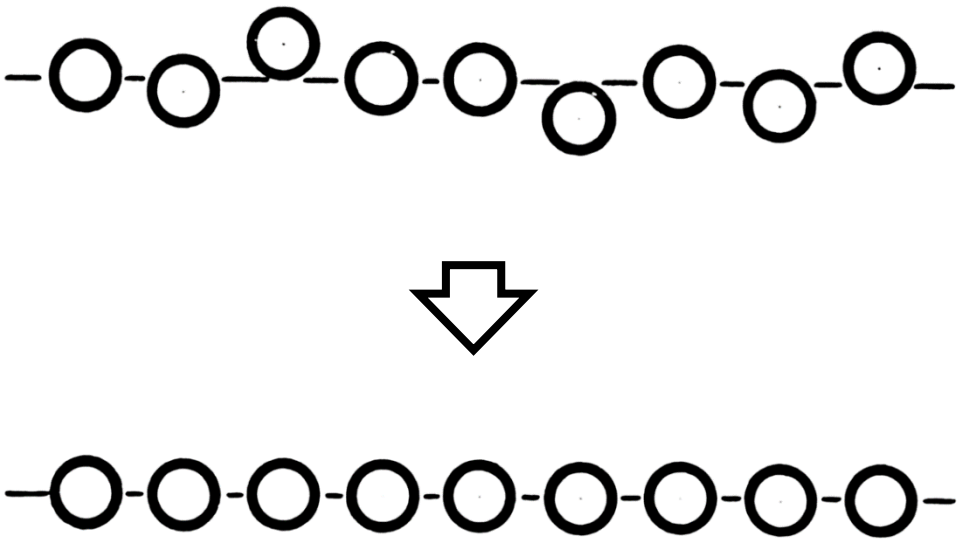
Aligning purchasing with the organizational strategy

A study into the differences of presence and effectiveness from vertical strategy alignment between multiple types of healthcare organizations



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This graduation project was undertaken in cooperation with Supply Value and specifically the business unit of Procurement. Supply Value is a leading strategy, advice, and implementation office located in Zeist.

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Ilco Toebes

Abstract

Previous decades showed that purchasing is evolving into a cross-functional business process that has obtained a more prominent and strategic role within the organization in determining organizational goals. Aligning the organizational goals with the purchasing strategy can improve the competitive potential of the purchasing function, among other benefits. However, what role this alignment has within the healthcare sector, how such alignment is achieved and how the context of healthcare influences this process is unknown.

A theoretical model is developed to provide insight into relevant aspects of vertical strategy alignment in healthcare. To test the model, interviews are conducted with ten respondents from different healthcare organizations. Of these respondents, eight also filled in the follow-up questionnaire. A six-step method is used on the interview transcripts to find the most relevant dimensions and accompanying sub-dimensions. With the follow-up questionnaire rankings are found between the sub-dimensions, indicating the relevance of a certain sub-dimension.

This thesis found that the current role of vertical strategy alignment between purchasing and organizational goals in healthcare is rather marginal. This is mainly because purchasing is a supporting function in healthcare that is not part of the primary process. Nevertheless, the main general challenge with achieving this alignment is that currently there is no one responsible for alignment. Healthcare has an enhanced focus on quality with the care that has a patient-central focus, which potentially obstructs striving for alignment. To increase this alignment, the organizations should mainly increase awareness and involvement with alignment. When alignment is acquired, the main opportunity is that it could increase the quality of care and increase purchasing's financial performances.

Keywords: Vertical strategy alignment, Organizational strategy, Purchasing, Healthcare

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Chapter 1. The concept of vertical strategy alignment has to be explored in the healthcare sector

Around 35 years ago visionary Porter presented purchasing as a 'simple function' in his well-known 'value chain'. However, he was also one of the first professionals that reconsidered his vision and he proposed it as a more strategic function (Poissonnier, 2017, p. 2). Nowadays, purchasing is considered strategic, since purchasing is linked to the securement of supply and value creation (Poissonnier, 2017, p. 1).

Handfield, Monczka, Giunipero, and Patterson (2011, p. 8) explain that twenty-first-century purchasing is less often managed by a single function; rather, it is evolving into a cross-functional business process. This statement is also confirmed by (Mogre, Lindgreen, & Hingley, 2017, p. 3), who state that purchasing is growing increasingly to be integrated with other business functions and processes, especially those related to strategy, decision-making, marketing, and supply chain management. Besides, the purchasing function has become more strategically oriented since next to the make-or-buy decision there are other decisions, which require strategic attention (Mol, 2003, p. 6). Secondly, organizations can gain sustainable competitive advantages (SCA) by accessing and using resources more effectively than their competitors (Poissonnier, 2017, p. 2). In other words, the purchasing function obtained a more prominent and strategic role within the organization in determining organizational goals. Both Reck and Long (1988, p. 2) and Handfield et al. (2011, p. 8) argue that purchasing functions can support the organizational strategy through four stages of development, namely 1) passive, 2) independent; 3) supportive; and 4) integrative.

To make the purchasing function and the organizational strategy and/or vision a whole instead of unconnected sections, all strategic levels should become aligned with each other. This strategic alignment is an important issue when considering purchasing strategies. Strategic purchasing supports the overall organizational strategy in its market and value proposition through its proactive and long-term management of the organizations' supplier relationships. Alignment thinking requires "*all decision-makers to view their enterprise as a value chain, not merely a set of more or less valuable boxes and wires on an easy-to-forget, ever-changing chart*" (Trevor & Varcoe, 2017, p. 1). Strategic alignment can be considered as the 'glue' between the purchasing strategy and the organizational strategy.

It is important to align the purchasing strategy to the organizational strategy since organizations can spend up to 85% of their revenue directly on their suppliers (Sobhani,

Malarvizhi, Al-Mamun, & Jeyashree, 2013, p. 255). Secondly, according to Watts, Kim, and Hahn (1995, pp. 4-5) is the competitive potential of the purchasing function highly dependent on the alignment between purchasing strategy and overall strategy. Although literature recognizes that the full value-creation potential of the purchasing function can only be realized if its decisions and activities are aligned with the organization's overall strategic orientation. Research and practice lack knowledge on how exactly such an alignment can be achieved and what performance implications it has (Baier, Hartmann, & Moser, 2008, p. 36).

However, the achievement of alignment may be more complex in certain sectors. Within the healthcare sector, Don Berwick and colleagues introduced the 'Triple Aim'. This concept is an approach to optimize the performance of the health system. This approach states that organizations can pursue three dimensions of performance, namely: improving the health of populations, enhancing the patient experience of care, and reducing the per capita costs of health care (Bodenheimer & Sinsky, 2014, p. 573). However, a recent study from Jamalabadi, Winter, and Schreyögg (2020, p. 626) states that there is no general relationship between cost/price and the quality of care. Therefore, a trade-off between quality, service, and costs is harder to make within the healthcare sector than within other industries. These factors may potentially complicate the achievement of strategic alignment within the healthcare sector.

Furthermore, the healthcare sector entails different types of organizations, such as university medical centers and elderly homes (Broom, Turner, Schwab, & Pesely, 2015, p. 19). These different types of organizations may differ on some dimensions and have their own specific focus points, purchasing needs, and strategies. UMC's may for example strive more for innovation and therefore may select innovative suppliers (Weintraub & McKee, 2019, p. 142). Consequently, the alignment of the purchasing strategy and the organizational strategy may not be equally beneficial, desirable, and achievable for every organization. Therefore, the goal of this study is to identify whether all found aspects in the literature for strategy alignment are adequate for healthcare, whether aspects are missing, what dynamics these aspects have, and how strategy alignment differs among different types of healthcare organizations. Furthermore, the goal is to find reasoning whether alignment between the purchasing and organizational strategy always should or should not be pursued. This leads to the following research question:

> *"What role does vertical strategic alignment between purchasing and organizational strategies have in different types of healthcare organizations?"*

To answer this question, the following sub-questions have to be answered:

1) To what extent do different healthcare organizations have strategic alignment?

2) What aspects influence strategic alignment within healthcare?

3) Are there conflicts between the organizational strategy and purchasing strategy?

4) What effects can strategic alignment have in the healthcare sector?

This study will contribute to the current scientific knowledge in several ways. Hesping and Schiele (2015, p. 141) state that in the period of 1989 to 2008 research on strategy in purchasing experienced growth and evolved into a maturity period since 2009. The findings of Hesping and Schiele imply that the research field of strategy development in purchasing has yet to receive sufficient study. This study found findings that reflect on the current phase of purchasing and strategy development in healthcare. An example is that purchasing in healthcare is currently still a supportive function. Secondly, this study will gain insights into key elements for strategic alignment, which were basically missing according to (Gobbi & Hsuan, 2015, p. 6). Key elements for strategic alignment are found for multiple types of organizations but outstanding differences between those types are still to be investigated. Thirdly, this study will examine the concept of strategic alignment specifically in the healthcare sector, which can be fundamentally different from other branches. This study identified several challenges with strategic alignment that are specific to the context of the healthcare sector.

Furthermore, this study can also have some practical contributions. Since multiple types of organizations will be compared, best practices and bottlenecks from certain organizations can be found, providing valuable lessons for the other organizations. Therefore, the findings of this study can support the improvement of alignment, hence improving the organizations' performance. This study may provide better awareness of the potential impact of strategic alignment and therefore may support purchasers and BoD with the translation of strategies.

This thesis will follow a certain outline. A literature study (2) regarding the procurement in healthcare and strategic alignment, including an introduction into strategy, and its implications for the healthcare sector is performed. Hereafter, the executed method (3) in this study, in terms of data collection, sample size, and analysis will be elaborated upon. In the next chapter, the results (4) will be presented. Subsequent a chapter (5) with discussions related to the theoretical contributions, managerial implications, limitations, and research opportunities is presented. Finally, conclusions (6) will be drawn on the research questions.

Chapter 2. A literature review on the main concepts

2.1 The evolution of procurement and its specifics in healthcare

2.1.1 The goals and focus of the purchasing function has changed evolved from clerical to value chain driven

Strategic purchasing is considered as *"the process of planning, implementing, evaluating and controlling strategic and operating purchasing decisions for directing all activities of the purchasing function toward opportunities consistent with the organization's capabilities to achieve long term goals"* (Carr & Smeltzer, 1997, p. 201).

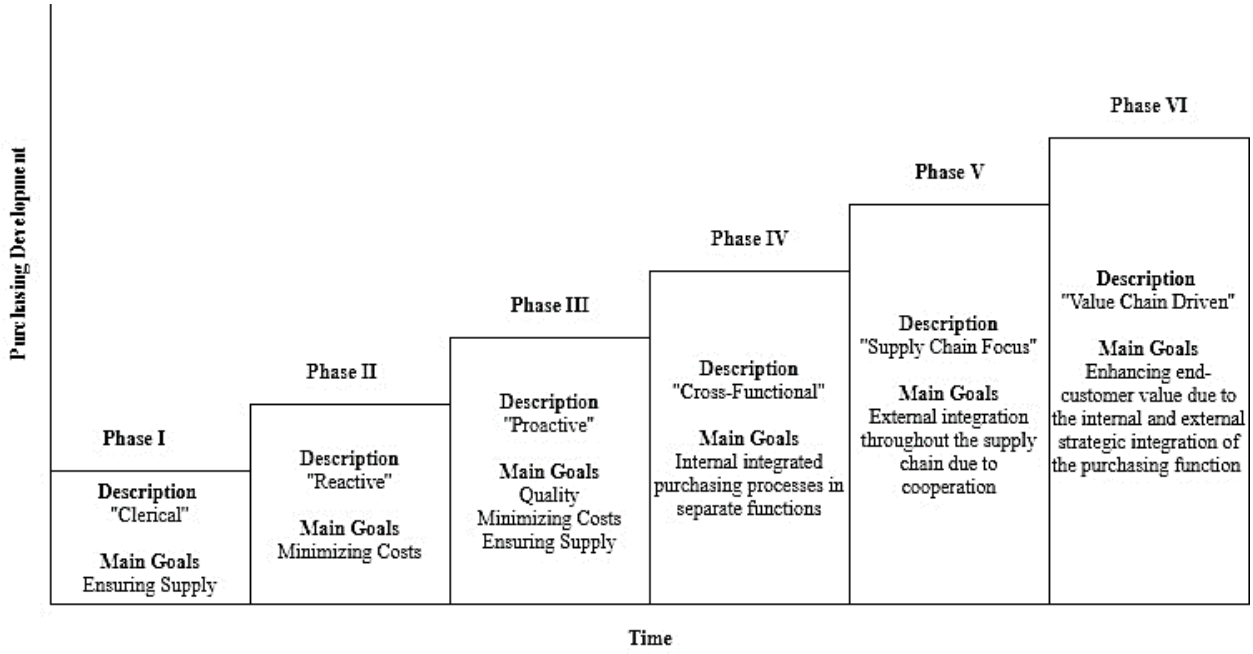
The main decisions purchasers responsible for a category group must make in the year cycle can be combined into four main groups: (1) the classical make-or-buy decision needed to determine if a purchasing action is required; (2) the decision on an appropriate sourcing strategy for the whole category group, for instance, determining the number of suppliers; (3) the decisions on a specific strategy for selecting the individual preferred suppliers, defining how the relationship should be designed, and finally (4) support for the final decision to negotiate and sign a contract in the interaction with each supplier (Zijm, Klumpp, Regattieri, & Heragu, 2019, p. 62). The ideal purchasing theory would offer guidance for all decision points. However, there is no such thing as a universal purchasing theory available, so far, but only partially supportive management theories such as the 'Resource Dependency Theory' and the 'Principal-Agent Theory'.

Traditionally, purchasing had three main goals to achieve. These goals were (1) ensuring safe, timely, and a sufficient supply of goods or services that have (2) the appropriate quality with (3) the lowest possible cost. However, with the increasing importance of suppliers for the success of the company, two new goals may be added. These were the (4) facilitation of innovations from and with suppliers and (5) ensuring competitive advantage to the company by ensuring privileged access to different sources of supply (Weele, 2005, p. 21).

According to Van Weele, Rozemeijer, and Rietveld (1998, pp. 4-6), this development of purchasing can be described in six stages (Figure 1). The 'Clerical' phase is regarded as the start of purchasing, where the main objective was to secure the right materials for production. During phase two the purchasers focused on negotiations and achieving price reductions. In the third phase, the aspect of quality takes place, next to the current aspects of minimizing costs and ensuring supply. In the fourth stage purchasing the strategic importance of purchasing becomes evident. Despite that the processes in the organization are focused on

purchasing, the focus is limited per individual business unit. Finally, in phase five there is a full focus on an outsourcing strategy and strategic collaboration with the organizations' suppliers. In this phase, the separated individual business units from phase four are becoming integrated as well. In the final development phase of purchasing, the focus is shifted to delivering value to the end customer. The purchasing function is contributing considerably to the organizations' profit and the emphasis of the function is on the relationships between the internal functions as well as the suppliers. In this stage, the purchasing strategy is integrated within the business strategy, regarded as strategic alignment.

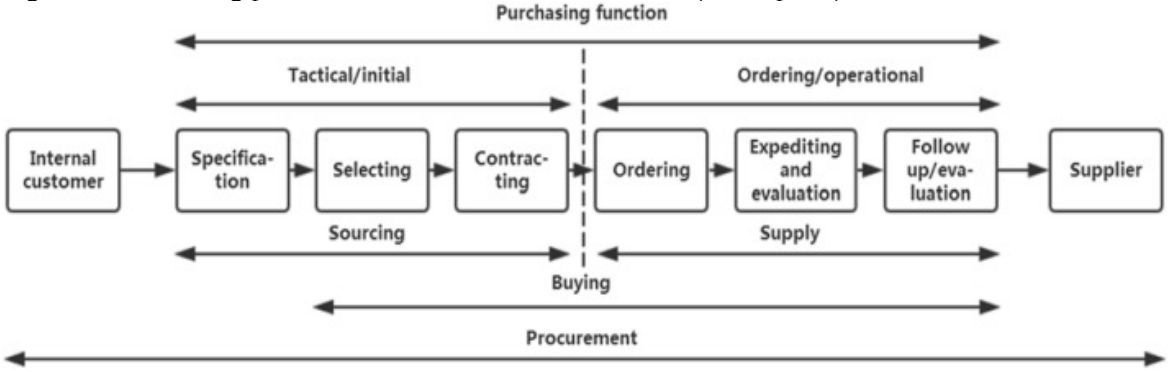
Figure 1 Six stages of purchasing development. Source: based on; (Freeman & Cavinato, 1990, pp. 8-9; Van Weele et al., 1998, pp. 4-6)



2.1.2 Purchasing process is divided into a strategic half and an operational half

To understand the process of alignment in healthcare, it is important to first clearly understand what processes take place within healthcare purchasing. This is important since all decisions should be considered as a value chain to reach strategy alignment and "*The enterprise value chain is only as strong as its weakest link"* (Trevor & Varcoe, 2017, p. 5). Purchasing organizations often work according to the same model. The purchasing process can be described based on the model of Van Weele (2010, p. 35) (Figure 2).

Figure 2 Purchasing process. Source: van A. J. van Weele (2010, p. 35)



The process is divided into two segments, namely the left strategic half (Tactical/initial) and the right operational half (Ordering/operational). This strategic half consists of the specification, selecting, and contracting phase (Weele, 2008, pp. 41-46). The right half is considered as the operational part and consists of the ordering, expediting and evaluation, and follow-up/evaluation phase (Weele, 2008, pp. 47-51).

