**Aalto University
School of Economics**

Where is value created in the Finnish food industry?
Case: Finnish food company

International Business

Master's thesis

Joel Karjalainen

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Department of Management and International Business
Aalto University
School of Economics

WHERE IS VALUE CREATED IN THE FINNISH FOOD INDUSTRY? CASE: FINNISH FOOD COMPANY

Objectives:

This study examines the global value chains of the Finnish food industry and aims to explain how value is created and distributed within the food industry value chains. The global value chains have been evolving greatly during the past decades due to the globalization, and these far more complex value chains pose challenges for both economies and the corporate world to understand value creation and distribution. This study aims to address the research gap of empirical results on global value chains, but at the same time provide managerially significant industry information. The results should help to understand the functioning of global value chains in the Finnish food industry.

Research method:

The research method for this thesis is qualitative with a single case study approach. Both qualitative and quantitative data is used, since data collection was carried out through semi-structured interviews and data bases.

Results:

The main results of this study comprise of four important findings. First finding is the identification of the value chain participants (on broad level) in a Finnish food industry value chain, which are the primary sector, refiners of raw materials, food industry companies, and distribution. Second finding was that the most value of these value chain participants is created in the downstream of the value chain by distribution and food industry companies, whereas upstream of the value chain is capturing less value due to the low value adding activities performed. Third finding was that Finnish companies create nearly all the value created in the Finnish food industry. Fourth, the Finnish food industry remains very traditional, where the impacts of globalization are so far experienced only to some extent.

Keywords: Finland, food industry, value chains, value distribution, globalization

WHERE IS VALUE CREATED IN GLOBAL VALUE CHAINS? CASE: FINNISH FOOD INDUSTRY

Tavoitteet:

Tämän tutkimuksen tavoitteena on tutkia globaaleja arvoketjuja ja niiden asemaa Suomen elintarviketeollisuudessa. Tutkimus pyrkii selvittämään kuinka arvoa syntyy ja kuinka se jakautuu elintarviketeollisuuden arvoketjuissa. Globalisaation johdosta globaalit arvoketjut ovat nopeasti kehittyneet ja tulleet hyvin monimutkaisiksi, joka asettaa sekä valtioille että yrityksille suuria haasteita ymmärtää arvon syntyä ja sen jakautumista. Tutkimus tarttuu globaalien arvoketjujen tutkimuksen empiirisen tutkimuksen aukkoon ja samalla pyrkii tuottamaan yritysjohdollisesti merkittävää alatietoutta. Tulokset auttavat ymmärtämään arvoketjujen toimintaa Suomen elintarviketeollisuudessa.

Tutkimusmenetelmät

Tutkimusmenetelmänä tässä tutkimuksessa käytetään kvalitatiivista tutkimusmenetelmää, jonka sisällä lähestymistavaksi valitaan yhden tapauksen tapaustutkimus. Tutkimuksessa käytetään sekä kvalitatiivista että kvantitatiivista tietoa, ja tiedon keräyksessä käytetään puolistrukturoituja haastatteluja sekä tietokantoja.

Tulokset:

Tutkimuksen tulokset osoittavat neljä tärkeää löydöstä. Ensimmäinen löydös on arvoketjuun osallistuvien yritysten tunnistaminen, jotka Suomen elintarviketeollisuudessa ovat primääri sektori, raakamateriaalien jalostajat, elintarviketeollisuuden yritykset ja jakeluverkosto. Toinen löydös paljastaa, että suurin osa arvosta syntyy jakeluverkoston ja elintarviketeollisuuden toimesta arvoketjun lopussa, kun taas vähiten arvoa syntyy arvoketjun alussa. Kolmas löydös on suomalaisten yritysten tärkeä osuus arvoketjussa, sillä lähes kaikki arvo elintarviketeollisuuden arvoketjussa jää Suomeen. Neljäs löydös korostaa suomalaisen elintarviketeollisuuden perinteisyyttä ja globalisaation vaikutusten vain osittaista ilmenemistä.

