

International plastics manufacturing companies' response to covid-19 in terms of changes in strategy and sourcing

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Abstract

The purpose of this thesis is to study how international Swedish plastics manufacturing companies have responded to covid-19 in terms of changes regarding corporate and business unit strategy and global sourcing. As research type a case study consisting of three case companies was applied. Mainly qualitative data using interviews were collected. The conclusions are that a regionalisation of the location of business units of a corporate group and a regionalisation of corporate strategies may take place and that covid-19 may enhance the process of regionalisation of sourcing of the case companies, which may lead to somewhat safer deliveries from suppliers, but higher prices for the case companies. It is suggested that in times of crisis, two types of SWOT-analyses should be made. One SWOT-analysis should cover strategic issues and thus be part of a strategy formulation process and lead to contingency strategies. The second SWOT-analysis should cover global sourcing issues and lead to contingency plan from a sourcing perspective.

Keywords: Strategy, corporate strategy, business unit strategy, global strategy, international strategy, sourcing and global sourcing.

Sammanfattning

Syftet med uppsatsen var att studera hur internationella svenska företag inom plastbranschen har svarat på covid-19, vad gäller förändring i företags- och affärsenhetsstrategi och globala inköp. Som forskningstyp valdes en fallstudie med tre fallföretag. Huvudsakligen kvalitativa data samlades in, genom intervjuer. Slutsatserna är att regionalisering avseende lokalisering av en koncerns affärsenheter och regionalisering av företagsstrategier kan ske och att covid-19 kan förstärka processen med regionalisering av fallföretagens inköp, vilket kan leda till något säkrare leveranser från leverantörer, men högre priser för fallföretagen. Det föreslås att det i kristider bör upprättas två typer av SWOT-analyser. En SWOT-analys bör avse strategiska frågor och vara del av strategiformuleringsprocess och leda till eventualitetsstrategier. Den andra SWOT-analysen bör avse globala inköpsfrågor och leda till en eventualitetsplan utifrån ett inköpsperspektiv.

Nyckelord: Strategi, företagsstrategi, affärsenhetsstrategi, global strategi, internationell strategi, inköp och globalt inköp.

Definitions

Covid-19	From the term coronavirus disease and 2019, respiratory disease caused by the virus SARS-Cov-2, where the abbreviation stands for severe acute respiratory syndrome, corona virus 2 ¹ (Nationaencyklopedin Aktiebolag, n.d.).
Globalisation	Process of change, whereby states and societies all over the globe are connected together in interdependencies. Globalisation can be regarded as a collective denomination of the development in politics, economics and culture. In common linguistic usage, the term has however primarily come to refer to economic conditions. Globalisation thus refers to the latest phase in the development of capitalism, during which the national economies have become increasingly integrated. ² (Nationaencyklopedin Aktiebolag, n.d.)
Horizontal alignment	This implies co-ordination of elements of strategy (e.g., activities) across units and functions (Wadström, 2019, p. 45). This means alignment of elements of strategy across the same functions in different organisational units of a corporate group.
Joint venture	Denomination of a project, wherein companies co-operate (Nationaencyklopedin, n.d.). Often such co-operation takes place between companies from different countries. ³ (Nationaencyklopedin Aktiebolag, n.d.).
MNE	Multinational Enterprise. International corporate group, with operation in several countries through subsidiaries ⁴ (Nationaencyklopedin Aktiebolag, n.d.). This means that MNEs have manufacturing as well as sales in several countries.
OECD	Organisation for Economic Co-operation and Development. An international co-operation organisation for economic development ⁵ (Nationaencyklopedin Aktiebolag, n.d.). The objective of the operation is to stimulate long-term economic growth and employment through analysis and exchange of experience, as well as to broaden world trade on multilateral and non-discriminatory basis ⁶ (Nationaencyklopedin Aktiebolag, n.d.).

¹ Translated by the author from Swedish to English.

² Translated by the author from Swedish to English.

³ Translated by the author from Swedish to English.

⁴ Translated by the author from Swedish to English.

⁵ Translated by the author from Swedish to English.

⁶ Translated by the author from Swedish to English.

Pandemic	Epidemic, usually of infectious disease, that spreads across continents ⁷ (Nationaencyklopedin Aktiebolag, n.d.).
Strategy	In business administration, strategy usually refers to overall, general activity structures that extend over a longer time horizon in companies or organisations ⁸ (Nationaencyklopedin Aktiebolag, n.d.).
Supply chain	“The series of processes involved in the production and supply of goods, from when they are first made, grown, etc. until they are bought or used” (University of Oxford, n.d.).
Value chain	“Complete set of activities involved in a product, beginning with extraction of raw material and ending with postdelivery support to customers” (Anthony and Govindarajan, 2007, p. 69). A company can choose what activities will be carried out by its own resources and what activities will be obtained from external suppliers (Anthony and Govindarajan, 2007, p. 69).
Vertical alignment	This implies “aligning elements of strategy” (e.g., activities) “across hierarchical levels” (Wadström, 2019, p. 45).
WTO	World Trade Organization. International organisation with the main task of facilitating international trade. WTO was formed 1 January 1995 as a result of the so-called Uruguay Round, that was negotiated 1986-1994 with 123 countries as members. The WTO took over the role that General Agreement on Tariffs and Trade, GATT had had since 1948. WTO has 164 members. ⁹ (Nationaencyklopedin Aktiebolag, n.d.)

⁷ Translated by the author from Swedish to English.

⁸ Translated by the author from Swedish to English.

⁹ Translated by the author from Swedish to English.

1. Introduction

The first chapter is an introduction to this thesis. First, background information is given. Subsequently, a discussion of the problem, the purpose of this thesis, the research questions and delimitations follow. The last part of this chapter is the thesis outline.

1.1. Background

For a long time, since the second world war, international and global trade has been facilitated by national deregulations and international trade agreements, that have lowered tariffs. The General Agreement on Tariffs and Trade, GATT, created in 1947 (World Trade Organization, n.d.) has lowered barriers to trade in goods and thus led to increased global trade volumes in the last seven decades. In the 1980s, European and American manufacturing companies began to outsource their operations to Asiatic countries in search of mainly cheaper labour.

The plastics industry has become important in the modern society. The importance of plastic has increased since its mass production started in the 1940s and it is now a ubiquitous part of human life (Statista, 2021a). In 2019 the worldwide plastics production increased to nearly 368 million metric tons (Statista, 2021b). Plastic production is projected to increase and the expectations are that the production by 2050 will have tripled (Statista, 2021a).

Parallel with the above-mentioned lowered barriers to trade in goods and increased trade, global sourcing has increased gradually. The lowered trade barriers have however also led to intensified competition and companies can no longer rely solely on the domestic market and existing suppliers if they are to continue to thrive (Rajagopal and Bernard, 1994, p. 4). Escaping intensified competition in the domestic market spurs companies to become global and set up operations in foreign markets. Other reasons for globalisation are e.g., risk diversification across a portfolio of different country markets, search for new market opportunities and search for new resources (labour or raw materials).

Although globalisation is still a strong force, a report from McKinsey & Company (2019) covering 2007-2017 found that global value chains are undergoing deep changes. These changes consist of the fact that trade in goods is declining in relative terms, that less than 20 per cent of goods trade is based on labour-cost arbitrage and that a regional concentration is taking place regarding goods-producing value chains (McKinsey & Company, 2019, p. 8). These facts may have implications for sourcing issues.

Becoming international/global has consequences for a company's competitiveness and also its strategies and sourcing. The complexity of a company's strategy increases, when it becomes international/global. The reason is that that an international/a global company has more complex networks and operations in foreign markets, where the prerequisites in terms of competition are different from the prerequisites in the domestic market. A global strategy has to take the global issues into account in terms of coordination (Twarowska and Kakol, 2013, p. 1006), strategy integration (Yip, 2002 cited in Twarowska and Kakol, 2013, p. 1006) and standardisation (Zou and Cavusgil, 2002 cited in Twarowska and Kakol, 2013, p. 1006).

The complexity of sourcing is often higher for a company that is international/global compared to a company that is not. Successful global sourcing is demanding as to resources and top management commitment to co-ordination of global sourcing activities (Rajagopal and Bernard, 1994, p. 16). Global sourcing also entails more complex networks and more tangled flows of goods.

1.2. Problem discussion

Corporate strategy, business unit strategy and sourcing have been subject of many studies and specialist literature. An interesting study is the one of Wadström (2019, pp. 50-51), a study that has the underlying message that despite the differences between corporate strategy and business unit strategy, it is imperative that business unit strategy is consistent with corporate strategy. By combining “two dimensions, namely, direction of alignment (i.e., vertical and horizontal) and relation of alignment (i.e., numerical and non-numerical)” Wadström (2019, pp. 50-51) explains in his empirical study that there are four different types of alignment between corporate strategy and business unit strategy. A study that is in roughly close proximity in terms of subject in relation to the above-mentioned one, is the study of Seifzadeh and Rowe (2019). They point out the necessity of a fit between business unit strategy and corporate control, if business units that strive for product leadership are to achieve financial performance (Seifzadeh and Rowe, 2019, p.376). A study that deals with creation of strategy is the one of Rees and Porter (2006). They suggest that there is a danger that creating a comprehensive corporate strategy may be so deterrent that the work is abandoned (Rees and Porter, 2006, p. 231). Another danger is the fact that the creation of a comprehensive corporate strategy may be based on a narrow consideration of the issue, which may be counter-productive (Rees and Porter, 2006, p. 231). Furthermore, there is a danger that development decisions regarding corporate strategy are made by a restricted number of employees (Rees and Porter, 2006, p. 231).

A study that deals with strategy in relation to business models is the one of Bonel and Rocco (2007). In their study Bonel and Rocco (2007, pp. 93-94) found that their case company has to revise its business model structure carefully, in order to be able to sustain a competitive and co-operative strategy towards the partners. This would enable the company to deal with emerging interferences and exploit new complementarities in its interaction with partners (Bonel and Rocco, 2007, p. 94). Another issue that is important is relation to strategy is communication. Köhler and Zerfass (2019, p. 368) identified 13 quality criteria for professional strategy communication on company websites, in their empirical study. Some of these quality criteria are communication about the strategy elements, linking strategic objectives with key performance indicators and connection among the strategy elements (Köhler and Zerfass 2019, p. 368).

Sourcing is an important function in a company and may be closely related to elements of strategy. A study on managing global sourcing risk is the one of Christopher, Mena, Khan. and Yurt (2011). They conclude that global sourcing trends have caused supply chains to become longer and more fragmented, which is exposing companies to greater risks and costs (Christopher, Mena, Khan. and Yurt, 2011, p. 77). They suggest a multidisciplinary approach in dealing with global sourcing risks (Christopher, Mena, Khan. and Yurt, 2011, p. 67). Another interesting issue is the trajectory of sourcing and one example of that is the study of Thakur-

Wernz and Bruyaka (2017), that focused on among other things the trajectory of sourcing portfolios of biotechnology and pharmaceutical companies. The finding was inter alia that the case companies followed a trajectory consisting of the sequences moving development outside company boundaries, followed by a move beyond geographical boundaries (Thakur-Wernz and Bruyaka, 2017, p. 935).

Sourcing can take place in several ways and one way is through alliances. An interesting study regarding strategic alliance-based sourcing is the one by Murray, Kotabe and Zhou (2005). In their study of foreign companies operating in People's Republic of China (hereinafter denominated China) Murray, Kotabe and Zhou (2005, p. 187) identified product and uncertainty factors as moderators of the relationship between market performance and strategic alliance-based sourcing for major components. Another study regarding roughly the same subject is the study of Murray (2001), who argue that strategic alliance-based global sourcing as to major components may be an appropriate sourcing strategy, even when highly specific assets are involved (Murray, 2001, p. 51). Thus, strategic alliances give a company flexibility, by enabling it to focus on its core competency and simultaneously reach beyond those competences (Murray 2001, p. 51).

An interesting study that covers operational issues of sourcing is the one of Graham, Burns, Hennelly and Meriton (2019). In their study of electric sports car manufacturer and various suppliers in the automotive industry, Graham, Burns, Hennelly and Meriton (2019, p. 438) found four key operational capabilities; the capability of suppliers to have a local presence, supplier management, design of the supplier network and the ability of the car manufacturer to align sourcing process with marketing and IT planning processes.

A current issue is the outbreak and spread of covid-19 and the effects it has on companies and global trade. According to World Trade Organization (2020) lockdowns and travel restrictions have led to significant constraints on supply of products, which has dramatically reduced output and employment in sectors that are usually non-cyclical. Another reason for reduced output and reduced employment is the fact that many companies have voluntarily taken measures in terms of temporary closure of non-essential manufacturing facilities, e.g., due to reduction in supply of labour, or the fact that many companies have reduced production due to disruptions in their supply chains (Cambridge University Press, 2020).

Severe disruptions have been caused to the global value chains during the pandemic. Availability of air cargo was limited, due to cancellation of passenger flights caused by travel bans (Bloomberg L.P, 2020 cited in Organisation for Economic Co-operation and Development, OECD, 2020, p. 4). Consequently, the price of air cargo increased dramatically at the beginning of 2020 (Bloomberg L.P, 2020 cited in Organisation for Economic Co-operation and Development, OECD, 2020, p. 4). Shortage of containers and recovery of consumer demand caused cost of shipping a container from China to Northern Europe to more than quadruple from November 2020 to January 2021 (Steer and Romej, 2021).

In December 2020, the delivery times of eurozone manufacturing suppliers reached the worst levels since April 2020 (Steer and Romej, 2021). There have also been delays in transportation and shortage of goods at suppliers (Steer and Romej, 2021). Companies reported that their

stocks of raw materials and semi-manufactured goods are being reduced (causing falling inventories) and that input prices are increasing significantly (Steer and Romei, 2021).

The review of previous research has uncovered research gap in terms of corporate strategy, business unit strategy and global sourcing in a covid-19 context. This implies issues covering not only the challenges that companies face in a covid-19 context, but also how they perceive the pandemic and how they act.

1.3. Research questions

The discussion above leads to the following research questions:

- How have international plastics manufacturing companies, whose nationality of ownership is Swedish, responded to covid-19 in terms of changes regarding corporate strategy and business unit strategy?
- How have international plastics manufacturing companies, whose nationality of ownership is Swedish, changed their short-term and long-term global sourcing in response to covid-19?

1.4. Purpose

The purpose of this thesis is to study how international Swedish plastics manufacturing companies have responded to covid-19 in terms of changes regarding corporate and business unit strategy and global sourcing.

1.5. Delimitations

- Although one of the research questions relate to corporate strategy, this is not examined using the view of corporate office. Instead, the perspective of senior executives of business units is used in the entire thesis.
- Many companies are organised in business areas, divisions and individual companies, where the divisions include many functions and the individual companies are specialised in specific functions, e.g., production or marketing. In this thesis, only individual companies/business units that include the following functions are considered; sourcing, manufacturing, marketing, sales and management.
- In order to carry out this study in terms of corporate and business unit strategy, only individual companies/business units that are legal entities and are part of a corporate group will be considered as study objects.

1.6. Thesis outline

This thesis consists of six chapters, whose content is mentioned in the figure below on a general level.

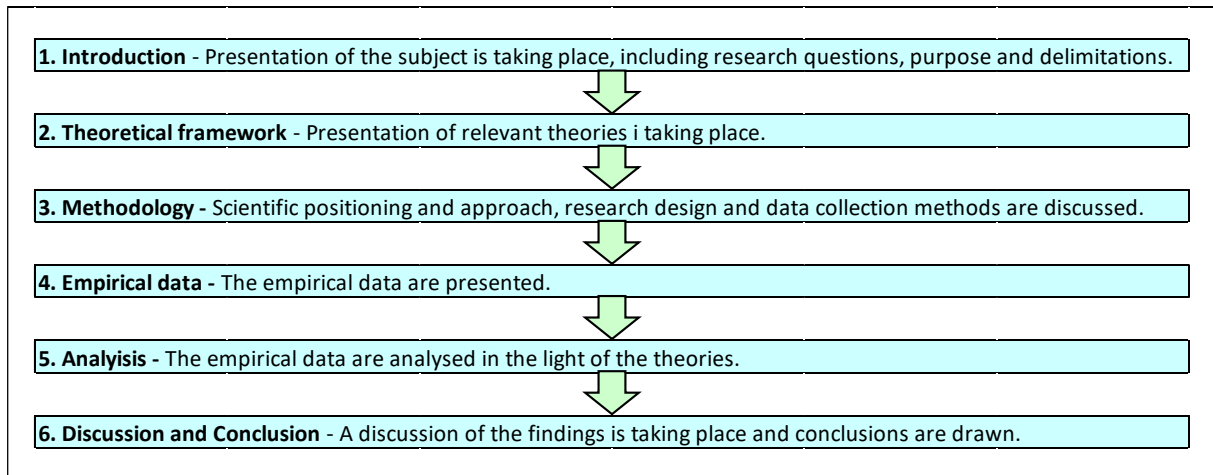


Figure 1: Thesis outline

Source: Illustration of the author of this thesis.

2. Theoretical Framework

The second chapter is dealing with the theories, that are relevant for this thesis. The main parts of this chapter are strategy, global sourcing and literature review.

2.1. Strategy

Strategy is an important and complex instrument of an organisation. Understanding strategy requires a careful examination of it. A discussion of the subject is taking place in different sections below, but first the position of strategy in relation to the positions of other instruments of an organisation is shown in the figure below.

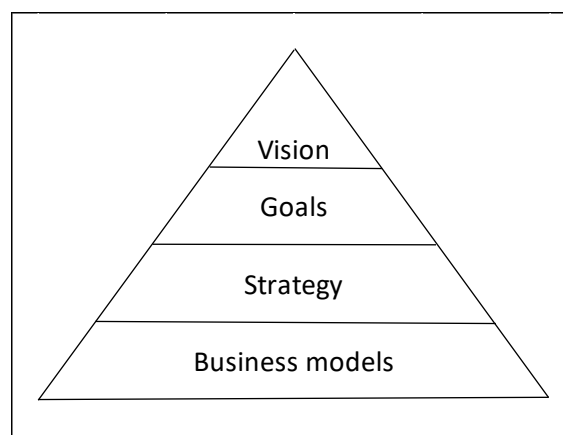


Figure 2: Position of strategy in relation to the positions of other organisational instruments

Source: Illustration of the author of this thesis.

2.1.1. The concept of strategy

According to Chaffee (1985 cited in Steyn, 2003, p. 171) there are three categories of strategy definitions in the literature. Linear strategy has a focus on planning and thus is made of actions, integrated decisions or plans, “that will set and achieve viable organisational goals” (Chaffee, 1985 cited in Steyn, 2003, p. 171). The development of viable match between the organisation’s resources/capabilities and the risks/opportunities in the external environment is something that is covered by adaptive strategy (Chaffee, 1985 cited in Steyn, 2003, p. 171). The third category, interpretive strategy, considers “the organisation as a collection of co-operative agreements entered into by individuals with free will” and thus the organisation’s ability to attract “individuals to co-operate in mutual beneficial exchange”, communication, symbolic actions and desired relationships are important component of this category (Chaffee, 1985 cited in Steyn, 2003, p. 171). According to Mintzberg (1987 cited in Köhler and Zerfass, 2019, p. 351), the members of an organisation must have a common understanding of strategy, if common patterns of action are to be created in the organisation. A fourth category of strategy definition, the incremental approach, is mentioned by Mintzberg and Waters (1985 cited in Köhler and Zerfass, 2019, p. 350) and this approach states that strategic action is not based on intentional decisions, but is rather a consequence of evolving sequences of action.

A broad definition of strategy is stated by Chandler (1993 cited in Steyn, 2003, p. 171), who considers it as “the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary to carry out these goals”. According to Mintzberg (1987) the definition of strategy includes both past actions and intended behaviour. If strategies are planned and realised, a pattern in action will be created over time, but this pattern may also emerge without any plans or intentions (Mintzberg, 1987). This means that an organisation can have realised strategies without making it explicit or even knowing it (Mintzberg, 1987). Moss and Warnaby (1998 cited in Köhler and Zerfass, 2019, p. 351) view strategies as also including a process, where the interaction between an organisation and its environment is managed in order to ensure an optimal fit between the organisation and the environment. Köhler and Zerfass (2019, p. 351) state that an efficient strategy is focused on achieving predetermined goals, a view that almost corresponds to the one of Anthony and Govindarajan (2007, p. 56). According to Anthony and Govindarajan (2007, p. 56), “a strategy describes the general direction in which an organization plans to move to attain its goals”. It is obvious that Köhler and Zerfass (2019, p. 351) and Anthony and Govindarajan (2007, p. 53) make a distinction between goals and strategy. However, Anthony and Govindarajan (2007, p. 57) also acknowledge that companies consider the external factors in the strategy formulation process, which may be regarded as an indication of the view that these companies try to manage the interaction between themselves and the external environment.

The approach to strategy, including view on strategy formulation process, of Anthony and Govindarajan (2007, pp. 53, 56-57) has elements of both linear and adaptive strategy that are described by Chaffee (1985 cited in Steyn, 2003, p. 171).

In this thesis an approach to strategy corresponding to the view on it of Anthony and Govindarajan (2007, p. 53) as discussed above is applied and thus goals and strategies are considered as two distinct issues.

2.1.2. Strategy formulation

In addition to the definition of strategy, it is also important to understand how strategies are developed. Robbins and De Cenzo (1998 cited in Steyn, 2003, p. 174) regard environmental scanning as a first step in the strategy formulation process. Carroll (1996 cited in Steyn, 2003, p. 174) states that an organisation, though it cannot directly affect the forces in its environment, it can collect information on event, issues and stakeholders and enter this information into the process of strategy formulation, which will enable it to predict trends, avoid or mitigate effects of threats and exploit opportunities. According to Andrews (1971 cited in Anthony and Govindarajan, 2007, p. 57) strategy formulation is a process in which senior executives evaluate the company’s strengths and weaknesses, taking the opportunities and threats that are present in the environment into account and then decide on strategies that match the core competencies of the company with the opportunities in the environment. In other word, strategy formulation can be described as a SWOT-analysis (analysis of Strengths, Weaknesses, Opportunities and Threats), where the internal capabilities and impotence and the external conditions are analysed and then an adequate strategy is designed. Köhler and Zerfass (2019, pp. 351-352) perceive that strategic alignment of a company has to take the vision, mission, values, objectives and corporate governance into

account and thus these factors will affect the strategy development within a company. In the strategy formulation process, it is obviously important that the senior executives not only consider what the company can do, but also take into account what the company wants to do with regard to the above-mentioned factors. The work of formulating a strategy should not be taken flippantly. Rees and Porter (2006, pp. 227-228) reason that there are many pitfalls when a comprehensive corporate strategy is developed, including lack of realism and non-existence of consideration for the complexity of the organisation and its environment. Yet another danger is the fact that the development process of a comprehensive strategy is perceived so intimidating that the work is abandoned (Rees and Porter, 2006, p. 229).

The figure below provides a clear picture of the strategy formulation process.

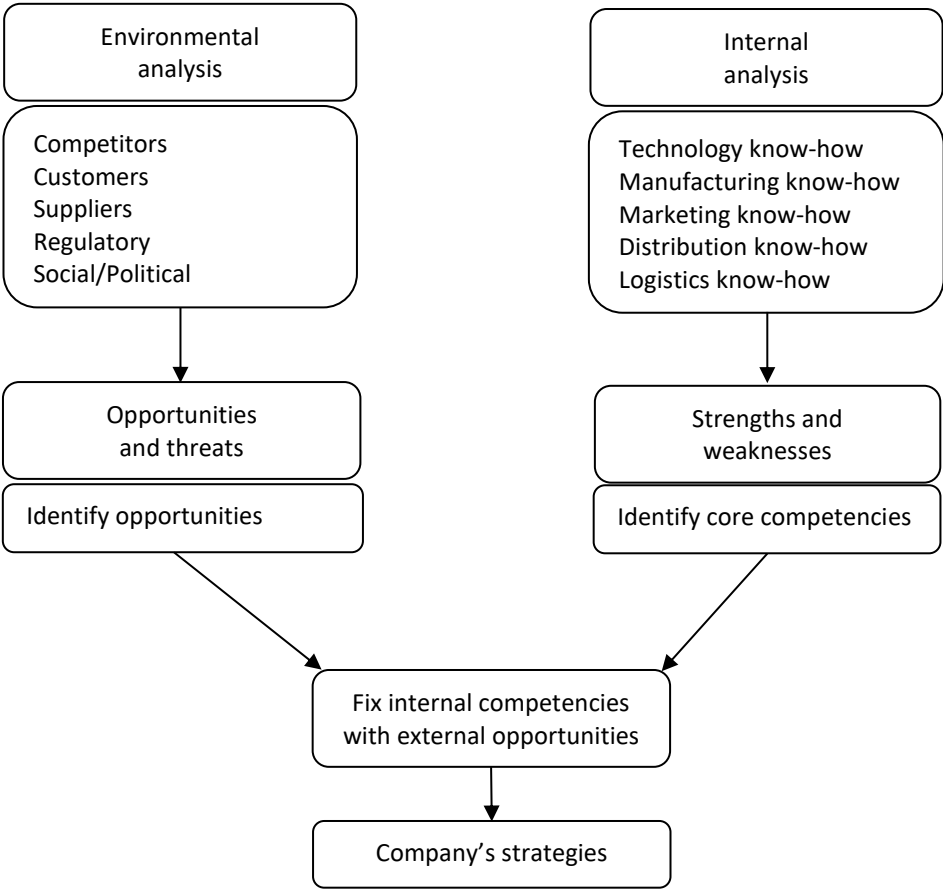


Figure 3: Strategy Formulation process

Source: Adapted from Anthony and Govindarajan (2007, p. 57)

2.1.3. Strategy levels

According to Anthony and Govindarajan (2007, p. 57) there are strategies at two levels, that is “strategies for a whole organization” and “strategies for business units within the organization”. This approach is not shared by other authors. Beard and Dess (1981, p. 664) identify three levels of strategy, that apart from corporate strategy and business unit strategy also include functional strategy. Kaplan and Norton (2001 cited in Köhler and Zerfass, 2019, p.

351) also identify three levels of strategy, which correspond to the ones of Beard and Dess (1981, p. 664). Five levels of strategy, that include strategy on enterprise, corporate, business unit, functional and operational levels, are described by Steyn (2003, pp. 172-174).