2.1.3 Procurement in healthcare is not like purchasing in other industries

The healthcare industry is unlike other services since it is less clearly defined. In most industries, the product or service can be standardized to improve efficiency and quality. In healthcare, in essence, every consumer is physically and emotionally different. A treatment that works well for someone, can result in adverse events for someone else (Babalola, 2017, p. 1). In other words, the effectiveness of a treatment is dependent on the patient.

The healthcare sector differentiates from other sectors with the differences in medical power. Medical power that is manifested through the dominance, authority, and autonomy of doctors goes back even to the ’90s. This dominance is present *“through their pivotal role in the economics of health services, through dominance over allied health occupational groups, through administrative influence, and through the collective influence of medical associations”* (Kenny & Adamson, 1992, p. 2). Kenny and Adamson found that a significant portion (73%) of the interviewed health professionals did not feel regarded as professional equals by doctors. In other words, doctors may enforce their preference, while possibly other options may have different benefits.

Furthermore, the healthcare industry is highly regulated. In this sense, almost every aspect of the field is overseen by one regulatory party or another (Field, 2008, p. 607). This is supported by the fact that some form of oversight is necessary once factors such as health and life are at stake. An example is the development and purchasing of new medical drugs. First, a pharmaceutical company needs to get a patent, get permission for clinical testing

from the Food and Drug Administration (FDA), and adhere to marketing restrictions contained in the New Drug Approval (Field, 2008, p. 607). Another example is the purchasing of clinical devices. Most of the devices have to have a Conformité Européenne (CE) mark. Which states that the device meets the regulations that apply within the European Economic Area and gets marked legally in all EU member states (Parvizi & Woods, 2014, p. 8).

Within healthcare, there is a persisting focus on quality. According to Busse, Panteli, and Quentin (2019, p. 3) quality of care is one of the most frequently quoted principles of health policy, and it is currently high up on the agenda of policy-makers at national, European, and international levels. According to the World Health Organization (2018, p. 1) should the quality of health services be:

1. Effective: providing evidence-based health care services to those who need them.
2. Safe: avoiding harm to people for whom the care is intended.
3. People-centered: providing care that responds to individual preferences, needs, and values.

Furthermore, healthcare also differs from other sectors regarding finances. Every sector spends its costs in different ways. In healthcare professionals are seldom paid directly by their patients like in other businesses. Payment usually comes from the government or insurance companies (Babalola, 2017, p. 1). Therefore, procurement as a percentage of the total turnover also varies. Table 1 presents the differences in purchasing volume as a percentage of the total turnover between different sectors. In comparison with the trade and industry sector, the sector of healthcare providers has the lowest percentage purchasing volume of turnover. On the contrary, healthcare insurers have a relatively high percentage in purchasing volume (Schotanus, 2018, p. 23).

Table 1 Purchasing volume as a percentage of total turnover. Source: Schotanus (2018, p. 23)

Sector	Purchasing volume
Trade	70 - 98%
Industry	50 – 95%
Professional service industry	30 – 50%
Healthcare providers	30 – 50%
Average	**60 – 70%**

Healthcare also varies in terms of the selection of the customers. In other services, there are options in selecting which persons or industries the business can be operated with. This is not the case in healthcare, since treatment has to be provided to patients in places like the emergency room (Babalola, 2017, p. 1). Also, healthcare is a Business-to-Customer; market

manufacturing companies are often Business-to-Business (B2B) markets. For example, healthcare has very different budget cycles in comparison with B2B companies.

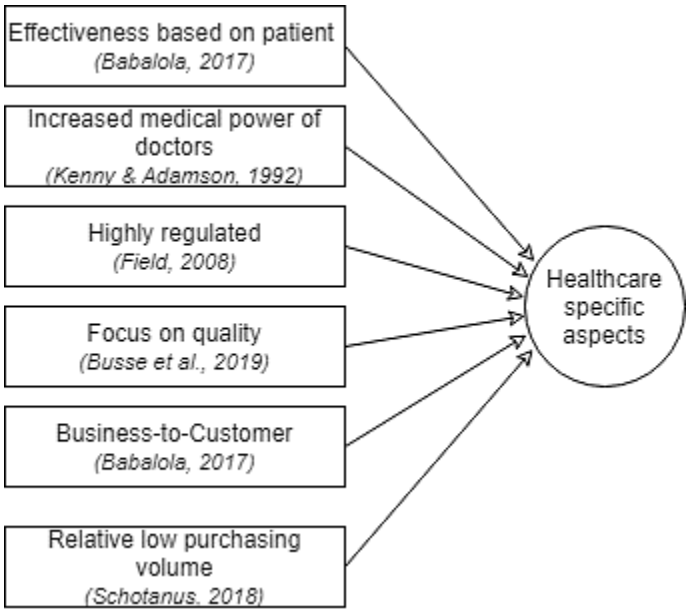
Table 2 provides an overview of the differences between 'traditional' purchasing and healthcare purchasing.

Table 2 Overview differences 'traditional' procurement and healthcare procurement

'Traditional' procurement	Healthcare procurement
Purchasing power differences between buyer and supplier	Prominent power of doctors
Generally following Public Procurement Laws and Regulations	Increased regulations such as the FDA and CE
Business-to-business	Business-to-customer
Relative higher purchasing volume	Relative lower purchasing volume

These factors make the healthcare industry unique and may complicate strategy alignment and therefore, may require a rather different approach to achieve the alignment. Figure 3 presents healthcare unique aspects that potentially influence strategy alignment, based on the literature above.

Figure 3 Overview healthcare industry unique aspects



2.1.4 There are differences in underlying dimensions and focus points that healthcare organizations can have

Baier et al. (2008, p. 48) recommended incorporating variables to account for the business environment. Healthcare can have a broad spectrum of purchasing needs. From complex innovative medication and innovations to easy and recurring commodities such as medical equipment, staff costs, depending on the type of organization. Every organization may have

a slightly different focus on what they aim for as a strategy and what type of healthcare they provide. This section will elaborate on the differences in underlying dimensions which an organization may have. It should be read that these dimensions may be present in varying proportions and should therefore not be considered as a key difference between organizations, but more as focus points that organizations may have. This means that several organizations may have identical dimensions and focus points, but to what extent the points receive full focus can differ.

The first distinction can be made between 'cure' and 'care'. This is a debate that has been ongoing for many years. Despite that these two models are not necessarily mutually exclusive; they are both based on a different professional philosophy. The cure model is focused on the ad hoc identification of causes of disease and identifying underlying pathologies, to make sure that the patient returns to complete health (Hall, O'Reilly, Dojeiji, Blair, & Harley, 2009, p. 352). The cure model is mostly found in emergency departments and acute care facilities and is considered a continued activity. The care model is defined as the holistic approach to promoting well-being and quality of life (QoL). This model is therefore found more often in long-term care, chronic care facilities, palliative care, disabled care, and community health care settings (Hall et al., 2009, p. 353). This comparison of cure and care proposes that a distinction between acute and chronic care, and corresponding organization types, can be made.

Between acute and chronic healthcare some differences can be made. Some characteristics of acute care are that care is episodic, with cure expected, while the health professional is the expert, health outcomes depend on short-term service. QoL is highly dependent on professional care and has compliance with medications (Schoo & Lawn, 2009, p. 1). Some characteristics of chronic care are that it is defined ongoing, that amelioration of symptoms, rather than cure, is expected, the client is the expert of their experience of living, QoL is highly dependent on the client's self-management and decision making (Schoo & Lawn, 2009, p. 1). Both acute and chronic healthcare can exist in specific organizations.

Moreover, a distinction can be made between general and specialized healthcare. According to the World Health Organization (2009, p. 240) (WHO), is for example a general hospital a hospital that '*provides a range of different services for patients of various age groups and with varying disease conditions'.* Next to that, a specialized hospital is a hospital that is *'admitting primarily patients suffering from a specific disease or affection of one system, or reserved for the diagnosis and treatment of conditions affecting a specific age*

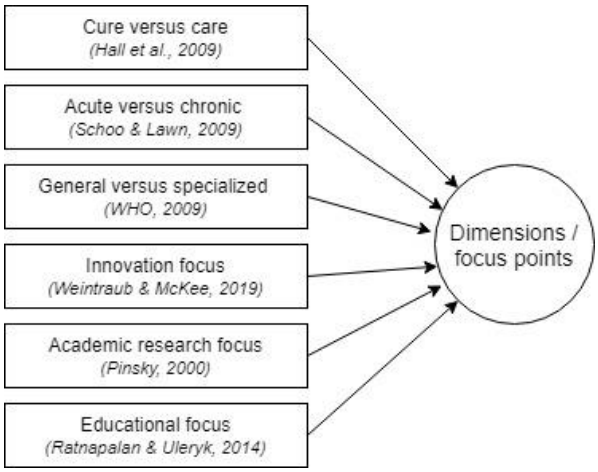
group or of a long-term nature'. Some examples of specialized healthcare are cancer institutes and children institutes.

An organization can have competitive priorities by focusing on innovation. Moreover, leadership with some priority has always been important at all levels of the healthcare sector. Health organizations have always been expected to innovate (Weintraub & McKee, 2019, p. 142). This could be with the adoption of new treatments or with new models of care. Besides, academic health science centers are sometimes expected to explicitly be working to develop, evaluate, and implement those innovations (Weintraub & McKee, 2019, p. 142). The use of innovations can be beneficial for healthcare organizations. Innovations may enhance life expectancy, quality of life, diagnostics and treatment options, as well as the efficiency and cost-effectiveness of the healthcare system (Omachonu & Einspruch, 2010, p. 1).

According to Pinsky (2000, p. 201), who wrote an article regarding the role of research in an academic medical center, the end product of clinical research and trials is '*the knowledge that allows us to understand disease processes and the prevention and treatment of these diseases. Clinical research is vital to achieving our ultimate goal of promoting health'.* Moreover, Pinsky (2000, p. 201) states that health services research can enable us to "*have a greater longitudinal understanding of healthcare, which gives us great insight into how successful we are in preventing and treating disease, and the eventual effect of our efforts on our patients".* In other words, by focusing on academic research the quality of healthcare can be improved.

Where research in general is more about asking questions, education is more about teaching. Collective education can impact the organizations' operations, performance, and outcomes (Ratnapalan & Uleryk, 2014, p. 25). Individual professional learning, inter-professional team learning, and system-based organizational learning facilitate safe patient care in the end. It is a continuing organizational activity that requires formal and informal learnings (Ratnapalan & Uleryk, 2014, p. 26). However, with this education, new knowledge and practices can be deployed by the professionals of the organizations. On the contrary, according to Ratnapalan and Uleryk (2014, p. 26), there is no explicit mandate to engage in continuing education, but the organization may provide the education to its professionals. Figure 4 presents the different dimensions and focus points that healthcare organizations can have, based on the literature above.

Figure 4 Different dimensions and focus points that healthcare organizations can focus on



2.2 Strategic alignment is an essential concept to make all the strategies work

2.2.1 A strategy can be present at multiple layers of the organization

2.2.1.1 Strategic alignment makes sure that separate layers of strategy are supporting each other

In general, a strategy is the pattern of a plan that integrates an organization's major goals and action sequences into a cohesive whole (Quinn, 1980, p. 324). However, there can be multiple layers of strategy involved in an organization. Hesping and Schiele (2015, p. 139) argue that:

"*(1) the firms' strategy and (2) purchasing strategy, as one of an organizations' functional strategies, can be extended by (3) category strategies for the multitude of supply markets, (4) sourcing levers, i.e., tactics applied to specify category strategies, and (5) supplier strategies toward each supplier within a sourcing category*".

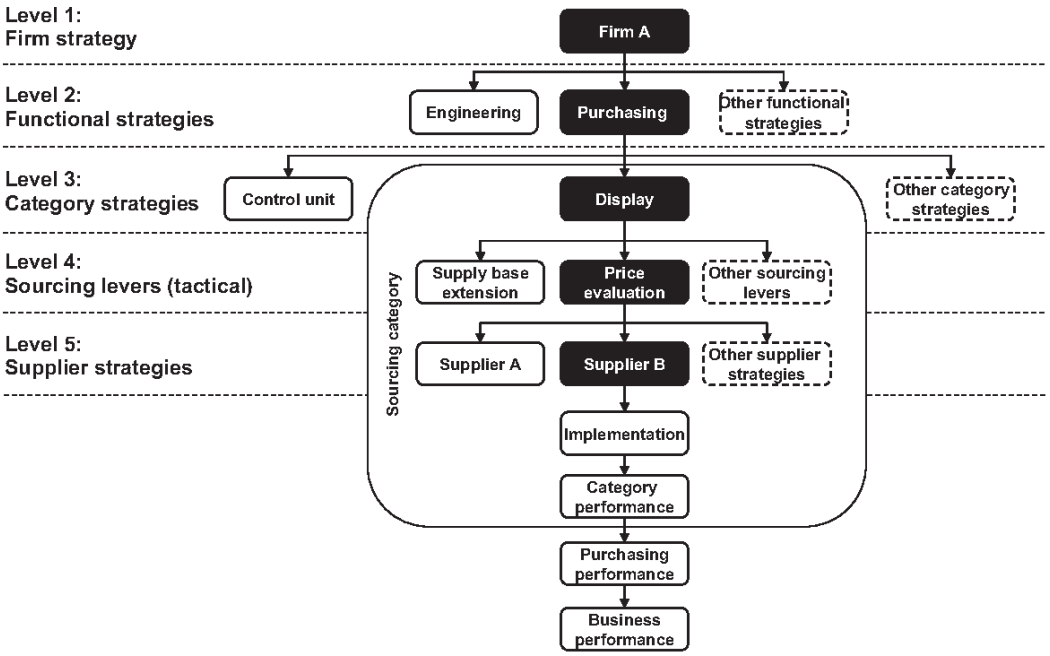
There is a key concept that 'glues' these strategies together, which is strategic alignment. According to Trevor and Varcoe (2016, p. 2) is 'strategic alignment' defined as "*the fit between all elements in a business, including the strategy and organizational design, are arranged in the best way to support the long-term purpose of the business".* When put in the context of procurement, strategic alignment is defined as '*an internal initiative that concentrates a series of steps allowing the purchasing department to establish a link and coordinate their approaches with other functional areas' individual goals and objectives and with the organization as a whole'* (Rodríguez-Escobar & González-Benito, 2017, p. 1177). In other words, strategic alignment is an essential concept to make all the strategies work. Therefore, a lack of alignment is whenever parts of the definition from Hesping and

Schiele (2015, p. 139) are not aligned with each other. To investigate the role of alignment, the concepts of organizational strategy and purchasing strategy have to be briefly elaborated upon first.

2.2.1.2 An organizational strategy is concerned with developing distinct competencies and competitive advantages

Hesping and Schiele (2015, p. 139) developed an extended framework (Figure 5), which offers a complete, hierarchical analysis of strategy development in purchasing. From this figure, it can be deduced that purchasing performs a vital role in executing the organizational strategy. The next paragraph will briefly elaborate on the specifics of level 1, the 'Firm strategy'. In this study 'firm' is considered as 'organization', since the term firm is more related to manufacturers instead of healthcare organizations.

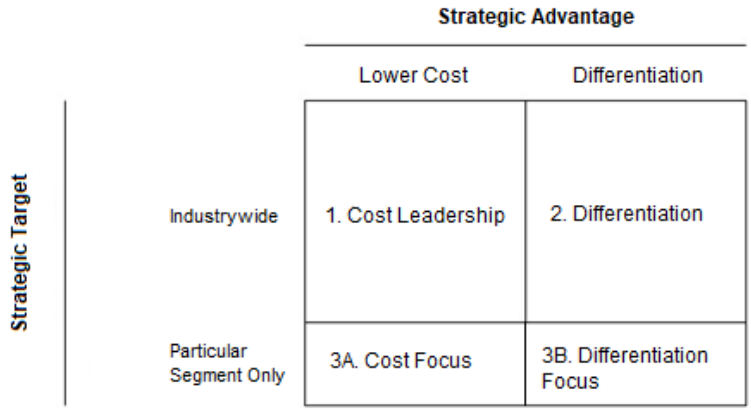
Figure 5 Five levels of strategy development in purchasing. Source: Hesping and Schiele (2015, p. 139)



A competitive advantage is what makes an organization unique and better compared to its competitors. The organizational strategy addresses two questions according to (Porter, 1989, p. 234): 1) What businesses should the corporation be in? and; 2) How should the organizational office manage the array of business units? The "*firm strategy is what makes the corporate whole add up to more than the sum of its business unit parts*" (Porter, 1989, p. 234). Porter (1989, p. 236) addresses that any organizational strategy has to be built on several premises to be successful, namely (1) competition occurs at the business unit level, (2) diversification inevitably adds costs and constraints to business units, and (3)

shareholders can readily diversify themselves. One way to be better than your competitors is by forming a competitive organizational strategy (Porter, 1985, p. 12). This strategy drives an actor to compete as a cost leader, differentiator, or a focused provider (See figure 6). All quadrants of the figure include several activities to pursue that strategy segment. For example, whenever an organization sets out to become the lowest-cost producer in the industry, it is operating in the cost leadership segment. Activities to pursue this segment may include economies of scale, proprietary technology, and preferential access to raw materials, and other factors.

Figure 6 Forming a competitive firm strategy



After developing and setting the organizational strategy, the next hierarchical strategic step is by elaborating on the functional strategy level (Hesping & Schiele, 2015, p. 139). The next paragraph will discuss different purchasing strategies.

2.2.1.3 A purchasing strategy is a long-term plan to cost-effectively acquire the necessary supplies

The purchasing strategy entails three vertical levels of strategy, namely: 1) category strategy; 2) supplier strategies; and 3) sourcing levers (Hesping & Schiele, 2015, p. 139). Each of these three strategies will be briefly discussed.