Avainsanat: Suomi, elintarviketeollisuus, arvoketjut, arvon jakaantuminen, globalisaatio

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1 INTRODUCTION

1.1 Background

The Finnish business newspaper, Kauppalehti, brings into public attention the changing global value chains in their article on value chains being rebuild (Kauppalehti, 2011). The article discusses actions Finland needs to take in order to tackle the challenges presented by the changing global value chains. Article emphasizes the need for creating industrial know-how, which in the present day value chains is increasingly creating services of high added value. Article also refers to the studies made by the Research Institute of the Finnish Economy on Nokia's value chain (Pajarinen, Rouvinen & Ylä-Anttila, 2010), where the end product produces less and less value of the total value of the business.

An important phenomenon behind the evolving value chains is 'globalization', which many times is misunderstood and used interchangeably with 'internationalization'. Dicken (1992) and Gereffi (1999) explain in their works the important difference between 'internationalization' and 'globalization'. Internationalization is not a new phenomenon, since it started already in 17th century, when colonial empires first started looking for business opportunities, whether in form of new markets or raw materials. Gereffi defines internationalization as 'the geographic spread of economics activities across national boundaries' (1999, 41). Globalization in contrast is the 'functional integration and coordination of internationally dispersed activities' (Gereffi, 1999, 41). Therefore, it can be concluded that the globalization is different from the internationalization through functional integration, and is thus a more recent phenomenon when compared to internationalization, but also has a much deeper impact for the corporate world. First there needed to be development towards internationalization of the world, through which globalization was made possible.

Due to the globalization value chains started to become increasingly global, which resulted in changing value chains during the past decades. According to Baldwin (2006) this development is explained by two major unbundlings at the global markets, which naturally affect the value creation of a company. First unbundling was the divergence of production from consumption. This can be illustrated by the shift of industrial

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production to Asia, whereas the major share of consumption still mainly remains in the developed countries. Second unbundling was the dispersion of company functions and operations all across the world in attempt to differentiate and to attain competitive advantage. These two developments have made the global value chains of companies highly complex and also reflect in the absence of knowledge, where the value is actually created. The first unbundling is addressed by many researchers looking into the global value chains of industries. However, as the second unbundling continues to proceed, there remains a need to also examine the firm or even product level global value chains, in order to better understand value creation and distribution.

The statistics depicting the trade in the globalized world are misleading, since they take into account the trade between countries, but neglect, where the value for the product is actually created (Gereffi & Sturgeon, 2009). An example of this is that when Pajarinen, Rouvinen & Ylä-Anttila (2010, 79) examined the value distribution of Nokia N95 phone, even when the phone was sold from Beijing to the United States of America, about 39 % of the value was still coming to Finland. This shows that the functions adding the most value were carried out in Finland, even though the trade statistics might suggest otherwise. All this has also lead to a point where 'countries and regions no longer specialize in industries or clusters but in functions of a company and finally in work tasks' (Pajarinen, Rouvinen & Ylä-Anttila, 2010, 13).

An interesting issue is, how the break-down of production is affecting one of the most traditional industries in Finland, and also in other countries, namely the food industry. It is clear that the more dynamic industries like technology industry are influenced by this phenomenon, but what the situation is regarding an industry with a long history, an industry which is often used as a tool for protectionism, but also an industry lacking some of the dynamics of others. In order to understand the situation there is a need to provide more descriptive and detailed results on the global value chains in the Finnish food industry, and this study chose to examine the topic through a since case company.

Hence, it is of high importance to study more closely the value development of different products in order to understand, where the value comes from in a value chain, where the benefits are distributed to on a macro-level, but most importantly from the managerial

perspective to optimize the value chain of the company. After all, it is the value created to the customer that matters. Pajarinen, Rouvinen & Ylä-Anttila note that 'as the value chains are dispersed globally, the actual physical location of the assembly and the geography of the value added of the whole value chain have less and less to do with each other.'(2010, 45) However, authors also point out that it still remains unclear how outsourcing and off-shoring have actually affected companies and their productivity, profitability and particularly the extent of value added (ibid).