According to Steyn (2003, p. 172) the different levels of strategy relate to the content of strategies, i.e., the major issues dealt with in the strategy formulation process and the means for achieving corporate, business unit and functional goals. "Strategy development takes place at different organisational levels" (Digman, 1990 cited in Steyn, 2003, p. 172) and different stakeholders are addressed by different levels of strategy (Narayanan and Nath, 1993 cited in Steyn, 2003, p. 172).

Anthony and Govindarajan (2007, p.58) state that the difference between corporate strategy and business unit strategy concerns three aspects; key strategic issues, generic strategic options and primary organisational levels that are involved. These aspects are shown in the figure below.

The research of this thesis deals only with two levels of strategy, that have a dotted line framework in the figure below; corporate strategy and business unit strategy.

Strategy Level	Key Strategic Issues	Generic Strategic Options	Primary Organizational Levels Involved	Author
Enterprise level	What is the role of the organisation in the society?	-----	Corporate office, according to the author of this thesis	Freeman (1984 cited in Steyn, 2003, p. 172)
	What principles and values does the organisation represent?	-----		
	What are the greatest obligations to society?	-----		
	What implications do they have for the business and resource allocations?	-----		
	How is the organisation perceived by its stakeholders?	-----		
	What are stakeholder values and expectations?	-----		
Corporate level	Are we in the right mix of industries?	Single industry	Corporate office	Anthony and Govindarajan (2007, p. 58)
	What industries or subindustries should we be in?	Related diversification Unrelated diversification		
Business unit level	What should be the mission of the business unit?	Build Hold Harvest Divest	Corporate office and business unit general manager	Anthony and Govindarajan (2007, p. 58)
	How should the business unit compete to realize its mission?	Low cost Differentiation	Business unit general manager	
Functional level	How should finance, marketing, operations and other functional areas work together in order to achieve higher-level strategies?	-----	Corporate office and functional managers according to the author of this thesis	Harrison and St John (1998 cited in Steyn, 2003, p. 173)
	What should be done in the functional areas considering resources allocated to them and emphasis placed on them?	-----		
Operational level	What actions, short-term objectives, and implementations can contribute to business and corporate level strategy?	-----		Pearce and Robinson (1997 cited in Steyn, 2003, p. 174)

Figure 4: Strategy Levels

Source: Anthony and Govindarajan (2007, p. 58), adapted from Freeman (1984 cited in Steyn, 2003, p. 172), adapted from Harrison and St John (1998 cited in Steyn, 2003, p. 173) and adapted from Pearce and Robinson (1997 cited in Steyn, 2003, p. 174).

2.1.4. Corporate strategy

Corporate strategy is concerned with the issues in what businesses to compete and “the deployment of resources among those businesses” (Anthony and Govindarajan, 2007, p. 58). Moreover, the outcome of a corporatwide strategic analysis is decisions about businesses to add, retain, emphasize, deemphasize and divest (Anthony and Govindarajan, 2007, p. 58). Harrison and St John (1998 cited in Steyn, 2003, p. 173) state that at corporate level “the portfolio of businesses that should form the organisation’s overall profile are defined”, which more specifically implies e.g., decisions about joint ventures, strategic alliances and mergers and acquisitions. Furthermore, decisions are made about tactics for growth and diversification and corporate capabilities and resources are managed at the corporate level (Harrison and St John, 1998 cited in Steyn, 2003, p. 173). Kaplan and Norton (2001 cited in Köhler and Zerfass, 2019, p. 351) believe that corporate strategy “sets the general direction for the company and provides a starting point for deriving strategies for individual business unit and functional areas”. Remarkably, deployment of resources is not included in this definition. Beard and Dess (1981) define corporate strategy as a concept that relate to the question in what businesses to compete (Beard and Dess, 1981, p. 663) and they find that a company’s resource deployment among the businesses, in which it takes part, is an essential part of corporate strategy (Beard and Dess, 1981, p. 665). According to Beard and Dess (1981, p. 666) resource deployment can be operationalised in terms of the distribution of capital budget, employment, assets and other resources among the relevant industries within which the businesses of the company operate. Other insightful words from Beard and Dess (1981, p. 663) is the fact that corporate strategy can be regarded as corresponding to inter-industry variations in business companies’ strategies and that variables concerning corporate strategy as well as variables regarding business unit strategy are important in explaining company profitability variations. The inter-industry variations in companies’ strategies are also discussed by Anthony and Govindarajan (2007, pp. 58-60), but in a different way. By combining two dimensions, namely degree of relatedness or “the nature of linkages across the multiple business units” in other words (i.e., “operating synergies across businesses based on common core competencies and on sharing of common resources”) and the extent of diversification (i.e., the number of industries in which a company operates), three categories of companies can be identified in terms of corporate strategy (Anthony and Govindarajan, 2007, pp. 58-59). These categories are single industry company, unrelated diversified company and related diversified company (Anthony and Govindarajan, 2007, p. 58). Prior to a brief discussion regarding these categories, it is relevant to point out that most companies do not fit perfectly into these categories, but can rather be classified along the continuum with single industry at the beginning of the spectrum, related diversification in the middle and unrelated diversification at the end of the spectrum (Anthony and Govindarajan, 2007, p. 61).

A single industry company operates in one industry, whereas a related diversified company operates in several industries (Anthony and Govindarajan, 2007, p. 58). The business units of a related diversified company benefit from operating synergies in terms of common core competencies and sharing of common resources, e.g., common procurement function, common manufacturing facilities or common sales force (Anthony and Govindarajan, 2007, p. 60). In a related diversified company, corporate office has to make resource allocations across the business units and identify and leverage companywide “core competences that benefit

multiple business units” (Anthony and Govindarajan, 2007, p. 60). An unrelated diversified company, that is a conglomerate, operates in industries “that are not related to one another” and “the connection between the business units is purely financial” (Anthony and Govindarajan, 2007, p. 58). Thus, there are few operating synergies, if any at all, across business units (Anthony and Govindarajan, 2007, p. 59). The role of headquarter is the one of a holding company, that lends money to business units with great financial prospects (Anthony and Govindarajan, 2007, pp. 59-60). The figure below gives an illustration of the issue.

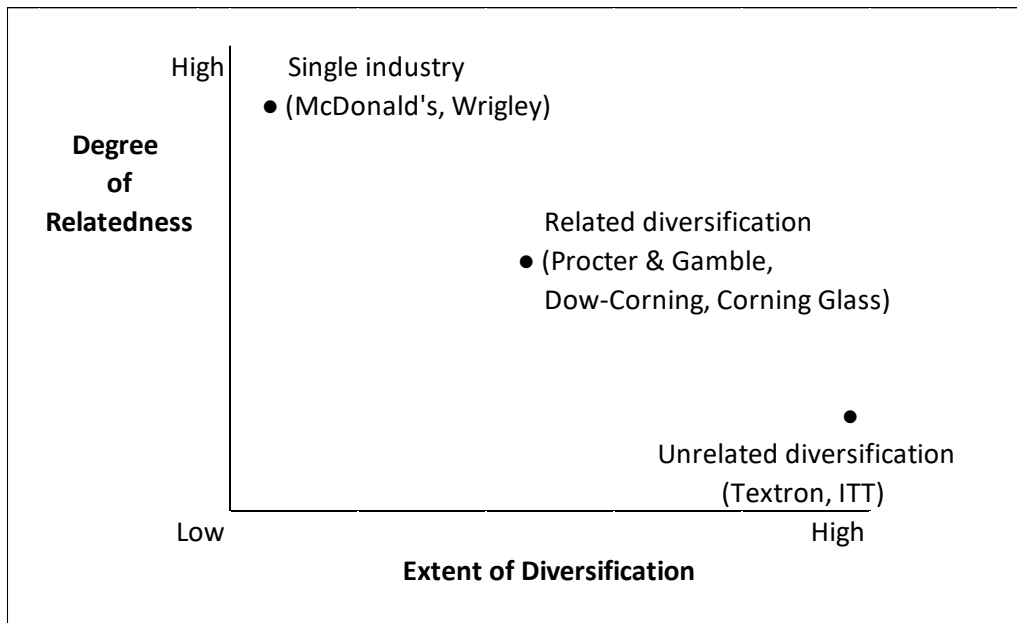


Figure 5: Generic corporate strategies

Source: Anthony and Govindarajan (2007, p. 59).

An approach to corporate strategy corresponding to the view on it of Anthony and Govindarajan (2007, pp. 58-60) as discussed above is applied in this thesis. However, also the ideas of Harrison and St John (1998 cited in Steyn, 2003, p. 173) are considered, in the sense that decisions about joint ventures, strategic alliances and mergers and acquisitions are relevant in this thesis.

2.1.5. Business unit strategy

Ahead of the discussion about the concept of business unit strategy, it is relevant to mention that competition between diversified companies takes place between the business units in question, not at corporate level (Anthony and Govindarajan, 2007, p. 62). However, competition between single industry corporations is likely taking place both at the corporate level and at the business unit level.

According to Anthony and Govindarajan (2007, p. 58) business unit strategy is concerned with the issue of how to compete in a particular industry. Pearce and Robinson (1997 cited in Steyn, 2003, p. 173) define business unit strategy as an approach of an organisation relating to its chosen products, markets and industry segment. Beard and Dess (1981, p. 663) consider business unit strategy as the issue “of how to compete within a particular business” and they

also regard it as corresponding to intra-industry “variations in business companies’ strategies”. Kaplan and Norton (2001 cited in Köhler and Zerfass, 2019, p. 351) state that business unit strategy informs on how to position a company in a market and how to compete in a specific business.

Anthony and Govindarajan (2007, p. 62) clarify their approach to the concept of business unit strategy by stating that creating and upholding the competitive advantage in the industries, in which the company’s business units operate, are key issues. According to Anthony and Govindarajan (2007, p. 62) a business unit’s strategy is dependent on its mission (overall objectives) and its competitive advantage. The latter factor concerns the issue of how the business unit should compete in its industry in order to achieve its mission (Anthony and Govindarajan, 2007, p. 62).

2.1.5.1. Business unit mission

Resource deployment is an important task of senior management in a diversified company, which implies that senior management has to make decisions about transferring “cash generated from some business units to finance growth in other business units” (Anthony and Govindarajan, 2007, p. 62). Apparently, this implies an internal competition for resources between different categories of business units (Debrecht and Levas, 2014, p. 66).

There are several planning models that can help corporate level management of diversified companies to make effective resource allocations (Anthony and Govindarajan, 2007, p. 62). The models are based on the idea that a company has several categories of business units, in accordance with their missions (Anthony and Govindarajan, 2007, p. 62) and thus each category of business unit has a distinct appropriate strategy “as a function of the growth and relative competitive position of each business unit and the company’s overall resource position particularly with respect to cash” (Day, 1981 cited in Debrecht and Levas, 2014, p. 66).

Below, the Boston Consulting Group (BCG) model provides an illustration.

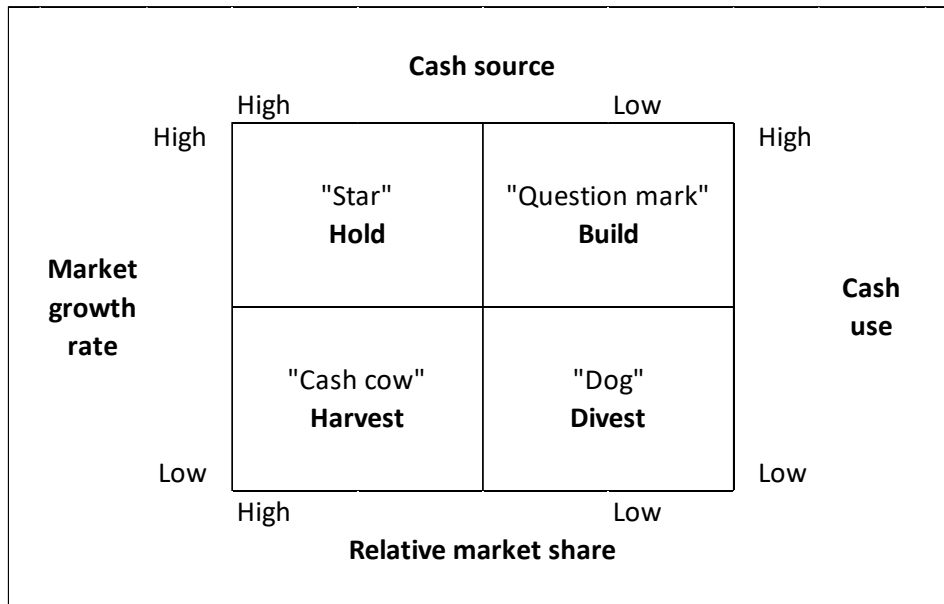


Figure 6: Business Unit Mission: The BCG Model

Source: Kerin, Mahajan and Varadarajan (1990 cited in Anthony and Govindarajan, 2007, p. 63) and Henderson (1979 cited in Anthony and Govindarajan, 2007, p. 63).

The logic behind the BCG model is that industry growth rate and relative market share are regarded as indicators of relative industry attractiveness and a business unit's relative competitive position in a particular industry, respectively (Anthony and Govindarajan, 2007, p. 64). Debrecht and Levas (2014, p. 66) highlight the fact that relative competitive position (relative market share) and market growth rate are fundamental parameters, when decisions on strategy of individual business units of a company's business unit portfolio are made.

Market share is an important variable, because it indicates the importance of the experience curve, that stipulate that a market share leader is the one who has the greatest accumulated production experience and thus "should have the lowest costs and highest profits in the industry" (Anthony and Govindarajan, 2007, p. 64). However, the experience curve has limitations, e.g., it "applies to undifferentiated products where primary basis of competition is on price", improvements in process technology may in some situations have greater impact on reductions of unit cost than cumulative production volume and the fact that there are other cost drivers, e.g., scale, scope and technology (Anthony and Govindarajan, 2007, pp. 64-65).

The mission to build market share for a business unit categorised as question mark is based on the above-mentioned beneficial effects of the experience curve (Anthony and Govindarajan, 2007, p. 65). The assumption is made that a business unit will achieve low costs, if market share is built "early in the growth phase of an industry" (Anthony and Govindarajan, 2007, p. 65). However, it is not easy to decide on continued investing of cash in a business unit categorised as question mark (Debrecht and Levas, 2014, p. 67). Management has to evaluate if the business unit's market share will ever increase or if the business unit "is not competitive, which would necessitate a withdraw from the market" (Debrecht and Levas, 2014, p. 67). A business unit that falls in the question mark quadrant needs abundant liquid assets for product

development, capacity expansion and market development purposes in order to establish market leadership, which will have a negative effect on short-term profits but enhances the prospects of long-term profitability (Anthony and Govindarajan, 2007, p. 65). The mission of a business unit categorized as star is to invest cash in order to hold the high market share and competitive position in a growing market (Anthony and Govindarajan, 2007, pp. 65-66). The idea is that a business unit of this category will become cash cows in future, when its products evolve “into the mature stage of the product life cycle” (Debrecht and Levas, 2014, p. 67). A business unit in this quadrant is a major generator and user of cash and is financially self-sufficient (Anthony and Govindarajan, 2007, p. 66). For a business unit categorized as cash cow, the mission is to harvest for short-term profits, since such a category of business units are expected to have high relative market share and thus low unit costs and high profitability (Anthony and Govindarajan, 2007, p. 66). Since the industry in which cash cows operate is characterised by low growth or decline, there is no need to reinvest all the cash that has been generated in the operation (Anthony and Govindarajan, 2007, p. 66). However, the company still has to deploy necessary resources in terms of product differentiation in order to reflect consumer tastes or stay competitive technologically (Debrecht and Levas, 2014, p. 67). This way the company can defend the business unit’s market share (Debrecht and Levas, 2014, p. 67). The mission of a business unit that is situated in the dog quadrant is, unless it can be turned around, to divest the operation due to a weak competitive position and unattractive industry (Anthony and Govindarajan, 2007, p. 66). Strategic business exit necessitates that the strategic context of the concerned business is dissolved, which is a complex process that involves middle and top management activities (Burgelman, 1983b cited in Barnett and Burgelman, 1996, p. 16).

To conclude, business units categorised as cash cows with positive cash flow should be identified and these resources should be reallocated to business units categorised as question marks in order to build their market share (Anthony and Govindarajan, 2007, p. 66). Furthermore, when a build, hold, or harvest strategy has been adopted for a business, the company can ensure its implementation, e.g., by “tying the compensation system to successful plan implementation” and by decentralizing strategic planning (Gupta and Govindarajan, 1984).

2.1.5.2. Business unit competitive advantage

Development of competitive advantage, which is important to all business units, requires that the following issues are taken into consideration; the structure of the industry, how the business unit should take advantage of the industry structure and what the basis of the basis of the business unit’s competitive advantage will be (Anthony and Govindarajan, 2007, p. 66). An industry analysis and value chain analysis may be important tools, when a business unit wants to develop sustainable competitive advantage (Anthony and Govindarajan, 2007, pp. 66-67).

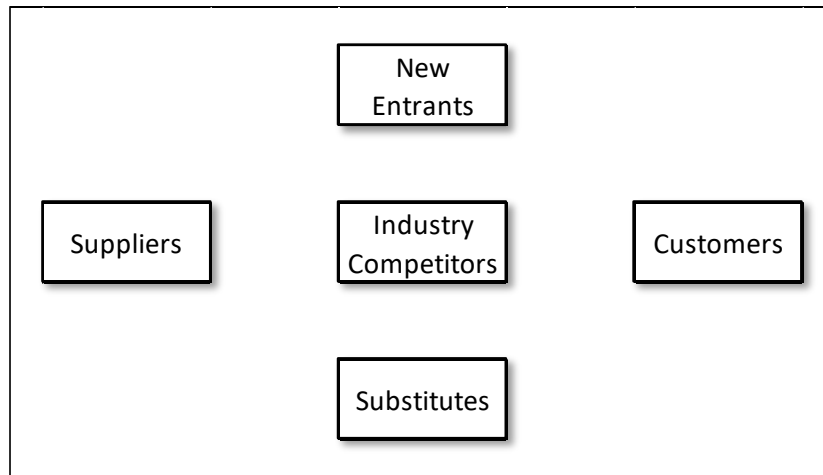


Figure 7: Industry Structure Analysis, Porter's Five Forces Model

Source: Porter (1985 cited in Anthony and Govindarajan, 2007, p. 67).

Since average industry profitability has the greatest effect on a company's profitability (Wernerfelt and Montgomery, 1988 cited in Anthony and Govindarajan, 2007, p. 67), Porter (1985 cited in Anthony and Govindarajan, 2007, p. 67), suggests that analysis of industry structure is conducted "in terms of the collective strength of five competitive forces":

1. The intensity of industry rivalry between existing players is affected by factors, such as number and size of competitors, industry growth, level of fixed costs, product differentiability and exit barriers (Porter, 2008 cited in Wellner and Lakotta, 2020, p. 5). Another factor is intermittent overcapacity (Anthony and Govindarajan, 2007, p. 67). The stronger the industry rivalry is, the lower the industry profit potential is (Wellner and Lakotta, 2020, p. 5).
2. The bargaining power of suppliers is affected by the number of suppliers, the presence of substitute inputs, ability of supplier to integrate forward and significance "of business unit's volume to suppliers" (Porter, 2008 cited in Wellner and Lakotta, 2020, p. 5). The stronger the suppliers are, the lower the industry profit potential is (Porter, 2008 cited in Wellner and Lakotta, 2020, p. 5).
3. The bargaining power of customers is affected by number of buyers, switching costs of buyers and importance of the business unit's volume to buyers (Porter, 2008 cited in Wellner and Lakotta, 2020, p. 4). Other factors are ability of buyer to integrate backward and impact of the business unit's product on buyer's total costs and product performance/quality (Anthony and Govindarajan, 2007, p. 67). The stronger the buyers are, the lower the industry profit potential is (Hungenberg, 2014 cited in Wellner and Lakotta, 2020, p. 4)
4. The threat from new entry/players has a negative effect on industry profit potential (Wellner and Lakotta, 2020, p. 4). New companies with new capabilities are attracted by high profit, which leads to a pressure on prices and costs of existing companies (Porter, 2008 cited in Wellner and Lakotta, 2020, p. 4). The probability of new entry is affected by entry barriers, such as access to distribution channels, capital requirements, economies of scale, "technological complexity of product or process", product differentiation, expected counterattack from existing companies and government policy (Anthony and Govindarajan, 2007, p. 67).

- The threat from substitutes is affected by propensity of the buyer to substitute, switching costs of the buyer and relative performance/price of substitutes (Anthony and Govindarajan, 2007, p. 67). The stronger the threat from substitutes is, the lower the industry profit potential is (Porter, 1979 cited in Wellner and Lakotta, 2020, p. 5).

The industry analysis leads to the observations that the ultimate profit potential in the industry is determined by the collective strength of the five forces (Porter, 1980 cited in Wellner and Lakotta, 2020, p. 4). Furthermore, the key strategic issues that face a business unit will be different from one industry to another, depending on the relative strength of the five forces (Anthony and Govindarajan, 2007, p. 68).

An analysis of the five forces can also aid in creating a sustainable competitive advantage through two generic ways; differentiation of the business unit’s product offering and low cost, implying cost leadership using experience curve effects, economies of scale in production, cost minimisation and tight cost control (Anthony and Govindarajan, 2007, p. 68). The figure below provides an illustration of the generic ways to create competitive advantage.

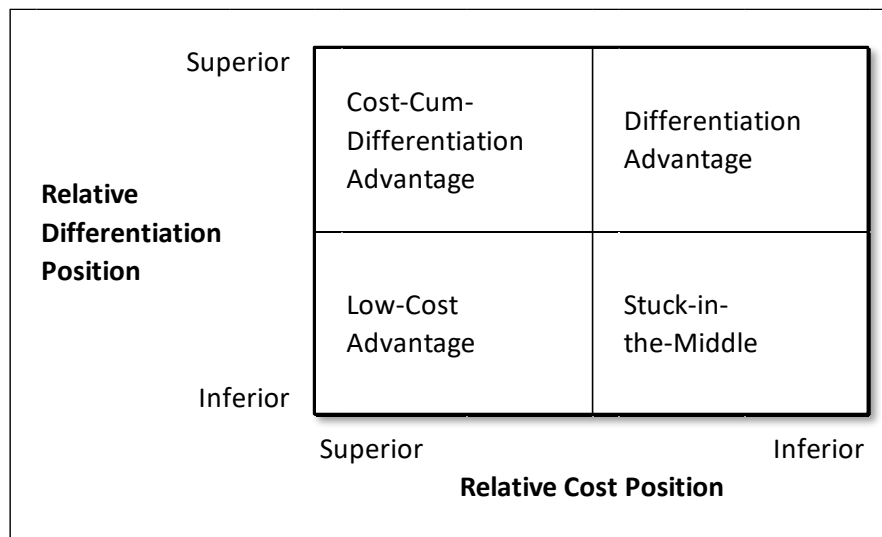


Figure 8: Basis for Competitive Advantage

Source: Anthony and Govindarajan (2007, p. 68)

2.1.6. The relationship between corporate strategy and business unit strategy

Differences between the two levels of strategy, that is corporate strategy and business unit strategy, do not imply that they are detached from each other. Thus, it is imperative that business unit strategy is consistent with corporate strategy. Anthony and Govindarajan (2007, p. 57) explain that consistency, in terms of strategies across corporate and business unit levels, is important. Jain (1997 cited in Steyn, 2003, p. 173) believe that declarations of directions made at the corporate level are translated into strategies for individual business divisions, in the development process of business unit strategy. Burgelman (1983b cited in Barnett and Burgelman, 1996, p. 16) states that the context at corporate level, such as resource allocation rules set by top management has strong selective effects on “strategic actions of middle and operational managers at business” unit level, regardless of the rhetoric concerning the official

corporate strategy. Wadström (2019, pp. 50-51) concludes that there are four different types of alignment between corporate strategy and business unit strategy, types that are derived from a combination of “two dimensions, namely, direction of alignment (i.e., vertical and horizontal) and relation of alignment (i.e., numerical and non-numerical)”. Consequently, it is important to obtain a proper balance of alignment by applying different types of alignment on different elements or parts of strategies, e.g., activities (Wadström, 2019, p. 51). The aim is that alignment should be strong enough to allow synergies, but not strong to an extent where business responsiveness is limited (Wadström, 2019, p. 52).

2.1.7. International strategy and global strategy

When a company has operations in more than one market, it has to make trade-off between highly localised adaptation strategy and a co-ordination strategy (Barnett and Burgelman, 1996, p. 11). A localised adaptation strategy requires that the organisation is structured into independent units, that are conforming to local demand, whereas a co-ordination strategy implies a preference for reliability and uniformity across the whole company (Barnett and Burgelman, 1996, p. 11). The above mentioned is consistent with what Twarowska and Kakol (2013, p. 1006) state about international and global strategy.

According to Twarowska and Kakol (2013, p. 1006) an international strategy implies that internationally scattered business units act independently with regard to the company. There is a low degree of strategy integration and the different business units within a company can plan and execute competitive moves on an independent basis, if an international strategy is applied (Twarowska and Kakol, 2013, p. 1006). This means that solely an analysis of local rivals is the basis for the decisions of the competitive moves of the business units (Twarowska and Kakol, 2013, p. 1006). Moreover, there is no need for a strong co-ordination from the centre regarding strategic activities in different country locations (Twarowska and Kakol, 2013, p. 1006). Finally, the centre of a company does not standardise products and processes in different country locations, unless there are compelling reasons to do so (Twarowska and Kakol, 2013, p. 1006). Absence of standardisation means that the business units will be able to respond to local needs (Twarowska and Kakol, 2013, p. 1006). Regarding process standardisation, companies that pursue local responsiveness usually configure their assets by market-based structure (Bartlett and Ghoshal, 1999 cited in Rahimi, Møller and Hvam, 2016, p. 1219). This leads to self-contained subsidiaries (Mintzberg, 1993 cited in Rahimi, Møller and Hvam, 2016, p. 1219) and thus the interdependencies across the subsidiaries are limited (Jarillo and Martinez, 1990 cited in Rahimi, Møller and Hvam, 2016, p. 1219) and the subsidiaries have considerable freedom in relation to corporate office (Bartlett and Ghoshal, 1999 cited in Rahimi, Møller and Hvam, 2016, p. 1219).