To define a category strategy, it is advisable to have systematic classifications to help to define and visualize the different categories (Lilliecreutz & Ydreskog, 1999, p. 66). One of the most commonly used tools for categorization was developed by Kraljic (1983, p. 109). Kraljic proposed a matrix that classifies items according to their profit impact and supply risk, that can be used within a purchasing department to deal with a context of an organization. This matrix has become the standard in models of purchasing categories (Gelderman & Van Weele, 2005, p. 20; Handfield, Monczka, Giunipero, & Patterson, 2015,

p. 8). According to Kraljic (1983, pp. 111-112), the strategy of an organization depends on two factors: (1) profit impact and (2) supply risk. Each quadrant of the Kraljic matrix suggests a sourcing strategy which in turn dictates a related sourcing or supply structure (Handfield et al., 2011, p. 8).

The sourcing levers are the third level of purchasing strategies and describe tactics to achieve sourcing targets for diverse categories of materials or services. Hesping and Schiele (2016, p. 475) state that "*Most purchasers are confronted with the question about how to achieve yearly cost-saving targets. To address this, sourcing levers provide a checklist of possible cost savings approaches*". This could be regarded as the last phase of pursuing strategy alignment. In other words, it could be the case that with the top-down approach it seems that there is an alignment of strategies. However, on an operational level, this alignment may be lacking. Therefore, sourcing levers provide options to test the operational execution of the strategic alignment. Hesping and Schiele (2016, pp. 484-485) state that there are seven sourcing levers, namely: volume bundling, price evaluations, an extension of the supply base, product optimization, process optimization, optimization of the supply relationship, and category-spanning optimization. A description of each lever is provided in Appendix A.

One implication Baier et al. (2008, p. 36) stated is the fact that deriving competitive priorities are not unidirectional, such as a top-down approach, and can be bidirectional. Therefore, the link between the two hierarchical levels should be examined in depth. The next section will elaborate further on the concept of strategic alignment.

2.2.2 Strategic alignment is the link between different levels of strategy

2.2.2.1 Strategic alignment can be distinguished into internal, external, vertical, and horizontal alignment

Wadström (2019, pp. 44-45) distinguished two dimensions of strategic alignment, namely external and internal alignment. External alignment consists of the fit between the environment and the business strategy. Internal alignment focuses on the consistency of the factors within the organization. Sisco and Wong (2008, p. 5) stated that internal alignment is defined as "*the set of commitments, strategies, policies, systems, and behaviors that support integrated customer decision making based on suppliers' commercial and ethical commitment and performance*".

Watts et al. (1995, p. 7) distinguished the dimensions of horizontal and vertical alignment. Horizontal alignment aligns different functions and/or strategies between one of the

hierarchical levels with each other. An example could be the collaboration between the purchasing function and the marketing function. Vertical alignment aligns the separate functional strategies, such as the purchasing strategies with the organizational strategy. However, vertical alignment can also be present between the lower hierarchical levels. An example could be that the strategies for the suppliers are aligned with some of the internal sourcing levers. This could be in the form of the sourcing lever 'product optimization' with a supplier strategy focusing on innovation. Nevertheless, since the focus of this study is on the alignment between the purchasing strategy and the organizational strategy, the next section will elaborate further on vertical strategic alignment between these two layers.

Multiple definitions for alignment are provided in the paragraphs above. Appendix B provides an overview of all definitions, key concepts, and references of these definitions. When these key terms are combined and combined for the strategic alignment between purchasing and the organizational strategy the following definition can be distilled: *A series of steps that include strategies, policies, systems, and behaviors that coordinates and arranges the purchasing strategy in the best way to support the goals and objectives of the organization in the long-term.*

2.2.2.2 The purchasing function can support organizational goals through four stages

Both Reck and Long (1988, p. 2) and Handfield et al. (2011, p. 8) argue that the purchasing functions can support the organizational strategy through four stages (See figure 7) of development, namely:

1. Passive; Purchasing function has no strategic direction and primarily reacts to requests from other functions.
2. Independent; Purchasing function adopts the latest purchasing techniques and practices, but its strategic direction is independent of the organization's competitive strategy.
3. Supportive; Purchasing function supports the organization's competitive strategy by adopting purchasing techniques and products, which strengthen the organization's competitive position.
4. Integrative purchasing; Purchasing's strategy is fully integrated into the organization's competitive strategy and constitutes part of an integrated effort among functional peers to formulate and implement a strategic plan.

Figure 7 Stages of the purchasing function in supporting the organizational strategy

Within both the supportive stage as the integrative stage, the purchasing function is supporting the organizational strategy. Whenever the purchasing function is in one of these two stages, it can be concluded that there is a certain degree of vertical strategic alignment. The next section will elaborate on how such alignment is achieved.

2.2.2.3 Vertical alignment is achieved by organizational facilitators and facilitators specifically related to the purchasing function

The organizational facilitators are split into several factors. According to Narasimhan and Das (2001, p. 596) the presence of purchasing, like purchasers, in the strategic decision-making process is an imperative requirement to reach strategic alignment of the purchasing function with the business strategy. If this statement is converted into more specific activities, this would mean that the purchasing function is represented within top-level management and that measurement systems are based on the competitive goals of the organization. Baier et al. (2008, pp. 46-47) confirmed this statement and added that the Chief Procurement Officer (CPO) should even be included in strategic planning to get the most value out of the purchasing function. Schiele (2007, p. 274) confirms these statements; he developed a maturity model that describes several—auditable—stages an organization is expected to go through in its quest for greater sophistication. A more mature purchasing function has a better chance to achieve substantial results than a basic purchasing function. One of the dimensions in the model is strategic integration, which addresses the importance of having the purchasing director present in board meetings. Secondly, the model addresses the importance of having purchasing presence within the strategic decision-making process.

Moreover, CPOs can also make an impact on vertical alignment, as they need to address the competitive priorities of the organization and prioritize them so that the most rewarding activities come first (Baier et al., 2008, p. 47). Handfield et al. (2015, p. 12) also mentioned the importance of common goals between the purchasing function and overall organizational goals. They stated that aligned measuring systems lead to an increase in vertical alignment.

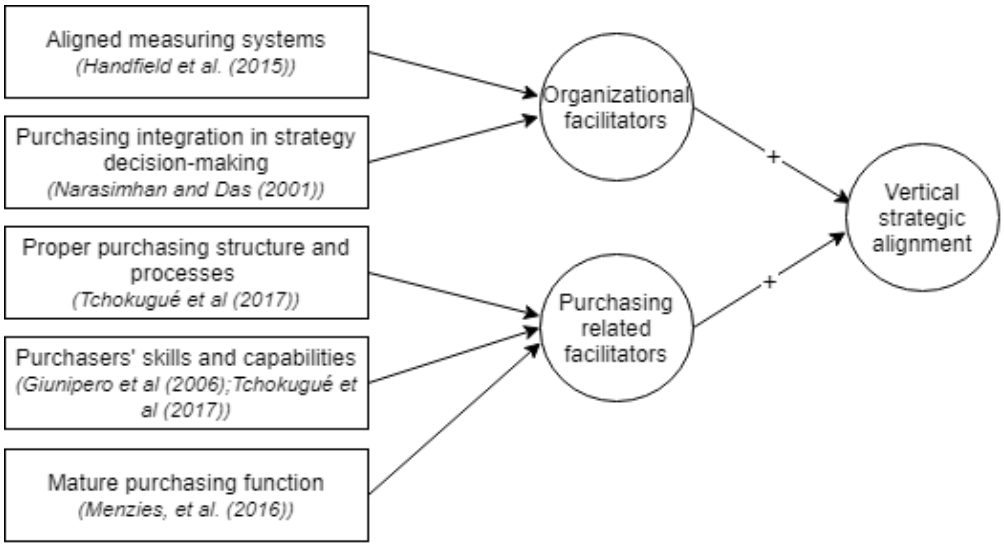
Secondly, the facilitators specifically related to the purchasing function are also split up into several factors. Besides integration within the purchasing process, the purchasing function should have the correct basis. This means it has a proper structure and processes to

make the purchasing strategy support the overall strategy (Tchokogué, Nollet, & Robineau, 2017, p. 112). According to the maturity model of Schiele (2007, p. 284), this is regarded as the organizational structure dimension in which the purchasing function is continuously further developed based on the business strategy. Tchokogué et al. (2017, p. 112) stated that the organizational structure is a factor that influences the impact of purchasing's strategic contribution. Moreover, according to Handfield et al. (2015, p. 12), are proper and clear-cut processes between the purchasing function and its stakeholders and between the purchasing function and its suppliers supporting strategic alignment.

Giunipero, Handfield, and Eltantawy (2006, p. 822) state achieving vertical strategic alignment has to do with the skills and capabilities of the purchasing managers, which is regarded as something you learn to do. Tchokogué et al. (2017, p. 112) confirmed this statement and also added that it has to do with the capabilities of the purchasing managers, which is regarded as something that can be trained and learned in a specific context. Whenever purchasers have a proper understanding of both the purchasing strategies and the organizational strategy, they are more capable of handling in such a way that alignment will be present.

According to van Weele, Rozemeijer, and Weggeman (2003, p. 7), procurement maturity is defined as '*the level of professionalism in the purchasing function'*. Whenever a purchasing function is considered mature, they are more able to provide impact perceived as Valuable, Rare, Inimitable, and Non-Substitutable by stakeholders, decision-makers, and executives. Secondly, mature purchasing functions are more included in strategic plans (Menzies, Meehan, & Michaelides, 2016, p. 4). In other words, mature purchasing functions are expected to have more vertical strategic alignment. Figure 8 presents the factors leading to vertical strategy alignment, based on the literature above.

Figure 8 Factors leading to vertical strategic alignment.



2.2.3 There are challenges and opportunities with vertical alignment in healthcare organizations

2.2.3.1 Healthcare organizations can have certain challenges with pursuing vertical alignment

In many cases, the tactical or operational policies and plans are developed independently and they may conflict with the organization's competitive strategy. In some cases, operating policies are initially developed in synchronization with the organization's strategic plans, but as conditions change, the operating policies are not always sufficiently updated. As a result, some operating policies no longer support the organizational strategic plans. Therefore, it is important to review and update operating policies and procedures as strategic priorities may change over time (Watts et al., 1995, p. 8). Many leaders hesitate at the opportunity for positive but difficult change because of the unrelenting pressure for short-term results. The penalty is unsustainable performance and an uncertain future. According to Trevor and Varcoe (2017, p. 5), several main challenges arise with the alignment of the business strategy with the operational tasks, namely:

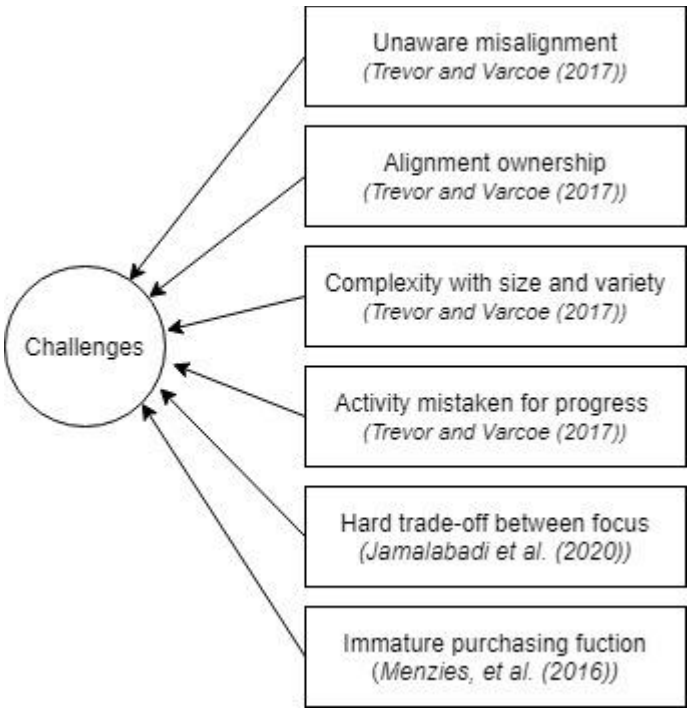
1. *Business leaders are unaware of the risks of misalignment.*
    a. Too much focus on their enterprise's structure (such as an organizational chart)
    b. Main operating units are described as "value"
2. *Nobody "owns" alignment.*
    a. No individual or group is functionally responsible for overseeing the arrangement of the organization from end to end
    b. Individual leaders seek to protect and optimize their domains and components
    c. Modern organizations are too complex for their design and management for one individual

3. *Complexity makes alignment that much harder.*
    a. Organizations have a rapidly changing operating environment
    b. Complexity grows with:
        i. Number of employees
        ii. Variety of business lines
        iii. Variety and expectations of different customer groups
        iv. Geographical dispersal
4. *Activity is mistaken for progress.*
    a. Day-to-day business gets in the way of in-depth discussions and tough choices to lead a strategically aligned organization
    b. Idealized vision and understanding of their best selves required

Secondly, the healthcare sector uses the 'Triple Aim'. This concept is an approach to optimize the performance of the health system. This approach states that organizations can pursue three dimensions of performance, namely: 1) the improvement of the health of populations, 2) the enhancement of the patient experience of care, 3) and the reduction of the per capita costs of healthcare (Bodenheimer & Sinsky, 2014, p. 573). But, a recent study from Jamalabadi et al. (2020, p. 626) states that there is no general relationship between cost/price and the quality of care. Therefore, a trade-off between the focus of quality, service, and costs is harder to make within the healthcare sector than within other industries. These factors may potentially complicate the achievement of strategic alignment. For example, this could be an issue whenever a purchasing function has a strong focus on cost reduction, while the organizational strategy has an increased focus on improving quality.

In contrast to the fact that a mature purchasing function can support vertical alignment, it can also be a challenge whenever the purchasing function is immature. In other words, immature purchasing functions have a risk of having less vertical strategic alignment. Figure 9 graphically presents the challenges stated in the literature above.

Figure 9 Challenges with vertical strategy alignment



2.2.3.2 Healthcare organizations can have certain opportunities with pursuing vertical alignment

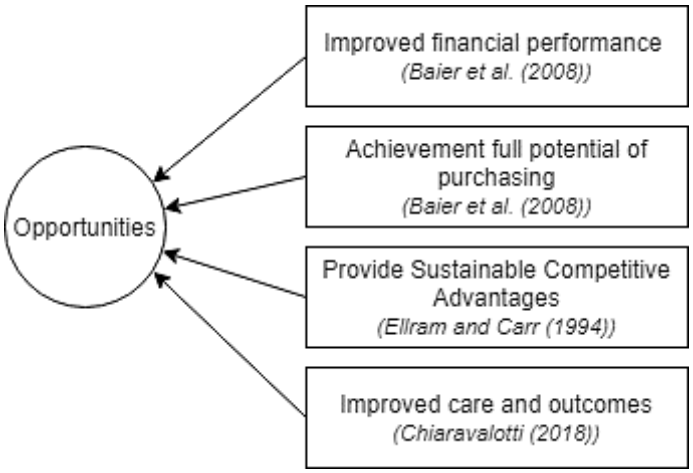
Vertical alignment between purchasing strategies and organizational strategies is necessary to realize an increased purchasing performance. The competitive potential of the purchasing function is highly dependent on the alignment between purchasing strategy and the overall organizational strategy (Watts et al., 1995, pp. 4-5). The purchasing function can only effectively contribute to strategic organizational goals if the purchasing strategy is altered to the organizational strategy (Baier et al., 2008, p. 48). Baier et al. (2008, p. 48) also stated that aligning the purchasing strategy with the organizational strategy is key for financial performance and enables the achievement of the full potential of the purchasing function.

Secondly, strategic procurement is widely considered to be the key to provide SCAs Therefore, whenever the strategic purchasing is aligned with the organizational strategy, more SCAs at an organizational level are to be expected (Ellram & Carr, 1994, p. 13).

Healthcare is characterized as a sector where the physicians have authority and ‘medical power’. However, the increase in participation of doctors in the purchasing of materials may also provide possibilities. Lingg, Merida-Herrera, Wyss, and Durán-Arenas (2017, p. 1) conducted a study in which they showed the importance of the involvement of medical staff in purchasing decisions to improve the quality of healthcare. They found that from the 186 included surgeons 92% stated that clinical practice was “negatively influenced” by

purchasing. Therefore, the involvement of medical staff with purchasing can be beneficial. Some surgeons even doubt the success of purchases made without them and in some cases blame poor patient outcomes on the devices bought without their input (Chiaravalotti, 2018, p. 1). According to Chiaravalotti (2018, p. 1), are "*physicians engaged in decision making more likely to promote their organizations and to be aligned with their missions, likely leading to better care and outcome*". In other words, the involvement of medical staff in strategic purchasing decisions may be beneficial for achieving better care and outcomes. Figure 10 presents a graphical overview of potential opportunities, according to the literature stated above, when a healthcare organization has a strategic alignment between the purchasing strategy and the organizational strategy.