To conclude, the global value chains have been evolving greatly during the past decades due to the globalization, and these far more complex value chains pose challenges for both economies and the corporate world to understand value creation and distribution. Therefore, it is interesting to go deep into find out what kind of value chains are present in one of the most traditional industries, food industry, and to find out how value is created and distributed within those value chains. Taking into consideration these developments, the research problem and gap are defined in the next part.

A final remark concerning the background of the thesis is that it is a part of a larger study conducted by the Research Institute of Finnish Economy (hereafter on Etla), which examines Finland and Finnish companies in global value chains. Etla study is a multiple case study, which aims at examining how the value of different products is distributed across organizations and participants, the role of Finnish units, geographical spread of value creation activities and what tasks have been relocated. The case studies are from several different industries e.g. food, textiles, and software.

1.2 Research problem and research gap

Gibbon, Bair & Ponte (2008) point out that even though global value chains have been under research, there is hardly any research centered on the question how value is created in the global value chains (except for an attempt by Daviron & Ponte, 2005). The distribution of value within the global value chains has been touched upon by Talbot (1997). Less theoretical attempt to study value creation and distribution is an article written by Linden, Kraemer & Dedrick (2009), in which they examined Apple's

iPod and who captures the value in that specific value chain. Gibbon, Bair & Ponte (2008) also discuss various issues related to governing global value chains. The major attention in global value chain studies has been addressed to the issue of governance (driving, coordination and normalization) both in terms of theory and empirical results. This issue has been discussed in greater depth in Langenskiöld (2011), where the author discusses Finnish food industry in terms of governance. It also needs to be noted here that much of the research focuses on the value chains on country or industry level, whereas much of the company level research seems to be lacking, and also partly therefore it can be noted that there is a research gap.

The research problem of this study is how value is created and distributed within the Finnish food industry value chains. In order to properly and profoundly understand the global value chains, there needs to be specific knowledge produced, where in the global value chain the value actually is produced and how it is distributed among the chain participants. However, for a company, it is also highly valuable to strategically understand its position in the value chain. If a company is poorly positioned within its value chain, and only a little value is created by the company, it might want to pursue a position where it becomes more valuable to the value chain, at the same time more indispensable, and gains more power.

1.3   Research objectives and research questions

The objective of this research is to address the existing research gap in the global value chain literature but also to provide valuable information to the case company. Therefore, an extremely in-depth, vertical, and descriptive approach is taken through examining value chains of specific products, which addresses the research gap of empirical results, but at the same time gives concrete enough information to the case company. The results should help to understand the larger scheme, the functioning of global value chains in the Finnish food industry, but also to contribute to the on-going discussion on globalization.   Additionally there are possibilities for this study to help in the future theory building for global value chains.

In more detail, the research objectives are within the area of retail products, and the area of Hotel, Restaurant and Catering (HoReCa) is dismissed from this study. Retail products are the area of interest, since the scope of the study needs to be kept fairly narrow due the in-depth approach, but also because the chosen case company indicated their interest to receive information within this area.

As already mentioned, the research problem of this study is to determine, how value is created and distributed within the food industry value chains, and in order to be able to provide understanding to this problem, this study aims to answer the following research questions, provided by Etla (2011), within a specific food industry case company:

1. What is the structure of the value chain for the chosen product(s) of the case company?
2. Who creates the value added in the value chain?
3. How the total value added is spread to different countries/regions?
4. How are the Finnish food industry value chains special?

1.4   Definitions

Global value chain:

> 'a network of labor and production processes whose end result is a finished commodity' (Hopkins and Wallerstein, 1977, cited in Bair, 2005, 155)

Food industry:

> An industry, which included all the activities needed to processes agricultural raw material into food products

Value:

Value in this study means exchange value, which can be used interchangeably with price of the product

Value distribution:

The way how value is distributed between the value chain participants within a value chain

Value creation

The amount of value each value chain participant is able to produce to the final product

2 LITERATURE REVIEW

The purpose of the literature review is to present academic background of the researched topic, and therefore this literature review is divided into two main parts. First, there is an introduction into global value chains and their dynamics. Second, there is a brief description of the Finnish food industry, which also includes market data aside with other academic sources. Through understanding the key issues, the concept of global value chains and the dynamics of the market, the results of this research can be grasped and analyzed in greater depth resulting in more thorough conclusions.