A new competitive environment has been created by the emergence of MNEs, which has necessitated the globalisation of corporate strategy (Levitt, 1983 cited in Rajagopal and Bernard, 1994, p. 4). This may mean that global business issues create the need for a global corporate strategy, that ideally should lead to diverse business unit strategies and a high level of adaptation to local business environment (Yip, 2002 cited in Twarowska and Kakol, 2013, p. 1006). However, it is probably a matter of a lower degree of localisation of the corporate strategy in this case compared to the case of international strategy, according to the author of this thesis. It is not an easy task, but a global company should strive to have a single corporate strategy, that can be applied globally and yet be flexible enough to allow adaptation

to prerequisites of local business environment (Yip, 2002 cited in Twarowska and Kakol, 2013, p. 1006). In companies that pursue global integration, the headquarter usually controls strategic and operational decisions and “the role of the subsidiaries is to implement plans and policies developed at the headquarters” (Bartlett and Ghoshal, 1999 cited in Rahimi, Møller and Hvam, 2016, p. 1219). Consequently, one element of a global strategy implies a great degree of strategy integration, which means that the different businesses within a company are fighting competitors as a united force on a global scale (Twarowska and Kakol, 2013, p. 1006). Thus, a company can respond to competitive moves of rivals in one market by carrying out counter-attacks in other markets (Twarowska and Kakol, 2013, p. 1006). Strategy integration also means that a company can subsidise operations of business units that operate in expanding markets by taking financial means from business unit that operate in declining markets (Twarowska and Kakol, 2013, p. 1006). A second element of a global corporate strategy is the fact that the centre of a company is co-ordinating the strategic activities in different country locations in a great extent (Twarowska and Kakol, 2013, p. 1006). A third element of a global corporate strategy is the fact that the centre of a company standardises the products and processes in different countries, unless there are compelling reasons not to do so (Zou and Cavusgil, 2002 cited in Twarowska and Kakol, 2013, p. 1006). As to process standardisation, companies that pursue a global integration strategy often configure their assets by functional structure, i.e., work function, knowledge or skill of “concern for economies of scale at the expense of workflow interdependencies” (Mintzberg, 1993 cited in Rahimi, Møller and Hvam, 2016, p. 1217), which leads to specialised subsidiaries that are highly interdependent (Jarillo and Martinez, 1990 cited in Rahimi, Møller and Hvam, 2016, p. 1217).

2.1.8. Strategic decisions

It is important to make a distinction between an organisation’s strategy and strategic decisions. where the latter are an essential part of organisations adaptation process as to their environments (Beard and Dess, 1981, p. 665). Decisions that succeed in changing or creating organisations are believed to do so via complex iterative processes, that can be regarded as part of the concept of strategy implementation (Beard and Dess, 1981, p. 665). The effect on company performance during a particular period of time, that strategy has, can be made visible by studying the organisations implemented strategy during the corresponding period of time (Beard and Dess, 1981, p. 665). In this respect, strategy can be regarded as a concept “based on organizational characteristics that embody earlier strategic decision and implementation processes” (Beard and Dess, 1981, p. 665). The above-mentioned approach is shared by Barnett and Burgelman (1996, p. 12), who point out the ongoing implications for an organisation’s fate that strategic measures taken at a particular point in time have.

Barnett and Burgelman (1996, p. 15) perceive that an evolutionary perspective on strategy can be helpful by identifying organisationally internal and external constraints to managerial actions. The internal constraints develop over a company’s history and relate to e.g., initial conditions and organisational procedures, whereas the external constraints are e.g., laws, industry structure and customer preferences (Barnett and Burgelman, 1996, p. 15). This view on managerial actions has elements that resemble the ones of the strategy formulation process described by Anthony and Govindarajan (2007, pp. 57-58), according to the author of this thesis. The environment of an organisation is an important part in the strategic

management process (Steyn, 2003, p. 171), that may lead to strategic decisions according to the author of this thesis. According to Pearce and Robinson (1997 cited in Steyn, 2003, p. 172), the environment consists of the sum total of all the forces and conditions, that are beyond the control of the organisation but that have an effect on its strategic options and determine its competitive situation. The shareholders and other stakeholders are part of the environment, according to Pearce and Robinson (1997 cited in Steyn, 2003, p. 172). Furthermore, Steyn (2003, p. 172) regard the environment “as a collection of stakeholders and a patterning of strategic, social, political and ethical issues”.

According to Ansoff (1965 cited in Beard and Dess, 1981, p. 668), there are three levels of decisions in organisations. The first level of decisions is strategic decisions about product mix and markets and a match between the company and environment (Ansoff, 1965 cited in Beard and Dess, 1981, p. 668). The other two levels of decisions are administrative decisions, regarding the structuring of the resources of a company in order to maximise performance, and operating decisions, concerning maximising of “the efficiency of” a company’s “resource conversion process” (Ansoff, 1965 cited in Beard and Dess, 1981, p. 668). It is reasonable to claim that the first two levels of decisions, i.e., strategic decisions and administrative decisions, correspond to corporate level strategy and business unit strategy, respectively (Beard and Dess, 1981, p. 668).

2.2. Global sourcing

2.2.1. The concept of sourcing

Global procurement, that includes sourcing, can be considered as an intrinsic part of global strategy (Rajagopal and Bernard, 1994, p. 4), at least regarding business unit strategy and corporate strategy of single industry companies. This fact makes global sourcing a vital function in a company. Allocation of resources and top management commitment are imperative for successful global sourcing (Rajagopal and Bernard, 1994, p. 16). Another reason that makes global sourcing an important function is the positive effect it has on the likelihood of a company to survive in globalised industries (Coucke and Sleuwaegen, 2008 cited in Lin, 2020, p. 732) and a company’s performance (Mol et al., 2005 cited in Lin, 2020, p. 732). The latter is due to the positive relationship between global sourcing and international sales of a company (Bertrand, 2011 cited in Lin, 2020, p. 732).

According to Lin (2020, p. 723) research driven by resource-based view and transactions cost economics has cautioned about the potential negative effects (e.g., hollowing out effect and hidden costs) of global sourcing, although its benefits (inter alia location specific advantage) are well-acknowledged in the international business literature. The hidden costs are usually related to “transaction costs resulting from the shift of ownership to an external provider as well as relocating and reconfiguring tasks and processes within the value chain” (Larsen et al., 2012 cited in Lin, 2020, p. 733). A major reliance on global sourcing also poses a danger in terms of risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19 (Lee et al., 2015 cited in Lin, 2020, p. 733).

Global sourcing can be regarded as involving assembling/buying finished products, parts or components worldwide or as “setting up production operations in different countries to serve

various markets” (Davidson, 1982; Kotabe and Murray, 1990 cited in Murray, Kotabe and Wildt, 1995, p. 181). Global sourcing comprises activities that are carried out by companies with the intention to bring the products to end use (Gereffi et al., 2005 cited in Lin, 2020, p. 727). Co-ordination of globally dispersed activities and efficient planning are required in order to “reduce friction and transaction cost and, at the same time, to gain access to diverse sources of knowledge, skill, and talent available in various locations” (Lin, 2020, p. 727). According to Swamidass and Kotabe (1993, p. 81) “sourcing decisions match” intra-company “production sites with markets, and/or match” intra-/inter-company “components suppliers with production sites”. Sourcing can be regarded as a vital part of global rationalisation, that is a strategy aiming at optimising distribution and production decisions “across an international network of facilities that depend upon each other for raw materials and components” (Franko, 1978 cited in Swamidass and Kotabe, 1993, pp. 81-82). Integration of multinational operations can be carried out for strategic advantage using sourcing decisions, through import/export of components and finished products among the various international units of a company (Kogut, 1985 cited in Swamidass and Kotabe, 1993, p. 82). The discussion above indicates that intra-company and inter-company flow of goods are the two options for international sourcing to take place (Swamidass and Kotabe, 1993, p. 82).

The General Agreement on Tariffs and Trade, GATT, created in 1947 (World Trade Organization, n.d.) has lowered barriers to trade in goods and thus led to increased international competition. According to Rajagopal and Bernard (1994, p. 4) lowered trade barriers have led to intensified competition on domestic and foreign markets. Companies are not only looking for new markets, but also for new sources of supply, meaning that cost reduction, product innovation, technology acquisition and risk spreading are important issues in this context (Rajagopal and Bernard, 1994, p. 4). Sourcing of components and products beyond national borders is required, if companies are going to maintain their competitiveness (Rajagopal and Bernard, 1994, p. 4).

2.2.2. Factors that affect choice of internal versus external sourcing

Murray, Kotabe and Wildt (1995, p. 184) discuss some sourcing related factors, that affect if sourcing is going to take place internally or externally:

- Bargaining power of suppliers: If the “bargaining power of suppliers is high” and internal sourcing is used by the company, the company “typically has more control over the price and the supply of components (Murray, Kotabe and Wildt, 1995, p. 186). Furthermore, a company can use substitute products or switch supplier, if there are many alternative sources of supply (Murray, Kotabe and Wildt, 1995, p. 186).
- Proprietary technology: A company can often attain advantages by internal sourcing of components that involve high levels of proprietary technology (unique technology, management skills etc.), which allows the company to keep the technology within its system (Murray, Kotabe and Wildt, 1995, p. 186). However, if the components do not involve proprietary technology, it is often more advantageous for a company to use external sourcing (Williamson, 1983 cited in Murray, Kotabe and Wildt, 1995, p. 186). This would allow the company to benefit from scale economies of the market place (Williamson, 1983 cited in Murray, Kotabe and Wildt, 1995, p. 186).
- Asset specificity: When asset specificity (non-marketable resources) is high, internal sourcing is more advantageous, allowing the company to control quality and

availability of components (Casson, 1979 cited in Murray, Kotabe and Wildt, 1995, p. 187). When asset specificity is lower, the components are often available externally at a lower cost than internally (Murray, Kotabe and Wildt, 1995, p. 187).

- Transaction frequency: “If asset specificity is low, external sourcing is appropriate under both occasional and recurrent transactions (involving the same components) because the market for the goods transacted is competitive, and the” company can source component “of high quality at a reasonable cost” (Williamson, 1983 cited in Murray, Kotabe and Wildt, 1995, p. 187). If asset specificity is high and the transaction frequency is recurrent, the company should source internally, since this would allow the company greater adaptation to changing circumstances (Williamson, 1983 cited in Murray, Kotabe and Wildt, 1995, p. 187). If asset specificity is high and the transaction frequency is occasional, the company should source externally, which would allow the company to avoid investing in specific assets (Williamson, 1979 cited in Murray, Kotabe and Wildt, 1995, p. 187).

2.2.3. Supplier selection

According to Chang, Chen and Zhuang (2014, p. 1101) selecting the right supplier is a mean to effectively reduce purchasing cost and improve product competitiveness, which makes supplier selection an important activity. When selection of suppliers is taking place, many factors should be taken into account, such as finance, service, delivery, quality and price (Narasimhan, 1983 cited in Chang, Chen and Zhuang, 2014, p. 1101). When a single source or an individual supplier can fulfil the company’s requirements, the company only has to determine which supplier is the most appropriate (Ghodsypour and O’Brien, 2001 cited in Chang, Chen and Zhuang, 2014, p. 1101). However, when the company’s requirements necessitate multiple sources or multiple suppliers due to suppliers’ capacity limitations, the company has to decide on which suppliers should be selected and “what amount of order quantities should be allocated to these selected suppliers” (Xia and Wu 2007 cited in Chang, Chen and Zhuang, 2014, p. 1101). A multiple sourcing policy may also lead to reduced purchasing risk and thus avoid shortage of key raw materials or components (Tsai and Wang, 2010 cited in Chang, Chen and Zhuang, 2014, p. 1102).

2.2.4. Sourcing variables of European companies

Rajagopal and Bernard (1994, p. 7) state that, in deciding to begin purchasing from international sources, European companies regard on time delivery and lower prices as more important factors than the factors better quality, items unavailable domestically and willingness to solve problems. Rajagopal and Bernard (1994, pp. 7-8) conclude that the main motivations for European companies to initiate international sourcing are to achieve strategic advantage (cost advantage), absence of a suitable domestic supplier and that competitors in domestic markets are gaining advantage in terms of better quality and lower price due to foreign sourcing. Other motives that are relative less important to European companies are immediate performance improvement (quality advantages) and declining domestic supply base (Rajagopal and Bernard, 1994, p. 8). The continuation of European companies’ international purchasing is mainly driven by the motives lower price, strategic advantage and on time delivery, followed by long-term supplier relationship and better quality (Rajagopal and Bernard, 1994, p. 8). The benefits that European companies identify regarding

international purchasing are, ranked by importance, lower price, increased competition, increased number of sources, better quality and access to worldwide technology (Rajagopal and Bernard, 1994, p. 9). To conclude, the above-mentioned findings indicate that competitiveness with emphasis on prices/costs is a primary concern for European companies, which is a short-term approach compared to e.g., a focus on better quality (Rajagopal and Bernard, 1994, p. 13).

The type of problem that is a major barrier to international sourcing of European companies is quality assurance, that is an important sourcing decision factor (Rajagopal and Bernard, 1994, p. 9). That barrier is followed by foreign exchange rate fluctuations, company integrity, political instability and transportation delays (Rajagopal and Bernard, 1994, p. 9). Successful implementation factors as to international sourcing strategy are, ranked by their importance to sourcing companies of different nationalities; identification of cost/resource opportunity, experience in dealing abroad, ability to evaluate suppliers, measurement/evaluation of benefits and top management commitment (Rajagopal and Bernard, 1994, pp. 9-10). All these factors require a long-term orientation (Rajagopal and Bernard, 1994, p. 10). Companies of different nationalities in the study of Rajagopal and Bernard (1994, p. 10) consider quality as the most important factor, when foreign sourcing is evaluated. This is followed by the factors price, delivery, supplier experience and technological capability (Rajagopal and Bernard, 1994, p. 10).

Assigned buyer in purchasing companies based in different regions (including Europe), is the most preferred trade channel for sourcing from foreign markets, followed by the channels supplier's representative, use of own foreign subsidiary, own trading company and own international purchasing offices (Rajagopal and Bernard, 1994, pp. 10-11). This seems to indicate that direct access to supply source reduces misunderstanding between buyer and supplier and response time (Rajagopal and Bernard, 1994, p. 11).

A sourcing company can cease to purchase from a foreign market and the determinant factors in this context, are ranked by importance; failure to achieve purchasing objectives, "international sanctions, political instability, economic uncertainties and changes in government regulations" (Rajagopal and Bernard, 1994, p. 11).

2.2.5. Developing a global sourcing strategy

Companies that are developing a global sourcing strategy need to consider the combined effect of degree of geographical dispersion of business activities, degree of organisational dispersion of governance structure, degree of disaggregation (core versus non-core activities) and expected outcome, according to Lin (2020, pp. 723-724).

Dispersion of value chain activities takes place when a company reallocates discrete activities in its value chain to internal/external parties i.e., governance issue, across countries, i.e., geographical issue (Lin, 2020, p. 729). An important factor in this context may be location specific advantages, such as knowledge arbitrage, government support and labour cost arbitrage (Lin, 2020, p. 730). The importance of labour arbitrage is particularly important, when co-location of the company is not required and the work can be carried out by highly skilled workers in foreign countries (Lin (2020, p. 732). However, geographical distance has an

essential effect on strategic decisions of global companies (Zaheer and Hernandez, 2011 cited in Lin, 2020, p. 730) and may result in co-ordination and communication difficulties across globally dispersed units (Ambos and Ambos, 2009 cited in Lin, 2020, p. 730). Furthermore, cultural distance has to be considered, which is a reference to differences in values, beliefs and norms across countries (Hofstede, 1983 cited in Lin, 2020, p. 730).

Governance is decision on vertically integrating or outsourcing value chain activities (Lin, 2020, p. 731). According to transaction cost economics, companies disaggregate activities and disperse them to external suppliers only if costs incurred from attempts to minimise opportunistic behaviour of external suppliers can be kept at minimum (Lin, 2020, p. 731). Governance mode also affects a company's degree of control on activities abroad, meaning that a company that keeps activities internally can monitor operational performance and quality (Lin, 2020, p. 731). Outsourcing activities implies that limited resources are set free (Holcomb and Hitt, 2007 cited in Lin, 2020, p. 731), but it may lead to loss of control over outsourced activities and quality of the outcome (Lin, 2020, p. 731). Internal governance mode leads to higher commitment in a company's time, resources and investment, in comparison to external governance mode (Lin, 2020, p. 731).

Disaggregation of value chains takes place when a company's component is divided into "discrete modules and dispersed to be performed by different parties" (Contractor et. al., 2010 cited in Lin, 2020, p. 728). This process requires a carefully examination of the activities in the value chains and an assessment of feasibility, costs and benefits of dividing the process into discrete activities (Lin, 2020, p. 728). According to the resource-based view, companies "classify discrete activities in their value chain into core and non-core activities" (Prahalad and Hamel, 1990 cited in Lin, 2020, p. 728) and then focus on the activities that are classified as core competencies and disperse the rest to suppliers (Apte and Mason, 1995 cited in Lin, 2020, p. 728). The "potential for economic value through an access to more valuable" specialised capabilities is important regarding disaggregation of value chains (Murray and Kotabe, 1999 cited in Lin, 2020, pp. 728-729). The drawbacks of disaggregation are e.g., communication and co-ordination difficulties (Mukherjee et al., 2013 cited in Lin, 2020, p. 729), potential leakage of knowledge when high-value activities are disaggregated (Pisani and Ricart, 2018 cited in Lin, 2020, p. 729) and lack of control (Kedia and Mukherjee, 2009 cited in Lin, 2020, p. 729).

The assumption, made by some studies, that there is one universally sound sourcing strategy that is applicable to all business situations is reasonably wrong (Hambrick and Lei, 1985 cited in Murray, Kotabe and Wildt, 1995, p. 183), since different companies operate in different business environments that require different strategies (Murray, Kotabe and Wildt, 1995, p. 183). Therefore, sourcing will be considered in a more comprehensive framework below.

A discussion of sourcing strategy can be conducted in a more comprehensive way by applying the contingency approach, that uses the organisational "behaviour-environment-performance paradigm" (Murray, Kotabe and Wildt, 1995, p. 183). According to this approach there is a complex interrelationship between different organisational variables and between organisational variables and conditions in the environment (Lawrence and Lorsch, 1967, p. 157 cited in Murray, Kotabe and Wildt, 1995, p. 183). Three types of variables are considered by the contingency approach; contingency (sourcing related factors), response (global sourcing strategy) and performance (market performance) variables (Murray, Kotabe and Wildt, 1995, p. 184). According to this model environmental factors (e.g., sourcing related

factors such as economic, legal, regulatory etc.) and market performance combined are determinants of market performance (Murray, Kotabe and Wildt, 1995, pp. 184-185).

Rajagopal and Bernard (1994, p. 14) state that the decision whether to develop a global sourcing strategy or not can be made by understanding three dimensions. The first one is analytical and motivational dimension, that includes (Rajagopal and Bernard, 1994, p. 14):

- Company internal factors (e.g., corporate goals, global strategy and top management visions), other company-specific factors (product development, quality, cost and delivery requirements) and individual manager's knowledge and skills (Rajagopal and Bernard, 1994, p. 14). To provide an example of the other company specific factors, it is relevant to mention that Kotabe and Murray (1990 cited in Murray, Kotabe and Wildt, 1995, p. 182) found a positive correlation between internal sourcing of major components and a product's market performance (sales growth, relative market share and pre-tax profitability) and they also found that product and process innovations have an effect on a product's market performance.
- Market factors, that is "the need to go overseas" due to e.g., supply disruptions, access to worldwide technology and declining domestic supply base (Rajagopal and Bernard, 1994, p. 14). Furthermore, an MNE that co-ordinates its manufacturing activities in several countries will be able to exploit its competitive advantage and also the comparative advantages of the different countries (Murray, Kotabe and Wildt, 1995, pp. 181-182).
- Environmental factor, that is general economic conditions, foreign exchange rate fluctuations and changes in international/government regulations (Rajagopal and Bernard, 1994, p. 14).

The discussion above show that the initial steps for development of a global sourcing strategy is an assessment of the present/prospective conditions for globalisation, which is determined by e.g., increasing degree of homogeneity of customer behaviour and "likewise the development of supply base in these markets", "competitors that behave globally" and key value-creating activities that offer opportunities for considerable economies of scope/scale (Rajagopal and Bernard, 1994, p. 14).

The second dimension relating to a company contemplating global sourcing is the strategic decision-making dimension (Rajagopal and Bernard, 1994, p. 14). This dimension includes two strategic choices, of which specifying the international sourcing decision strategy is the first one and comprises (Rajagopal and Bernard, 1994, pp. 14-15):

- The international sourcing entry strategy, e.g., local sourcing, indirect import, direct import, establish international procurement offices, establish foreign buying offices, trading companies and foreign direct investments (Rajagopal and Bernard, 1994, p. 15).
- The international sourcing analysis strategy, relating to profitability, assets, costs and risk factors (Rajagopal and Bernard, 1994, p. 15).
- The international supplier relationship strategy, e.g., joint ventures, co-production, partnership agreement, contractual agreement, alliances and licensing, which are highly relevant for long-term global sourcing (Rajagopal and Bernard, 1994, p. 15). Other ways to carry out sourcing from foreign markets are establishing a seller/buyer

relationship and direct investment in foreign production facilities (Rajagopal and Bernard, 1994, p. 5).

- The international withdrawal strategy, e.g., due to political instability, changing government regulations, international sanctions and “failure to meet international purchasing objectives”, which can affect the foreign supply market (Rajagopal and Bernard, 1994, p. 15). Thus, it is important to consider withdrawal strategy and have an alternative supply source ready (Rajagopal and Bernard, 1994, p. 15).

Regarding the above-mentioned profitability/costs and risk, the variables that affect MNEs’ international sourcing decisions regarding components are barriers to trade, transportation costs, production factor costs, market size, exchange rate stability, profitability in host country, product life cycle (PLC) and “nationality of the company making the location decision” (Buckley, 1979; Dunning 1973 cited in Swamidass and Kotabe, 1993, p. 84).

Barriers to trade alter origin of import and nationality of the company affects the extent of foreign production for reimport or export to countries other than home market depending on experience in foreign operations (Swamidass and Kotabe, 1993, pp. 84-85). The PLC is relevant here, since mature products are often manufactured in developing countries by MNEs based in developed countries (Vernon, 1979 cited in Swamidass and Kotabe, 1993, p. 85). Other effects of PLC on sourcing decisions depend on economies of scale, product standardisation allowing production anywhere and uncertainties relating to external procurement (Swamidass and Kotabe, 1993, p. 85). Regarding production and transportation costs, Kotler, Fahey and Jatusripitak (1985 cited in Swamidass and Kotabe, 1993, p. 85) claim that MNEs that make an adequate match between production sites for components/finished products and markets are the ones that achieve the lowest costs. Market size and profitability in host country, that are mentioned above, are important sourcing variables, since growth and profits drive MNEs (Swamidass and Kotabe, 1993, p. 86).

It is also important that a company developing a viable global sourcing strategy takes cost of various resources (Rajagopal and Bernard, 1994, p. 5), “availability of infrastructure (including transportation, communications”, energy and industrial environments) into account (Caddic and Dale, 1986 cited in Rajagopal and Bernard, 1994, p. 5). Political stability and a well-educated urban workforce are other important factors that affect a low-risk procurement success (Hickman and Hickman, 1992 cited in Rajagopal and Bernard, 1994, p. 5).

The second strategic choice of the strategic decision-making dimension (the second dimension) is the degree of involvement, that indicates if a company’s “stage in international development and the top management commitment” to “the international market place” (Rajagopal and Bernard, 1994, p. 15). A company can be solely experimentally involved or can have actively or totally commitment to a global sourcing strategy (Rajagopal and Bernard, 1994, p. 15)

The third dimension relating to a company contemplating global sourcing strategy is operational and managerial dimension, that is required to carry out the strategy (Rajagopal and Bernard, 1994, p. 15). Companies can achieve high-quality outputs and a lower cost structure by an effective co-ordination of sourcing activities (Murray, Kotabe and Wildt, 1995, pp. 181-182). Co-ordination of sourcing activities on a global basis also correlates positively with market performance (global market share) as Kotabe (1989 cited in Murray, Kotabe and Wildt, 1995, p. 183) found. Thus, it is important to have employees with relevant skills,

adequate training programmes and instruments for collection of information in order to co-ordinate and control worldwide sourcing activities (Rajagopal and Bernard, 1994, pp. 15-16). It is important that the organisational structure and managerial co-ordination are congruent with the requirement of the company's international sourcing, in order to enable the company to implement a global sourcing strategy successfully (Rajagopal and Bernard, 1994, p. 16).

2.3. Literature review

Here, previous research is presented divided into strategy and sourcing, i.e., the two subjects of this thesis.

2.3.1. Strategy

Strategy has been subject of many studies and specialist literature. An interesting study is the one of Seifzadeh and Rowe (2019, p.376), that deliver the message that fit between business unit strategy and corporate control is imperative for obtaining financial performance regarding business units that strive for product leadership. Their findings also show that strategic controls have a greater importance than financial controls do in obtaining a greater market share performance and a higher financial performance for all business units (Seifzadeh and Rowe, 2019, p.376). A subject that is closely related to strategy is the one of business models and the study of Bonel and Rocco (2007) is dealing with both strategy and business models. In their empirical study, Bonel and Rocco (2007, pp. 93-94) conclude that their case company has to revise its business model structure carefully, in order to be able to sustain a competitive and co-operative strategy towards the partners. This way the case company can deal with emerging interferences and exploit new complementarities in its interaction with partners (Bonel and Rocco, 2007, p. 94). However, the company may face problems, e.g., in terms of the necessity to take the different partners' needs into account, which may weaken the company's position (Bonel and Rocco, 2007, p. 94).

An issue in the strategic area is the one of generalist or specialist strategic positioning. This was studied by Xie, Xie and Zhao (2018, p. 173), who discovered that a generalist positioning strategy, compared to a specialist positioning strategy, had a positive correlation with the performance of foreign companies in a host market. They also found that local market knowledge and market concentration moderate the generalist strategic positioning (Xie, Xie and Zhao, 2018, p. 173).