Figure 10 Opportunities with strategic alignment in healthcare

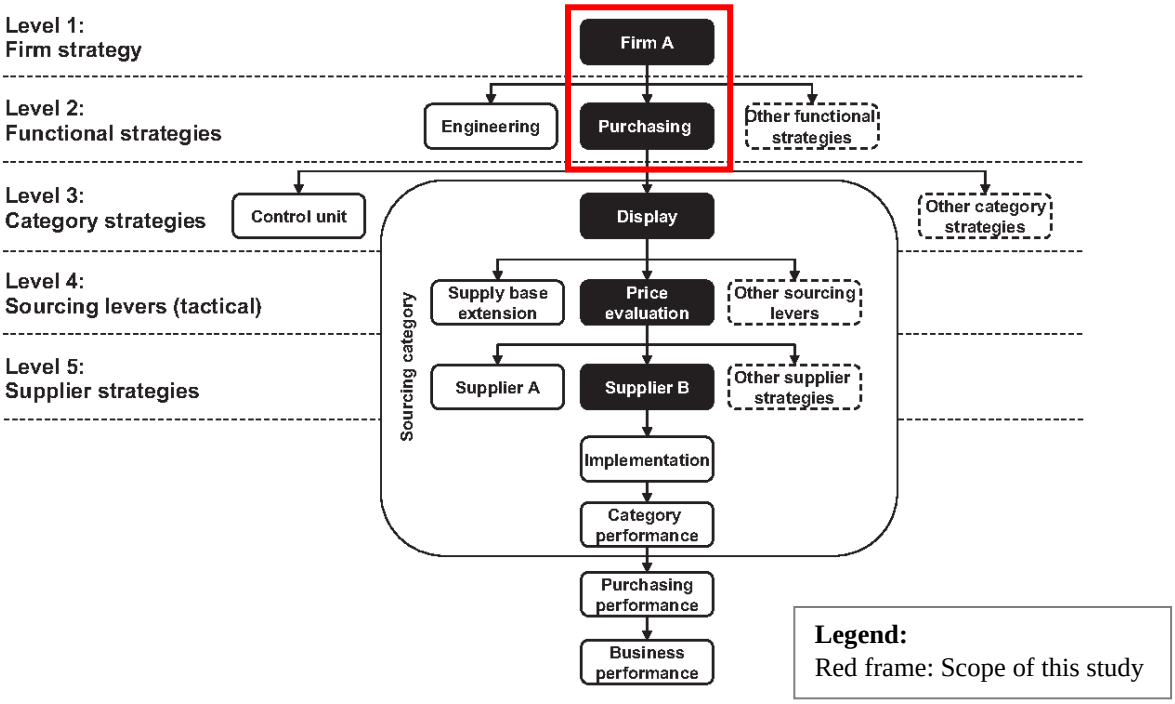


2.3 A theoretical model with a knowledge gap can be constructed based on the literature study

2.3.1 The first two hierarchical levels of an organization will be the scope of the study

As discussed in the paragraphs above, strategic alignment can be present through all vertical levels of figure 11. However, this study will focus on the alignment between the organizational strategy (level 1) and purchasing strategy (level 2), which is indicated with the red frame.

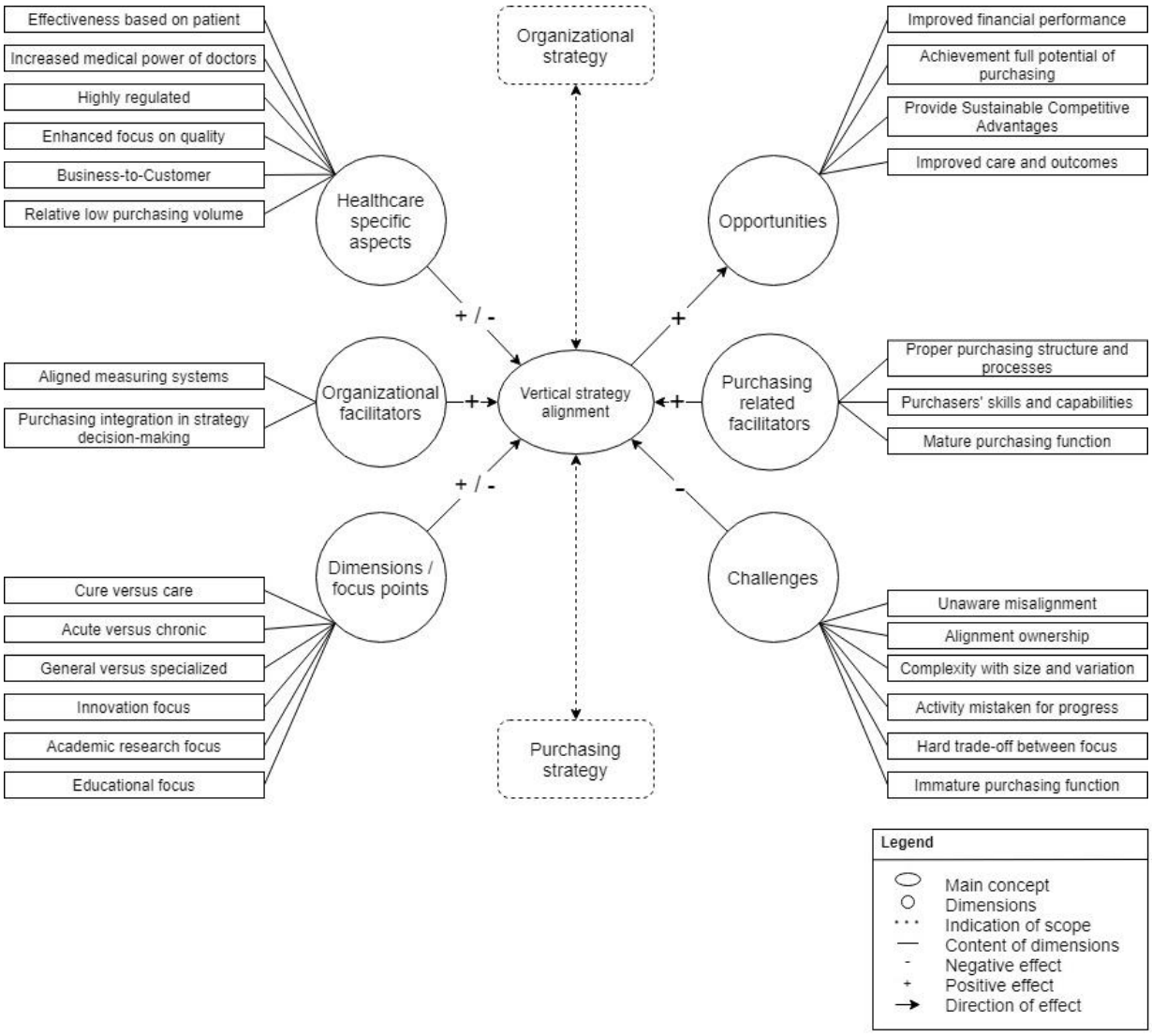
Figure 11 Scope of the study. Image source: (Hesping & Schiele, 2015, p. 139)



2.3.2 The found aspects and relations among these aspects can be graphically presented as the research model

When all separate tables and models of each segment are combined into one cohesive model, figure 12 is formed. This model graphically represents the content that will be examined and questioned with the respondents. As shown in the previous paragraphs, each circle represents several aspects. However, it is unknown what direction and dynamics the effect of the healthcare-specific aspects will have on the vertical strategic alignment. Therefore, this relation is presented as a plus with a minus (+ / -). The organizational strategy and purchasing strategy are presented with a dotted line. This indicates that vertical strategic alignment will be examined between these two hierarchical layers. In other words, these rounded squares are merely for indication of the scope. A simplified research model is presented in Appendix C.

Figure 12 Research model



Chapter 3. Research methodology: qualitative and quantitative research for validating research model

3.1 Research design: non-experimental identification of relevant aspects

3.1.1 Multiple organizations are assigned as cases and are compared to find differences

Within academic research the researcher has many options to choose from for the research method. These methods are often distinguished between qualitative and quantitative research and experimental and non-experimental methods. In both cases, research is conducted empirical, which is based on 'observation, direct or indirect, or in other words, on experience' (Walliman, 2010, p. 22). Researchers use this empirical approach to avoid misleading results and poor interpretations.

The fundamental difference between experimental and non-experimental rests in the use of manipulation or treatment. An experimental design was not suitable for this study, due to its nature to manipulate an independent variable. This study focused on the identification of aspects regarding strategic alignment, rather than manipulating specific relations. Therefore, the selected design was non-experimental.

Secondly, the distinction between qualitative and quantitative research had to be made. Quantitative research results are 'presented as "quantities" or numbers, which are usually but not always presented through statistical analysis' (Walliman, 2010, p. 22). Qualitative research results are presented 'primarily through words, most commonly by interviewing people or observing settings and analyzing the data by reviewing interview transcripts and/or field notes' (Walliman, 2010, p. 22). Here the researcher identified themes, allowing them to ask more redefined questions of specific dimensions. Walliman (2010, p. 22) stated that 'the strength of qualitative research is in its ability to provide insights on interpretations, context, and meaning of events, phenomena or identities for those who experience them'. Since this study aimed to investigate the context of strategy alignment, qualitative research is selected as the research method.

Conducting a case study is most suitable for a *"comprehensive, holistic, and in-depth investigation of a complex issue (phenomena, event, situation, organization, program individual or group) in context, where the boundary between the context and issue is unclear and contains many variables"* (Harrison, Birks, Franklin, & Mills, 2017, p. 12). Since the investigation of strategic alignment is a complex issue, using cases can be considered as an

adequate design. Multiple organizations are selected as a case study and compared with each other. The research design and set-up are reviewed and approved by the Behavioral, Management, and Social sciences (BMS) Ethics Committee from the University of Twente.

3.1.2 Other research designs were less suitable for this study

Secondly, observations were not applicable since the focus is on the effects of strategic alignment, rather than the behavior of participants during a relatively short time frame (Hennink, Hutter, & Baily, 2020). Thirdly, focus groups were another possible form, in which usually seven to ten persons per group are engaged. It involves gathering a group of people who are asked about their attitudes regarding a specific theme or topic. A risk with focus groups is the phenomenon of someone 'hijacking' the discussion. This could be someone with an outspoken opinion regarding the subject, removing someone's else possibly relevant opinion. Secondly, analyzing focus groups can be quite hard for the researcher, since there is a possibility that the recording is noisy and/or disorganized. Therefore, the method that provided the highest quality data and most information for this study were personal semi-structured interviews with professionals.

To conclude, a non-experimental and qualitative method on a case study basis is selected as the research method. Semi-structured interviews were selected as the study design.

3.2 Data collection: professionals from healthcare organizations

3.2.1 The population sample consisted of professionals involved with all levels of purchasing

Respondents are approached mainly via internal contacts of the commissioning organization (Supply Value). In addition, the personal network of the researcher is used. The approach was done via email. Within the invitational email, the respondents are asked whether they want to participate in this study, which means a meeting was set for an interview.

The sample for the semi-structured interviews were purchasers, ranging from operational purchasers to managing purchasers or head purchasers. These respondents are selected since they are most involved with the purchasing process, strategy making within the purchasing function. Conducting interviews with respondents from both the operational and tactical purchasing levels as the strategic and managing purchasing level will result in a more holistic overview of the aspects of vertical strategy alignment. This is because multiple disciplines are considered. The respondents came from varying organizations.

3.2.2 A generic hospital, a University Medical Center, an organization for care and nursing homes, and a mental healthcare organization are selected as the case organizations

To compare differences between the organizations, multiple organizations are selected for inclusion. There are three requirements for organizations to be included, namely:

1. The organization should provide healthcare.
2. The organization should have a centralized purchasing department.
3. The organization should have a clearly defined purchasing strategy and organizational strategy.

The following section will provide a brief preliminary description of the included organizations. Due to anonymity reasons, no organizational names or webpage links to the organization are provided.

3.2.2.1 Generic / top-clinical hospital

The first included organization type is a generic and top-clinical hospital. This organization offers all care, even complex care. They offer top-clinical care and in certain areas care that is only offered by academic hospitals. It is a regional hospital that is connected to a network of other regional hospitals. The hospital belongs to one of the biggest non-academic hospitals in The Netherlands. The organization strives for customized care, education, research, training, and expertise.

3.2.2.2 University Medical Center

The second included organization type is a University Medical Center. This organization is one of the biggest university hospitals in the Netherlands. The organization focuses on three core tasks, namely care, education, and research. They provide complex care, base their care on the newest insights, educate medical students, and perform clinical research. They strive for improving the public health in the region, improving both medical as patient experienced outcomes of the provided care, improving the satisfaction of their healthcare professionals, and sustaining or decreasing the costs.

3.2.2.3 Care and nursing homes organization

The third included organization type is an organization that has multiple care and nursing homes. They provide care for both care and nursing (Dutch: verpleging en verzorging) as treatment and rehabilitation. This care is provided at home or one of the care-live-locations. They strive to have the best care close to the patient. To do so, they operate through the values of their own control, together, positive, and inventive.

3.2.2.4 Mental healthcare institution

The fourth organization type is an organization for mental healthcare, forensic healthcare, and elderly care. This organization provides care for a plethora of mental health conditions. They strive for improving the healthcare and wellbeing of their clients and patients in which they aim to improve autonomy, improve personal functioning, improve social participation, and improve quality of life.

3.2.3 Semi-structured interviews and a follow-up questionnaire are used as the data collection method

Invitations are sent to professionals of certain organizations that fulfilled the requirements. Whenever the invitation is accepted, a meeting was set and exploratory semi-structured interviews (Appendix D) are conducted. To minimize the burden of the respondents, the time and place of the interview were selected by the respondent. Since respondents were very likely to be Dutch-speaking respondents, the interview protocol is also translated into Dutch.

3.2.3.1 The interview protocol translated themes from the research model into semi-structured questions

The interview protocol is developed based on the research model. The interviews started with providing information to the respondent. This included explaining the cause and goal of the study (including explaining the research question), informing the respondent of their rights, informing the respondent about the structure of the interview, and finally, asking permission to record the interview for transcribing purposes.

Starting the interview, the respondent is asked whether they think there is a strategic alignment between the purchasing strategy and the organizational strategy. This provided a solid basis where the interviewer can build on. Furthermore, each circle of the model and its relationship with vertical strategic alignment is discussed with the respondent. The sub-dimensions are not mentioned initially to the respondents, since this could result in a 'leading questions and wording bias' (Agee, 2009, p. 444). However, sub-dimensions are suggested later to provide the respondent with more context. Furthermore, several clarifying questions such as "Can you give examples?" and "What do you mean exactly?" provided a more in-depth interview.

3.2.3.2 A follow-up questionnaire is used to provide ratings to the final model

Then, during the second phase, a brief questionnaire is developed and distributed to the sample group to provide ratings to the final model, indicating the weight of the identified aspects. Secondly, the questionnaire provided a few questions about how the respondents think their organization score on the dimensions and focus points discussed in paragraph

2.1.4. This questionnaire is developed with the Qualtrics software. Statements are developed and respondents could respond on a Likert Scale. A Likert scale is a five-point scale that ranges from strongly disagree to strongly agree (Allen & Seaman, 2007, p. 64). The full questionnaire is presented in Appendix E. The questionnaire is distributed via the following link:

https://utwentebs.eu.qualtrics.com/jfe/form/SV_8tVCRZ9WwnmBfa6.

3.3 Data analysis: analyzing the interviews in a structured way

3.3.1 The analysis of the interviews is executed in six steps

The qualitative data analysis process can be described in six steps: 1) Organizing the data; 2) Finding and organizing ideas and concepts; 3) Building overarching themes in the data; 4) Ensuring reliability and validity; 5) Summarizing and exploring possible explanations for findings and; 6) Developing an overview of the final steps (O'Connor & Gibson, 2003, p. 65).

Organizing (1) the data first started with transcribing the interviews, which is a common step in analyzing interviews (O'Connor & Gibson, 2003, p. 64). Secondly, the transcripts are coded with the program ATLAS.ti. Coding is a method for theory generating. Coding is defined as appointing labels to **"**all relevant data that can be brought to bear on a point" (Glaser & Strauss, 1999, p. 101). The coding process had three phases. Open coding, phase one, is about labeling concepts and applying codes from the text. With open coding, the data was broken into discrete parts, called 'codes'. These codes summarize what you read, which are not based on theory but merely on the meaning that emerges from the data. Within this phase, the researcher will not consider the theoretical model, but will merely look at the data in transcripts. This is considered as inductive reasoning. Blair (2015, p. 19) doubts if open coding exists because people are likely to start from their perspective and experience. Therefore, moving back and forward between the phases is expected.

In the second stage of coding, categories referred to as the coded data of the first phase are developed based on the relationship between open codes. Referring these codes to categories is regarded as step two from O'Connor and Gibson (2003, p. 65): (2) Finding and organizing ideas and concepts. Within this phase, the found codes are compared with the research model and questioned whether there is overlap or not.

The last and final phase of the data coding analysis is selective coding. In this phase, one category is appointed as the main category and all other categories are related to this main category (Blair, 2015, p. 18). After the coding process, the selective codes are used to form

categories that form the basis of the qualitative result section. These coding phases are regarded as the third step from O'Connor and Gibson (2003, p. 65): (3) Building overarching themes in the data. Within this phase found categories are appointed to dimensions of the research model or can be appointed as a new dimension. This phase is considered as deductive reasoning.

In the fourth step, the data is checked for reliability and validity. An activity here can be searching for outlying statements from respondents. In other words, if a certain respondent has an opinion or statement that is divergent from the other respondents. It is important that these outliers are examined carefully and explanations are sought (O'Connor & Gibson, 2003, p. 73). Another example of checking reliability and validity is by checking for triangulation. This is regarded as when findings are confirmed from several independent sources, such as different respondents (O'Connor & Gibson, 2003, p. 74).

Then, (5) the findings from the interviews are summarized, an overview of best practices and bottlenecks is developed and then reflected upon. Possible explanations for findings are explored. This reflection is done with the research model, developed in the literature review. A reflection is made whether the found sub-dimensions in the literature are correct or not, whether there are new sub-dimensions found within the study, and whether there are potential inter-correlations between the sub-dimensions can be identified.

Finally, (6) in the last step the research model is finalized based on the initial model from the theory and the conducted interviews. Secondly, an answer to the sub-research questions and the main research question is formulated. These answers are accompanied by a chapter regarding the implications, limitations, and recommendations.