2.1 Global value chains

This part of the literature review will introduce the prevailing theories and discussion around global value chains and enable more thorough understanding of the phenomenon under study. The historical development of global value chains literature will be discussed alongside with the main aspects of contemporary global value chain literature. Dembinski (2009) explains that there are currently three different perspectives in global value chains research. First, there is the larger perspective, the industrial economy and development research, which focuses on the macro level and is interested in different instruments used e.g. governmental regulations. Second, there is the local and territorial approach, where the main focus is on a given geographical area and its importance within the different global value chains. The third perspective, which is the managerial viewpoint, is mainly concerned with the company level, and more specifically with its efficiency. The first two are especially important for the Etla project as a whole, whereas all of these perspectives contribute equally to the understanding of this study. However, the third perspective is chosen as the main theory for this study and the reasoning behind it will be explained later.

Most of the contemporary global value chain literature seems to approach the phenomenon from the development studies perspective, whereas the business administration/economics academic literature applications seem to be lagging behind, even though, it is a phenomenon, which has a huge impact on company strategies and

profitability. This is a clear research gap as was already mentioned in the introduction part of this thesis, and which this thesis partly aims to address. Nevertheless, grand part of the literature review presented here is research carried out interdisciplinary researchers. Another important notion to make here is that largely the body of academic literature is concentrating either on the country or industry level, and there are only a few company or product specific value chain studies found. However, understanding the broad overview of the value chain research is essential to understand also the more detailed level. Gibbon & Ponte point out the significance of the Global value chain analysis, since 'the global economy can be usefully understood as a combination of discrete, product-specific 'value chains' rather than of liberalized markets' (2008, 366). Looking into the different value chains gives a far more practical and concrete picture of the global economy than the examination of the liberalized markets.

This part of the literature review is divided into seven parts, where the first five sub-parts will cover the industrial economy and development research together with local and territorial research. This can be called as the macro perspective. The industrial economy and development research along with local and territorial research have contributed the most to the global value chains research (macro perspective). Therefore, it is crucial to understand the underpinnings and history of this branch of research, even though the main focus would be on company level (micro perspective). First there will be a review of early developments of global value chain literature, which will then lead to expanding on some key frameworks, and in the end discuss the value creation process itself.

The last two sub-parts will focus on the managerial or more strategic viewpoint, which again can be called micro perspective. In micro perspective the global value chains are considered from the company point of view, which has its roots in the works of Porter (1985) but also Kogut (1985). In this part works of both Porter and Kogut are examined separately including a deeper look into, how companies need to consider global value chains in strategic management. However, it needs to be noted that these micro or macro perspectives are not mutually exclusive, but can be considered more complementing one another.

2.1.1 Development of global value chain literature

There can be seen a linear development trend in the global value chain literature, as Bair (2005) argues that there are three different paradigms present in the 'chains literature' at the moment (see Table 1). These three paradigms have all emerged at different points of time, but the earliest research can be found from the late 1970s, when the first paradigm, commodity chain research, was first introduced. Commodity chain research, aside with Porter's company value chain models discussed later, began focusing academic attention on the different value creation activities. From the commodity chain research, through the increasingly apparent effects of globalization, developed the global commodity chain research by Gereffi (1994), who then later developed the latest paradigm, which is the global value chain research. A compilation of these theories is presented in Table 1 and a more in-depth discussion will follow.

However, Gereffi et al. (2001) also state that much of the global value chain literature is using multiple terms interchangeably to explain nearly the same phenomenon. Therefore, there has been an effort to simplify and unify the different terms used in the Bellagio group[1], and through this bring more comparable results from the research carried out on global value chains (Gereffi et al., 2001). Sturgeon (2008) points out that the focus of the Bellagio group was the firm-level governance, but also developed into research streams within theoretical standards, labor, GVC metrics, industrial upgrading, and case studies. Nevertheless, it needs to be noted simultaneously that theory building within this field of study is not very far developed, which already can be seen from the multitude of names that are used to describe global value chains.