Majocchi and Strange (2012) study international diversification from an ownership perspective. Majocchi and Strange (2012, p. 879) explain that a high level of family ownership will have a negative effect on international diversification, whereas a higher proportion of independent directors in family-owned companies will lead to greater international diversification. They also conclude that a high level of state ownership leads to less international diversification (Majocchi and Strange, 2012, p. 879). Closely related to international diversification is the subject of international expansion, that Anwar (2019) studied. In his study, Anwar (2019, p. 183), analysed the global strategy and international expansion of A.P. Moller – Maersk in the context of de-globalisation, slowdown of the economy, and the China-United States trade war. He concludes that A.P. Moller – Maersk will continue to be a major player within the shipping and logistics industry, but that it will be affected by inter alia changing competition (Anwar, 2019, p. 183).

The previous research studies that are mentioned above have some things in common:

- The subject strategy is on an aggregated and overall level for all five studies.
- Strategy is, regarding all five studies, on corporate or business unit level, not on enterprise, functional or operational level.
- The two first-mentioned studies also deal with competition to some extent. The two last-mentioned studies also deal with international diversification or international expansion, i.e., two concepts that are interrelated.

2.3.2. Global sourcing

Sourcing is a broad subject, that covers strategic issues, e.g., sourcing strategy, internal/external sourcing, supplier selection and alliance-based sourcing. It also covers operational issues, e.g., sourcing variables (price, transportation/delivery, product quality etc.).

The study of Murray, Kotabe and Zhou (2005) is addressing sourcing on a strategic level. Murray, Kotabe and Zhou (2005, p. 187) found that at low levels of technological uncertainty and product innovation, there is a positive correlation between strategic alliance-based sourcing and market performance. Though, demand uncertainty and product differentiation had only an insignificant effect on the relationship between strategic alliance-based sourcing and market performance (Murray, Kotabe and Zhou, 2005, p. 187). Another study concerning strategic alliance-based sourcing is the one by Murray (2001). Murray (2001, p. 51) explains that strategic alliance-based global sourcing for major components, involving highly specific assets, may enable a company to reach beyond its core competency. Murray (2001, p. 51) states that the rationale is that external co-operation and internal capability are complementary and not substitutes for each other, a conclusion that derives from the study of Powell, Koput, and Smith-Doerr, (1996, p. 143). Moreover Murray (2001, pp. 51-52) draws on an analogy to the study of Mata, Fuerst and Barney (1995, p. 501) by noticing that a sourcing company “can create long-term competitive advantages through strategic alliance-based global sourcing for major components only if its suppliers possess resources that are heterogeneous and immobile; if not, only temporary competitive advantages can be attained”.

Yet another study that addresses sourcing on a strategic level is the one by Thakur-Wernz and Bruyaka (2017). Thakur-Wernz and Bruyaka (2017) studied inter alia the trajectory of sourcing portfolios of biotechnology and pharmaceutical companies, when keeping development activities internally is no longer an effective option (Thakur-Wernz and Bruyaka, 2017, p. 935). They found among others that their case companies followed a trajectory consisting of the sequences moving development outside company boundaries “(domestic outsourcing), followed by a move beyond geographical boundaries (initially through captive offshoring and then via offshore vendors)” (Thakur-Wernz and Bruyaka, 2017, p. 935). However, they do suggest that the mentioned sequence may be industry specific (Thakur-Wernz and Bruyaka, 2017, p. 935). A subject that is closely related to outsourcing/offshore vendors is the one of global sourcing and supply chains. The empirical study of Christopher, Mena, Khan. and Yurt (2011) addressed global sourcing and supply chains. The conclusion of that study was that supply chains are becoming longer and more fragmented as an effect of global sourcing trends, which is exposing companies to greater risks and costs (Christopher, Mena, Khan. and

Yurt, 2011, p. 77). In dealing with global sourcing risks, they suggest a multidisciplinary approach covering the categories; demand risks, process and control risks, supply risk and environmental and sustainability risks (Christopher, Mena, Khan. and Yurt, 2011, p. 67).

Graham, Burns, Hennelly and Meriton (2019, p. 438) examined an electric sports car manufacturer and various suppliers in the automotive industry and concluded that sourcing plays an important role to achieve strategic advantage and found four key operational capabilities. The first capability is the capability/ability of suppliers to have a local presence and thus be able to deliver high-quality products in minimum time (Graham, Burns, Hennelly and Meriton, 2019, p. 438). The other three capabilities are supplier management, design of the supplier network and the ability of the car manufacturer to align sourcing process with marketing and IT planning processes (Graham, Burns, Hennelly and Meriton, 2019, p. 438).

The previous research studies that are mentioned above have some things in common:

- The subject sourcing is on an aggregated and strategic level, regarding all five studies. Although, it is relevant to note that the study of Graham, Burns, Hennelly and Meriton (2019) is on a strategic as well as an operational level.
- The three first-mentioned studies also concern co-operation in some form, whether it is in terms of strategic alliances or outsourcing.

3. Methodology

In this chapter an account is given of the methodology that was used, when the research was conducted. Thus, an account is given of the scientific positioning, scientific approach and the composition of the research. Furthermore, an account is given of data collection methods, selection of case companies and how the data were evaluated (value of the thesis).

3.1. Scientific positioning

Scientific views and scientific work are based on paradigms. A paradigm can be described as the conception of the world, “a science theoretic view or school that controls science within closely related research disciplines” and the theoretical model or starting-point that researchers use in the context of a clearly-defined research task (Kuhn, 1962 cited in Patel and Tebelius, 1987, p. 27)

Burrell and Morgan (2001, p. 21) clarify the choices that researchers in social theories make on a general scientific level. Burrell and Morgan (2001, p. 21) discuss the notion that the assumption about the nature of science can be described in terms of two dimensions, namely the regulation-radical change dimension (i.e., assumption about the nature of society) and the subjective-objective dimension.

3.1.1. Regulation - Radical change

The first dimension, namely the regulation-radical change dimension, reflects different sociological views on society (Burrell and Morgan, 2001, p. 17). The sociology of regulation regards the society as characterised by e.g., status quo, social order, consensus and social integration/cohesion (Burrell and Morgan, 2001, p. 18). The sociology of radical change regards the society as characterised by e.g., radical change, structural conflict, modes of domination and contradiction (Burrell and Morgan, 2001, p. 18).

3.1.2. Subjectivism – Objectivism

The second dimension, namely the subjective-objective dimension, can be explained by four assumptions, that are shown in the figure below.

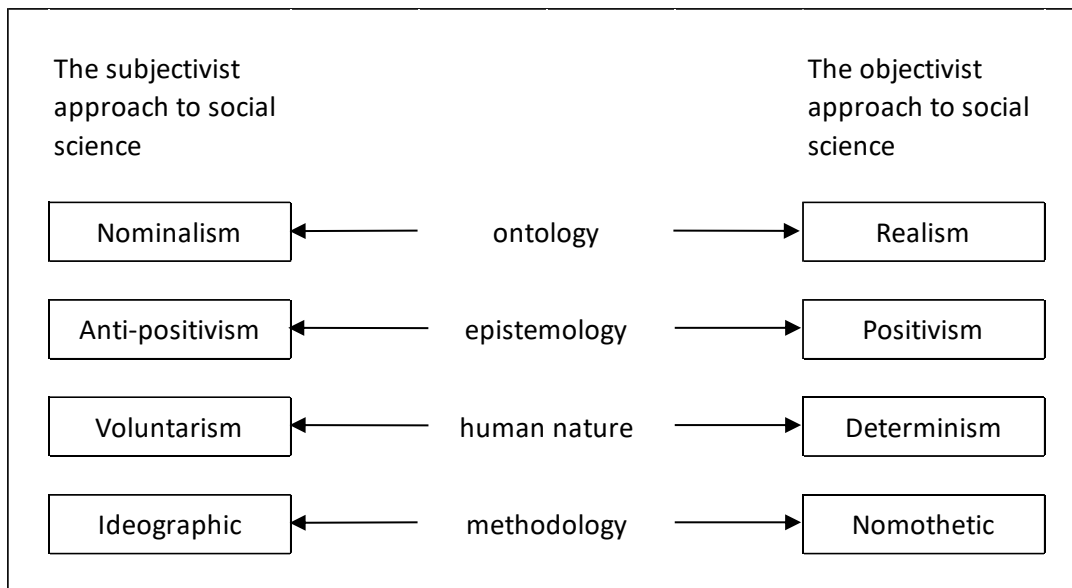


Figure 9: The subjective - objective dimensions

Source: Burrell and Morgan (2001, p. 3)

3.1.2.1. Ontology

Ontology is the science of existence, i.e., ontology is concerned with fundamental conception of the nature of reality (Rosengren and Arvidson, 2002, p. 310). In principle, it is impossible to test ontological assumptions and thus these assumptions can seem arbitrary, but they appear as obvious and intuitive truths (Rosengren and Arvidson, 2002, p. 310).

The two antipoles in this context are nominalism and realism (Burrell and Morgan, 2001, p. 3). Nominalism implies that “the social world external to individual cognition is made up of nothing more than names, concepts and labels which are used to structure reality” and thus there is no real structure to the world (Burrell and Morgan, 2001, p. 4). Realism implies “that the social world external to individual cognition is a real world made up of hard, tangible and relatively immutable structures” (Burrell and Morgan, 2001, p. 4).

The author of this thesis believes that the social world incorporates elements of both nominalism and realism. More specifically, this means that there is a real structure to the world, but within this structure individuals are creating their own social reality, affected by how these individuals perceive, interpret and value occurrences.

3.1.2.2. Epistemology

Epistemology is the science of knowledge and it consists of a set of rules on how assured knowledge about reality can be attained (Rosengren and Arvidson, 2002, p. 310). For instance, a scientific assertion about reality must, in order to be considered a truth, be in accordance with previous experiences of reality as perceived by human senses/reason and be strengthened by scientific theories/methods (Rosengren and Arvidson, 2002, pp. 310-311). Furthermore, a scientific assertion must not contradict laws of logic and “a scientific work

must be accepted by the scientific discipline, with in which it is brought forth” (Rosengren and Arvidson, 2002, p. 311).

Here, the two antipoles are anti-positivism and positivism (Burrell and Morgan, 2001, p. 5). Positivism implies a search for regularities/causal relationships between the constituent elements of the social world, in order to explain and predict what happens in it (Burrell and Morgan, 2001, p. 5). Anti-positivism rejects utility of a search for underlying regularities or laws in the social world, since the social world is considered as essentially relativistic that “can only be understood from the point of view of the individuals who are directly involved in the activities which are to be studied” (Burrell and Morgan, 2001, p. 5). The notion that science can generate objective knowledge tends to be rejected by anti-positivists (Burrell and Morgan, 2001, p. 5).

The author of this thesis believes that there is objective knowledge that is dependent on regularities and causal relationships. However, the author also believes that there is subjective knowledge, that can only be attained when a researcher puts himself/herself in the position of the individuals that are involved in the activities that are the subject of the study. It is the conviction of the author of this thesis that the social world can be understood by subjective knowledge in a greater extent than by objective knowledge.

3.1.2.3. Human nature

The human nature deals with “the issue of what model of man is reflected in any given social-scientific theory” (Burrell and Morgan, 2001, p. 6).

The two antipoles in this context are voluntarism and determinism (Burrell and Morgan, 2001, p. 6). Voluntarism suggests that man is completely free-willed and autonomous (Burrell and Morgan, 2001, p. 6). Determinism implies that man and his activities are “completely determined by the situation or environment in which he is located” (Burrell and Morgan, 2001, p. 6).

The author of this thesis believes that there are both situational and voluntary factors that have an implication on man and his activities. The author acknowledges both determinism and voluntarism. An individual can make choices in a particular situation/environment, although the number of options available can vary from one situation/environment to another and from one individual to another.

3.1.2.4. Methodology

Methodology is about the procedures that are applied when research is conducted. Here, the two antipoles are the ideographic and the nomothetic approach (Burrell and Morgan, 2001, p. 6).

The ideographic approach implies trying to understand a phenomenon in its own situation (Rosengren and Arvidson, 2002, p. 303). It is important to get close to the subject under investigation in order to understand in detail its nature, characteristics, background and life history (Burrell and Morgan, 2001, p. 6). Probably followers of the ideographic approach are more inclined to apply explorative and descriptive research approaches and refrain from

explanatory ones (Rosengren and Arvidson, 2002, p. 303). The nomothetic approach suggests that it is important to base research “upon systematic protocol and technique” and thus “construction of scientific tests” is a vital part of this approach (Burrell and Morgan, 2001, p. 6).

The nomothetic approach advocates explorative research that in utopian cases leads to descriptive knowledge and finally end in explanatory theories that are generally applicable (Rosengren and Arvidson, 2002, p. 303).

The research of this thesis has been conducted in accordance to the ideographic approach. It has been important to get close to the chosen case companies, in order to understand their nature and characteristics in a more detailed way, which is a fact that necessitated that only a few case companies were selected.

3.1.3. The four paradigms

The discussion above regarding the two dimensions, namely the regulation-radical change dimension and the subjective-objective dimension leads to the four paradigms. The author of this thesis has affiliation to the interpretive sociology.

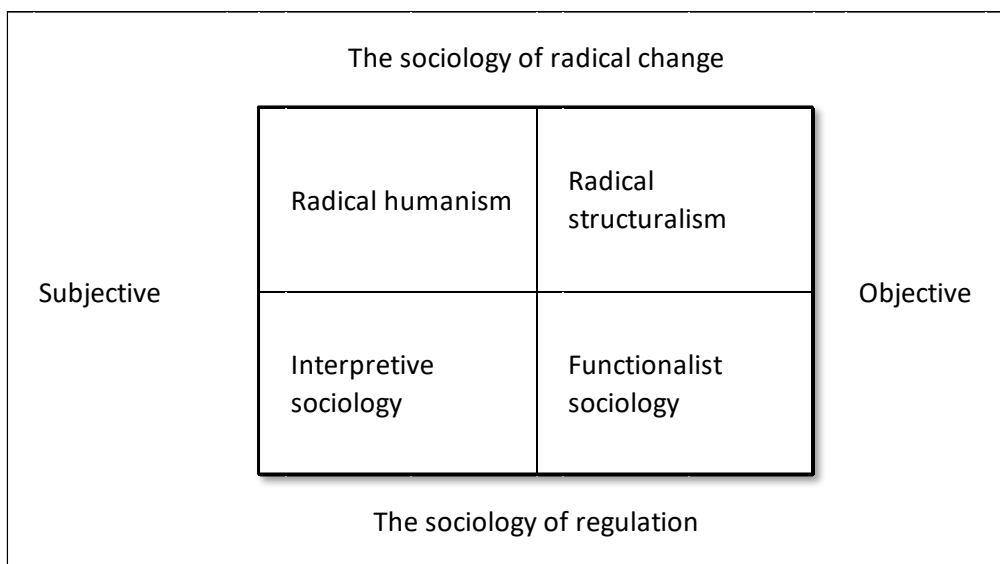


Figure 10: The four paradigms for analysis of social science

Source: Adapted from Burrell and Morgan (2001, p. 29)

The Interpretative sociology is best described in the following way:

In its approach to social science it tends to be nominalist, anti-positivist, voluntarist and ideographic. It sees the social world as an emergent social process which is created by the individuals concerned. Social reality, insofar as it is recognised to have any existence outside the consciousness of any single individual, is regarded as being little more than a network of assumptions and intersubjectively shared meanings. The ontological status of the social world is viewed as extremely questionable and problematic as far as theorists located within the interpretive paradigm are concerned. Everyday life is accorded the status of a miraculous achievement. Interpretive philosophers and sociologists seek to understand the very basis and source of social reality. They often delve into the depths of human consciousness and subjectivity in their quest for the fundamental meanings which underlie social life. (Burrell and Morgan, 2001, pp. 28-31)

3.1.4. Hermeneutics

Hermeneutics emerged as a scientific approach as criticism of Hegel's idea of historical reason and as criticism of the claim of positivism that its ideas might be applied on human and social circumstances (Patel and Tebelius, 1987, p. 32).

The hermeneutic approach states that there are always intensions and motives behind the actions, language and gestures of human beings (Patel and Tebelius, 1987, p. 33). The historical and contemporary context, within which human beings live, provide common symbols and concepts (Patel and Tebelius, 1987, p. 33). These symbols and concepts and the material objects that surround human beings are all part of the reality (Patel and Tebelius, 1987, p. 33). Within the framework of this reality the interpretation and understanding are taking place through the use of the language (shapes the thinking), standpoints and values (Patel and Tebelius, 1987, p. 33).

The language is a basis for the world view of human beings and also the basis of human beings' understanding of the existence (Patel and Tebelius, 1987, p. 33). There is no neutral language, that is free from values, rather deciphering of the experiences and traces that humans mediate is the foundation of achieving understanding (Patel and Tebelius, 1987, p. 33).

Thus, interpreting and understanding the products of the human mind is important in hermeneutics (Burrell and Morgan, 2001, p. 235), which implies that hermeneutic research is subjective (Patel and Tebelius, 1987, p. 34). The researcher uses deliberately his/her values and understanding of the phenomenon in the research process (Patel and Tebelius, 1987, p. 34). Furthermore, the researcher's experiences and knowledge constitute the preunderstanding and are used in the interpretation process (Patel and Tebelius, 1987, p. 34). The preunderstanding may be empathetic in the sense of the researcher's ability to put himself/herself in the human study subject's position, but it may also be rational meaning that the researcher has an understanding of the circumstances of the human study subject (Patel and Tebelius, 1987, p. 34).

As to interpretation of e.g., the language of the study subject, the individual meaning of the different parts that make up a linguistic context is determined by the entirety (Patel and Tebelius, 1987, pp. 34-35). Simultaneously the different parts determine the meaning of the entirety (Patel and Tebelius, 1987, p. 35). This is called the hermeneutic spiral (Patel and Tebelius, 1987, p. 35). Thus, it is relevant for a researcher to analyse the different parts as well as the entirety.

Studying how a few Swedish companies have responded to covid-19 in terms of changes in corporate strategy, business unit strategy and sourcing strategy, which is the subject of this study, requires a depth and an understanding/interpretation of not only the phenomenon itself, but also of the study subjects. The author of this thesis believes that this is best achieved by applying a hermeneutic approach.

3.2. Scientific approach

3.2.1. Deductive approach

The deductive approach is used in this research. The deductive approach has its starting-point in existing conceptions and theories, as opposed to the inductive approach that has its starting-point in empiricism (Eriksson and Wiedersheim-Paul, 2014, p. 85).

The deductive approach is used in light of the previous theoretical knowledge, that the author has gained through education recently and in the past. Also, the experiences of the author are a reason for using the deductive approach.

3.3. Research type

3.3.1. Case study

“Case studies examine a greater number of variables in detail on” fewer individuals, than surveys (Patel and Tebelius, 1987, p. 62). In the case of case studies, the variables do not have to be simplified to the same extent as is the case for surveys (Patel and Tebelius, 1987, p. 62). When case study is used in the research, the researcher uses a number of techniques, in order to collect data; observations, interviews, documents and self-reporting (Patel and Tebelius, 1987, p. 62).

The research is based on a few case companies and examination of a greater number of variables in detail. Therefore, the case study has been chosen in conducting this research.

3.4. Data collection method

Empirical data are data that the researchers register about what is perceived as reality (Eriksson and Wiedersheim-Paul, 2014, p. 90). Empirical data can be classified as e.g., primary data and secondary data (Eriksson and Wiedersheim-Paul, 2014, p. 90).

3.4.1. Primary data

Primary data has to be collected from sources, i.e., from respondents/interviewees, observations and measurements (Eriksson and Wiedersheim-Paul, 2014, p. 90).

The advantage of primary data is that a high degree of adaptation between questions and data is possible, which means a higher validity (Eriksson and Wiedersheim-Paul, 2014, p. 90). The drawbacks are the fact that collection of primary data is time-consuming and that accessibility is an issue (Eriksson and Wiedersheim-Paul, 2014, p. 90).

The empirical data in this thesis were primarily collected through interviews with respondents, that are employed by the selected case companies. However, the interviews were not conducted in the context of physical visits, but by using Microsoft Teams, a communications technology. The author had ahead of the interviews prepared questions, but the respondents were allowed to speak freely. In many cases, the interviewer asked supplementary questions and asked for clarifications.

Three supplementary questions were asked and responded by e-mail by one respondent, at the end phase of the collection of empirical data.

Something that facilitated the data collection was the fact that every interview was divided in five areas; general, sourcing of business unit, strategy formulation at business unit level, corporate strategy (including international/global strategy) and business unit strategy. This way of working provided a structure and made it relatively easy to categorise the data, since the above-mentioned areas could be used as themes. It also facilitated comparison of the respondents' answers. In some cases, the respondents answered questions and simultaneously provided information regarding other questions. The information that related to other questions were allocated to the "right" themes according to what issues they addressed.

3.4.2. Secondary data

Secondary data are already collected and can be found in e.g., registers, databases, archives and documents (Eriksson and Wiedersheim-Paul, 2014, p. 90).

The advantage of secondary data is the fact that great volume of data is available, e.g., in databases, which saves time and money for the researcher (Eriksson and Wiedersheim-Paul, 2014, p. 90). The disadvantage is the fact that only a lower degree of adaptation between questions and data is possible, which means only a lower degree of validity (Eriksson and Wiedersheim-Paul, 2014, p. 90).

The little secondary data that were collected in this research originate from website and annual report of the corporate group, that the case companies belong to.

3.4.3. Qualitative data - quantitative data

This section is inspired by the article of Åsberg (2001), who state that there are no qualitative or quantitative research methods (Åsberg, 2001, p. 270). The terms qualitative and quantitative are rather referring to the characteristics of the phenomena that are studied and these characteristics are reflected in the data that are collected in the process of studying the phenomena (Åsberg, 2001, p. 270). The data can be qualitative, i.e., in the form of words, or quantitative, i.e., in the form of figures (Åsberg, 2001, p. 270).

The data that were collected in this research are primarily in the form of words, that is qualitative data. Only limited amount of quantitative data, in the form of figures, were collected.

3.5. Selection

Explorative research is characterised by the fact that not much is known about the phenomenon that is to be studied (Rosengren and Arvidson, 2002, p. 123). Explorative studies can also be applied in the context where the established science claims to have knowledge, but where this knowledge is questioned (Rosengren and Arvidson, 2002, p. 123). Ideally, study objects should be chosen by identification of the individuals (or other units) that are the greatest information sources (Rosengren and Arvidson, 2002, p. 124). This process is incremental, implying that one individual is chosen at a time, and the starting position also changes for every individual that is studied (Rosengren and Arvidson, 2002, p. 124). When the first individual has been studied the researcher forms an opinion about what study object can provide additional contributions, in terms of information to the research (Rosengren and Arvidson, 2002, p. 124). The ideal end is to achieve saturation, in terms of information (Rosengren and Arvidson, 2002, p. 124). However, when it comes to case studies, the number of cases is limited compared to surveys that require “an operational enumeration of the entire universe or pool of potential respondents and then a statistical procedure for selecting a specific subset of respondents to be surveyed” resulting in sample data that reflect the entire pool (Yin, 2003, p. 48). The sampling logic of a survey are not applied to case studies and the reason is inter alia that it otherwise would lead to cases that are too many to “allow any statistical consideration of the” large number of relevant variables (Yin, 2003, p. 48).

Selection of the case companies was not based on a statistical procedure, such as probability. It was a matter of subjective selection of case companies. The selection was based on a number of criteria; 1) Their nationality of ownership had to be Swedish, 2) they had to be a business unit of a corporate group, which implies a study from the perspective of a business unit and not from the perspective of corporate office of a corporate group and 3) they had to have the following functions in their organisations; sourcing, manufacturing, marketing, sales and management. Furthermore, the study subject (interviewees) had to be top executives with access to information about strategy and sourcing.

Below the selected case companies are shown.

Company name	Respondent	Title	Interview session	Duration
Nolato Polymer Aktiebolag	Anders Willman	Managing director	Interview session 1	89 min
Nolato Polymer Aktiebolag	Anders Willman	Managing director	Supplementary interview	33 min
Nolato Cerbo AB	Glenn Svedberg	Managing director	Interview session 1	68 min
Nolato Gota AB	Lotta Gerner	Senior Manager Administration & Finance	Interview session 1	83 min

Figure 11: The case companies

Source: The author's own illustration

3.6. Value of the thesis

Researchers encounter different problems in the case where information is in verbal form compared to the case where information is in numerical form (Patel and Tebelius, 1987, p. 70-81). Since this research is dealing with mainly information in verbal form, only problems related to that category of information are mentioned below.

3.6.1. Applicability

Trying to discover and understand phenomena or a set of problems has consequences for the selection of examination techniques and research disposition (Patel and Tebelius, 1987, p. 77). It is important to ensure that the situations and individuals that are selected can provide rich verbal information, since expressed opinions and experiences are reflections of reality (Patel and Tebelius, 1987, p. 77). The examination techniques are selected, with the aim to leave room for the individuals' expressions/interpretations of the problem (Patel and Tebelius, 1987, p. 77). In order to increase applicability, different information collection techniques may be used, e.g., observations and interviews. (Patel and Tebelius, 1987, p. 78). The individuals are selected systematically, e.g., by their position in a group (Patel and Tebelius, 1987, p. 77).

The examination techniques (primarily interviews) of this research are regarded as appropriate with regard to the research disposition (case study, mainly primary data, primarily qualitative data etc.). The examination techniques in this research were interviews, but three supplementary questions were asked/answered using e-mail at the end of the data collection phase. Interviews are an excellent way of collecting information in verbal form and leave room to the interviewees' experiences/interpretations. The interviewees are senior executives with insight in decisions regarding strategy and sourcing. Thus, applicability is regarded as high.

3.6.2. Accordance - plausibility

When the collected data is qualitative (words), there are no absolute criteria, that can be used to determine if the collected data is in accordance with reality (Patel and Tebelius, 1987, p. 78). The issue is rather about showing the degree of plausibility of the information and the interpretations (Patel and Tebelius, 1987, p. 78). The data collection technique is evaluated in relation to its ability to provide rich information (Patel and Tebelius, 1987, p.