3.3.1 A follow-up questionnaire with the respondents provided relative weights of the found sub-dimensions

To test the model, the follow-up questionnaire is analyzed based on total scores and averages, since only ratings are required. This provided insights into whether a certain sub-dimension has a bigger impact on a dimension. Secondly, a comparison between the organizations is made, since scores are developed to what extent the respondents agree their organization fulfills the dimensions and focus points presented in paragraph 2.1.4.

To find relations between the organizational dimensions and the provided answers on the rankings an analysis is used. Whenever respondents had outspoken scores with the dimensions and focus points, also referred to as a data cluster, their results within the ranking section are compared with other respondents or clusters of respondents.

Furthermore, the ranking of the sub-dimensions provided insights into the importance of these sub-dimensions. However, not every sub-dimension can be resolved or implemented easily. Therefore, recommendations are based on importance versus complexity for resolving or implementing it, which can be graphically presented.

Chapter 4. Results: findings from the data collection

This chapter shows the findings from the data collections. First of all, the numbers and descriptions of the interviews are presented, followed by an overview of what statements are made by the respondents. Secondly, a comparison of the participating organization is presented. Thirdly, the ranking scores from the follow-up questionnaire are presented. Finally, this chapter ends with some additional findings during the study.

4.1 Qualitative findings from the data collection

4.1.1 Description of the respondents

In total, a total of ten interviews is conducted with respondents from varying organizational types. Eight out of ten respondents also filled the follow-up questionnaire. Table 3 provides an overview of all the respondents. The number of the employees is extracted from their organizational websites or via the annual reports from the year 2020.

Table 3 Overview of respondents within this study

Respondent number	Organization type	No. Employees	Role respondent
Respondent 1	Generic and top-clinic hospital	3.590	Purchasing manager
Respondent 2	Generic and top-clinic hospital	3.590	Strategic purchaser
Respondent 3	Generic and top-clinic hospital	3.590	Tactical purchaser
Respondent 4	Generic and top-clinic hospital	3.590	Operational purchaser
Respondent 5	University Medical Centre	13.174	Head purchaser
Respondent 6	University Medical Centre	13.174	Senior purchaser
Respondent 7	Care and nursing homes organization	3.709	Purchasing manager
Respondent 8	Care and nursing homes organization and generic hospital	5.900	Purchasing manager
Respondent 9	Care and nursing homes organization and generic hospital	5.900	Senior purchaser
Respondent 10	Mental healthcare organization	4.300	Purchasing manager

To the ten transcripts, a total of 629 (duplicates included) open codes are appointed. After deleting duplicates and merging codes that had an identical meaning a total of 326 codes are left. By inductive coding, these codes have been inductively assigned to 58 groups. These open codes are deductively categorized into a total of 9 groups. In other words, a mix of inductive and deductive reasoning was used. These 9 groups form the basis for the elaborations on the sub-dimensions from the model presented in Figure 12. Each of the found sub-dimensions is elaborated upon and summarized in a separate table. The complete table of all the found sub-dimensions, included with corresponding respondents, is presented in Appendix F. The dimension of 'healthcare-specific aspects' has changed to 'healthcare-specific challenges', since they all negatively influenced the effect of the achievement of vertical strategy alignment. No real influence was found between the different organization types on the strategic alignment based on the 'Dimensions / Focus points' dimension since (6 of 10) respondents stated that there are limited differences regarding strategy alignment between the dimensions and focus points. Therefore, the 'Dimensions / Focus points' dimension is excluded from the model. Nevertheless, some differences are appointed that could play a small role with strategy alignment, which are elaborated upon later.

4.2 Findings from the interviews

Within this section of the result chapter, a description of the current phase of alignment in healthcare will be made. After that, each of the found sub-dimensions regarding strategy alignment will be elaborated upon briefly. Examples are provided of what respondents stated about the dimension. Finally, a number is provided for how many out of the ten respondents stated that specific sub-dimensions, indicating the 'potential relevance'.

4.2.1 Current phase of alignment in healthcare

Within the interviews, the respondents are asked how they thought about the current status of alignment. 7 out of 10 respondents stated that there is no conscious strategic alignment between the purchasing strategy and the organizational strategy. An example is stated by a respondent: *"Let me begin by saying that between the purchasing strategy and the strategy of the (name company), trying to be somewhat positive, there is little overlap.* Another respondent stated: *"Currently it is more about the care content. We have chosen a difficult moment since we are in the development phase. Currently, there is no strategic plan, people are now developing it".* This does not mean that there is no alignment, it means there is no real alignment defined or appointed. One respondent made a statement that is characterizing the current phase of alignment in healthcare: "*If there would be strategic alignment, it would*

be a lucky shot". Nevertheless, 8 out of 10 respondents stated that the necessity and desire for strategy alignment are known within their purchasing function. Especially when an organization grows in size there is a desire to keep focusing on the alignment of the strategies. The respondents had several reasons why there is currently no conscious strategy alignment. The main reasons were that organizations were updating their purchasing and organizational strategies. An example here was stated by a respondent: *"Currently we are calibrating our strategy and mission of purchasing, which is a strategy from 2012 that actually never have been reviewed"*. Furthermore, respondents stated that they are currently improving the presence of the purchasing function. A respondent made the following statements: *"That is something that we have been actively trying to connect our purchasing policy to the strategic agenda of the organization"*, *"We are starting to realize that we are taking a strategic role within the organization. Which just takes a while"*, and *"We have been busy trying to increase our presence in the organization, that people can find us more easily".*

4.2.2 There are seven general challenges with achieving vertical strategy alignment

The first sub-dimension is *complexity grows with variation and segregation*, which was mentioned by 8 respondents, which is the majority. This means that the bigger the organization is, such as the number of medical specialties, the harder it is to align all strategies with each other. This is supported by the fact that uniformity in the work process is not always present. Especially in a hospital and a UMC, this was mentioned. For example, respondents stated that *"There is a segregated jungle of medical specialties that all operate in their own unique way"* and *"The organization has a lot of variation now. Therefore, it is hard to do purchasing in one uniform way"*.

Secondly, *acknowledging purchasing as strategic*, which was not always the case. This was mentioned by 7 respondents. In most cases, purchasing was positioned as a supporting function. In that sense purchasing is not part of the primary process in healthcare, but merely supporting the care processes. Next to that, the strategic role of purchasing has to be accepted by the organization and the BoD.

Thirdly, a challenge is when the organization is *too busy with daily operations,* which was mentioned by 7 respondents. The strategic agenda of most healthcare organizations are focused on providing the best possible care for the patient. Some organizations noted that they are just swayed by the issues of the day. In addition, due to Corona, some strategic

processes were paused and they were overtaken by current issues. For example, one respondent stated the following: *"Operationally a lot had to be done and therefore there can be less focus on the purchasing policy and improving it. You just get overtaken by the daily practices".* This problem could also be an issue with organizations from other sectors.

Fourthly, next to variation and segregation, *complexity grows with size.* This was stated by 6 respondents. This means that when there are more deciders, it is harder to align all preferences. Besides, if the number of employees is bigger, it is harder to align all the daily operations with the strategic agenda since employees can work in different ways. As an example, one respondent stated the following: *"It is harder due to the size of the organization, there are just fewer short lines between the employees".*

Fifthly, an aspect that is mentioned by 5 respondents is that *no one is responsible for alignment.* Respondents stated that the responsibility to watch over alignment has never been clearly appointed. As a result, there is an unclear role regarding strategy alignment. It was also stated that it would not be enough that an organization has one responsible appointed, but maybe one responsible per department. Regarding the purchasing function, respondents stated that it should be the purchasing manager.

Sixthly, 4 respondents mentioned that an *obsolete purchasing strategy* is a challenge. This obsolescence ranges from two years to ten years. However, they clearly stated that it is merely the document that is obsolete, and that first, the purchasing policy has to be updated before alignment can be achieved. According to respondents, this did not mean that the current purchasing operations did not have alignment, it meant that on paper there was no alignment.

Finally, 3 respondents mentioned that an *immature purchasing function* is a challenge with achieving strategic alignment. This immaturity was defined as no presence with strategic decision making, no collaboration between purchasing roles, no periodic meetings, purchasing located at two different floors, moving blindly in a direction, and too little management information. In addition, the current phase of maturity can influence the desirability to strive for strategic alignment. For example, one respondent stated the following:

> *"I don't think it is a necessary good. It depends on where the organization stands. (…). This depends on maturity. If the organization is progressed with that, it may be useful that everything is connected. But if you are not there yet, it may just be an aim."*

Table 4 provides an overview of the found general challenges with strategy alignment.

Table 4 General challenges with strategy alignment

Theoretical dimension	Found sub-dimension	Stated by respondent number
General challenges	*Complexity grows with variation and segregation*	1, 2, 3, 4, 5, 6, 7, 10
	Acknowledging purchasing as strategic	1, 2, 3, 5, 6, 7, 8
	Too busy with daily operations	1, 3, 4, 5, 6, 9, 10
	Complexity grows with size	3, 4, 5, 6, 7, 10
	No one is responsible for alignment	1, 3, 6, 9, 10
	Obsolete purchasing strategy	4, 6, 8, 10
	Immature purchasing function	1, 3, 4

4.2.3 The are six healthcare-specific challenges with achieving vertical strategy alignment

Next to general challenges for achieving strategic alignment, some challenges are specially appointed to the context of the healthcare sector. These will be elaborated upon below. The first challenge is the *knowledge dependence between purchasers and medical staff,* which was mentioned by 8 respondents. This includes statements such as that the specialists are the users, have the most knowledge about the products, and are responsible for the health of the patient. This means that the purchaser needs the knowledge of the specialists. A respondent stated that

> *"The danger is that I choose for the cheapest option or that is possibly not user-friendly when I don't include them in the decision. (…) That is the danger. That's why you want to include a specialist that has the expertise."*

Secondly, in that sense, the *medical specialist has a dominant role,* which was mentioned by 7 respondents. This is supported by the fact that the specialist often is the project leader that has the authority of the financials. In that sense, the internal customer (specialist) determines 'what happens in an organization'. A respondent stated that:

> *"They are not willing to change to a different supplier. You can also see it as a department that is fully arranged with one supplier, which is nice. But on the contrary, you don't do a clear purchasing process, which can result in missing out on commercial goals".*

The third challenge is that healthcare delivers *patient-centered care*, which was stated by 6 respondents. This means that the patient always comes first. An example was provided by a respondent, namely *"That when an organization strives for sustainability, but this*

sustainability negatively affects the patient, the sustainability idea has to go". This is the result that providing good quality healthcare is often the first goal of a healthcare organization.

This also means that healthcare organizations have an *enhanced focus on quality*, which was mentioned by 5 respondents. This means that the specialist always wants the best products to be used for their patients. An example from a respondent is *"When an organization claims that they aim to offer top-quality care, this means that they also need top-quality products".* This in combination with the aspects of patient-centered care and medical power can result in a more challenging achievement of strategic alignment. Therefore, these sub-dimensions do have some overlap with each other.

Out of the 10 respondents, 4 stated that *Maverick buying is common in healthcare*. This means that internal customers are buying outside of the contracted suppliers by the purchasing function. In that sense, the purchasing function loses control over the spending of the organization. For example, a respondent stated *"That own plans are executed, that are not per se contradicting but could deviate from what is expected on the highest level".*

Finally, 3 out of 10 respondents stated that *change is hard*, especially in healthcare. This is supported by the statement that people are used to work in a certain way. An example was provided by a respondent *"People will only go to work (read: to change) whenever they get personally affected. It is a change culture".* Most of the time change is hard; however, three respondents say that change is especially hard within the healthcare sector since processes are rather viscous. Hospitals were compared with metaphors such as big oil tankers and large ships with big turning circles. Table 5 provides an overview of the found healthcare specific challenges with strategy alignment.

Table 5 Healthcare specific challenges with strategy alignment

Theoretical dimension	Found sub-dimension	Stated by respondent number
Healthcare specific challenges	*Knowledge dependence between the purchaser and medical staff*	1, 2, 3, 4, 5, 6, 8, 10
	Specialist dominant role	1, 3, 4, 5, 6, 8, 9
	Patient-centered care	1, 2, 3, 5, 6, 9
	Enhanced focus on quality	1, 2, 3, 5, 6
	Maverick buying common	5, 7, 9, 10
	Change is hard	1, 2, 8

4.2.4 Organizational related and purchasing related facilitators can be used to achieve vertical strategic alignment

This dimension is split up into two separate dimensions, namely the organizational related facilitators and the purchasing-related facilitators. For each one, multiple sub-dimensions are identified with the interviews, which are presented below.

4.2.4.1 Purchasing related facilitators

The first stated sub-dimension here is the *integration between purchasers, medical staff heads, and BoD*. This was stated by 8 respondents, which is the gross of the respondents. This means that when these three parties increasingly collaborate, it becomes easier to translate organizational goals to purchasing and the preferences of the medical departments. This can be done by for example having periodic meetings, discussing what is on the strategic agenda and how that could fit in daily operations. One of the purchasers gave the following example *"Those frameworks would help. If the BoD states that 'these are important focus points', then it would be easier to go into a discussion with the internal customer".* Next to that, this sub-dimension means purchasing is represented at the organizational strategy decision-making process, by for example including the purchasing manager in the management team or BoD. This sub-dimension has overlap with the '*Knowledge dependence between the purchaser and medical staff',* however here the role of the BoD is explicitly included.

Secondly, *an annual measurement and calibration of alignment.* This was stated by 7 respondents. This could help with providing insights into what benefits striving for alignments has brought to the organization and continuing the calibration of both strategies to maintain this alignment. To support this measurement, both parties should work with the same measurement systems and performance indicators. An example was given by a respondent: *"If you talk about reducing the footprint with sustainability, then you would like to report from the purchasing department what we did to achieve that, what are our results regarding sustainability.*

Finally, *proper set-up of purchasing structure and processes* was stated by 7 respondents. According to respondents, this includes both basic structure aspects such as having the purchasing department located centralized and having the right capacity as a clearly defined purchasing process and sufficient management information.

4.2.4.2 Organizational related facilitators

The first found sub-dimension is *awareness and involvement*. This was stated by 7 respondents. Respondents stated that this subject should first come to the attention of employees, by for example showing the potential benefits. Furthermore, it depends on the awareness that the purchasing manager has for the subject. Next, when awareness is present, it requires a strong involvement of the employees to strive for alignment. This can be done by stimulating them to do so or when people are affected personally. One respondent stated the following: *"The strategies can be really attractive, however if the people do not support it, then you can just quit".*

The second one is *more explicit organizational goals*, which was mentioned by 4 respondents. This seems rather obvious; however, container concepts are present often in organizational goals. This means that there is a lack of focus and clarity from the BoD. As a result, it may be hard for the purchasing function to translate these organizational goals into functional goals. One respondent stated that *"All organizations want to do good. But I think, then be more on top of it. What are really your goals? And don't use container concepts. Try to be way more specific".*

The final one is *aligning preferences specialists with organizational goals.* This was stated by 2 respondents. Since specialists often have preferences and the best knowledge of what is best for the patient, it can be beneficial to start with aligning the preferences of the medical specialist with the organizational goals. Table 6 provides an overview of the found facilitating aspects for achieving strategy alignment.

Table 6 Achieving strategy alignment

Theoretical dimension	Found sub-dimension	Stated by respondent number
Purchasing related facilitators	*Integration purchasers medical staff heads, and BoD*	1, 4, 5, 6, 7, 8, 9, 10
	Annual measurement and calibration of alignment	2, 3, 4, 6, 7, 9, 10
	Proper set-up purchasing structure and processes	2, 3, 4, 6, 7, 9, 10
Organizational facilitators	*Awareness and involvement*	1, 2, 4, 5, 7, 8, 10
	Explicit organizational goals	5, 6, 8, 9
	Aligning preferences medical specialists with organizational goals	8, 9

4.2.5 Several opportunities can be derived from vertical strategy alignment

Finally, respondents were asked what they thought opportunities or benefits were when their organization would have a strategic alignment between the organizational strategy and the purchasing strategy. The question was clarified by asking what would change when there would be a strategic alignment between the two strategies.

The first opportunity would be that *purchasing is more in control*, which was mentioned by 6 respondents. Respondents defined it as the ability to create frameworks to fall back to, the ability to deviate for something, more involvement in large investment processes, more in control when something urgent happens, and that purchasing receives more importance from the organization.

Secondly, that it could *increase professionality*, which was mentioned by 5 respondents. This was defined by the respondents as better guidance in the purchasing process, a more professional approach than is expected from the purchasing function, better collaboration, and more alignment with demand from internal customers.

Thirdly, 4 respondents stated that alignment would *increase purchasing's financial performances*. This was supported by the fact that if there is alignment purchasing is acting less ad hoc and working more long-term oriented, a better balance between supporting care process and achieving commercial goals, a better insight of relevant contracts, and better outsourcing.

Fourthly, 3 respondents stated that it could lead to the *support of sustainable purchasing.* This was grounded for multiple reasons. First, many organizations have sustainability as an organizational aim and strategic alignment should help achieve that sustainability. Secondly, purchasing operates more sustainably since everybody is working universally for a common goal. Next to that, it should lead to more efficiency, when there is less 'internal selling' and more collaboration with internal customers.

Finally, it could lead to *better care,* which was stated mentioned by 2 respondents. A respondent stated the following about what happens when there is more alignment *"Then we spent the money at the right place. If we execute more strategic collaborations with our suppliers, the quality of care will increase".* However, also one respondent thought that better care due to strategy alignment would be one step too far. Therefore, quantifying this in the next section will provide better insights into this aspect. Table 7 provides an overview of the found opportunities that can be derived from strategy alignment.

