al., 2016b; Lind et al., 2012; Lindkvist et al., 2022; McGrath et al., 2019; Medlin & Ellegaard, 2015; Moller et al., 2005; Olaru & Purchase, 2015; Pagani & Pardo, 2017; Ramaswamy & Ozcan, 2020; Salehi et al., 2018; Vedel & Servais, 2019; Zhang & Wu, 2017; Zondag et al., 2017)
	Products	
	Processes/logistics	
	Innovation	

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Table A. 2.

## Major Processes or Mechanism of Value in Business Networks

Processes/mechanism	Conceptualization	Authors
Process	Firms interact using guidelines, processes, and contracts	(Andersen & Medlin, 2016)
Knowledge and Organizational Learning	Firms interact by learning and sharing knowledge or resources to innovate Firms interact through transferring knowledge and learning Firms interact by solving problems	(Aarikka-Stenroos et al., 2017; Bettis-Outland et al., 2021; Bortoluzzi et al., 2015; Eng, 2005; Gupta et al., 2010; Hallen & Johanson, 2004; Mason et al., 2012; Mason & Mouzas, 2012; Olaru & Purchase, 2015; Ostendorf et al., 2014; Smirnova, 2020; Veal & Mouzas, 2010)
Coopetition	Firms interact by collaborating and competing	(Blanka & Traunmueller, 2020; Chou & Zolkiewski, 20180401; Crick et al., 2022; Lindström & Polska, 2016; Martins de Resende et al., 2018; McGrath et al., 2019; Ritala & Tidström, 2014)
Resource, actor or/and activities	Firms interact using resources, actor, and activities Firms interact through brand	(Bocconcelli et al., 2020; Heinrich et al., 2011; Malaska et al., 2011;

Integration or development	Firms interact across marketing process	Mason et al., 2017; Ostendorf et al., 2014; Pagani & Pardo, 2017; Steenstra et al., 2020)
Project-specific collaboration	Firms interact specifically for a project Firms interact by strategic network	(Partanen & Möller, 2012)
Network joint action/dynamics	Firms interact as: Customer – Supplier Supplier – Supplier Supplier – Partner/Competitor	(Pimentel Claro & Claro, 2011; Ehret, 2004; Ekman, 2015; Guercini & Milanesi, 2019; Kaartemo et al., 2020; La Rocca et al., 2019; La Rocca & Snehota, 2014; Leite & Bengtson, 2018; Matinheikki et al., 2017; Pulles et al., 2014; Ramaswamy & Ozcan, 2020)
Social media platforms	Firms interact using platforms	(Drummond et al., 2018; Mei et al., 2022)
Social Process networking	Firms interact by embedding Firms interact through institutional/government rules Firms interact by signalling and screening	(Leek & Canning, 2011; Mota & de Castro, 2019; Nystrom et al., 2017; Ritala et al., 2012; Ritvala & Salmi, 2010; Sadeh & Kacker, 2020; Salo et al., 2008)
Orchestration	Firms interact across managing others	(Perks et al., 2017; Ritala et al., 2012)

Table A.4.

## Major Outcomes of Value in Business Networks

Outcomes	Conceptualization	Authors
Performance (or market)	Transformation Trade effectiveness Generation sales/growth New resources Competitive advantage Mobilize customers Reduce costs/risks Innovation	(Bettis-Outland et al., 2021; Bortoluzzi et al., 2015; Camanzi & Giua, 2020; Claro & Claro, 2011; Davey et al., 2022; Freytag & Mikkelsen, 2007; Gao et al., 2016; Guercini & Ranfagni, 2020; Guercini & Runfola, 2012; Gupta et al., 2010; Hallen & Johanson, 2004; Karayanni, 2015; La Rocca & Snehota, 2014; Leminen et al., 2016b, 2020; Lindkvist et al., 2022; Mason et al., 2012, 2017; Mason & Mouzas, 2012; Matinheikki et al., 2017; Munksgaard & Medlin, 2014; Nordin et al., 2018; Olaru & Purchase, 2015; Ostendorf et al., 2014; Park & Lee, 2018; Pulles et al., 2014; Sadeh & Kacker, 2020; Sharafizad & Brown, 2020; Westerlund & Svahn, 2008; Windahl & Lakemond, 2006)
Operational	Solving problems Easier buying process Logistics agility	(Aarikka-Stenroos et al., 2017; Aarikka-Stenroos & Makkonen, 2014; Baraldi & Nadin, 2006; Hedvall et al., 2019; Heinrich et al., 2011; Leite et al., 2018; Skarp & Gadde, 2008)
Social	Social connections (trust, integrity) solidarity, Network engagement, consolidation	(Bondeli et al., 2018; Guercini & Milanesi, 2019; Harvey & Novicevic, 2002; Ivanova-Gongne & Torkkeli, 2018; Lindfelt & Tornroos, 2006; Mandjaak et al., 2017)

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Behaviour

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Investment	Attract Investment New ventures	(Bortoluzzi et al., 2015; La Rocca et al., 2019; Sadeh & Kacker, 2020; Santos & Mota, 2021)
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