78). The plausibility of the interpretations is evaluated by how the diversity of the information is used (Patel and Tebelius, 1987, p. 79). When the interest of the research is the experiences of the informants (interviewees), the plausibility of the interpretations is to be evaluated in relation to the experience itself, i.e., “the informants’ personal relation to the actual situation” (Patel and Tebelius, 1987, p. 79). The interpretations can be evaluated by comparing them to generally accepted conceptions and knowledge about the phenomenon (Patel and Tebelius, 1987, p. 79).

The collected data are reflections of the interviewees’ experiences of their situations and the author of this thesis has made interpretations of the collected data. This does however not imply that the argumentations in this thesis are arbitrary. Sources have been used in support of the argumentations/interpretations. It is also possible to critically examine this research in order to ensure that it is based on reality. Primarily interviews have been used as data collection technique and are considered to provide rich information. Thus, the validity is considered to be high.

3.6.3. Credibility

It is important that the researcher can argue for the credibility of the information, when data is collected and when interpretations are taking place (Patel and Tebelius, 1987, p. 80). The researcher has to show that the interpretations are not based on preconceptions and stereotypical perceptions (Patel and Tebelius, 1987, p. 80). It is also important that the informants (interviewees) express their genuine feelings and experiences and be prepared to give rich information (Patel and Tebelius, 1987, p. 80). The researcher has to commit to the interaction, but at the same time observation, distance to what is taking place immediately and ability to reflect are required (Patel and Tebelius, 1987, p. 80).

In the analysis chapter of this thesis, sources have been used in support of the argumentations. Information about the issues of this research, i.e., strategy and sourcing, may be considered as confidential information and thus one could argue that there may be a risk that the interviewees did not express their genuine feelings and experiences. However, the author’s assessment of the situation and the overall consistency of the interviewees in their reply indicate that the interviewees expressed their genuine feelings and experiences. Thus, this research is regarded as credible.

3.6.4. Accuracy – conscientiousness and honesty

The researcher’s accuracy and honesty are determinants of the quality of his/her research, since the researcher has only his/her knowledge and judgement to rely on (Patel and Tebelius, 1987, p. 81). “The researcher must be aware of the asymmetry of the situation” and not manipulate or extort standpoint or opinions from the interviewee or falsify event or information for that matter (Patel and Tebelius, 1987, p. 81). Accuracy and conscientiousness are especially important in the interpretation process (Patel and Tebelius, 1987, p. 81). Themes that appear in the text must be followed and their reasonableness must be tested against different perspectives (Patel and Tebelius, 1987, p. 81). Contradictory information and information that deviates from the interpretations shall not be excluded and quotations shall be presented in their context (Patel and Tebelius, 1987, p. 81).

The author of this thesis has to his best ability conducted the research with conscientiousness, accuracy and honesty in mind. The author has not manipulated interviewees and not manipulated/falsified information. All themes that appeared have been taken into account, regardless if they fit the interpretations or not and quotations have been presented in their context. Thus, the accuracy of this thesis is regarded to be high.

3.7. Source criticism

3.7.1. Primary data

The primarily data in this research was collected through interviews with respondents, that are employed by the selected case companies. Three supplementary questions were asked and responded by e-mail, at the end phase of the collection of empirical data.

There may be a risk that the interviewees may not disclose what they really know. This may be the case since corporate strategy, business unit strategy and sourcing matters may in some cases be sensitive information.

However, since all case companies belonged to the same corporate group and the information from the interviewees were not conflicting in relevant respects the above-mentioned risk is not considered to be considerable.

3.7.2. Secondary data

The little secondary data that were collected in this research originate from website and annual report of the corporate group, that the case companies belong to. There may be a risk that this information is biased, wrong or subject to some kind of error. Another risk is that relevant information may be omitted.

4. Empirical data

In this chapter an account is given of the empirical findings. First information about the case companies in question is presented. This is followed by an account of the data that were collected through the interviews. The data is presented in five categories; company description, corporate strategy, international strategy and global strategy, business unit strategy, strategy formulation at business unit level and global sourcing.

The respondents are presented in figure 11 in the selection section of the methodology chapter.

4.1. Company description

4.1.1. Nolato Polymer Aktiebolag

Nolato Polymer Aktiebolag is a company/business unit within Industrial Solutions, that is one of three business areas of Nolato Aktiebolag (Nolato Aktiebolag, n.d.d), hereinafter called Nolato Aktiebolag, the Nolato group or the corporate group. There are three business areas in Nolato Aktiebolag, that apart from Industrial Solutions include Medical Solutions and Integrated Solutions (Nolato Aktiebolag, 2021). Nolato Aktiebolag consists of 34 business units in Asia, Europe and North America (Nolato Aktiebolag, n.d.d). The total net sales of Nolato Aktiebolag were SEK 9,4 billion and there were 6 721 employees on average in 2020 (Nolato Aktiebolag, 2021).

Nolato Polymer Aktiebolag has net sales of approximately SEK 240 million, roughly 105 employees and is one of the smaller business units according to the managing director of the business unit. The main business of the business unit is injection moulding of plastic, TPE and silicone for general industry (Nolato Aktiebolag, n.d.e).

The company has conducted international sourcing since the 1960s. The volume of sourcing from other business units of Nolato Aktiebolag is insignificant and thus sourcing is conducted almost exclusively from external suppliers. The majority of the suppliers of Nolato Polymer Aktiebolag are located in Sweden, but the company has also suppliers in Belgium, Holland and England. Furthermore, sourcing of components is conducted from suppliers in China, but this takes most often place through agents in Sweden.

4.1.2. Nolato Cerbo AB

Nolato Cerbo AB is a business unit/company within Medical Solutions, that is one of three business areas of Nolato Aktiebolag (Nolato Aktiebolag, n.d.d). Further information about Nolato Aktiebolag is mentioned in the company description section of Nolato Polymer Aktiebolag.

The net sales figures of Nolato Cerbo AB are not public figures and cannot be disclosed according to the managing director of the business unit. The business unit has approximately

160 employees according to the interviewee. The main business of the business unit is pharma packaging (Nolato Aktiebolag, n.d.a).

The volume of sourcing from other business units of Nolato Aktiebolag is insignificant and thus sourcing is conducted almost solely from external suppliers. The major suppliers of Nolato Cerbo AB are located in Europe; Germany, France, Belgium, Holland, Austria, Italy, Sweden, Poland and Great Britain, according to the respondent.

4.1.3. Nolato Gota AB

Nolato Gota AB is a business unit/company within Industrial Solutions, that is one of the three business areas of Nolato Aktiebolag (Nolato Aktiebolag, n.d.d). Further information about Nolato Aktiebolag is mentioned in the company description section of Nolato Polymer Aktiebolag.

The net sales figures of Nolato Gota AB were approximately SEK 650 million in 2020, according to the respondent. The business unit has roughly 250 employees according to the interviewee. Nolato Gota AB is a high-tech injection moulding company and is specialised in development and manufacturing of advanced plastic products with considerable technical content. (Nolato Aktiebolag, n.d.c). Nolato Gota AB has operations in the automotive industry (cars/trucks) and minor operation regarding garden (plastic parts to lawnmowers, brush saws and chainsaws, to the customer Husqvarna), according to the interviewee.

There is no internal sourcing from other companies in the corporate group, according to the respondent. The suppliers of Nolato Gota AB are located in Sweden and Europe. Large volumes of raw materials and plastic materials are sourced from Germany and that country is the largest sourcing market for the company. However, the company also receives deliveries from France and Austria, according to the interviewee.

4.2. Corporate strategy, international strategy and global strategy

4.2.1. Nolato Polymer Aktiebolag

Since the interviewee referred to the company website, as mentioned below, the author of this thesis extracted information from the annual report that is published on the corporate website. Nolato Aktiebolag, i.e., the corporate group, states in the annual report for 2020 the corporate group's strategic focus. The strategic focus consists of five areas; 1) the "aim to be a high-tech partner with a global presence, with the objective of long-term growth and stable returns for shareholders", 2) a world-class expertise and offering, meaning investments in employees, expertise and cutting-edge technology, 3) a decentralized organisation, that enables business units to adapt offerings to customer demands and the similarity of technology in the business areas that generate synergies 4) a customer-oriented strategy, meaning that the corporate group is looking for large customers in product areas that have organic growth and 5) to expand by accompanying existing customers into new markets and by acquisition of companies that broadens customer base and product offering (Nolato Aktiebolag, 2021).

Regarding corporate strategy the interviewee said that there is an entrepreneurial spirit in the Nolato group and it wants to be a global company with local presence. The respondent does not know whether the pandemic has induced the corporate group to change the strategy or not. He does not have insight into corporate group matters.

The respondent said that the group wants to acquire companies that are profitable and expand the corporate group's market and customer base. Furthermore, the interviewee stated that the business units of the company run their operations independently and there is no sourcing function, marketing function, human resource department or development operation in the centre of the corporate group. All these operations are allocated to the business units. For further information the respondent referred to the company website.

The interviewee stated that they use their strength and co-ordinate between different business units. For instance, the different heads of sourcing of the different business units (at least those in Europe) are part of a group. These individuals co-ordinate and try to establish agreements that can be used by the different business units. The chief technology officers and the chief financial officers also meet their respective colleagues in the other business units and exchange information and try to help each other. Covid-19 has not induced the companies in the corporate group to make any changes regarding this issue.

According to the interviewee, covid-19 has not prompted the corporate group to make any changes in terms of mergers/acquisitions. The respondent does not know of any joint ventures and strategic alliances of the corporate group. However, there is a clear acquisition strategy; the corporate group is interested in acquiring companies that are profitable and can add new customers/markets or companies that have technology that does not exist in the corporate group. Covid-19 has not prompted the corporate group to change this acquisition strategy, but it is difficult to conduct due diligence now since physical visits are not possible.

There is a fundamental strategy that states that every individual company owns its business, its balance sheet and its income statement and is developed from that starting point, according to the respondent. However, the company submits a strategy plan and it has to be approved by the board of directors of the corporate group. Another fundamental strategy is that the group operates in the plastics industry, injection moulds plastic, addresses other industrial customers and has no products of its own (owned by customers) and has no design responsibilities. Nolato Polymer has to relate to these conditions. No standardisation of products is taking place in the Nolato group, since the products are owned by the customers. Standardisation of processes depend on co-operation between the business units.

4.2.2. Nolato Cerbo AB

Regarding the strategy of the Nolato group, that is corporate strategy, the respondent referred to the corporate website. The corporate group's strategic focus is mentioned above in the strategy section of Nolato Polymer Aktiebolag.

The Nolato group has operations in industries that are related to each other. The different business units' main business is plastics and polymeric products, according to the interviewee.

Covid-19 has not prompted the corporate group to make any changes in this issue, the respondent said.

As to potential changes regarding joint ventures, strategic alliances and mergers/acquisitions prompted by the pandemic, the interviewee mentioned that they are using digital communication tools and that everything takes longer. However, the Nolato group made an acquisition in 2020, but the contact with the acquired company was established before the emergence of the pandemic.

Regarding resource allocation across the business units in the corporate group, the interviewee mentioned that it is a decentralised corporate group, where the business units control themselves and have their own resources. There are however budgets to relate to.

The respondent mentioned that there is a non-formalised co-operation between the business units. For instance, it is possible for business units to use contracts entered into by other business units, which enables volume discounts.

There is a low degree of strategy integration and low degree of co-ordination from the centre regarding strategic activities, according to the interviewee. Furthermore, the respondent said that the centre of the Nolato group does not standardise products/processes. Sourcing, sales/marketing and quality work is decentralised from the centre to the business unit, but there is co-operation between the business units based on business advantage and voluntarism. The pandemic has not induced any changes regarding this issue, according to the assessment of the interviewee.

4.2.3. Nolato Gota AB

Regarding the corporate strategy, the senior manager administration & finance said, that the companies in the corporate group are not tightly controlled and thus have space to make their own decisions. The respondent stated that the corporate group has three pillars; industrial, medical and telecom. Referring to what the interviewee said, telecom is part of the business area Integrated Solutions (Nolato Aktiebolag, n.d.b.). The corporate group is not growing much in industrial, according to the interviewee. Rather new companies are acquired in medical and telecom, the interviewee said. The corporate group has several pillars. If one performs poorly, e.g., Industrial Solutions due to covid-19, then the performance of e.g., Medical Solutions is better. The respondent does not know whether covid-19 has induced the corporate group to change the corporate strategy or not, since she is not informed as to the strategies of the corporate group.

The author of this thesis has mentioned the corporate group's strategic focus above in the strategy section of Nolato Polymer Aktiebolag.

As to resource allocation, the interviewee said that no resource allocation is taking place across the business units. The business units are all individual companies within the corporate group. However, if a business unit has a machine to spare, an offer is sent internally within the corporate group before an external sale takes place.

The respondent said that the corporate group has operations in three industries; industrial, telecom and medical and that there is no relatedness across these industries. Within the business area industrial, the individual companies help each other to the extent it is needed. If one company is struggling, then it is possible to hire that company instead of using subcontracting. For instance, Nolato Gota has a sister company in Gothenburg and that company produces plastic parts to cars, while Nolato Gota manufactures another plastic part to cars. The respondent is implying that co-operation between the business units is possible, according to the author of this thesis.

Information about possible joint ventures, strategic alliances or mergers/acquisitions in progress is not available for management of a particular business unit, before the conclusion of a potential business deal, unless the business unit is affected by the deal. These issues are trade secrets.

Regarding strategy integration, co-ordination of strategic activities and standardization of products/processes, the interviewee said that there is standardisation of reports within the financial functions, so the corporate group can get the financial information that is necessary according to the law. Managers in the functions finance, sourcing, quality, manufacturing and marketing meet their respective colleagues in the corporate group, in order to get to know each other and help each other. The corporate group does not get involved in this issue, since the business units are independent. However, there is a strategy document for the corporate group, that all companies have to submit in order to ensure that the strategy presentations for all companies are similar. Although the individual companies are working with their own strategies, wherein the corporate group does not get involved. The strategies cover one year in detail and three years on a general level. Covid-19 has not prompted any changes regarding this issue and the business units continue to be independent.

4.3. Business unit strategy

4.3.1. Nolato Polymer Aktiebolag

The strategy of the business unit is not public information and the managing director cannot disclose it. Reference was made to the company website, by the managing director. However, the interviewee said that covid-19 has not led to any changes in the business unit strategy.

According to the respondent the strategy of the business unit follows a certain standard, that is set by the corporate group. All business units have to follow the guideline from the group. There is for instance a guideline that Nolato Polymer Aktiebolag has to keep to Sweden and Denmark as markets. It does not process other markets. However, Nolato Polymer Aktiebolag sells a lot to the United States of America (hereinafter denominated United States), but these sales are made to the customer Husqvarna. The deal is however made in Sweden. In this case Husqvarna happens to have one factory in the United States, one factory in China and one factory in Japan. The company delivers to many places, but from a market strategic perspective only the Danish and Swedish markets are processed.

The interviewee stated that the Nolato group's operations are injection moulding, it is a plastics company with polymeric products, such as plastics, silicone and rubber. The pandemic

has not induced the corporate group to make any decisions about businesses to build, hold, harvest and divest and thus no measures have been taken in terms of strategy changes.

Nolato Polymer made a strategic choice 5-7 years ago, which implied investing in customers that consider the company a partner and not just a supplier. The respondent could not categorise this in a matrix, in terms of cash source, cash use, market growth and relative market share.

The Nolato group is not the cheapest company, according to the respondent. The price is not the most important issue. The business unit does not compete by price, but rather by the business idea to grow with partners, who themselves consider the business unit as a partner. The business unit strives to give the customers the best possible value. Communication, availability, innovation and dealing with customer complaints are important issues. The pandemic has not caused any change regarding this competitive advantage.

The interviewee said that the time-framework is too short and he could not take his stand regarding how covid-19 may have changed competition, in terms of intensity of industry competition between existing players, the bargaining power of suppliers, the bargaining power of customers, the threat from new entry/players and the threat from substitutes.

According to the interviewee there are certainly other companies, that have got in trouble due to their customer structure. Other injection moulding companies, that were targeting the automotive industry got in trouble in 2020, but they are presumably doing better this year.

4.3.2. Nolato Cerbo AB

A declaration of the profile of the business unit that gives direction and may be considered as the business unit strategy is according to the interviewee as follows:

“With sustainability and operational excellence in focus, Nolato Cerbo develops, manufactures and distributes pharmaceutical packaging and medical device components in polymer materials. You will find a dedicated team who believes in what we do and together with our customers, our experienced and committed team always strive to find the best and most valuable solutions.”

- Glenn Svedberg, Nolato Cerbo AB.

During the interview the respondent said that covid-19 has not prompted any change in the business unit strategy.

The interviewee stated that covid-19 has not prompted any decisions about businesses to build, hold, harvest and divest and thus no measures have been taken in terms of strategy changes. The respondent declined to categorise the business units or part of business units in terms of cash source, cash use, market growth and relative market share, but mentioned that every business unit has a balance of that.

The business unit competes primarily by quality, reliability and service. Nolato Cerbo AB is not a player with the cheapest products. The pandemic has not caused the business unit to make any changes regarding this issue.

The respondent said that covid-19 has not had any significant effect on competition between existing players, the bargaining power of suppliers, the bargaining power of customers, the threat from new entry/players and the threat from substitutes.

4.3.3. Nolato Gota AB

The strategy of Nolato Gota AB is to continue to grow within the existing customer segment, in the automotive industry. An example is when a new car model is released; Nolato Gota wants to have the opportunity to manufacture parts to the new car. After eight years a car model gets a face lift, with new plastic parts, i.e., a minor change so that the car may look different and be more interesting to the customer. A truck has a face lift after 15-20 years.

The pandemic has not caused the business unit to change its strategy and the business unit is trying to endure the pandemic.

Concerning the issue if the corporate group has built, held, harvested or divested any business unit, the respondent said that she does not believe that covid-19 has prompted any change in the corporate strategy. The business area medical is performing well during the pandemic. A major acquisition of an American company was made ahead of covid-19 outbreak and the new company was subject to incorporation into the corporate group (into the reporting system) during the pandemic. This last-mentioned measure was difficult, due to travel bans, but it was solved using the internet. The companies that have not been affected by covid-19 have good cash flow.

Nolato Gota AB is competing by a combination of price and differentiation. The company does not have the lowest price in the industry, but it is recognised for its nice fleet of mechanical equipment and its competent employees. If the company had competed by solely price, it would not have survived. Luckily, the customer values other factors and the company can receive an offer, although it does not have the lowest price. Covid-19 has not prompted the company to make any changes in this respect. Fundamentally, the company must be profitable or the corporate group will sell it. However, people buy cars and Volvo Cars is performing well. There is a shutdown of Volvo Cars' operations in April/May 2021, due to shortage of semiconductors, but there are orders in the orderbooks. Production is postponed and in July production is taking place regarding what should have been manufactured in April/May in addition to what was originally scheduled to June. The customers must have their cars, according to their orders.

Regarding how covid-19 has changed the competition in the industry, in terms of competition among existing companies, bargaining power of suppliers, bargaining power of customers, threat from new entrants and threat from substitutes, the interviewee said that there is no extensive competition from anyone. Covid-19 has not caused any change regarding the competition. Rather, there are minor players that cannot make deliveries. Nolato Gota AB has notified customers that it can make deliveries, should any of the customers' suppliers have

delivery problems. The interviewee pointed out that many companies have cash flow related problems, due to delivery problems.

4.4. Strategy formulation at business unit level

4.4.1. Nolato Polymer Aktiebolag

The respondent mentioned that the company conducted a risk analysis in spring 2020 when there was an outbreak of covid-19. The threats that were identified were a more turbulent world, that is the tensions between China and the United States, trade barriers, tariffs and the fact that there were disturbances in many countries. The pandemic was considered to be over by autumn 2020. The company is not dealing with covid-19 from a strategic perspective. However, if a new crisis similar to covid-19 would emerge in future, then the company would deal with the effects of that crisis from a strategic perspective. The interviewee mentioned that they would pay regard to what raw materials would be affected by the new crisis.

The interviewee stated that they concluded that they were slow in conducting a risk assessment. Next time the company faces such a problem as covid-19, they must be faster/tougher in their response. Some examples of measures are mentioned in the sourcing section.

The pandemic has not induced the company to take any measures of strategic character.

4.4.2. Nolato Cerbo AB

From a strategic perspective covid-19 has had a neutral effect on the company, since the company operates in an industry where some parts increase and other parts decrease. The company regards its presence all over the world (United States, Europe and Asia) as an internal strength in a covid-19 context. Nolato Cerbo is traditionally strong in Europe and weaker in Asia/America. Another strength is the decentralised supplier and customer base, according to the managing director. However, this should be considered as an opportunity, since it is an external factor, according to the author of this thesis. The company does not see any internal weaknesses in relation to covid-19. The company has identified threats in relation to covid-19, but these are not a major factor and the managing director could not recall them. Covid-19 is rather an opportunity for the company in the sense that customers, who previously made all their purchases in the United States and who have operations in Europe, may realise that they can buy a little bit more in Europe. Furthermore, American customers can source from the business unit in Europe (instead of in the United States). In the diagnostics operations there is a great demand and when the business unit makes deliveries in Europe, the customers say that they want Nolato Cerbo AB to establish production in United States and Asia. This would enable deliveries in all three regions and is an opportunity for the company.

The business unit has taken advantage of opportunities that covid-19 has presented by extending businesses with customers in the diagnostics operations. More specifically, this means that the business unit has carried out a more aggressive marketing, which has borne fruit.

4.4.3. Nolato Gota AB

From a strategic view the threat is how Nolato Gota will be affected by what happens to the car sales in Sweden and how unemployment develops due to covid-19. The opportunity from a strategic view is the ability of Nolato Gota to gain market shares, if a competitor is unable to make deliveries or goes bankrupt. This is possible, since the corporate group is strong and allows Nolato Gota to perform worse at the moment. Another strength is the fact that the company has a nice fleet of mechanical equipment and competent employees, meaning that if there is a possibility the company will be able bring jobs into its operations.

Among the employees, there is a concern regarding the development of the operations related to covid-19, according to the respondent.

The greatest weakness of the business unit is its automotive orientation. Almost 90 per cent of the volume has orientation towards car and trucking activities. If these customers perform poorly, then the company will have difficulties to cope on the remaining volume. This is however a vulnerability with or without covid-19.

The company has taken advantage of the opportunities that covid-19 offers by extensively educating the staff and run the operations from the 5S perspective, i.e., a concept for creating order. Thus, the company has used the freed-up time for education purposes and has not laid off employees.

4.5. Global sourcing of business units

4.5.1. Nolato Polymer Aktiebolag

Regarding the effect of covid-19 the interviewee stated that Nolato Polymer Aktiebolag has benefitted from the pandemic. The net sales increased by approximately 15 per cent in 2020 compared to 2019. Projected net sales increase in 2021 compared to 2020 is 25 per cent, of which 10 per cent relate to covid-19 and 15 per cent relate to new businesses. However, there are also threats. During the conversation about strategy formulation the respondent said something that has relevance for sourcing, namely that the risk analysis conducted in the spring 2020 led to the identification of threats in terms of a more turbulent world, tensions between China and the United States, trade barriers, tariffs and the fact that there were disturbances in many countries.

A more evident threat is the fact that covid-19 has driven costs and affected the possibility to transport goods. The shortage of raw materials is alarming. The interviewee mentioned that there are speculations on whether covid-19 is the reason to this shortage, but he believes that covid-19 should be the reason since it has caused supply chain disruptions.

Brexit caused British companies to hoard raw materials, Chinese companies bought up raw materials early at the outbreak of the pandemic and containers were stuck on the west coast of the United States, according to the interviewee. Regarding the threats from covid-19, the interviewee reasoned that the consequences are serious if the company doesn't receive deliveries of raw materials. The respondent gives an example using Husqvarna, that manufactures products for gardening and forest management and is a large customer of the

company. If Nolato Polymer Aktiebolag has shortage of one piece of component to its products, then it will not be able to make deliveries to Husqvarna, that in turn will not be able to manufacture for instance chainsaws. A product that has large volumes doesn't have to lead to problems, rather the issue is that shortage of e.g., a screw can stop the production. Thus, it is not an issue of volume, but an issue about availability. Nolato Polymer Aktiebolag is trying to find substitute materials and has constant contact with its customers, otherwise the production would have stopped. Thus, Nolato Polymer Aktiebolag is trying to sustain the production of their customers.

The company has not been forced to make short-term layoffs and has not received any financial support for temporary reduction in working hours from Tillväxtverket, The Swedish Agency for Economic and Regional Growth. However, the company planned vacations to May and June in 2020 and it was on the margin, but there was still work to perform according to the managing director of Nolato Polymer Aktiebolag.

Another element is the fact that raw material prices have increased, which has necessitated a price increase of the products of Nolato Polymer Aktiebolag, at an early stage.

Concerning the opportunities in regard of sourcing that covid-19 may offer, the managing director of the business unit stated that all the customers are doing well financially. He also refers to the improved sales figures.

A threat emerged in the form of a covid-19 outbreak that the company had at its facilities. The source of the infection were employees of suppliers. Of 30 employees of the company, 13 had to stay at home since they had contracted the disease. This meant that only 60 per cent of the machines could be operated.

Regarding how the company has dealt with the threats/opportunities, the respondent said that the shortage of raw materials necessitates daily meetings between representatives of the company and the largest customer.

The company's response to covid-19 in terms of sourcing has not been a usual one, that is the company has not decreased inventory levels, but has decreased the turnover ratio of the inventory. The company is sustaining the operations. Sometimes suppliers are cancelling deliveries and thus the company is not able to make deliveries to minor customers. A measure that the company has taken is to bring orders forward in time and place orders with greater foresight, in order to ensure deliveries from the suppliers.

There is no difference between how the company has dealt with sourcing from Europe compared to sourcing from Asia. Furthermore, the company has not made a distinction between sourcing from other business units of Nolato Aktiebolag and external suppliers, although the sourcing from the other companies of the corporate group is insignificant.

As to the long-term, beyond five years, effects of covid-19 on sourcing strategy of the company, the managing director said that they have not contemplated this issue. Today, some products are tied to a particular supplier, while other products are delivered by more suppliers. However, the interviewee guessed that some customers may develop products with

several standards in future. This would imply that the company in that case would be able to purchase standard products from more suppliers, rather than having a specific product that is tied to a particular supplier. In this context the interviewee made a reference to modular building. This issue involves risk minimisation according to the interviewee.