Table 7 Opportunities derived from strategy alignment

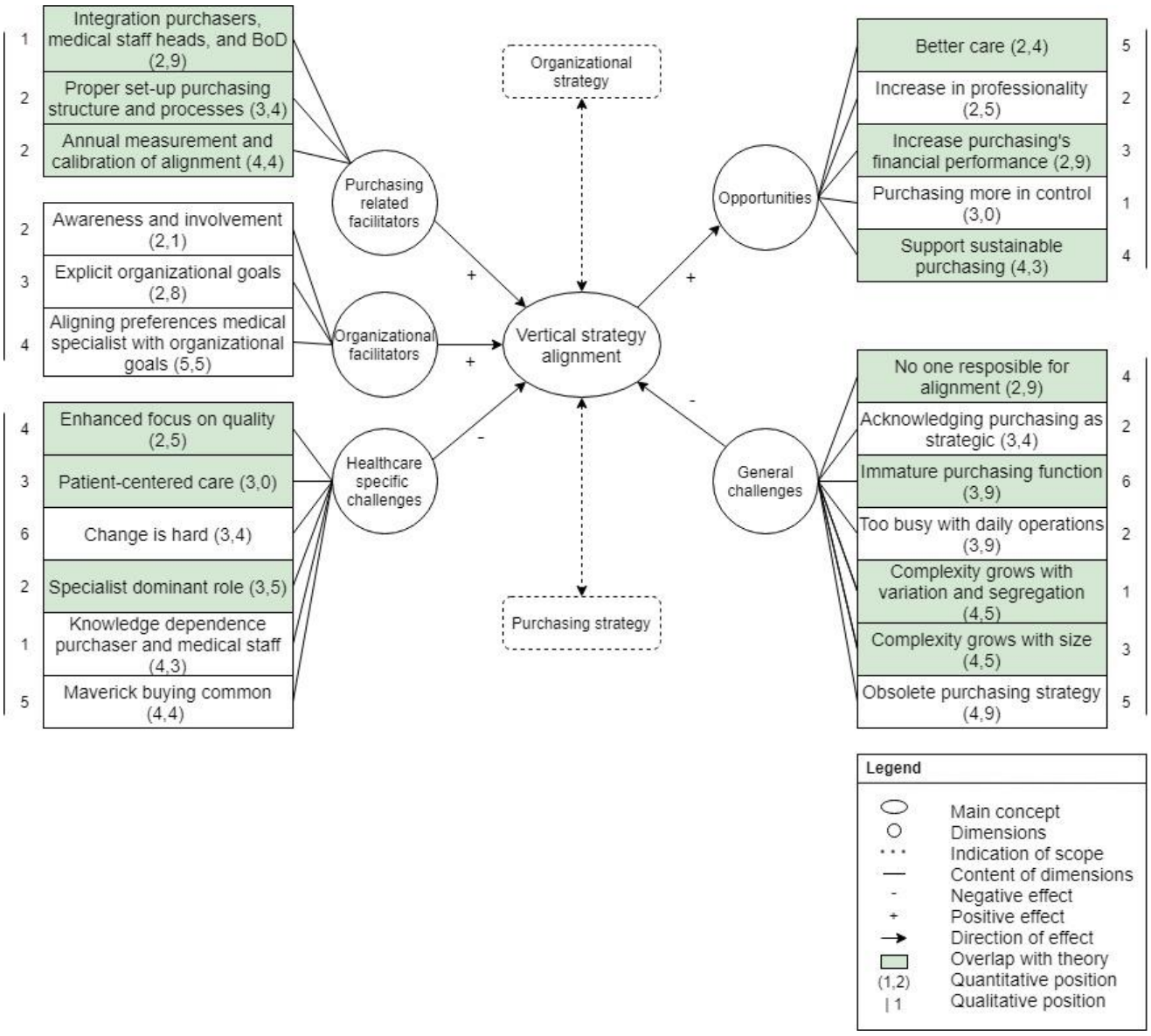
Theoretical dimension	Found sub-dimension	Stated by respondent number
Opportunities	*Purchasing more in control*	5, 6, 7, 8, 9, 10
	Increase in professionality	2, 5, 7, 9, 10
	Increase purchasing's financial performance	3, 8, 9, 10
	Support sustainable purchasing	4, 6, 7
	Better care	1, 10

4.3 The found sub-dimensions can be ranked in a certain order

4.3.1 A model can be developed that graphically presents the results

Besides the frequencies of how many respondents stated a certain sub-dimension, the model is tested quantitatively with a follow-up questionnaire to provide rankings to the aspects. This gives insights into the proper weights of the found sub-dimensions. With these weights, a final model can be developed. This model shows a numeric weight that a certain sub-dimension has in comparison with other sub-dimensions from that dimension. This model is presented in Figure 13. The numbers presented after the sub-dimension indicate the weight of the sub-dimension, based on how many possible answers there are. In other words, if there are five options, the values range from one to five. The lower the value (closer to 1), the higher the sub-dimension was positioned by the respondents, thus the more impact that sub-dimension has. These findings are based on the results from eight follow-up questionnaires. Whenever a sub-dimension has a green shading, this sub-dimension is also found in the literature study. To indicate which position the sub-dimensions have based on the interviews, numbers are presented on the outer sides of the model. This shows any discrepancies between the qualitative and quantitative testing results. In some cases, sub-dimensions have the same qualitative position as other sub-dimensions. This means they were mentioned the same number of times, thus share the same position.

Figure 13 Final model based on quantitative and qualitative rankings



4.3.2 There are discrepancies between the qualitative and quantitative findings

There are some differences between the qualitative and quantitative findings. With the qualitative findings, the potential relevance was indicated by stating the number of respondents that stated that certain sub-dimension during the interviews. However, there are some discrepancies between the ratings of the qualitative 'potential relevance' and the found quantitative weights. The qualitative findings suggest that the *knowledge dependence of the purchaser and the medical staff* has the highest potential relevance. However, with quantitative measurements, this sub-dimension was rated as fifth. On the contrary, *Change is hard* was placed at the bottom with the qualitative measurement, but third with the quantitative measurement.

The same applies to *Better care* which was placed at the bottom with the qualitative measurement but at the top with the quantitative measurement. This sub-dimension scored a 2,4 on a five-point scale, which means many respondents ranked this as the most important one.

Complexity grows with variation and segregation was placed at the top with the qualitative measurement but is placed as fifth with the quantitative measurement. The sub-dimension of *No one is responsible for alignment* scored a 2,9, was scored as the most important challenge with the achievement of strategic alignment. Despite that this sub-dimension was placed fourth with the qualitative measurement.

4.4 Additional findings during data collection

4.4.1 Influence of qualitative characteristics of organizations

A difference that was stated is that the purchasing needs and products do differ between the types of organizations. This is the result of the fact the target group of the organizations differs. For example, patients in a nursing home have different purchasing needs (e.g., medical supplies) than patients in a hospital that offer complex care. Furthermore, it was stated that it could be more necessary to strive for alignment when an organization grows in size and that striving for alignment in a 'small' organization is less beneficial.

Next to that, there were some specific aspects for some organization types that could also have some influence on strategy alignment but weren't defined properly enough to be included in the model. An example is a fact that UMCs are tender obliged, which could result in fewer pre-selected choices from specialists. Secondly, in hospitals partnerships (Dutch: maatschappen) create other dynamics, since they define their budgets and have a lot of medical power. Finally, care and nursing home organizations require more involvement with their patients and therefore need more purchasing freedom and potentially allowing more Maverick buying.

Despite that these aspects suggest that there are differences with alignment between the healthcare organization types, this study could not conclude that there are outstanding differences with organization types regarding strategy alignment. A respondent stated the following: *"In the end it does not matter what kind of organization you are, aligning your goals with purchasing will stay the same".* Another respondent stated the following: *"My first reaction would be no, if it differs. Because in every organization the purchasing strategy has to be aligned with the organizational strategy".*

4.4.2 Quantitative dimensions and focus points of the organization do not influence the ranking of sub-dimensions

Within the follow-up questionnaire, the respondents characterized their organizations according to the dimensions and focus points. Table 8 presents the average scores the organizations provided on the dimensions and focus points. The average score indicates where on average the organizations position themselves between the dimensions. The table shows that on average the organization is merely on the cure side and providing specialistic care. However, some outliers were present.

Table 8 Average scores of dimensions and focus points

	Description	Avg. score
Dimension	Cure (1) vs Care (5)	2,0
	Acute (1) vs Chronic (5)	2,5
	Generic (1) vs Specialistic (5)	3,8
Focus points	No innovation (1) vs Much innovation (5)	3,3
	No academic research (1) vs Much academic research (5)	3,3
	No internal education (1) vs Much internal education (5)	3,3

To analyze whether there are relations between the answers on the dimensions and focus points and the rankings of the sub-dimensions the clusters of answers are compared. Answers are appointed to a cluster when for example several respondents answered a sub-dimension with a (1) where all the other respondents answered with something else. Then the answers of these respondents on the rankings are compared with the other respondents to find potential differences. There were some clusters found with the dimensions and focus points. However, there were no distinctive differences found between the provided answers of the rankings. In other words, there were no relationships found between the scores on the dimensions and focus points and the provided rankings of the sub-dimensions.

4.4.3 Potential conflicts of strategies

In some cases, the organizational strategy can interfere with the purchasing strategy. Respondent two stated that their organization is operating according to the Value-Based Healthcare method. With this method a consideration between value for the patient and healthcare costs. However, the respondent stated that it means paying more for a treatment. Their purchasing function had the aim to have large savings that year. In other words, in that specific case, there was no strategy alignment but also a conflict between the organizational strategy and the purchasing strategy. An example of this conflict is the following:

"In general, it is really hard to link the process between the seller at the insurance company with the purchased parts. So, the link between what I bought, used in which surgeries, and what does it give us in total value. (…) We don't have insights in that from a purchasing perspective."

This statement can be linked to the found sub-dimension of knowledge dependence between purchasing and medical staff since the medical knowledge from the specialist is required of the value that a certain treatment gives to a patient.

4.4.4 Relations between purchasing roles and stated sub-dimensions

To investigate whether there are relations between certain function roles and sub-dimensions an overview of the statements sorted by purchasing group is developed. This data is presented in Appendix G. The role of Purchasing manager is merged with the role of Head purchaser since the assumption can be made that the Head purchaser is also the managing purchaser.

There are several sub-dimensions specifically stated by a certain group and not by the other groups. First, both the purchasing manager group and the senior purchasing group have stated that *explicit organizational goals* are necessary to achieve alignment. An explanation could be that these two groups are more common with thinking on an organizational level and therefore more specifically missing explicit organizational goals. With the same explanation, the sub-dimension of *aligning preferences of medical specialists with organizational goals* is only stated by the purchase manager and the senior manager.

Secondly, the sub-dimension of *Maverick-buying is common* is only stated by the purchase manager and the senior purchaser. An explanation could be that these two roles are more overseeing the whole picture and are more aware of the presence of Maverick-buying.

Thirdly, only the purchasing manager group has stated that it could result in an *improvement of care*. A possible explanation could be that this group is better capable of predicting effects from concepts since they are more experienced.

Fourthly, the statement that *complexity grows with variation and segregation* is represented in all role groups, which indicates that this aspect is experienced or can be imagined by all purchase functions.

Finally, both the purchase manager as the operational purchaser stated that an *obsolete purchasing strategy* is a challenge for alignment.

Chapter 5. Discussions rated to theoretical contributions, managerial implications, limitations of the study, and future research opportunities.

5.1 Discussions rated to theoretical contributions

Within the introduction chapter three theoretical contributions are stated. Namely, research on purchasing and strategy development in healthcare, key elements of strategy alignment in different types of organizations, and strategy alignment in healthcare. The next paragraphs will discuss these contributions according to the findings of this study.

5.1.1 Research on purchasing strategy development in healthcare

Hesping and Schiele (2015, p. 141) state that in the period of 1989 to 2008 research on strategy in purchasing experienced growth and evolved into a maturity period since 2009. The findings of Hesping and Schiele imply that the research field of strategy development in purchasing has yet to receive sufficient study. This study found that some of the organizations were still in the development phase of the purchasing strategy. Secondly, this study found that purchasing in healthcare is currently still a supportive function instead of a function that is acknowledged as strategic. This development phase provides opportunities for more research and therefore confirms that strategy development in healthcare purchasing still needs to receive more study.

5.1.2 Key elements of strategy alignment in different types of organizations

Within this study, a model is developed regarding strategic alignment. Potential relevance is indicated by the number of respondents stated a certain sub-dimension. Later, this relevance is compared with the quantitative weight of a sub-dimension, where some discrepancies are found. In the same model, the distinction between what is stated in literature is made with green shading. What is interesting is that the organizational facilitators are not mentioned within the literature study but apparently, two of the three sub-dimensions (*Awareness and involvement* and *Explicit organizational goals)* have a relatively big weight. However, one of the identified purchasing-related facilitators that were identified in the literature study, namely *Proper purchasing structure and processes* (Tchokogué et al., 2017, p. 112) is confirmed with this study. Sub-dimensions that are not explicitly confirmed within this study are *purchasers' skills and capabilities* (Giunipero et al., 2006, p. 822) and *mature purchasing* function (Menzies et al., 2016). A *mature purchasing function* is confirmed with this study, however, not as purchasing related facilitator but as a challenge when there is immaturity.

This suggests duality, which will be elaborated upon later in this chapter. Within the literature study, it was stated that skills and capabilities from purchasers can help to achieve strategic alignment. However, this study found that it was not a lack of skills or capabilities from purchasing managers that obstructed alignment but it was more about how much attention and effort the purchasing manager wanted to dedicated to strategic alignment.

Furthermore, the found sub-dimension of *Acknowledging purchasing as strategic* is not stated in the literature study. However, after ranking the sub-dimensions with the follow-up questionnaire this sub-dimension is the second most important challenge with achieving strategic alignment. This implies that this sub-dimension does play a reasonable goal with strategy alignment. In addition, the sub-dimension of *No one responsible for alignment* (Trevor & Varcoe, 2017, p. 5) is also stated in the literature study and was found as the most important challenge with the quantitative measurements.

Within the literature study, the sub-dimension of *Activity is mistaken for progress* is identified based on Trevor and Varcoe (2017, p. 5), which means that 'day-to-day business gets in the way of in-depth discussions and tough choices to lead a strategically aligned organization'. This sub-dimension is not specifically mentioned within the result section. However, it has some overlap with the found sub-dimension of *Too busy with daily operations.* The reason to rename it to this sub-dimension is that Trevor and Varcoe (2017, p. 5) also defined it as ''Idealized vision and understanding of their best selves required', which is not always the case since sometimes the organizational strategies were in the development phase. Secondly, the sub-dimensions of *Business leaders are unaware of the risks of misalignment* is identified based on Trevor and Varcoe (2017, p. 5). This sub-dimension is not also specifically mentioned within the result section. However, the main operating units (providing good quality care) are described as "value" and are the primary process. However, whenever purchasing becomes more aligned with the organizational goals, purchasing is recognized to have a role within this primary process.

A sub-dimension from the literature study that has not been found within this study is the *Hard trade-off between focus (Jamalabadi et al., 2020, p. 626).* This is a sub-dimension that has overlap with two found sub-dimensions of this study, namely *Enhanced focus on quality* and *Knowledge dependence of purchaser and medical staff*. Both parties have to come to a consensus on which products offer the best possible care while maintaining an affordable price. In most cases, the medical specialist has the most experience with the products and

can therefore better decide which products are suitable, while the role of purchasing here is to assure that purchases are done within budgets.

Regarding strategy alignment in different types of healthcare organizations, Baier et al. (2008, p. 48) recommended incorporating variables to account for the business environment. Therefore, it was expected that some of the identified sub-dimensions in the literature study would be expected to be found. However, the findings between the different types of healthcare organizations, concerning the dimensions and focus points, are rather marginal. These findings are too vague or divergent and no real conclusions are to be drawn. No relations between focus points of organization and ranking of sub-dimensions were identified. This does not mean there are no differences in alignment between the selected types of healthcare. This means that the selected sample was potentially not big enough to find statistical differences.

5.1.3 Strategy alignment in healthcare

Busse et al. (2019, p. 3) and Babalola (2017, p. 1), among others, identified several aspects that could influence the achievement of strategic alignment within healthcare. Three of the found sub-dimensions of this study are also mentioned in the literature study, namely *specialist dominant role* (Kenny & Adamson, 1992, p. 2), *patient-centered care* (Babalola, 2017, p. 1), and *enhanced focus on quality* (Busse et al., 2019, p. 3). It is quite self-evident that these sub-dimensions are found in both the literature as in practice since medical power has been a concept since the ’90s and with the continuously increasing complexity of care the expertise of the specialist will be required within the purchasing process. Furthermore, since the care for the patient is the primary process within healthcare, the sub-dimensions of *patient-centered care* and *enhanced focus on quality* are also rather obvious to be found.

However, also some healthcare-related sub-dimensions are found that were not identified yet in the literature, such as *knowledge dependence medical staff and purchaser* and *change is hard.* The first sub-dimension of the knowledge dependence could have been expected since it is a result of the sub-dimension of *specialist dominant role* and the increasing complexity of care. Since purchases or investments will only be more difficult to make with the increasing complexity of care, the purchaser and the medical staff will have to collaborate, resulting in a relation with knowledge dependency. That *change is hard*, and especially in the healthcare sector, has also to do with the current phase of the Coronavirus. This resulted in that strategic changes were sometimes postponed. This has also to do with

one of the general challenges: *Too busy with daily operations*, namely providing good quality care.