In addition to the frameworks included here, there are also some other theories, which explain and study the phenomenon of economic globalization through examining chains, and need to be mentioned. These theories include 'international production networks (Borrus et al. 2000), global production networks (Ernst, 1999; Hendersson et

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[1] The Bellagio group is a group of leading value chain researchers brought together in 2000, and later on in different occasions, to address current questions around global value chains, an (Gereffi et al., 2001)

al. 2002) global production systems (Milberg 2003) and the French filière concept (Raikes et al. 2000)' (Bair, 2005, 162).

Table 1: Contending chain frameworks

	Commodity chains	Global commodity chains	Global value chains
Theoretical foundation	World-systems theory	World-systems theory Organizational sociology	International business literature Global commodity chains
Object of inquiry	World-capitalist economy	Inter-firm networks in global industries	Sectoral logics of global industries
Orienting concepts	1. International division of labor 2. Core-periphery-semi-periphery 3. Unequal exchange 4. Kondratieff cycles	1. Industry structure 2. Governance (PDCC/ BDCC distinction) 3. Organizational learning/ Industrial upgrading	1. Value added chains 2. Governance models (modular, relational, captive) 3. Transaction costs 4. Industrial upgrading and rents
Intellectual influences	1. Dedepency theory 2. Structuralist development economics	1. MNC literature 2. Comparative development lit.	1. International business/ Industrial organization 2. Trade economics 3. Global/international production networks/ systems
Key texts	Hopkins & Wallerstein (1977, 1986) Arrighi & Drangel (1986), Arrighi (1990) *Review*, 23(1), 2000	Gereffi & Korzeniewicz (1994) Appelbaum & Gereffi (1994) Gereffi (1999), Bair & Gereffi (2001)	Humphrey & Schmitz (2000) *IDS Bulletin,* 29(1), 2000 Sturgeon (2002), Gereffi *et al.* (2005)

Source: Bair (2005, 160)

Kaplinsky & Morris (2001) discuss in their handbook for value chain research, as do Gereffi et al. (2001), the various names/labels value chains are called. Porter (1985) calls intra-firm activities, which is a very narrow set of activities, as *value chain*, but then later adds activities that are today considered as part of the value chain, but calls

this whole as *value system*. Womack and Jones (1996) call the value chain as *value stream*. Kaplinsky & Morris (2001) also note that a term developed by French, *filière,* is used to signify value chain. This term, however, is not very established and was mainly used to study agricultural commodities. *Global commodity chains* framework, introduced by Gereffi (1994), is a concept used to mark the idea of value chain, where the focus is on internal governance structure of the chain and on lead firms of the chain. Gereffi et al. (2001) note that even though these different labels for value chains have distinctive features or emphases, they do have a lot more in common, which also serves as a foundation for future global value chains research.

In the next parts each commodity chains, global commodity chains and global value chains frameworks are discussed more in-depth.

2.1.2   Commodity Chains

It is widely acknowledged that the roots of global value chains research are in the commodity chain research. The development of commodity chain concept began already in 1977 by the works of Hopkins & Wallerstein (1977) cited in Bair (2005, 155) as they defined the concept in 1986 as 'a network of labor and production processes whose end result is a finished commodity'. This school of thought became known as the world-systems theory and emphasized the commodity chains as networks of productive activities involving human labor in the production process. Hopkins & Wallerstein (1977; 1986) cited in Sturgeon (2008, 7) also emphasized the role of state in commodity chains, where the state could have control over the whole production system through tariffs and content rules.

In commodity chains there are nodes, which are linked by certain transactions (Talbot, 1997). The idea is to go back from a finished commodity, node by node, to raw materials. Each of the nodes creates added value through adding inputs or organizing inputs. By calculating the value added, profits generated, for each of the nodes, a total value added can be calculated. This process, commodity chain conceptualization, can be used for macro institutions (states, MNCs), whereas some previous research has focused

more on bargaining power analyses, economics structures of vertically-linked markets, and industrial organization (ibid).