Covid-19 has brought dramatic changes concerning the way the company contacts its foreign suppliers. Company employees are making no physical visits at the facilities/offices of the suppliers and no employees of suppliers can visit the company. All contact is taking place electronically, that is by e-mail and through Microsoft Teams.

The fact that all contact with suppliers is taking place electronically, that is by e-mail and through Microsoft Teams is an advantage in the sense that the employees can have effective meetings with suppliers, e.g., through Microsoft Teams. However, it is not only an advantage, as discussed above, but also a disadvantage according to the managing director. The reason is, that ahead of initiating a business relationship with a supplier, the company wants to pay a visit to the supplier, assess the operation of the supplier and weigh if the business of the supplier is serious. It is more difficult for the head of sourcing at the company to form an opinion of new suppliers, without physical meetings. Ultimately this is an issue about creating relationships and covid-19 has meant that relationships cannot be established in the same way as pre covid-19 context. Thus, covid-19 has changed how business is done according to the managing director.

The business unit has not ceased to source from international markets due to covid-19, but covid-19 has rather made the company search for solutions backwards in the supply chain. This has resulted in the fact that the company was able to find yet another source in terms of a distributor in Sweden. However, the managing director claimed that in the plastics industry, the companies that produce plastics are large companies with annual turnover of SEK 50-100 billion.

According to the managing director of the business unit, covid-19 has had no effect on how the company conducts global sourcing. The company continues to source from foreign suppliers abroad and distributors in Sweden. The business unit purchases tools from China and in 2020, when such purchases were made directly from China, the tools could not leave China. Although the company continues to purchase from China, the managing director reflected on the fact that Chinese tools are cheaper, while products from European suppliers have the advantage of geographical proximity. However, the interviewee recalls another company that had major problems, since it had a supplier in Italy and Italy was severely affected by covid-19.

Regarding factors that are relevant when to begin purchasing from international sources the respondent said that price and quality are still important. However geographical distance will play an important role, since it is more difficult communicating with suppliers and getting deliveries. The respondent commented future purchasing as follows:

“We will try to have alternative suppliers of the materials/components that we purchase in order not to be so dependent on a supplier, which we are in some cases today. Then we will also have a look at the geographical distance. It is not independent from covid-19 but rather the experiences that we have collected during this pandemic, i.e., problems with freights and production capacity at different suppliers make us try to have alternative suppliers for the same material/component. I want to emphasise that I am talking from Nolato Polymer’s perspective. I have neither knowledge, nor the right to interpret and convey how the corporate group thinks.”¹⁰

- Anders Willman, Nolato Polymer Aktiebolag.

Concerning continuation of purchasing from international sources, the interviewee notes that different suppliers have dealt with covid-19 in different way. Some suppliers are making efforts to find solutions to raw materials shortage and associated delivery problems, whereas other suppliers state that Nolato Polymer Aktiebolag has to accept the situation. The issue is about suppliers considering Nolato Polymer as a partner or as an external party/ordinary customer. When the pandemic is over, it is the intention of the company to seek deepened co-operation with suppliers, where the relationship during pandemic has been characterised by delivery reliability, communication and helpfulness, i.e., suppliers that consider raw materials shortage and delivery problems as common problems. The company will, when the pandemic is over, try to end the business relationships with the suppliers, whose performance has not been satisfying during the pandemic. However, this is not easy, since it is the customers of Nolato Polymer Aktiebolag who decide on such issues. The reason is that the tools are constructed and paid for by the customers and the customers also own the design of the products.

The managing director also reasoned that 20 years ago there was a shift in sourcing from European supplier to Chinese suppliers, but now this seems to have reversed. The advantage of geographical proximity of European suppliers and quality over time motivates companies to reverse back to European suppliers. There are Asian companies that deliver products with high quality in the beginning of the business relationship, but after a year they deliver products with inferior quality. However, there are Asian companies that behave well.

Regarding the view on the benefits of international sourcing, the managing director said that it has proved to be more difficult to get response and help from foreign companies, during the pandemic. The interviewee mentioned that he is not claiming that all Swedish companies are conducting themselves well, but it is easier to communicate with them and make site visits if it is necessary. Geographical proximity has a significance during a crisis. However, cost advantages and other factors are important in the selection of a supplier and thus it is not easy to end a business relationship with a supplier.

Regarding the variables that have an effect on decisions concerning international sourcing, the interviewee mentioned that covid-19 has driven costs and affected the possibility to transport goods. When the company is going to hire a Chinese supplier, a prototype is always sent to the supplier. This was the case in 2020, when the supplier manufactured 100 samples of the product. However, the company could not get the products/tools delivered, since the measures taken due to covid-19 had caused transportation problems. There was poor

¹⁰ Translated by the author from Swedish to English.

availability of freight by ship/flight and there was a shortage of containers, but finally the products were transported by flight. If the tools had been manufactured in Sweden, instead of in China, this problem would not have existed.

The managing director mentioned that they were slow in conducting a risk assessment. Next time the company faces such a problem as covid-19 they must be faster/tougher in their response. For instance, they should not wait a month to schedule 15 minutes between the work shifts that operate the machines, which is necessary to contain spread of the infection, and taking other steps such as not using the main entrance, using disinfectant and using protective masks.

The company has taken advantage of the possibilities that covid-19 has brought by extending the mechanical equipment and increasing the work shifts from five days to seven days in order to cope with the work volume, although the added work shifts on Saturdays and Sunday are not full days. There are also plans to extend one of the factories.

4.5.2. Nolato Cerbo AB

Overall, covid-19 has had a neutral effect on the operations of the business unit, according to the interviewee. The development in the business is overall good. Some operations that are related to diagnostics and sampling have an increased demand for products, since sampling is conducted intensively. Other operations, such as products to planned surgery are postponed due to covid-19 since demand has declined. Despite what is said above, the company has increased inventory levels for safety reasons, in order not to run out of raw materials.

The respondent was worried that one of the suppliers of individual products in Italy would not be able to make deliveries to the company. However, the supplier could make deliveries from other countries and the supplier even had a factory in Sweden that was authorised in different ways (a regulated market). The interviewee stated that one year after the outbreak of covid-19, the manufacturing industry is doing well and demand is high. However, raw material shortage is a major risk and the company also sees continued problems regarding absence due to illness at suppliers' operations.

In the plastics industry, the United States is a major market and in February 2021 American suppliers bought raw materials in Europe instead of in the United States. This was an indirect effect of the pandemic and a direct effect of the cold weather in the United States, that led to increased prices of power and homes given priority over manufacturing companies in terms of power supplies. This led to temporary closure of many manufacturing plants.

One opportunity is the knowledge that covid-19 has brought from a global sourcing perspective, according to the interviewee. He said that both suppliers and customers realise that they need to regionalise their production and at the same time not have all capacity in one region, by e.g., having capacity in the United States and Europe.

At the end of March 2020, the company conducted a risk analysis, that involved issues such as what raw materials the company needs, where the suppliers are located and if there is a need to increase inventory levels. The risk analysis induced the company to increase inventory levels for production needs of a quarter regarding critical products. There are nowadays a

number of containers with bulk material at the harbour in Gothenburg and these are called off when they are needed in the production. Other measures that the company has taken is to secure that it has more suppliers and alternative delivery sources.

However, the managing director also stated that overall, the company has kept its sourcing strategy from a pre covid-19 context. The company has basically the same suppliers and delivery sources, but it has increased inventory levels and the suppliers were enabled to make deliveries from different locations.

Regarding the issue of potential changes in sourcing from Europe in relation to changes in sourcing from Asia, the respondent stated that sourcing is to a great extent made in Europe and that no changes have been made, apart from what is mentioned above. Furthermore, the interviewee said that there is no difference between how the company has managed sourcing from external suppliers compared to sourcing from other companies in the Nolato group during the pandemic. Besides, the volume of sourcing from other companies in the Nolato group is insignificant and concerns only assembly services in Poland.

As to the effects of covid-19 on long-term (more than five years) sourcing strategy, the interviewee mentioned that there is no major change. However, he repeats that the business unit has more sources of purchase (delivery from different locations) from existing suppliers in Europe regarding important products. The company has had its focus on Europe from a sourcing perspective. The business unit has not turned to Asia solely with the aim to find low price. Rather it is looking at the overall cost and lead times and quality are highly valued. Therefore, the company has had the ambition to source in Europe and it intends to continue with that.

The pandemic has not induced the company to change how it conducts global sourcing. It continues to have almost exclusively external suppliers and there are no plans to make any changes regarding this issue.

Concerning the effects of covid-19 on the way the company contacts foreign suppliers, the interviewee stated that there is no change due to covid-19. A sister company in the Nolato group is taking part in global sourcing and the business unit has co-operation with that company, but this is non-formalised and thus is on a voluntary basis.

The respondent mentioned that there is a non-formalised co-operation between the business units. Someone (business unit) is responsible for transportations and another is responsible for plastic products etc. The business units in the Nolato group can benefit from volume discounts, when they use the same contracts as the ones entered into by other business units. The respondent also stated that sourcing departments are situated within the business units and provide them with the services that they need. Furthermore, Nolato Cerbo AB sticks to its region and deliveries between regions (such as United States and Europe) rarely take place.

Covid-19 has not prompted the company to cease sourcing from international markets. Regarding the factors that are important to the company when it is to begin purchasing from international sources, the interviewee said that the overall picture is important, that is a combined assessment of price, transportation, quality, sustainability, assurances that the

suppliers can comply with the business units code of conduct, long-term business relationships and financial strength. The importance of these factors has not changed due to covid-19. The factors that are important when the company is going to continue purchasing from international sources are the same as the above-mentioned factors and the importance of them has not changed on account of covid-19. The company's view on the benefits of international sourcing has not changed during the pandemic.

The variables regarding global sourcing decisions that are important to the company are the same as the above-mentioned factors concerning purchasing from international sources. The importance of these factors has not changed due to the pandemic, with the exception of transportation costs that have increased dramatically and long transportation routes by sea. However, these are only short-term changes and besides the company purchases very little from remote sources. Thus, the pandemic has not prompted a change in the sourcing strategy.

4.5.3. Nolato Gota AB

Covid-19 has had an overall major impact on the operations of Nolato Gota AB, since the company is a subcontractor to the automotive industry. Volvo Cars closed its operations in April/May 2020. However, after the summer 2020 there was a large increase in demand, since the customers were trying to recover lost production. In April 2021 automotive customers of the company shut down their operations in Great Britain and the United States. The largest deliveries from Nolato Gota are made to Volvo Cars in Torlanda (Sweden) and Gent (Belgium) and these operations did not shut down their operations in April 2021.

When the borders closed the transportations took a long time. As the respondent perceive it, the threats are that the company will run out of raw materials. "You never know what happens in the chain ahead of us"¹¹ as the respondent stated. The company has made orders well in advance in order to ensure deliveries. However, the company has until now received the raw materials that it needed and there has been no interruptions of deliveries. Regarding how the company has dealt with threats, the respondent said that she has not seen any major threats.

Covid-19 has not prompted the company to change its sourcing and its purchase orientation. The customer makes the procurement and Nolato Gota is tied by the procurement. Nolato Gota cannot change supplier, since it does not have that latitude. Besides, most of the suppliers of critical materials are large, e.g., Poly Kemi, Bosch and K.D. Feddersen and they have managed the situation well. Regarding potential changes in sourcing from Asia in relation to sourcing from Europe due to covid-19, the respondent referred to what she had already said; that no sourcing changes have been made. The respondent also said that the company does not receive any deliveries of raw materials to plastic parts from Asia. Deliveries of raw materials to plastic parts are made by suppliers in Sweden and Europe, but the tools are made in Asia. The tools are made on behalf of the customer and are used in the moulding of plastic parts. No new tools have been manufactured, since the development work at the customers' facilities has come to a standstill. Concerning potential changes in external sourcing in relation to corporate internal sourcing, the interviewee referred to what she had already said and that there is no internal sourcing from other companies in the corporate group.

¹¹ Translated from Swedish to English by the author.

Covid-19 is not considered to affect the Long-term sourcing (beyond five years), according to the judgement of the respondent. The operations are dedicated to the customers, who decide which suppliers to use. However, the interviewee acknowledges that she is not involved in sourcing and does not have the details regarding how the sourcing function considers this issue.

As to how covid-19 has affected how the company carries out global sourcing (by establishing seller/buyer relationships with foreign companies, joint ventures and own subsidiaries etc.), the respondent said that her position is not involved in sourcing and she does not know how the employees at the sourcing function regard this issue. However, the respondent thinks that the customers are thinking about sourcing issues in a different way. Shortage of semiconductors will certainly lead to customers ensuring others sources of purchase in other regions. Today sourcing of semiconductors is largely made from Asia. The respondent repeated that the operations are dedicated to the products of the customers, who choose which suppliers to use. In the context of carrying out global sourcing, the respondent also said that contacts with the suppliers have mainly been carried out by telephone/e-mail and in this respect covid-19 has not prompted the company to make any change.

The company has not ceased sourcing from international markets and has not withdrawn from any foreign market.

Regarding contacts with foreign suppliers (channels for sourcing), the company employees have not made any personal visits to the suppliers before. All contact has been carried out by telephone and e-mail. Nowadays, web meetings are also used. Covid-19 has not meant any change in this respect.

When the company is going to initiate purchasing from international sources, quality, on time delivery and price are the most important factors. These factors are the same whether the suppliers are in Sweden or abroad. Covid-19 has not prompted any change in this respect. The factors that are important regarding continuation of sourcing are that the suppliers must deliver the right quality, timely and to a competitive price, so that Nolato Gota can earn money at the end.

The respondent does not believe that covid-19 has prompted the company to change its view on the benefits of international sourcing. However, information is lacking regarding what these benefits are. Covid-19 is something that has struck all and you have to fight your way through it according to the respondent. Covid-19 has not caused the company to take any measures, with exception of the fact that the company is now, as compared to pre pandemic context, making orders way in advance and of larger volumes, in order to ensure delivery.

Regarding the issue how covid-19 has affected the variables that affect sourcing decisions, the respondent stated that the company has made orders more often and of larger volumes during the pandemic, in order to ensure deliveries. Although the borders closed during the pandemic, the respondent feels that goods transportations across the borders have worked well. The only issue is that the transportation has taken longer time. However, the transportation costs are the responsibility of the seller (supplier) and the respondent does not see any change in this respect.

A major shortage of raw materials in the first quarter of 2021 has led to increased raw material prices and this is not good for Nolato Gota's profitability, the interviewee stated.

From a strategic view the threat to the business unit has been what will happen to the car sales in Sweden, since cars are consumption goods that customers can refrain from according to the interviewee. There has also been concern regarding the uncertainty of how unemployment will develop. The concern is how the above-mentioned factors will affect Nolato Gota.

5. Analysis

Here an analysis is taking place. There are four categories; corporate strategy, international strategy and global strategy, business unit strategy, strategy formulation at business unit level and global sourcing.

5.1. Corporate strategy, international strategy and global strategy

Regarding the corporate strategy, the managing director of Nolato Polymer Aktiebolag said that there is an entrepreneurial spirit in the Nolato group and that the corporate group wants to be a global company with a local presence. The managing director of Nolato Polymer Aktiebolag said that the Nolato group wants to acquire companies that are profitable and expand the corporate group's market and customer base. The managing directors of Nolato Polymer Aktiebolag and of Nolato Cerbo AB referred to the corporate website for further information. However, the senior manager administration & finance of Nolato Gota AB described the corporate strategy in terms of pillars (i.e., the business areas), that balance each other financially. Acquisition of new companies is taking place in Medical Solutions and Integrated Solutions, according to the senior manager.

Nolato Aktiebolag (the corporate group) states in the annual report for 2020 that the group's strategic focus consists of five areas; 1) the "aim to be a high-tech partner with a global presence, with the objective of long-term growth and stable returns for shareholders", 2) a world-class expertise and offering, meaning investments in employees, expertise and cutting-edge technology, 3) a decentralized organisation, that enables business units to adapt offerings to customer demands and the similarity of technology in the business areas that generate synergies 4) a customer-oriented strategy, meaning that the group is looking for large customers in product areas that have organic growth and 5) to expand by accompanying existing customers into new markets and by acquisition of companies that broadens customer base and product offering (Nolato Aktiebolag, 2021).

The first strategic focus area seems to be a mix of a vision (global presence) and a financial goal (stable returns for shareholders), rather than part of a corporate strategy, if it is compared strictly with the definition of strategy that is applied in this research. The reason is that it does not state in what businesses to compete and "the deployment of resources among those businesses" and it does not mention what a corporatwide strategic analysis would result in, i.e., businesses to add, retain, emphasize, deemphasize and divest (Anthony and Govindarajan, 2007, p. 58). The second, fourth and fifth strategic focus areas seem to address the issue of how to compete, which is a business unit strategy, according to the strict definition used in this thesis (Anthony and Govindarajan, 2007, p. 58). The third strategic focus area seems to address the issue of control (decentralized organisation), that is analysed below. The third strategic focus area is also partly a part of a corporate strategy, since it addresses the issue of common resources (similarity of technology) and synergies, which indicates that the corporate group is a related diversified company (Anthony and Govindarajan, 2007, p. 60). Although, it is important to remember that there must be an ability to share common resources and common core competencies (Anthony and Govindarajan, 2007, p. 60), and that there is co-operation on a voluntary basis between the business units, as indicated below.

However, the senior manager of Nolato Gota said that there is no relatedness across the industries, where the corporate group operates. Simultaneously the senior manager mentioned that there is co-operation between the business units (in the business area Industrial Solutions) in terms of hiring each other to the extent it is needed, instead of using subcontractors. This is somewhat conflicting; if business units can hire each other, shouldn't the relatedness be relatively close? Maybe the explanation is that what is implied as a close relatedness by the definition applied here, is not considered as relatively close by the senior manager. Thus, the term close is relative. The managing director of Nolato Polymer Aktiebolag confirmed that it is a related diversified corporate group by saying that the corporate group operates in the plastics industry and injection moulds plastics. Furthermore, the managing director of Nolato Cerbo shared this view by saying that the Nolato group has operations in industries that are related to each other. The different business units' main business is plastics and polymeric products and covid-19 has not prompted the corporate group to make any changes in this issue, according to the managing director of Nolato Cerbo.

Regarding deployment of resources among business units, which is a part of corporate strategy (Anthony and Govindarajan, 2007, p. 58), the third strategic focus area of the corporate group states that it is a decentralised organisation, as mentioned above. This is validated by the senior manager of Nolato Gota AB who said that no resource allocation is taking place across the business units and that the business units are all individual companies. This is confirmed by the managing director of Nolata Cerbo AB, who said that it is a decentralised corporate group, where the business units control themselves and have their own resources. The managing director of Nolato Polymer Aktiebolag said that all business units of the company run their operations independently and that there is no sourcing function, marketing function, human resource department or development operation in the centre of the group. All these operations are allocated to the business units. It is not evident whether covid-19 has induced the corporate group to make changes regarding resource deployment among business units. However, regarding a related issue, namely co-operation between heads of particular functions of the business units, the managing director of Nolato Polymer Aktiebolag said that no changes had been made. Thus, maybe no changes have been made regarding resource deployment.

Regarding another element of corporate strategy, namely joint ventures, strategic alliances and mergers and acquisitions (Harrison and St John, 1998 cited in Steyn, 2003, p. 173), the managing director of Nolato Polymer said that covid-19 has not prompted the corporate group to make any changes in terms of mergers/acquisitions. The managing director of Nolato Polymer does not know of any joint ventures and strategic alliances of the corporate group. The managing director of Nolato Cerbo on the other hand said that they are using digital communication tools and that the Nolato group made an acquisition in 2020, but the contact with the acquired company was established before the emergence of the pandemic. However, the senior manager of Nolato Gota stated that information about possible joint ventures, strategic alliances or mergers/acquisitions in progress is not available for management of business units, before the conclusion of a potential deal, if the business units are not affected by the deal. Furthermore, the managing director of Nolato Polymer said that there is a clear acquisition strategy; the corporate group is interested in acquiring companies that are profitable and can add new customers/markets or companies that have technology that does not exist in the corporate group. Covid-19 has not prompted the group to change the

acquisition strategy, but it is difficult to conduct due diligence now since physical visits are not possible, according to the managing director of Nolato Polymer. Thus, the information from the respondents does not contain the same information, but the message from the managing directors of Nolato Polymer and Nolato Cerbo seems to be that covid-19 has not caused the corporate group to make any changes in this respect.

A relevant issue is if the “the general direction in which an organization plans to move to attain its goals” (Anthony and Govindarajan, 2007, p. 56) have been changed on account of covid-19. The managing director of Nolato Polymer Aktiebolag and the senior manager of Nolato Gota AB stated that they do not know whether the pandemic has induced the corporate group to change the corporate strategy or not. They do not have insight into corporate group matters. Since the strategic focus of the corporate group does not follow the strict definition of corporate strategy applied in this research and due the respondents’ lack of insight regarding corporate strategy issues, it is difficult to analyse how the corporate group has responded to covid-19 in terms of changes in corporate strategy.

As mentioned above, the third strategic focus area in the annual report for 2020 (mentioned above) also seems to address the issue of control (decentralized organisation), that the corporate group is exercising over the individual companies. The third strategic focus area states that decentralisation enables the business units to adapt offerings to customer demands. Thus, it seems to indicate a low degree of strategy integration and that the different business units within the corporate group can plan and execute competitive moves on an independent basis, that there is no need for a strong co-ordination from the centre regarding strategic activities in different country locations and a low degree of product/process standardisation (Twarowska and Kakol, 2013, p. 1006). This implies that an international strategy is applied (Twarowska and Kakol, 2013, p. 1006).

This is substantiated by the managing director of Nolato Cerbo AB, who mentioned that it is a decentralised corporate group, where the business units control themselves and have their own resources, but that there are budgets to relate to. Furthermore, the managing director of Nolato Cerbo AB said that there is a non-formalised co-operation between business units (e.g., the possibility to use contracts entered into by other business unit) based on business advantage and voluntarism and there is a low degree of strategy integration and low degree of co-ordination from the centre regarding strategic activities. The Nolato group does not standardise products/processes, according to this managing director. The pandemic has not induced any changes in this issue, according to the managing director of Nolato Cerbo AB. Furthermore, the senior manager of Nolato Gota AB confirmed this view by saying that the companies in the corporate group are not tightly controlled and thus have space to make their own decisions. Heads of different functions of the business units meet their respective colleagues, i.e., activities that the corporate group does not get involved in. This manager also mentioned that there is a standardisation of financial reports and a that there is a strategy document for the corporate group, but the aim is solely to ensure that the strategy presentations for all companies are similar. The individual companies are working with their own strategies, wherein the corporate group does not get involved. Covid-19 has not prompted any changes regarding this issue and the business units continue to be independent, according to the senior manager.

What the managing director of Nolato Polymer Aktiebolag said also confirms this view. He said that the business units of the company run their operations independently. However, he also

stated that there is a co-ordination between the business units, e.g., the heads of different functions meet their respective colleagues in the other business units and exchange information. According to the managing director of Nolato Polymer Aktiebolag, the heads of sourcing of the different business units (at least those in Europe) co-ordinate and try to establish agreements that can be used by the different business units. However, this is on a voluntary basis and not an obligation. Covid-19 has not induced the companies in the corporate group to make any changes regarding this co-operation, according to the managing director of Nolato Polymer.

However, there is a limitation to this freedom of the business units. Nolato Polymer Aktiebolag submits a strategy plan and it has to be approved by the corporate group. Another fundamental issue is that the corporate group operates in the plastics industry, injection moulds plastics, addresses other industrial customers and has no products of its own according to the managing director of Nolato Polymer. The business unit Nolato Polymer Aktiebolag has to follow these conditions. This implies only that it is a related diversified corporate group (Anthony and Govindarajan, 2007, p. 60) and does not diminish the fact that an international strategy (Twarowska and Kakol, 2013, p. 1006) seems to be applied. The fact that many of the functions (e.g., sourcing, marketing, development operation etc.) are allocated to the business units, which the managing director of Nolato Polymer Aktiebolag stated, is an indication that there is no standardisation of such processes in the corporate group. Standardisation of processes depend on voluntary co-operation between the business units and no standardisation of products is taking place in the Nolato group, since the products are owned by the customers, according to the managing director of Nolato Polymer Aktiebolag.

Thus, the corporate group seems to have an international strategy (Twarowska and Kakol, 2013, p. 1006), not a global strategy, and all three respondents confirm that covid-19 has not led to any changes in this strategy.

To conclude this this section covid-19 has not prompted the corporate group to make any changes regarding the choice to operate in related industries, according to the managing director of Nolato Cerbo. Covid-19 may not have changed deployment of resources among business units. The messages from the managing directors of Nolato Polymer and Nolato Cerbo seems to be that covid-19 has not caused the corporate group to make any changes in terms of mergers/acquisitions.

Regarding the corporate strategy as a concept, i.e., “the general direction in which an organization plans to move to attain its goals” (Anthony and Govindarajan, 2007, p. 56), it is difficult to analyse how the corporate group has responded to covid-19 in terms of changes in corporate strategy. The reasons are that the respondents lack insight concerning corporate strategy issues and that the strategic focus of the corporate group does not follow the strict definition of corporate strategy that is applied in this research. The corporate group seems to have an international strategy (Twarowska and Kakol, 2013, p. 1006), and all three respondents confirm that covid-19 has not led to any changes in this strategy. The issue is thus why covid-19 has not caused any change. Perhaps a clue may be the fact that the corporate group considers covid-19 the same way as the respondents view it, i.e., as something that is a non-strategic issue or as not posing a major threat. This issue is discussed below in the business unit strategy section.