Some of the sub-dimensions that were identified in the literature study were not found within this study. These were that healthcare is *Highly regulated* (Field, 2008, p. 607) and that strategic alignment should *Provide sustainable competitive advantages* (Ellram & Carr, 1994, p. 13) in healthcare. That healthcare is *Highly regulated* has probably no relation with strategy alignment since these regulations cannot be influenced, they are just there to be followed. The sub-dimension of *Provide sustainable competitive advantages* was probably not mentioned since this is an opportunity that can rise with a strategic purchasing function. However, in this study, it was found that currently purchasing in healthcare is merely a supportive function.

5.2 Managerial implications from the findings of the study

5.2.1 The found sub-dimensions can be presented in a four-quadrant matrix

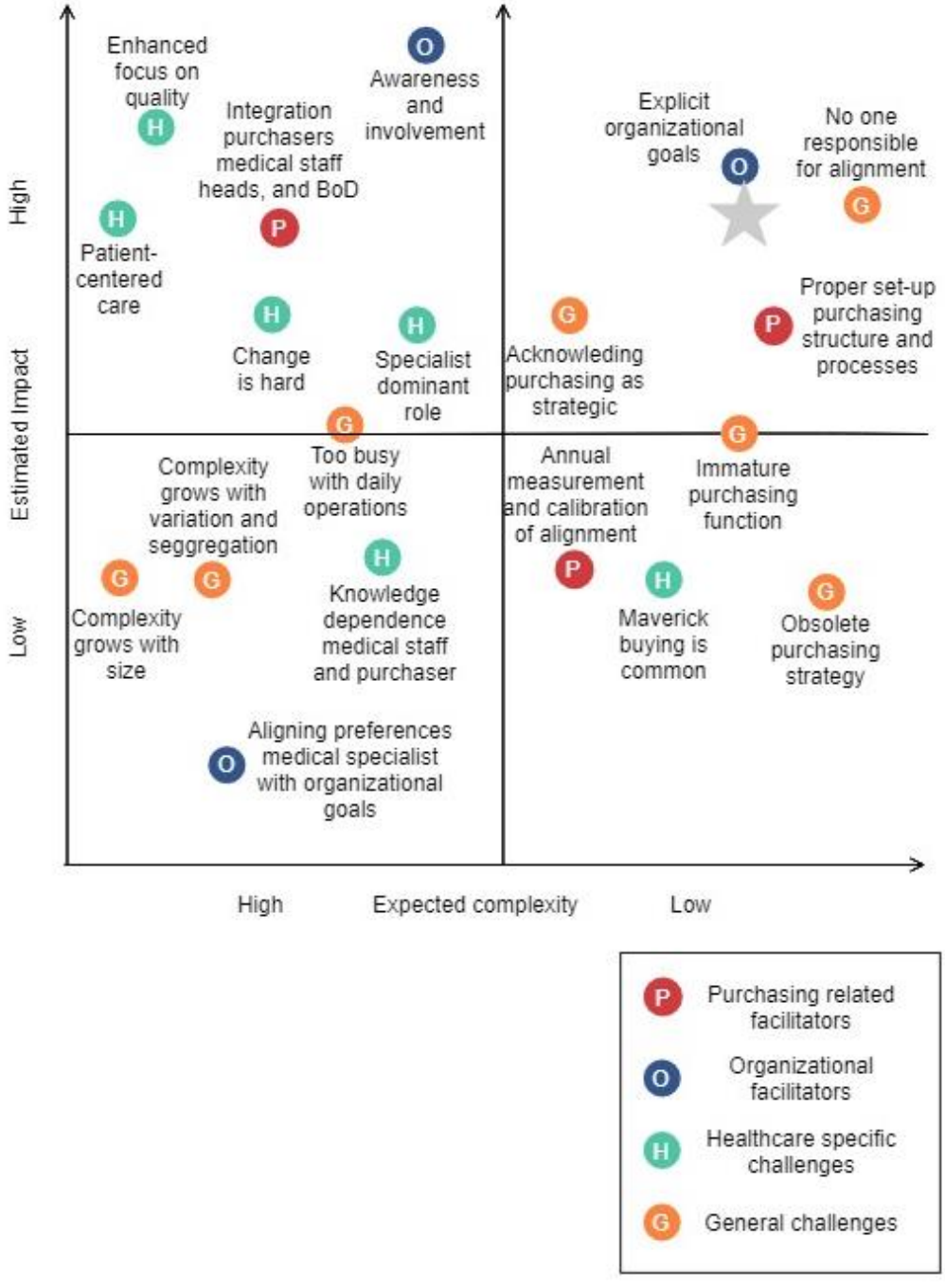
Several potential practical contributions were identified within the introduction. First of all, the findings of this study can support organizations that aim to improve the alignment between the purchasing strategy and the organizational strategy. Two groups of facilitators are identified that can be used to improve the achievement of strategic alignment. Within these groups, weights are provided that give insights into which sub-dimensions have the most importance. However, not all sub-dimensions are easy to implement or resolve.

Therefore, a tool can be developed to provide an overview of the expected complexity on one axis and the estimated impact on the other axis. This graph is based on the Boston Consulting Group matrix. The dimensions of general challenges, healthcare-specific challenges, purchasing-related facilitators, and organizational facilitators will be included in the graph since these dimensions can be resolved or implemented. The dimension of opportunities are potential effects and can therefore not be included in the graph. The more impact a sub-dimension has received via the follow-up questionnaire in paragraph 4.3 the higher the dot is positioned in the matrix. Positioning on the horizontal axis is determined by the personal experiences of the researcher, such as experiences during this master thesis project but also other projects related to the studies of the researcher. Each dot was compared with the surrounding dots and expectations were made where it would be more or less difficult to resolve or implement that specific sub-dimension in comparison with the surrounding ones. Then, the selected horizontal positioning is validated by presenting the matrix to several consultants of the commissioning organization. By validating the

consultants were asked whether one or multiple of the dots should be positioned in a different quadrant. The result was that the dots were positioned in the correct quadrants.

Figure 14 presents the matrix between the expected complexity and the estimated impact on the achievement of vertical strategy alignment between the purchasing strategy and the organizational strategy. This matrix has four quadrants. The matrix can be read as follows: the more a dot is positioned to the right the 'easier' it is to resolve a certain challenge or implement a certain facilitator. The more the dot is positioned to the top the more impact that sub-dimension plays with the achievement of strategic alignment.

Figure 14 Matrix for expected complexity versus estimated impact



5.2.2 The matrix can be interpreted in several ways

The right upper quadrant is marked with a star. Within this quadrant, it is expected that the sub-dimensions have a low complexity to resolve or implement, but with a high impact on strategic alignment. The sub-dimensions positioned in this quadrant are characterized as the 'low hanging fruit'. When an organization strives for strategy alignment, the organization should start investigating these sub-dimensions first.

Therefore, the head recommendations are to first focus on the sub-dimensions from the starred quadrant. The first one is *No one is responsible for alignment.* Respondents stated that one person responsible for the whole organization is not enough. Therefore, it is recommended to have someone responsible per department. Regarding purchasing, this should be the purchasing manager or head purchaser since these two roles are most familiar with the purchasing strategy and the organizational strategy. Appointing someone responsible could be a start. However, actions such as an annual measurement of the result from alignment and potentially calibrating the purchasing strategy should be executed by the one who is responsible. Secondly, there should be a *Proper set-up purchasing structure and processes.* Examples are a centralized purchasing department that is located on one floor and having the right capacity as a clearly defined purchasing process and sufficient management information. The right capacity means employing a sufficient number of employees that have the required skills and knowledge. Management information can be increased by scheduling quarterly meetings where all purchasing functions are informed by the current organizational focus points and how that's translated into the purchasing function. An example is by doing this via an A3-annual plan. Thirdly, organizational can work on more *Explicit organizational goals.* In some cases, organizational goals are formulated with container concepts. Whenever the BoD specifies these concepts more explicitly, it will be easier for the functional levels to translate the organizational strategies to their functional strategies. Fourthly, the organization, including the purchasing function, can put more effort into *Acknowledging purchasing as strategic.* This starts with the acceptance of this role of purchasing by the BoD. Purchasing is not considered as the primary process in healthcare, which is providing care. However, purchasing has an important role, namely assuring the availability of resources. This can be a rather strategic function if due to unavailability care cannot be provided. Nevertheless, whenever purchasing is acknowledged as strategic by for example the BoD and they get more involved with strategic decision making, purchasing can play a role in achieving organizational goals.

Secondly, the bottom-left quadrant are those sub-dimensions that are highly complex to resolve with limited impact on strategic alignment. Therefore, these sub-dimensions are rather inconvenient to resolve or implement. Thirdly, healthcare organizations can make choices whether it is more convenient to first investigate the bottom-right quadrant and then the upper-left quadrant or in the other way around. Since currently there is no one responsible for the alignment and in general healthcare organizations do not have a surplus on employees is more convenient to put effort into the lower-right quadrant first since those sub-dimensions will still support strategy alignment but with less effort. Another way to start with striving for alignment is by starting on the right side of the matrix and work from right to left, instead of considering the impact.

5.2.3 Duality of found sub-dimensions

During this study, a distinction between the dimensions of challenges and facilitators is made. Found sub-dimensions in the interviews are appointed to a specific dimension related to the discussed dimension. For example, a respondent mentioned that '*No one is responsible for alignment'* is a challenge when the respondent was asked what the challenges are with alignment. This sub-dimension is then appointed to the dimension of general challenges. However, these sub-dimensions could potentially also have been answered when the facilitators were discussed. In that sense, solving a challenge can also be seen as a facilitating aspect. In the context of '*No one is responsible for alignment',* reforming this sub-dimension into *'Appointing someone responsible for alignment'* can be considered as a facilitator.

The sample applies to the facilitators; some of them can be reformed into challenges. For example, *'Awareness and involvement'* was found as the facilitator with the highest impact. Therefore, implementing and/or increasing awareness and involvement will increase strategy alignment. However, this can also be considered a challenge. Whenever there is no awareness and involvement it can be challenging to start increasing it.

In other words, there can be duality with the found dimensions. Therefore, starting with only solving the challenges or only implementing the facilitators may not be the most beneficial and is considering both the effort and impact advised.

5.3 Limitations of the study: Several aspects of the study can be improved in future research

This study had several limitations. One of the potential practical contributions of this study was to translate the strategies to the BoD. During the interviews, the respondents were asked to briefly summarize the main points of their purchasing strategy and organizational strategy. This was mainly to provide the interviewer with some background knowledge about the organization that could be used to clarify other questions. However, since these specific purchasing strategies were not compared in-depth with strategy alignment, this practical contribution was one bridge too far for this study. Nevertheless, this study may form the basis for further research on this topic since it provides findings on how to achieve alignment. However, how strategy alignment can be specified to specific purchasing strategies still have to be investigated with further research.

Secondly, the division of the included respondents could also have been improved. Where the general / top-clinical hospital is represented with four respondents is the mental healthcare organization represented by only one respondent and the UMC only by two respondents. This could lead to distorted results for that organization type. In addition, the respondents for the care and nursing home organizations came from two separate organizations. In further research, a sample size that has a division that is divided more into equal proportions should be strived for. If the division is more equal, comparisons between the types of organizations can be made on a more reliable basis.

Thirdly, with this study three inclusion criteria were set up for the case selection. After including certain organizations, it became clear that some of these criteria were not met fully. As an example, some organizations were in the development phase or transition phase of their organization strategy. Furthermore, some organizations had less purchasing maturity than expected, such as an obsolete purchasing strategy or a proper structure. It can be questioned whether these organizations should or should not have been included; however, the network of the commissioning organization and the researcher provided only a certain number of respondents. These interviews were nevertheless valuable since they provided findings regarding the challenges that they face with achieving strategy alignment, which facilitators can be used to achieve strategy alignment, and what could be potential benefits from acquiring strategy alignment.

Furthermore, during the data collection, it was hard to find differences between organization types based on the dimensions and focus points defined in the literature study.

This could be because some of the respondents found it difficult to identify the link between the focus points of their organization and how that could affect strategy alignment. The questions regarding the focus points and dimensions should potentially have been asked differently and should have received more attention in the literature study to properly define the potentially relevant differences

In addition, for some respondents, it was difficult to have a helicopter view about the differences in dimensions and their relations with alignment. This could be the case since people are mainly focused on their own work and found it difficult to discuss on an abstract level of vertical strategy alignment. Therefore, the focus during data collection shifted to prioritize practical challenges and opportunities, since during the interviews more was discussed about these topics.

Within the final model, a ranking has been made based on eight out of ten respondents. The researcher has chosen to only send the follow-up questionnaire to the respondents from the interviews since the concept is rather vague and answering the questionnaire can be quite hard for laymen. However, it would be better if the qualitative model will be tested on a larger scale to find more reliable rankings of the sub-dimensions. For example, the follow-up questionnaire can be sent to a large number of purchasing professionals involved with strategy within different types of healthcare organizations. In addition, no relationships were found between the ranking of the sub-dimensions and the dimensions and focus points. A larger sample size would make a better database for statistical analysis to identify potential relationships here.

During the analysis, comparisons were made by quantification of how many respondents stated certain aspects. However, within this study, the research sample was rather diverse. For example, the hospital type group was represented by four respondents. However, the mental healthcare institution type was only represented by one respondent. Therefore, the sample group was not distributed evenly with the organization types. As a result, real comparisons between the organization types could not have been made.

Finally, there were some discrepancies between the importance of aspects. For example, the sub-dimension of *Better care* was only mentioned by two out of ten respondents. With this study, the quantitative ranking of the sub-dimensions was selected as the guiding method since this explicitly measured the stated sub-dimensions with the respondents. Nevertheless, this suggests that a part of the respondent found it hard to come up with relevant sub-dimensions. This could have many causes, such as incorrectly stated questions by the

researcher or that strategy alignment, in general, is a rather vague and complex concept. These discrepancies suggest that it is an open issue and therefore less reliable. Therefore, further research is needed to validate these findings.

5.4 Future research opportunities

5.4.1 Purchasing volume potentially influences strategy alignment

Within this study, it was found that in general the current role of purchasing in healthcare a supportive function is. In that sense, purchasing is not considered part of the primary process. This is one of the reasons why purchasing is less acknowledged as strategic within healthcare. As presented in the final model, this is a challenge with achieving vertical strategy alignment.

The industry and trade sector can have a purchasing volume of up to 95% - 98% of their total turnover. This means that more money flows through the purchasing function in other sectors than in healthcare. Therefore, in those sectors purchasing has a bigger responsibility for the total organizational turnover. This can result that purchasing receives more acknowledgment as strategic. In other words, a relatively lower purchasing volume as a percentage of total turnover in healthcare can result in less acknowledgment as strategic of the purchasing function. Future research could investigate the relationship between the purchasing volume as a percentage of their total turnover and how much purchasing is acknowledged as strategic. This research should be conducted on a large scale to find statistical evidence that relatively low purchasing volume as a percentage of the total turnover can lead to less acknowledgment as strategic of the purchasing function. This finding would support this study, stating that achieving strategy alignment in healthcare is more complex than in other sectors.

5.4.2 Strategy alignment potentially plays a role through the Kraljiç matrix

An interesting discussion is the overall organization strategy in relation to the Kraljiç matrix. In essence, the organizational strategy contains several aspects of how the organization aims to distinguish from its competitors, such as a differentiator, cost leader, focus provider. However, the Kraljiç matrix is a theory that is commodity classification and product-specific. A question that arises here is: Can the Kraljic matrix and the corresponding strategies be linked to the overall strategy or is Kraljiç (partly) independent from it? In other words, when the Kraljiç matrix is used, is the particular strategy of your company taken into account?

Within large organizations, such as hospitals and UMC's, large investments are made. These investments are often categorized in the strategic quadrant of the Kraljiç matrix since there is a natural scarcity of specialistic equipment. Within this study, it was found that medical staff often have high preferences such as with (large) investments. Therefore, with the supplier selection, pre-selected choices could be made, resulting in an unclear purchasing process. As a result, there is a chance that purchasing will miss their commercial goals or miss out on opportunities to strive for focus points from the organizational goals.

On the contrary, decisions on the organizational strategy level, such as focusing on innovation, can influence the look of the purchaser on the Kraljiç matrix. This is because the required specifications of the product change and that therefore the demand also changes. This means that within the supplier selection the market is asked for innovation, which could result in a different strategic approach from the Kraljiç matrix. This suggests that there is a potential relationship between vertical strategy alignment and the Kraljiç matrix. Future research could investigate whether the link between vertical strategy alignment and the Kraljiç matrix can be made.

Chapter 6. Conclusions: answers to the research questions

The main aim of this study is to conduct a study that explores the role of strategic alignment in healthcare and to develop a model that describes relevant dimensions regarding vertical strategy alignment. Secondly, the goal is to provide an answer to whether strategic alignment should always be pursued.

The research question within this study is: "*What role does vertical strategic alignment between purchasing and organizational strategies have in different types of healthcare organizations?".* Currently, this role is rather marginal, due to the context of healthcare. However, healthcare organizations have the awareness that strategic alignment is desirable and are investigating the potential that strategy alignment can have on their organization.