5.2. Business unit strategy

The managing director of Nolato Polymer Aktiebolag stated that the business unit's strategy has to follow a certain standard and the business unit in question can from a market strategic perspective only process the Danish and Swedish markets. This may be an indication of some kind of alignment, i.e., declarations of directions made at the corporate level are translated into strategies, in the development process of business unit strategy (Jain, 1997 cited in Steyn, 2003, p. 173). In other words, it may be an indication of vertical direction of alignment (alignment of elements of strategy "across hierarchical levels") and non-numerical relation of alignment, (Wadström, 2019, pp. 45, 50-51), ensuring a consistency between business unit strategy and corporate strategy. The fact that the business unit, the three business areas and the corporate group manufacture plastics and polymeric products, may be an indication of horizontal direction of alignment and non-numerical relation of alignment, that Wadström (2019, pp. 50-51) mentions. This means that strategy elements of the corporate group are contributing horizontally to strategy elements of the business unit (Wadström, 2019, pp. 50-51), if functions and not hierarchies are considered. The strategy of the business unit is not public information and thus information is lacking about its overall objectives (Anthony and Govindarajan, 2007, p. 62). The managing director of Nolato Polymer Aktiebolag said that covid-19 has not caused any changes in the business unit strategy. However, regarding competitive advantage, the managing director stated that the business unit competes by investing in partnerships with customers and grow with those, that consider the business unit as a partner. Price is not the most important issue. Communication, availability, innovation and dealing with customer complaints are important issues. This is substantiated by the second strategic focus area (world-class expertise and offering), the fourth strategic focus area (customer-oriented strategy) and the fifth strategic focus area (broaden product offering). The pandemic has not caused any change regarding the competitive advantage as defined by the managing director. Thus, the business unit seems to compete by differentiation of the business unit's product offering (Anthony and Govindarajan, 2007, p. 68). Regarding business unit missions the managing director could not make categories in a matrix, in terms of cash source, cash use, market growth and relative market share (BCG model's question mark, star, cash cow and dog quadrants), but stated that the pandemic has not induced the corporate group to make any decisions about businesses to build, hold, harvest and divest (Debrecht and Levas, 2014, p. 67; Anthony and Govindarajan, 2007, p. 63). The managing director stated that the time-framework is too short and he could not take his stand regarding how covid-19 may have changed competition, in terms of Porter's five forces; intensity of industry competition between existing players, the bargaining power of suppliers, the bargaining power of customers, the threat from new entry/players and the threat from substitutes (Porter, 1979; Porter 1980; Porter 2008 cited in Wellner and Lakotta, 2020, pp. 4-5).

Nolato Cerbo's business unit strategy states that the business unit manufactures polymer materials, has sustainability/operational excellence in focus and has dedicated teams. Manufacturing of polymeric materials is in accordance with orientation of the corporate group. This may be categorised as horizontal direction of alignment and non-numerical relation of alignment, that Wadström (2019, pp. 50-51) is discussing. Furthermore, the managing director said that covid-19 has not caused any change in the business unit strategy. The business unit competes primarily by quality, reliability and service and it is not a player with the cheapest products. As is the case with Nolato Polymer, the second, fourth and fifth

strategic focus areas also support the statement of the managing director of Nolato Cerbo regarding competitive advantage. Thus, the business unit seems to compete by differentiation of the business unit's product offering (Anthony and Govindarajan, 2007, p. 68). Furthermore, the pandemic has not caused the business unit to make any changes regarding this issue. The interviewee stated that covid-19 has not prompted the corporate group to make any decisions about businesses to build, hold, harvest and divest-(Debrecht and Levas, 2014, p. 67; Anthony and Govindarajan, 2007, p. 63). The respondent declined to categorise the business units or part of business units in terms of cash source, cash use, market growth and relative market share (BCG model's question mark, star, cash cow and dog quadrants), but mentioned that every business unit has a balance of that (Debrecht and Levas, 2014, p. 67; Anthony and Govindarajan, 2007, p. 63). The respondent said that covid-19 has not had any significant effect on competition between existing players, the bargaining power of suppliers, the bargaining power of customers, the threat from new entry/players and the threat from substitutes (Porter, 1979; Porter 1980; Porter 2008 cited in Wellner and Lakotta, 2020, pp. 4-5).

Nolato Gota's business unit strategy is to continue to grow within the existing customer segment, in the automotive industry, according to the respondent. Covid-19 has not caused any change in the business unit strategy. Nolato Gota AB is competing by a combination of price and differentiation. The company does not have the lowest price in the industry, but it is recognised for its nice fleet of mechanical equipment and its competent employees. If the company had competed by solely price, it would not have survived. Luckily, the customer values other factors than price. A combination of price and differentiation is not fully consistent with the second strategic focus area (world-class expertise and offering), the fourth strategic focus area (customer-oriented strategy) and the fifth strategic focus area (broaden product offering). Thus, it is difficult to clearly categorise the business unit's competitive advantage as price or differentiation, but it seems as if differentiation has a greater importance (Anthony and Govindarajan, 2007, p. 68). What's more, covid-19 has not prompted the company to make any changes regarding competitive advantage. Concerning the issue if the corporate group has built, held, harvested or divested any business unit (Anthony and Govindarajan, 2007, p. 63), the respondent said that she does not believe that covid-19 has prompted any change in the corporate strategy. A major acquisition of an American company was made ahead of covid-19 and it was only subject to incorporation into the reporting system of the corporate group during the pandemic. However, such incorporation is not considered a strategic issue, in the light of the definition of strategy that is used in this research. Regarding how covid-19 has changed the competition in the industry, in terms of competition among existing companies, bargaining power of suppliers, bargaining power of customers, threat from new entrants and threat from substitutes (Porter, 1979; Porter 1980; Porter 2008 cited in Wellner and Lakotta, 2020, pp. 4-5), the interviewee said that there is no extensive competition from anyone. This statement is probably referring to new competition. Otherwise, it would indicate that the business unit has no competition at all and the statement would not be in accordance with the other information that the interviewee has provided (below). Covid-19 has not caused any change regarding the competition, according to the interviewee. Rather, there are minor players that cannot make deliveries. Nolato Gota AB has notified customers that it can make deliveries, should any of the customers' suppliers have delivery problems. The interviewee points out that many companies have cash flow related problems, due to delivery problems. The corporate group

is strong and allows Nolato Gota to perform worse at the moment. However, small industry players have no corporate group, that can offer financial support and are probably hurt disproportionately during the pandemic, according to the author. This may indicate that covid-19 has changed competition somewhat among existing industry players, by weakening the minor players to a disproportionate extent (Porter, 1979; Porter 1980; Porter 2008 cited in Wellner and Lakotta, 2020, pp. 4-5).

To conclude this section, all the respondents state that covid-19 has not caused a change in business unit strategy. The managing directors of Nolato Polymer and Nolato Cerbo stated covid-19 has not led to change in business unit mission (build hold, harvest and divest). The senior manager of Nolato Gota does not believe that covid-19 has prompted any change regarding business unit mission (build hold, harvest and divest). Covid-19 has not caused industry competition to change, at least not significantly, according to two respondents, whereas the third respondent (the managing director of Nolato Polymer) could not take his stand. All three respondents said that the pandemic has not caused change in competitive advantage. The question is thus why changes in the different elements of business unit strategy have not been made. Perhaps a clue is what the managing director of Nolato Polymer said in another context. He said that the business unit does not deal with covid-19 from a strategic perspective, but that it would do so if a similar crisis would emerge in future. Another example is that the managing director of Nolato Cerbo said; that covid-19 has not posed any major threat, although he could not recall any threats at all. The senior manager of Nolato Gota expressed, in another context, that the threat is how Nolato Gota will be affected by what happens to the car sales in Sweden and how unemployment develops due to covid-19. However, the senior manager also said, that the business unit is trying to endure the pandemic and that the corporate group is strong and allows Nolato Gota to perform worse at the moment. This indicates a short-term view on the pandemic. A company endures what is short-term, but should change strategies when it is long-term.

5.3. Strategy formulation at business unit level

Regarding company-internal strengths and weaknesses in relation to covid-19, the managing director of Nolato Polymer stated that the business unit conducted a risk analysis in spring 2020 when there was an outbreak of covid-19. This risk-analysis may partly follow the same basis as a strategy formulation (Anthony and Govindarajan, 2007, p. 57) at an early stage, although the company has not changed the business unit strategy during the pandemic. Covid-19 was not identified as a threat, since it was considered to be over by autumn 2020. The company is not dealing with covid-19 from a strategic perspective. Thus, the pandemic has not induced the company to take any measures of strategic character. However, if a new crisis similar to covid-19 would emerge in future, then the company would deal with the effects of that crisis from a strategic perspective. In that case the business unit would pay regard to what raw materials would be affected by the new crisis. The managing director of Nolato Polymer stated that they concluded that they were slow in conducting a risk assessment. Next time the company faces such a problem as covid-19, they must be faster in their response, but the responses he mentioned are on operational level (not strategic), e.g., scheduling 15 minutes between the work shifts that operate the machines.

Although Nolato Cerbo has not changed its business unit strategy, maybe the risk analysis that the company conducted at the end of March 2020 can be regarded as environmental scanning that Robbins and De Cenzo (1998 cited in Steyn, 2003, p. 174) are mentioning. Nolato Cerbo regards its presence in the United States, Europe and Asia as an internal strength in a covid-19 context. The decentralised supplier and customer base, categorised as strength by the managing director, may be considered as an opportunity, since it is an external factor. The company does not see any internal weaknesses in relation to covid-19. The managing director of Nolato Cerbo stated that there are threats related to covid-19, but that these are not any major factor. Covid-19 is rather an opportunity for the company in the sense that American customers can source from the business unit in Europe (instead of in the United States) and that diagnostics customers in Europe want the business unit to establish production facilities in the United States and Asia. The business unit has extended businesses with customers in the diagnostics operations, by carrying out a more aggressive marketing, which has borne fruit.

Regarding Nolato Gota the threat, from a strategic view, is how the company will be affected by what happens to the car sales in Sweden and how unemployment develops due to covid-19. The opportunity from a strategic view is the ability of Nolato Gota to gain market shares, if a competitor is unable to make deliveries or goes bankrupt. What enables this, is the fact that the corporate group is strong and allows Nolato Gota to perform worse at the moment. The company's nice fleet of mechanical equipment and competent employees are also strengths, that means that the company can bring jobs into its operations, if the possibility emerges. The greatest weakness of the business unit is its automotive orientation, that amount for almost 90 per cent of the volume of the company. This is however a vulnerability with or without covid-19. The company has used the freed-up time during the pandemic, to conduct extensive education of its employees and run the operations from the 5S perspective (creating order). Thus, the business unit has not laid off any employees.

To conclude, there is a difference regarding how the three executives of the three different business units view covid-19.

The question is if there is a contradiction regarding Nolato Polymer's approach to covid-19. On the one hand covid-19 is not dealt with from a strategic perspective, on the other hand the company would deal with a future crisis from a strategic perspective. Furthermore, projected net sales increase in 2021 compared to 2020 related to covid-19 is 10 per cent. Maybe the explanation to what seems as a contradiction is that the long-lasting character of the crisis was underestimated. This is a conclusion, that is supported by the managing director's belief that the pandemic would be over by autumn 2020.

The view on covid-19 of the managing director of Nolato Cerbo, as an opportunity is contradicted by what he said in the sourcing context, namely that some operations, such as products to planned surgery, are postponed due to covid-19 since demand has declined. Although, such negative effects are balanced by operations that are related to diagnostics and sampling that have an increased demand for products, since sampling is conducted intensively (see empirical data regarding sourcing). However, shouldn't covid-19 be considered as a threat to some extent? Maybe, the explanation is that the managing director stated that overall, covid-19 has had a neutral effect on the operations. This would imply that covid-19 is not considered from a strategic, but from an operational perspective.

The senior manager of Nolato Gota has a balanced view on the pandemic and this view includes strengths, weaknesses, threats and opportunities. Perhaps this view is more balanced than the other two business units' view on the pandemic, since the negative effects for Nolato Gota are greater.

However, the three case companies have something in common. The fact that covid-19 is considered as a non-strategic issue by the managing director of Nolato Polymer and as a minor risk factor by the managing director of Nolato Cerbo, suggests that probably no strategic decisions that are an essential part of the business units' adaptation process as to their environments (covid-19) have been made (Beard and Dess, 1981, p. 665). This is a reference to business unit strategy (Beard and Dess, 1981, p. 668) or in other words a reference to administrative decisions, regarding the structuring of the resources of the business units in order to maximise performance (Ansoff, 1965 cited in Beard and Dess, 1981, p. 668). Regarding Nolato Gota, there is a lack of information as to whether strategic decisions have been made.

5.4. Global sourcing of business units

5.4.1. Nolato Polymer Aktiebolag

During the conversation about strategy formulation the respondent said that the risk analysis conducted in the spring 2020 led to the identification of threats in terms of a more turbulent world, tensions between China and the United States, trade barriers, tariffs and the fact that there were disturbances in many countries. If the management of Nolato Polymer would use the risk analysis in order to change international sourcing decisions of the company, then such measure may be consistent with previous study, i.e., that political stability is an important factor that affect a low-risk procurement success (Hickman and Hickman, 1992 cited in Rajagopal and Bernard, 1994, p. 5). Such measures would also be supported by the fact that barriers to trade affect international sourcing decisions regarding components (Buckley, 1979; Dunning 1973 cited in Swamidass and Kotabe, 1993, p. 84).

According to the interviewee, Chinese companies bought up raw materials early at the outbreak of the pandemic and containers were stuck on the west coast of the United States. This may highlight the fact that a major reliance on global sourcing also poses a danger in terms of risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19 (Lee et al., 2015 cited in Lin, 2020, p. 733). Covid-19 has driven costs and affected the possibility to transport goods and the shortage of raw materials is a serious issue according to the respondent. The consequences are serious if the company doesn't receive deliveries of raw materials due to covid-19. The shortage of a tiny part, e.g., a screw can stop the production. It seems as if transportation delays have become more important for Nolato Polymer, than what is indicated by previous research. According to previous research transportation delays are the fifth largest barrier to international sourcing of European companies (Rajagopal and Bernard, 1994, p. 9). However, covid-19 may have changed the relative importance of different barriers to trade. Nolato Polymer Aktiebolag is trying to solve the above-mentioned transportation problems by searching for substitute materials and has constant contact with its customers, otherwise the production would have stopped. Thus, the

company has dealt with the threats, in terms of shortage of raw materials by daily meetings between representatives of the company and the largest customer.

Another element is the fact that raw material prices have increased, which has necessitated a price increase of the products of Nolato Polymer Aktiebolag, at an early stage. Concerning the opportunities in regard of sourcing that covid-19 may offer, the managing director of the business unit stated that all the customers are doing well financially.

As a response to covid-19, in terms of sourcing, the company has not decreased inventory levels, but it has decreased the turnover ratio of the inventory. The company is sustaining the operations. Sometimes suppliers are cancelling deliveries and thus the company is not able to make deliveries to minor customers. The company is maybe making priorities between deliveries to large customer and minor customers, according to the author of this thesis. A measure that the company has taken is to bring orders forward in time and place orders with greater foresight, in order to ensure deliveries from the suppliers.

There is no difference between how the company has dealt with sourcing from Europe compared to sourcing from Asia. This, despite the problems related to geographical distance that are mentioned below. Furthermore, the company has not made a distinction between sourcing from other business units of Nolato Aktiebolag and external suppliers, although the sourcing from the group companies is insignificant.

As to the long-term, beyond five years, effects of covid-19 on sourcing strategy of the company, the managing director said that they have not contemplated this issue. The question is if it is too early to evaluate the effects of the pandemic, according to the author of this thesis. However, it is relevant to consider what is written about presumably regionalisation below, according to the author. Today, some products are tied to a particular supplier, while other products are delivered by more suppliers. However, the managing director guessed that some customers may develop products with several standards in future. This would imply that the company in that case would be able to purchase standard products from more suppliers, rather than having a specific product that is tied to a particular supplier. This issue involves risk minimisation according to the interviewee. This approach would mean that the company would have to choose which suppliers should be selected and “what amount of order quantities should be allocated to these selected suppliers”, since the requirements necessitate multiple suppliers (Xia and Wu 2007 cited in Chang, Chen and Zhuang, 2014, p. 1101). Multiple sourcing may also lead to reduced purchasing risk and thus avoid shortage of key raw materials (Tsai and Wang, 2010 cited in Chang, Chen and Zhuang, 2014, p. 1102). Furthermore, if several standards are developed, Nolato Polymer may be able to use (substitute products or) switch supplier, given there are many alternative sources of supply (Murray, Kotabe and Wildt, 1995, p. 186).

Covid-19 has brought dramatic changes concerning the way the company contacts its foreign suppliers. All contact with suppliers is taking place electronically, that is by e-mail and through Microsoft Teams. The fact that all contact with suppliers is taking place electronically is an advantage in the sense that the employees can have effective meetings with suppliers. However, it is also a disadvantage. The reason is, that ahead of initiating a business relationship with a supplier, the company wants to visit the supplier and assess the operation

of the supplier. It seems as if the business unit has a seller/buyer relationship as a way to carry out sourcing from foreign markets (Rajagopal and Bernard, 1994, p. 5). It is more difficult for the head of sourcing at the company to form an opinion of new suppliers, without physical meetings, according to the respondent. Ultimately this is an issue about creating relationships, which covid-19 has made more difficult.

The business unit has not ceased to source from international markets due to covid-19, but covid-19 has rather made the company search for solutions and thus found another source in terms of a distributor in Sweden. In the plastics industry however, the companies that produce plastics are large companies with annual turnover of SEK 50-100 billion, according to the managing director. Maybe this is an indication of the fact that it may not be easy to find new suppliers, although it is the customer of Nolato Polymer that decide on supplier selection issues. It may also indicate that the size of the suppliers gives them a great bargaining power. If the “bargaining power of suppliers is high” and internal sourcing is used by the company, the company “typically has more control over the price and the supply of components (Murray, Kotabe and Wildt, 1995, p. 186). Conversely, as is the case with Nolato Polymer, if the “bargaining power of suppliers is high” and external sourcing is used by the company, the company should have less control over the price and the supply of components.

According to the managing director of the business unit, covid-19 has had no effect on how the company conducts global sourcing. The company continues to source from foreign suppliers abroad and distributors in Sweden. This is consistent with previous study that mentions establishing of a seller/buyer relationship as a means to carry out sourcing from foreign markets (Rajagopal and Bernard, 1994, p. 5). However, the managing director commented that Chinese tools are cheaper, while products from European suppliers have the advantage of geographical proximity. The author of this thesis believes that the respondent is advocating regionalisation of sourcing. This may be in accordance with what Lee et al. (2015 cited in Lin, 2020, p. 733) says, namely that a major reliance on global sourcing also exposes a company to the risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19. However, it is inconsistent with previous study regarding developing a global sourcing strategy (Rajagopal and Bernard, 1994, p. 14). More specifically the previous study concerns the analytical and motivational dimension, whereof the market factors are a part and state “the need to go overseas” due to e.g., supply disruptions (Rajagopal and Bernard, 1994, p. 14). What the managing director of Nolato Polymer may be implying is inverted to what previous study describes. Though, the interviewee recalls another company that had major problems, since it had a supplier in Italy and Italy was severely affected by covid-19. This statement diminishes somewhat the importance of geographical distance and gives greater weight to the source of disruption and its location.

Regarding factors that are relevant when to begin purchasing from international sources the respondent said that price and quality are still important. However geographical distance will play an important role, since it is more difficult communicating with suppliers and getting deliveries. Presumably, this is a reference to suppliers in other regions, according to the author of this thesis. The company will try to have alternative suppliers of materials/components, in order not to be so dependent on a supplier. In that context the company will look at the geographical distance. This reflects the experiences that the company has collected during the pandemic, i.e., problems with freights and production capacity at different suppliers. This is

not consistent with what Rajagopal and Bernard (1994, p. 7-8) claim regarding the main motivations for European companies to initiate international sourcing, namely to achieve strategic advantage (cost advantage), absence of a suitable domestic supplier and that competitors in domestic markets are gaining advantage in terms of better quality and lower price due to foreign sourcing. However, covid-19 has changed the situation and thus this view can be explained by the fact that a major reliance on global sourcing poses a danger in terms of risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19 (Lee et al., 2015 cited in Lin, 2020, p. 733). It may also be explained by failure to achieve purchasing objectives (Rajagopal and Bernard, 1994, p. 11), since the respondent has mentioned problems with freights and production capacity at different suppliers.

Concerning continuation of purchasing from international sources, the interviewee notes that some suppliers are making efforts to find solutions to raw materials shortage and associated delivery problems, whereas other suppliers are not. When the pandemic is over, it is the intention of the company to seek deepened co-operation with suppliers, where the relationship during pandemic has been characterised by delivery reliability, communication and helpfulness. The company will also try to end the business relationships with the suppliers, whose performance has not been satisfying during the pandemic. This would be in accordance with making supplier selection by taking some of the factors mentioned by Narasimhan (1983 cited in Chang, Chen and Zhuang, 2014, p. 1101) into account, e.g., service, delivery and quality. However, the above-mentioned measures are not easy to realise, since it is the customers of Nolato Polymer Aktiebolag who decide on such issues according to the managing director. The reason is that the tools are constructed and paid for by the customers and the customers also own the design of the products. Regarding continuation of purchasing from international sources, the managing director also mentioned geographical proximity. He mentioned that 20 years ago there was a shift in sourcing from European supplier to Chinese suppliers, but now this seems to have reversed. The advantage of geographical proximity of European suppliers and quality over time motivates companies to reverse back to European suppliers according to the managing director. There are Asian companies that deliver products with high quality in the beginning of the business relationship, but after a year they deliver products with inferior quality. However, there are also Asian companies that behave well. Again, this may be explained by what Lee et al. (2015 cited in Lin, 2020, p. 733) says, namely that a major reliance on global sourcing also exposes a company to the risk of supply chain disruptions.

Regarding the view on the benefits of international sourcing, the managing director stated that it has proved to be more difficult to get response and help from foreign companies, during the pandemic. The interviewee mentioned that he is not claiming that all Swedish companies are conducting themselves well, but it is easier to communicate with them and make site visits, if it is necessary. Geographical proximity has a significance during a crisis, according to the respondent. However, cost advantages and other factors are important in the selection of a supplier and thus it is not easy to end a business relationship with a supplier. This is partly substantiated by Rajagopal and Bernard (1994, p. 9), who state that lower price is the most important factor for European companies. However, increasing importance of geographical proximity is supported by Lee et al. (2015 cited in Lin, 2020, p. 733), as mentioned above.

Concerning the variables that have an effect on decisions as to international sourcing, the interviewee mentioned that covid-19 has driven costs and affected the possibility to transport goods. The interviewee mentioned problems regarding transportation from China in 2020 caused by measures taken due to covid-19. There was poor availability of freight by ship/flight and there was a shortage of containers. This is partly consistent with previous study that mention that MNEs' international sourcing decisions regarding components are affected by, e.g., barriers to trade, transportation costs and production factor costs (Buckley, 1979; Dunning 1973 cited in Swamidass and Kotabe, 1993, p. 84). It may also be in accordance with what Lee et al. (2015 cited in Lin, 2020, p. 733) says, i.e., that a major reliance on global sourcing also exposes a company to the risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19.

The managing director mentioned that they were slow in conducting a risk assessment. Next time the company faces such a problem as covid-19 they must be faster/tougher in their response. For instance, they should be faster in scheduling 15 minutes between the work shifts that operate the machines, which is necessary to contain spread of the infection. This issue affects production. However, if the company would make risk assessment regarding sourcing, then it would affect both sourcing and production. Another factor that affects production is the fact that the company has taken advantage of the possibilities that covid-19 has brought by extending the mechanical equipment and increasing the work shifts from five days to seven days in order to cope with the work volume. There are also plans to extend one of the factories. Extending the mechanical equipment would enable processing of increased future sourcing volumes.

To conclude this section, the company made a risk analysis and identified some risks. Covid-19 has meant transportation problems and shortage of raw materials, which the company is trying to solve, e.g., by trying to find substitute materials. Orders are brought forward in time and placed with greater foresight, in order to ensure deliveries from the suppliers. There is no difference between how the company has dealt with sourcing from Europe compared to sourcing from Asia and between how the company has dealt with sourcing from other business units of the corporate group and external suppliers. The company has not contemplated the long-term effects of covid-19 on sourcing strategy. The company has not ceased to source from international markets due to covid-19, but has searched for new sources of purchase. Covid-19 has had no effect on how the company conducts global sourcing. The respondent seems to advocate geographical proximity and regionalisation of sourcing or maybe even national sourcing.

5.4.2. Nolato Cerbo AB

Some of Nolato Cerbo's operations that are related to diagnostics and sampling have an increased demand for products (sampling is conducted intensively), whereas e.g., operations relating to products to planned surgery are postponed due to covid-19 since demand has declined. The company has increased inventory levels for safety reasons, in order not to run out of raw materials.

At a time, there was concern of delivery problems from a supplier in Italy, but it turned out that the supplier even had an authorised (a regulated market) factory in Sweden and could

make deliveries from there. This may be considered as part of multiple sourcing that may lead to reduced purchasing risk and thus avoidance of shortage of key raw materials or components (Tsai and Wang, 2010 cited in Chang, Chen and Zhuang, 2014, p. 1102). Although the manufacturing industry is benefitting from high demand now, raw material shortage is a major risk and the company also sees continued problems regarding absence due to illness at suppliers' operations, according to the managing director.

Nolato Cerbo AB sticks to its region and deliveries between regions (such as United States and Europe) rarely take place. In retrospect, it is not easy to know the reason for this. Maybe the reason is business unit policy or maybe it is a way to avoid risks, i.e., that a major reliance on global sourcing poses a danger in terms of risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19 (Lee et al., 2015 cited in Lin, 2020, p. 733).

The decentralised supplier base, categorised as strength by the interviewee may constitute an opportunity (external factor). Another opportunity is the knowledge that covid-19 has brought from a global sourcing perspective, namely that both suppliers and customers realise that they need to regionalise their production and at the same time not have all capacity in one region, by e.g., having capacity in the United States and Europe. This seems a little bit contradictory, but perhaps it means to regionalise the main production to Europe and at the same have a minor capacity in United States. Maybe it also means to have capacity in only Europe and United States, but not in Asia. However, regionalisation may be in accordance with what Lee et al. (2015 cited in Lin, 2020, p. 733) says, namely that a major reliance on global sourcing also exposes a company to the risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19.