To provide reasoning for this answer the sub-questions have to be answered. *1) To what extent do different healthcare organizations have strategic alignment?* In general, the majority of the respondents stated that their organization is starting to explore the concept of strategic alignment or simply stating that there is no conscious reconciliation of strategy alignment and it would just be 'a lucky shot'. *2) What aspects influence strategic alignment within healthcare?* Four dimensions are found that influence the achievement of strategy alignment, namely two types of facilitators (positive impact) and two types of challenges (negative impact). Each of the four dimensions has its sub-dimensions. 'Awareness and involvement' were found as the most important facilitators. That no one is responsible for alignment was found as the most important challenge. Three relations are identified between the focus points of an organization and the rating of the sub-dimensions. *3) Are there conflicts between the organizational strategy and purchasing strategy?* In general, there were no major conflicts between the two strategies. At least not to the extent that respondents explicitly mentioned it. However, in some cases, these two strategies can interfere with each other, which raises the question of which strategy has the priority. *4) What effects can strategic alignment have in the healthcare sector?* This study shows that striving for alignment can have several benefits. This ranges from benefits for the purchasing function such as more control and increased financial performance to the improvement of patient care.

To conclude, vertical strategy alignment can be a rather vague concept for many people and can be overlooked quite easily due to daily healthcare practices. Nevertheless, this study found that when some challenges are tackled and people are more dedicated to vertical strategy alignment it can have a considerable role within healthcare.

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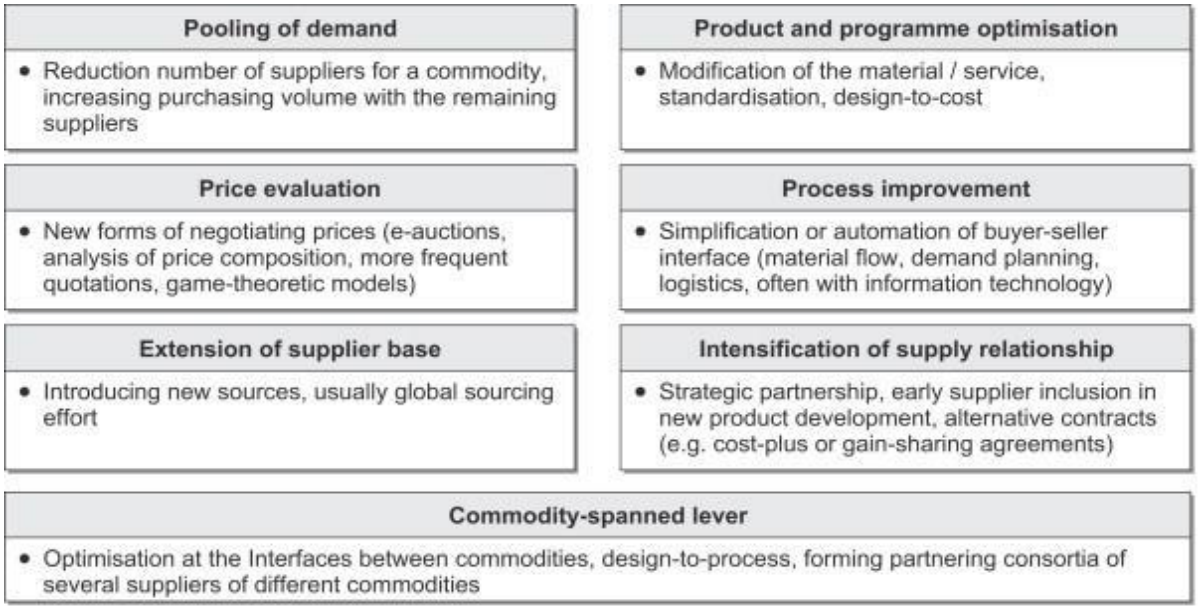
Appendices

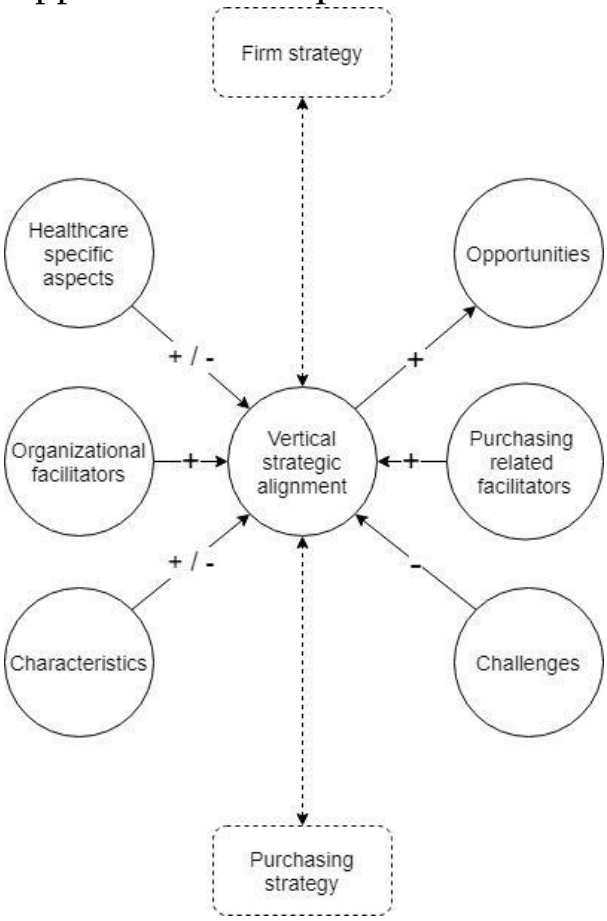
Appendix A. Description of sourcing levers



Appendix B. Table with definitions of alignment

Term	**Definition**	**Key elements**	**Reference**
Strategic alignment	"T*he fit between all elements in a business, including the strategy and organizational design, are arranged in the best way to support the long-term purpose of the business"*	Fit, all elements, arranged, support, long-term, business	Trevor and Varcoe (2016, p. 2)
Strategic purchasing alignment	'A*n internal initiative that concentrates a series of steps allowing the purchasing department to establish a link and coordinate their approaches with other functional areas' individual goals and objectives and with the organization as a whole'*	Initiative, series of steps, link, coordinate, functional areas, goals and objectives, organization	(Rodríguez-Escobar & González-Benito, 2017, p. 1177)
Internal alignment	"T*he set of commitments, strategies, policies, systems, and behaviors that support integrated customer decision making based on suppliers' commercial and ethical commitment and performance*".	Commitments, strategies, policies, systems, behaviors, support, integrated customer decision making	Sisco and Wong (2008, p. 5)
Horizontal alignment	*Aligns different functions and/or strategies between one of the hierarchical levels with each other.*	Aligns, different functions, strategies, hierarchical levels	Watts et al. (1995, p. 7)
Vertical alignment	*Aligns the separate functional strategies, such as the purchasing strategies with the organizational strategy.*	Aligns, separate functional strategies, organizational strategies	Watts et al. (1995, p. 7)

Appendix C. ‘Simplified’ research model



Appendix D. Semi-structured interview protocol

Introduction:

1. Explain reason for interview
2. Inform the respondent about their rights and about the structure of the interview
3. Request for permission to record the interview

RQ: *"What role does vertical strategic alignment between purchasing and organizational strategies have in different types of healthcare organizations?"*

Opening's questions:

1. In what kind of organization do you work, what is your function, and how many years of experience do you have?
2. What do you think is the purchasing strategy of the organization? (Briefly explain definition)
3. What do you think is the organizational strategy of the organization? (Briefly explain definition)

Strategy alignment:

4. Do you think there is strategic alignment between the purchasing strategy and the organizational strategy?
    i. Would this be desirable?
    ii. Is there a conflict or a synchronization between those two strategies?
    iii. How do you think strategy alignment is achieved?

Dimensions / focus points:

5. A) Do you think that the type of the organization (such as a hospital or nursing home) influences the strategy alignment? If yes, how?
   B) Do you think that the focus of the organization (such as innovation or research) influences the strategy alignment? If yes, how?

Challenges:

6. What are the challenges of achieving such a strategy alignment?

Opportunities:

7. What kind of opportunities or benefits do you think that this alignment can offer?

Possible clarifying questions:

1. Could you give examples?
2. How do you execute this exactly? (such as sourcing levers)
3. How do you think this is different in the healthcare sector in comparison with other industries?

Closing:

1. Ask whether the respondent has any questions.
2. Ask whether they would fill in the short questionnaire after finalizing the model
3. Thank the respondent for their time and effort.

Introductie:

1. Aanleiding onderzoek uitleggen
2. Informeren over de rechten van de respondent en over de structuur van het interview
3. Toestemmening vragen audio opnemen

RQ (Dutch): *"Welke rol heeft verticale strategie uitlijning tussen de inkoop- en organisatiestrategie in verschillende typen zorgorganisaties?"*

Openingsvragen:

1. Wat voor soort organisatie werkt u in, wat is uw functie daarbij en hoeveel jaar ervaring heeft u?
2. Wat denkt u dat de inkoopstrategie van de organisatie is? (kort definitie uitleggen)
3. Wat denkt u dat de algemene strategie van de organisatie is? (kort definitie uitleggen)

Strategy alignment:

4. Is er volgens u sprake van strategische uitlijning tussen de inkoop- en organisatie strategie?
    a. Zou dit wenselijk zijn?
    b. Is er een conflict of afstemming op tussen de twee strategieën?
    c. Hoe valt er volgens u alignment te behalen?

Dimensions / focus points:

5. A) Wat voor invloed heeft de het type organisatie (zoals ziekenhuis of verzorgingshuis) op de strategische uitlijning?
   B) Wat voor invloeden heeft focuspunten (zoals het soort zorg (cure versus care), innovatie, of onderzoek) van een organisatie op de strategische uitlijning?
   C) Wat voor verschillen bij inkoop ziet u tussen verschillende soorten zorg

Challenges:

6. Wat voor uitdagingen denkt u dat uw organisatie heeft bij het behalen van de strategische uitlijning?

Opportunities:

7. Wat voor kansen liggen er volgens u bij het behalen van de strategische uitlijning?

Mogelijk verhelderende vragen:

1. Kunt u voorbeelden geven?
2. Hoe voert u dit precies uit (a.d. v. sourcing levers bijvoorbeeld)?
3. Hoe denkt u dat dit anders is binnen de zorgmarkt in vergelijking met andere industrieën?

Afronding:

1. Vragen of de respondent toevoegingen of onduidelijkheden heeft
2. Vragen of de respondent na afronden van het model een korte vragenlijst wil invullen
3. Respondent bedanken voor de tijd en moeite

Appendix E. Follow-up questionnaire (Dutch)

Graduation project Strategy Alignment

Start of Block: Introductie

Q15 Beste respondenten, de volgende vragen gaan over aspecten die mogelijk benoemd zijn in het interview tussen u en de onderzoeker. Het doel van deze vragen is om een bepaalde rangschikking te geven en hierbij dus te achterhalen welke aspecten een grote rol spelen en welke een kleinere rol bij 'strategy alignment' (strategische uitlijning tussen de inkoopstrategie en organisatiestrategie). Succes en alvast bedankt voor het invullen.

End of Block: Introductie

Start of Block: Model aspecten

Q1 Welk aspect heeft volgens u de meeste invloed op het behalen van een uitlijning tussen de inkoop- en organisatiestrategie? 1 = Meeste invloed 6 = Minste invloed (p.s. wanneer u er een verplaatst komen er nummers bij te staan)

_____ Explicietere organisatie doelen (1)
_____ Betere integratie tussen inkopers, medische stafhoofden en RvB (2)
_____ Jaarlijkse meting en ijking van alignment (3)
_____ Juiste opzet van inkoopstructuur en processen (4)
_____ Voorkeuren van specialisten uitlijnen met organisatiedoelen (5)
_____ Bewustzijn en betrokkenheid (6)

Q2 Welke zorg gerelateerd aspect denkt u dat de grootste rol speelt in de context van strategische uitlijning tussen de inkoop- en organisatiestrategie? 1 = Grootste rol 6 = Kleinste rol

_____ Maverick-buying komt voor in de zorg (1)
_____ Verandering is moeilijk in de zorg (2)
_____ Focus op kwaliteit (3)
_____ Medisch specialist dominante rol (4)
_____ Kennis afstand tussen inkoper en medisch specialist (5)
_____ Patiënt staat centraal (6)

Q3 Welk aspect is volgens u de grootste uitdaging bij het behalen van een strategische uitlijning tussen de inkoop- en organisatiestrategie? 1 = Grootste uitdaging 7 = Minst grote uitdaging

_____ Erkenning van inkoop als strategisch (1)
_____ Grootte van de organisatie (2)
_____ Variatie en/of verzuiling binnen de zorg (3)
_____ Verouderde inkoopstrategie (4)
_____ Te druk met dagelijkse praktijk (5)
_____ Onvolwassen inkoopfunctie (6)
_____ Niemand verantwoordelijk voor alignment (7)

Q4 Wat denkt u dat de grootste kans of voordeel is na het behalen van strategische uitlijning tussen de inkoop- en bedrijfsstrategie? 1 = Grootste kans 5 = Minst grote kans

_____ Inkoop meer in controle (1)
_____ Verhoogde financiële prestaties van inkoop (3)
_____ Verhoogde professionaliteit/volwassenheid (4)
_____ Betere zorg (5)
_____ Ondersteuning van duurzamer inkopen (8)

End of Block: Model aspecten

Start of Block: Block 2

Blok 2 De volgende vragen gaan over karakteristieken en focuspunten van uw organisatie. Met deze scores is een mogelijke vergelijking te maken hoe verschillende organisatietypen scoren op de voorgaande vragen.

End of Block: Block 2

Start of Block: Karakteristieken en focuspunten

Q1 Waar ligt volgens u de focus op van uw organisatie?
1 = Cure focus (kortweg genezen) & 5 = Care focus (kortweg verzorgen)

○ 1 (1)

○ 2 (2)

○ 3 (Beiden) (3)

○ 4 (4)

○ 5 (5)

Q2 Waar ligt volgens u de focus op van uw organisatie?
1 = Acute zorg & 5 = Chronische zorg

- 1 (1)
- 2 (2)
- 3 (Beiden) (3)
- 4 (4)
- 5 (5)

Q3 Waar ligt volgens u de focus op van uw organisatie?
1 = Generieke/algemene zorg & 5 = Specialistische zorg

- 1 (1)
- 2 (2)
- 3 (Beiden) (3)
- 4 (4)
- 5 (5)

Q4 Waar ligt volgens u de focus op van uw organisatie?
1 = Niet innovatief & 5 = Heel innovatief

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)

Q5 Waar ligt volgens u de focus op van uw organisatie?
1 = Geen academisch onderzoek & 5 = Veel academisch onderzoek

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)

Q6 Waar ligt volgens u de focus op van uw organisatie?
1 = Geen focus op opleiding & 5 = Veel focus op opleiding

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)

End of Block: Karakteristieken en focuspunten

Appendix F. Qualitative data cross-case table

Theoretical dimension	Found sub-dimension	Respondent number									
		1	2	3	4	5	6	7	8	9	10
Purchasing related facilitators	*Integration purchasers medical staff heads, and BoD*	x			x	x	x	x	x		x
	Annual measurement and calibration of alignment		x	x	x		x	x		x	x
	Proper set-up purchasing structure and processes		x	x	x		x	x		x	x
Organizational facilitators	*Awareness and involvement*	x	x		x	x		x	x		x
	Explicit organizational goals					x	x		x	x	
	Aligning preferences medical specialists with organizational goals								x	x	
Healthcare specific challenges	*Knowledge dependence between the purchaser and medical staff*	x	x	x	x	x	x		x		x
	Specialist dominant role	x		x	x	x	x		x	x	
	Patient-centered care	x	x	x		x	x			x	
	Enhanced focus on quality	x	x	x		x	x				
	Maverick buying common					x		x		x	x
	Change is hard	x	x						x		
Opportunities	*Purchasing more in control*					x	x	x	x	x	x
	Increase in professionality		x			x		x		x	x
	Increase purchasing's financial performance			x					x	x	x
	Support sustainable purchasing				x		x	x			
	Better care	x									x
General challenges	*Complexity grows with variation and segregation*	x	x	x	x	x	x	x			x
	Acknowledging purchasing as strategic	x	x	x		x	x	x	x		
	Too busy with daily operations	x		x	x	x	x			x	x
	Complexity grows with size			x	x	x	x	x			x
	No one responsible for alignment	x		x			x			x	x
	Obsolete purchasing strategy				x		x		x		x
	Immature purchasing function	x		x	x						

Appendix G. Data for relation between purchasing roles and sub-dimensions

		Sub-dimensions				
Role group	**Respondent numbers**	Purchasing related facilitators	Organizational facilitators	Healthcare specific challenges	Opportunities	General challenges
Purchasing manager / head purchaser	1, 5, 7, 8, 10	1,2,3	4,5,6	7,8,9,10,11,12	13,14,15,16,17	18,19,20,21,22,23,24
Senior purchasing	6, 9	1,2,3	5,6	7,8,9,10,11	13,14,15,16	18,19,20,21,22
Strategic purchaser	2	2,3	4	7,9,10,12	14	18,19
Tactical purchaser	3	2,3		7,8,9,10	15	18,19,20,21,22,24
Operational purchaser	4	1,2,3	4	7,8	16	18,20,21,23,24

Number	Sub-dimension
1	Integration purchasers medical staff heads, and BoD
2	Annual measurement and calibration of alignment
3	Proper set-up purchasing structure and processes
4	Awareness and involvement
5	Explicit organizational goals
6	Aligning preferences medical specialist with organizational goals
7	Knowledge distance between purchaser and medical staff
8	Specialist dominant role
9	Patient-centered care
10	Enhanced focus on quality
11	Maverick buying common
12	Change is hard
13	Purchasing more in control
14	Increase in professionality
15	Increase purchasing's financial performance
16	Support sustainable purchasing
17	Better care
18	Complexity grows with variation and segregation
19	Acknowledging purchasing as strategic
20	Too busy with daily operations
21	Complexity grows with size
22	No one responsible for alignment
23	Obsolete purchasing strategy
24	Immature purchasing function