At the end of March 2020, the company conducted a risk analysis, that involved issues such as what raw materials the company needs, where the suppliers are located and if there is a need to increase inventory levels. The risk analysis induced the company to increase inventory levels for production needs of a quarter regarding critical products. There are nowadays a number of containers with bulk material at the harbour in Gothenburg and these are called off when they are needed in the production. Other measures that the company has taken is to secure that it has more suppliers and alternative delivery sources. This is a contradiction with the statement of the managing director, namely that overall, the company has kept its sourcing strategy from a pre covid-19 context. Specifically, this means that the company has the same suppliers and delivery sources, but that it has increased inventory levels and that the suppliers were enabled to make deliveries from different locations. If it is to be reasonable, it should be that the company has the same suppliers and delivery sources, but that it has enabled suppliers to deliver from different locations. In that case, multiple sourcing may lead to reduced purchasing risk and thus avoid shortage of key raw materials or components (Tsai and Wang, 2010 cited in Chang, Chen and Zhuang, 2014, p. 1102). The author of this thesis believes that enabling suppliers to make deliveries from different locations is consistent with the managing director's judgement that covid-19 overall has had a neutral effect on the operations. Although, the measures taken may seem adequate in some respect, but may be inadequate in relation to the fact that there are operations that are performing worse (products to planned surgery) during the pandemic.

The issue of changes in sourcing from Europe in relation to changes in sourcing from Asia is not relevant, since sourcing is to a great extent made in Europe and that no changes have been made, apart from what is mentioned above. Also, there is no difference between how the company has managed sourcing from external suppliers compared to sourcing from other companies in the corporate group during the pandemic and besides, the volume of sourcing from other companies in the group is insignificant. The pandemic has not induced the company to change how it conducts global sourcing. It continues to have almost exclusively external suppliers and there are no plans to make any changes regarding this issue. This is consistent with previous study that mentions establishing of a seller/buyer relationship as a means to carry out sourcing from foreign markets (Rajagopal and Bernard, 1994, p. 5). It may also be supported by the assumption of the author of this thesis, that the sourced raw materials have low asset specificity and the transactions are recurrent, which would make external sourcing more appropriate than internal sourcing and allow sourcing of raw materials/components of high quality at a reasonable cost (Williamson, 1983 cited in Murray, Kotabe and Wildt, 1995, p. 187).

The managing director believes that there will be no major change regarding the effects of covid-19 on long-term (more than five years) sourcing strategy. However, he repeats that the business unit has more sources of purchase (delivery from different locations) from existing suppliers in Europe regarding important products. The business unit has not turned to Asia solely with the aim to find low price. Rather it is looking at the overall cost and lead times and quality are highly valued. Therefore, the company has had the ambition to source in Europe and it intends to continue with that. This way of reasoning seems to be supported by the thought of Lee et al. (2015 cited in Lin, 2020, p. 733), namely that a major reliance on global sourcing also exposes a company to the risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19. Maybe that is the reason that makes the company focus on Europe for sourcing purposes.

Concerning the effects of covid-19 on the way the company contacts foreign suppliers, the interviewee stated that there is no change. A sister company in the Nolato group is taking part in global sourcing and the business unit has co-operation with that company, but this is non-formalised and thus is on a voluntary basis. The business units in the Nolato group can benefit from volume discounts, when they use the same contracts as the ones entered into by other business units. This should be interpreted as the sister company taking part in procurement and entering contracts, but that the sourcing itself is conducted by the actual business unit in question that is purchasing raw materials. Otherwise, there would be a contradiction to what is mentioned about external sourcing above. However, there is a lack of information and it can thus not be determined whether there is a consistency with what Rajagopal and Bernard (1994, p. 10-11) writes, namely that trade channels are ranked by their importance assigned buyer in purchasing companies, supplier's representative, use of own foreign subsidiary, own trading company and own international purchasing offices.

Covid-19 has not prompted the company to cease sourcing from international markets. Regarding the factors that are important to the company when it is to begin purchasing from international sources, the interviewee said that the overall picture is important, that is a combined assessment of price, transportation, quality, sustainability, assurances that the suppliers can comply with the business unit's code of conduct, long-term business

relationships and financial strength. The importance of these factors has not changed due to covid-19. This is to a large extent not consistent with the study of Rajagopal and Bernard (1994, p. 7-8), who conclude that the main motivations for European companies to initiate international sourcing are to achieve strategic advantage (cost advantage), absence of a suitable domestic supplier and that competitors in domestic markets are gaining advantage in terms of better quality and lower price due to foreign sourcing.

The factors that are important when the company is going to continue purchasing from international sources are the same as the above-mentioned factors regarding initiation of purchasing and the importance of them has not changed on account of covid-19. This is not consistent with what Rajagopal and Bernard (1994, p. 8) mentions regarding the continuation of European companies' international purchasing, namely that is mainly driven by the motives lower price, strategic advantage and on time delivery, followed by long-term supplier relationship and better quality.

The company's view on the benefits of international sourcing has not changed during the pandemic, although there is a lack of information as to what these benefits might be.

The variables regarding global sourcing decisions that are important to the company are the same as the above-mentioned factors concerning purchasing from international sources. The importance of these factors has not changed due to the pandemic, with the exception of transportation costs that have increased dramatically and long transportation routes by sea. However, these are only short-term changes and besides the company purchases very little from remote sources. Thus, the pandemic has not prompted a change in the sourcing strategy. This is not consistent with previous study, that mentions the variables barriers to trade, transportation costs, production factor costs, market size, exchange rate stability, profitability in host country, product life cycle (PLC) and "nationality of the company making the location decision" (Buckley, 1979; Dunning 1973 cited in Swamidass and Kotabe, 1993, p. 84).

To summarise this section, the managing director stated that both suppliers and customers realise that they need to regionalise their production. Due to covid-19, the company conducted a risk analysis, involving issues such as what raw materials the company needs, where the suppliers are located and if there is a need to increase inventory levels. Nowadays the company has a number of containers with bulk material at the harbour in Gothenburg, in order not to run out of raw materials. The company has enabled suppliers to deliver from different locations, a way of reducing purchasing risk and avoiding shortage of key raw materials. Changes in sourcing from Europe in relation to changes in sourcing from Asia is not a relevant issue, since sourcing is to a great extent made in Europe. There is no difference between how the company has managed sourcing from external suppliers compared to sourcing from other business units in the corporate group. Covid-19 is not projected to have any major effect on long-term sourcing strategy. Covid-19 has not prompted the company to cease sourcing from international markets.

5.4.3. Nolato Gota AB

The overall impact from covid-19 on the operations of Nolato Gota AB is major, since the company is a subcontractor to the automotive industry. A large customer, Volvo Cars closed

its operations in April/May 2020. However, after the summer 2020 there was a large increase in demand, since the customers were trying to recover lost production. Probably these fluctuations must have been difficult to manage from a sourcing perspective for Nolato Gota AB, according to the author of this thesis.

Closed borders meant that transportations took a long time. As the respondent perceives it, the threats are that the company will run out of raw materials. The company has made orders well in advance in order to ensure deliveries. However, the company has until now received the raw materials that it needed and there has been no interruptions of deliveries. Regarding how the company has dealt with threats, the respondent said that she has not seen any major threats. This may be contradictory in the light of the fact that risk of running out of raw materials, that are mentioned above. Perhaps it is possible to reconcile the two statements by interpreting “has not seen any major threats” as “has not seen any major threats materialise”.

Covid-19 has not prompted the company to change its sourcing and its purchase orientation. The customer makes the procurement and Nolato Gota is tied by the procurement. Nolato Gota cannot change supplier, since it does not have that latitude. According to the author of this thesis, this may seem strange, namely a company that does not have control over supplier selection issues. However, this fact seems to be usual within the plastics industry, i.e., a customer that owns the products and tools and “outsources” the production to an external company, although this company is involved in the development of the tools. As the senior manager stated; Besides, most of the suppliers of critical materials are large, e.g., Poly Kemi, Bosch and K.D. Feddersen and they have managed the situation well. This may imply that there would be no reason to change sourcing, even if it Nolato Gota would have had the latitude. Conversely to what Murray, Kotabe and Wildt (1995, p. 186) mentions, a high bargaining power of suppliers and the use external sourcing in the case of Nolato Gota should mean that the company has less control over the price and the supply of components. What complicates this even more is the fact that it is the customer, who makes the procurement.

Concerning potential changes in sourcing from Asia in relation to sourcing from Europe due to covid-19, the respondent said no sourcing changes have been made and that the company does not receive any supplies of raw materials to plastic parts from Asia. Deliveries of raw materials to plastic parts are made by suppliers in Sweden and Europe, but the tools are made in Asia. It is not evident why the raw materials to plastic parts are not sourced in another region. Maybe the reason is business unit policy or maybe it is a way to avoid risks, i.e., that a major reliance on global sourcing poses a danger in terms of risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19 (Lee et al., 2015 cited in Lin, 2020, p. 733).

The tools are made on behalf of the customer and are used in the moulding of plastic parts. No new tools have been manufactured, since the development work at the customers’ facilities has come to a standstill. Concerning potential changes in external sourcing in relation to corporate internal sourcing, the interviewee said that there is no internal sourcing from other companies in the corporate group and besides no sourcing changes have been made as mentioned above. The author of this thesis thinks that maybe external sourcing is used, since the sourced raw materials may have low asset specificity and the transactions are recurrent,

which would make external sourcing more appropriate than internal sourcing and allow sourcing of raw materials/components of high quality at a reasonable cost (Williamson, 1983 cited in Murray, Kotabe and Wildt, 1995, p. 187).

The senior manager of Nolato Gota AB does not believe that covid-19 will affect the Long-term sourcing (beyond five years). The operations are dedicated to the customers, who decide which suppliers to use. However, the above-mentioned judgement has to be considered in the light of the fact that the senior manager is not involved in sourcing and does not have the details regarding how the sourcing function considers these issues.

In retrospect, it is not easy to know how covid-19 has affected how the company carries out global sourcing, i.e., by establishing seller/buyer relationships with foreign companies, joint ventures and own subsidiaries etc., (Rajagopal and Bernard, 1994, pp. 5, 15), since the respondent said that her position is not involved in sourcing and she does not know how the employees at the sourcing function regard this issue. However, the respondent thinks that the customers are thinking about sourcing issues in a different way. Shortage of semiconductors will certainly lead to customers ensuring others sources of purchase in other regions. Today sourcing of semiconductors is largely made from Asia. According to the author of this thesis, these claims may seem unclear in retrospect, since they can be interpreted as ensuring additional new sources or replacing existing sources by new ones. The author of this thesis believes that the intended meaning is ensuring additional new sources. In that case, multiple sourcing may lead to reduced purchasing risk and thus avoid shortage of key raw materials or components (Tsai and Wang, 2010 cited in Chang, Chen and Zhuang, 2014, p. 1102). Furthermore, more sourcing from e.g., Europe and less from Asia, may imply an intension to avoid a major reliance on global sourcing and exposure of the company to the risk of supply chain disruptions, e.g., in times of political instability, trade war and covid-19 (Lee et al., 2015 cited in Lin, 2020, p. 733). However, the senior manager repeated that the operations are dedicated to the products of the customers, who choose which suppliers to use. This may imply that there is uncertainty as to whether the above discussed changes can be made by customers or not.

The company has not ceased sourcing from international markets and has not withdrawn from any foreign market. Regarding channels for sourcing, all contact with foreign suppliers has been carried out by telephone and e-mail and none by personal visit prior to covid-19. Nowadays, web meetings are also used. Covid-19 has not prompted the company to make any change in this respect. These statements are somewhat contradictory. On the one hand no changes have been made, but on the other hand web meetings are used as a new tool. Perhaps the respondent's statement "not meant any change" should be interpreted as "not meant any major change". Such an interpretation would make sense. The reason is that web meetings as tools are more closely related to telephone/e-mail, than e.g., physical meetings are. Contacts with foreign suppliers through telephone, e-mail and web meeting are is not comparable/consistent with previous study that show that the preferred trade channel for sourcing from foreign markets, ranked after their importance, are assigned buyer in purchasing companies, supplier's representative, use of own foreign subsidiary, own trading company and own international purchasing offices (Rajagopal and Bernard, 1994, p. 10-11). Maybe the contacts through telephone, e-mail and web meetings are caried out by assigned buyer in purchasing companies, since the business units of the corporate group have their

own sourcing functions. In that case it would be consistent with the study of Rajagopal and Bernard (1994, p. 10-11).

When Nolato Gota AB is going to initiate purchasing from international sources, quality, on time delivery and price are the most important factors. These factors are the same whether the suppliers are in Sweden or abroad. Covid-19 has not prompted any change in this respect. This is not consistent with the study of Rajagopal and Bernard (1994, p. 7-8), who conclude that the main motivations for European companies to initiate international sourcing are to achieve strategic advantage (cost advantage), absence of a suitable domestic supplier, that competitors in domestic markets are gaining advantage in terms of better quality and lower price due to foreign sourcing and the less important motives immediate performance improvement (quality advantages) and declining domestic supply.

The factors that are important regarding continuation of sourcing are that the suppliers must deliver the right quality, timely and to a competitive price, so that Nolato Gota can earn money at the end. It is relevant to point out that there is a lack of information regarding how covid-19 has affected this issue. If the author of this thesis is to speculate, then probably covid-19 has had no effect with respect to the fact that the senior manager has said that covid-19 has not affected motivations for initiating international sourcing and the benefits of international sourcing. If that assumption would be correct, then it would roughly be consistent with what Rajagopal and Bernard (1994, p. 8) write, namely that, the continuation of European companies' international purchasing is mainly driven by the motives lower price, strategic advantage and on time delivery, followed by long-term supplier relationship and better quality.

The senior manager does not believe that covid-19 has prompted the company to change its view on the benefits of international sourcing. However, information is lacking regarding what these benefits are. Covid-19 is something that has struck all and you have to fight your way through it, according to the respondent. Covid-19 has not caused the company to take any measures, with exception of the fact that the company is now, as compared to pre pandemic context, making orders way in advance and of larger volumes, in order to ensure delivery. Thus, it is not possible to make a comparison with what Rajagopal and Bernard (1994, p. 9) writes, namely that the benefits that European companies identify regarding international purchasing are, ranked by importance, lower price, increased competition, increased number of sources, better quality and access to worldwide technology.

Concerning how covid-19 has affected the variables that affect sourcing decisions, the senior manager stated that the company has made orders more often and of larger volumes during the pandemic, in order to ensure deliveries. Although the borders closed during the pandemic, the respondent feels that goods transportations across the borders have worked well, with the exception that it has taken longer time. However, the transportation costs are the responsibility of the seller (supplier) and the senior manager does not see any change in this respect. This is not consistent with previous study, that mentions variables such as barriers to trade, transportation costs, production factor costs, market size, exchange rate stability, profitability in host country, product life cycle (PLC) and "nationality of the company making the location decision" (Buckley, 1979; Dunning 1973 cited in Swamidass and Kotabe, 1993, p. 84).

A major shortage of raw materials in the first quarter of 2021 has led to increased raw material prices and this poses a threat to Nolato Gota's profitability. However, the company doesn't seem to have taken any measures in order to address this issue. Why is that? Is it considered as a short-term problem? Maybe the company has not had time yet to consider this and to react.

There is also a threat to the business unit in terms of what will happen to the car sales in Sweden, since the customers can refrain from buying cars according to the interviewee. Another concern is the uncertainty of how unemployment will develop. These issues may affect the sourcing of Nolato Gota and the senior manager did not seem to know how this will materialise. Such issues can probably only be subject to guesses and there are no sure predictions.

To conclude this section, covid-19 poses a threat in terms of the risk that the company will run out of raw materials. The company has made orders well in advance in order to ensure deliveries. Covid-19 has not prompted the company to change its sourcing and its purchase orientation. Covid-19 has not led to any changes in sourcing from Asia in relation to sourcing from Europe. A comparison between how external sourcing has been managed in relation to corporate internal sourcing is not relevant, since there is no internal sourcing. The assessment of the senior manager is that covid-19 will not affect the Long-term sourcing. Maybe there will be more regional sourcing. The company has not ceased sourcing from international markets and has not withdrawn from any foreign market.

6. Discussion and conclusion

In this chapter a discussion is taking place. The categories are discussion, conclusions, contribution to research, managerial implications, methodology reflection and discussion and further research.

To reconnect to the purpose of this thesis, it is to study how international Swedish plastics manufacturing companies have responded to covid-19 in terms of changes regarding corporate and business unit strategy and global sourcing.

6.1. Discussion

The discussion in the analysis of the section for corporate strategy, international strategy and global strategy showed that there was a lack of information regarding some elements of corporate strategy, whereas covid-19 has not caused the corporate group to make any change regarding some elements of corporate strategy and the international strategy that the corporate group seems to apply. If the assumption that is made in the analysis is reasonable, namely that covid-19 may have been considered as a non-strategic issue or as not posing a major threat, would there in that case be any reason to change the international strategy and make changes as to the corporate group's status as probably a related diversified company? Would there in that case be any reason to make changes relating the deployment of resources among business units and mergers/acquisitions? Probably, there would be no reason of that kind in such circumstances, since strategic work is time-consuming and strategies are not changed flippantly. A related issue is why covid-19 may have been considered as a non-strategic issue or as not posing a major threat. Maybe the explanation is a misjudgement of the effects and long-lasting character of the pandemic or maybe the corporate group's strategy stretches over several years and corporate office may not bother to make adjustment for a crisis that affects one or two years.

Regarding the different elements of business unit strategy and strategy formulation at business unit level, the issue is whether the business units' management considered covid-19 as a short-lived pandemic. Apparently covid-19 was considered as a non-strategic issue by the managing director of Nolato Polymer and as a minor risk factor by the managing director of Nolato Cerbo, whereas the senior manager of Nolato Gota stated that the business unit is trying to endure the pandemic (an indication of short-term view). Is it possible that the business units' management have misjudged the effects and long-lasting character of the pandemic? Is the view on the pandemic as a short-lived phenomenon the explanation to why the business units' management seem to have refrained from taking strategic measures? If covid-19 was considered as short-lived, would there in that case be any reason to change the business unit strategies? Probably not, since strategic work is time-consuming and strategies are not changed flippantly. Yet another reason may be the fact that the business units' strategies stretch over several years and that the business units' management may not have bothered to make adjustment for a crisis that affects one or two years. Also, even if it was known in advance that covid-19 would last more than a year, there was an information gap. This means that it was not known in advance what effects covid-19 would bring about and how serious these effects would be.

Global sourcing in covid-19 context has forced the business units to act on an operational level, e.g., try to find new sources of purchase or search for substitute materials and to bring orders forward in time and place them with greater foresight in order to ensure deliveries. The issue is however the long-term and strategic consequences that covid-19 may bring about. The business units do not seem to have conducted any strategic changes regarding sourcing. However, what is also important is what they plan to do or what they think about the future. Nolato Polymer Aktiebolag conducted a risk analysis in spring 2020 and identified some risks. The managing director stated that the business unit will try to have alternative suppliers of materials/components, in order not to be too dependent on a supplier and in that context look at the geographical distance, which is related to problems with freights and production capacity at different suppliers during the pandemic. He also said that Chinese tools are cheaper, while products from European suppliers have the advantage of geographical proximity. Furthermore, geographical distance will play an important role, since it is more difficult communicating with suppliers and getting deliveries, according to the managing director of Nolato Polymer. It has proved to be more difficult to get response and help from foreign companies during the pandemic and it is easier to communicate with Swedish companies according to the managing director of Nolato Polymer. The author of this thesis believes that the managing director is advocating regionalisation of sourcing or perhaps even national sourcing. The managing director of Nolata Cerbo AB acknowledged that both suppliers and customers realise that they need to regionalise their production. The business unit conducted a risk analysis that seems to have covered both operational and strategic issues. The senior manager of Nolato Gota said that shortage of semiconductors will certainly lead to (automotive) customers ensuring others sources of purchase in other regions than Asia. The implication may be not exclusively regional sourcing, but more regional sourcing in future. The discussion above suggests that the pandemic seems to have uncovered the threats to global sourcing that a global crisis can pose. The cost of this threats or risks have to be estimated and should be considered along the other costs for global sourcing, e.g., transportation and tariff/non-tariff trade barriers.

6.2. Conclusions

The conclusion below about regionalisation of sourcing has also an indirect effect on corporate strategy. The reason is that a large proportion of global sourcing is internal sourcing, i.e., sourcing between business units or companies within a corporate group. Thus, the risk of globalisation, e.g., delivery disruptions, that have been uncovered in the covid-19 context, applies to a company's external sourcing as well as company internal sourcing. International companies' motives for located business units in other regions may diminish as the risks of deliveries between regions have become more apparent. This would bring about a regionalisation of the location of business units of a corporate group and a regionalisation of corporate strategies.

In times of crisis, such as covid-19, two types of SWOT-analyses should be made. One SWOT-analysis should cover strategic issues and thus be part of a strategy formulation process. This means that the exposure to risks of individual business units or companies, that are part of a corporate group and that are located in different regions, should be identified and assessed. This should lead to simplified contingency strategies in order to take covid-19 into strategic consideration. In this work one worst case scenario strategy and one more normal case

scenario strategy should be made. The simplified character would be justified, by the fact that the strategies would be a rough approximation of “reality” and simultaneously not be too time-consuming and not too costly.

The second SWOT-analysis should cover global sourcing issues and highlight the risks that business units or companies, that are part of a corporate group, are exposed to. The focus of the analysis should be on identifying important suppliers, transportation issues and critical raw materials and component. The risks should be identified and assessed and this should lead to contingency plan from a sourcing perspective.

Since the creation of the General Agreement on Tariffs and Trade, GATT in 1947, which lowered barriers to trade in goods, there have been increased global trade volumes. This has implied a continuously increasing globalisation. The network between companies in different parts of the world came closer. In the last two decades however there has been a reverse force, from globalisation to regionalisation.

However, the hidden costs of global sourcing have been uncovered in the context of covid-19. The hidden costs consist of the risk of running out of raw materials/component, increased raw material prices, substantially increased transportation problems/delays and thus the risk of stalled production during a crisis, such as covid-19. This suggests that the case companies may choose to source from regional suppliers to a greater extent, compared to the case prior covid-19 context. In this respect covid-19 may enhance the process of regionalisation of sourcing of the case companies.

Remarkably the enhanced regionalisation process may be contradictory to the thoughts of Adam Smith, where countries focus on their comparative advantages and thus exchange advantages and companies focus on division of labour. Thus, the end result may be somewhat safer deliveries, from suppliers, but higher prices for the case companies.

6.3. Contribution to research

This research contributes to research by the knowledge it provides regarding corporate and business unit strategy and global sourcing in a covid-19 context.

A conclusion regarding the effect of covid-19 on corporate strategy is that regionalisation of sourcing also has an indirect effect on corporate strategy, since a large proportion of global sourcing is sourcing between business units or companies within a corporate group. Thus, the risk of globalisation, e.g., delivery disruptions, may cause international companies’ motive for locating business units in other regions to diminish as the risks of delivery problems between regions have become more apparent in the covid-19 context. This would bring about a regionalisation of the location of business units of a corporate group and a regionalisation of corporate strategies.

Two types of SWOT-analyses should be made, whereof one SWOT-analysis should cover strategic issues and lead to contingency strategies and the second SWOT-analysis should cover global sourcing issues and lead to contingency plan from a sourcing perspective.

From a sourcing perspective covid-19 seems to have uncovered the risks to global sourcing that a global crisis can pose. The cost of this risk has to be estimated and should be considered

by companies. This risk consists of the cost of running out of raw materials/component, increased raw material prices, substantially increased transportation problems/delays and thus the risk of stalled production during a crisis, such as covid-19. From a sourcing perspective the pandemic may bring about increased regionalisation and somewhat safer deliveries, but higher prices for companies.

6.4. Managerial implications

This research provides knowledge in terms of the suggestion that the case companies may have misjudged the effects and long-lasting character of the pandemic or may have disregarded to adjust their strategies for a crisis that affects one or two years, whereas their strategies may stretch over several years. It may be relevant to be cognisant about such issues in future and carefully evaluate future crisis in order to capture the major effects.

It is suggested that two types of SWOT-analyses should be made. One SWOT-analysis should cover strategic issues and thus be part of a strategy formulation process and lead to contingency strategies. The second SWOT-analysis should cover global sourcing issues and lead to contingency plan from a sourcing perspective.

The risk of running out of raw materials/component, increased raw material prices, substantially increased transportation problems/delays and thus the risk of stalled production during a crisis may lead to enhanced regionalisation of sourcing, which may lead to somewhat safer deliveries from supplier, but higher prices. This should be weighed against sourcing from other regions, with the risk of delivery disruptions, but lower prices.

6.5. Methodology reflection and discussion

This research has limitations caused by the methodological choices and thus the conclusions cannot be generalised. The reason is that the selected case companies are all business units of the corporate group Nolato Aktiebolag, that operates in the plastics and polymer industry. Thus, the conclusions of this research may be specific to these business units, with their particular orientation in terms of industry and operations.

Furthermore, qualitative data were collected based on three case companies and a case study was applied as research type. This is another reason why the conclusions cannot be generalised, since the qualitative data are expressions of the subjective view of the interviewees and the case study implied a few case companies. However, this does not imply that the data are arbitrary and besides, the research type has enabled a deeper understanding, in comparison to what a survey would do. Corporate strategy, business unit strategy and sourcing in a covid-19 context is a new research subject and thus a case study was appropriate in this case. Another reason for choosing a case study was, the difficulties that the ongoing pandemic posed, in terms of finding companies and interviewees that would volunteer to be interviewed. During the screening for companies to include in this research it became obvious that a survey would be difficult to carry out, since the response rate may be very low.

Unfortunately, one of the case companies did not want to participate in a supplementary interview referring to lack of time, which created some problems. However, the remaining questions to be asked in the supplementary interview were not too many and thus sufficient data has been collected.

6.6. Further research

For further research, the following is recommended:

- To carry out a case study and choose international case companies, whose operation is in another industry (and not plastics/polymer industry). By comparing the conclusions of that future study with the conclusions of this research, it may be possible to say if the conclusions of that future study and the present study are specific for the studied industries.
- To carry out a case study and choose the same industry, but have case companies that have other nationality of ownership than Swedish. This would generate deep knowledge of case companies that have other nationality of ownership.
- To study the same industry, but choose survey as a research type. This means that many case companies are part of the study, which would allow generalisation of the conclusions of such a study.
- To study the same subjects and choose a survey as a research type, where several nationalities of ownerships are represented in the study. This may show if the view of the respondents and the outcome of the study is affected by country specific elements, e.g., national culture. Furthermore, generalisation would be possible in the case of a survey.
- To choose a survey and have international case companies from different industries. Generalisability and a comparison between the industries would then be possible.

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