Within commodity chain conceptualization there are two opposing views on, where the focus should be. Hopkins and Wallerstein (1994) emphasize the division of surplus value among the participants in the commodity chain. This approach is only looking into the profits of the chain, and therefore neglecting the income produced. Arrighi & Drangel (1986), in contrast, focus on the total income of the chain as their main measure. The attention of the research is much more on national countries instead of chains. The aim is to find out where the core nodes (most value surplus) are located and based on these findings the argument is that these countries have higher aggregate income. However, an important notion is made by Talbot, since he suggests combining these two views: 'first, determine how the total income generated along the entire chain is divided between nodes of the chain; and, second, determine how the total income accruing to each node is divided between wages, rents[2], and profits.' (1997, 58). The above mentioned views, and the research within those views, take on a country level perspective, which means that this theory is not the most suitable for the purposes of this study, where the focus is on both company and product level. Nevertheless, the basic idea of this theory is applied in this study as well and it helps to understand the dynamics of the value chains.

2.1.3   Global Commodity Chains

When moving from commodity chains to global commodity chains, it is more than natural that the developer of Commodity Chains framework was also the developer of the Global Commodity Chains (GCC) framework. The first book on commodity chains, Commodity Chains and Global Capitalism, was edited by Gary Gereffi and Miguel Korzeniewicz in 1994, where Gereffi went on and developed the GCC framework as a chapter in the book.

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[2] Broadly defined as returns from scarce assets (Gereffi, 1999, 43)

GCC theory considers commodity chains as inter-firm networks connected to the international markets. Gereffi (1999) developed the GCC framework, in which he determined producer-driven and buyer-driven governance structures. This internal governance structure is one of the four dimensions the GCC framework has, and additionally it is the most important and studied one. The other three dimensions are input-output structure, the covered territory, and institutional aspect, where input-output structure and territory are mainly used in describing the organizational and territorial division of both labor and value in value chains, and institutional aspect sets the scene by defining global conditions for market (Gibbon, 2001).

As already discussed, the crucial part of the GCC framework is finding out who holds the power - internal governance. There are two types of commodity chains: producer-driven and buyer-driven (Figure 1). In producer-driven structure the informal power within the commodity chain is held by the manufacturer/producer whereas in the buyer-driven structure the power was in the hands of retailer/end of the commodity chain.

Considering producer-driven commodity chains it is usually the large multinational manufacturers, who have a prominent role in controlling the chain, and this form has been most successful in capital- and technology-intensive industries. As an example of such an industry is car industry with a large amount of suppliers. Buyer-driven commodity chains, on the other hand, tend to be found in labor intensive consumer goods industries, such as clothing, and the power over the whole chain is mainly in the hands of a large retailer or such. In terms of profit, producer-driven chains have 'scale, volume, and technological advances' (Gereffi, 1999, 43) as their key ways of creating profit. Buyer-driven chains derive their profits from 'unique combinations of high-value research, design, sales, marketing and financial services' (ibid). Due to having special know-how in the above mentioned ways of creating profits, there tend to be relatively high entry barriers; these companies create different kinds of rents[3]. For producer-driven chains there are technology rents and organizational rents, whereas buyer-driven chains have relational and trade policy rents (ibid; Kaplinsky, 1998).

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[3] Broadly defined as returns from scarce assets (Gereffi, 1999, p 43.)

Figure 1: The organization of producer-driven and buyer-driven global commodity chains.

Producer-driven Commodity Chains
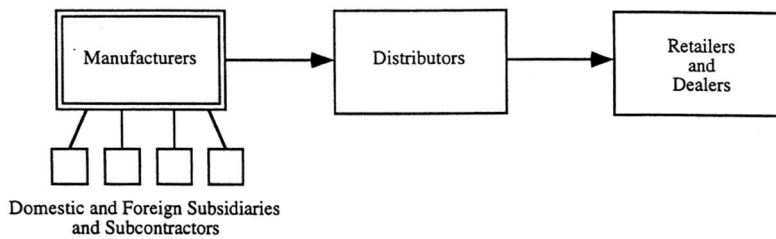
Buyer-driven Commodity Chains
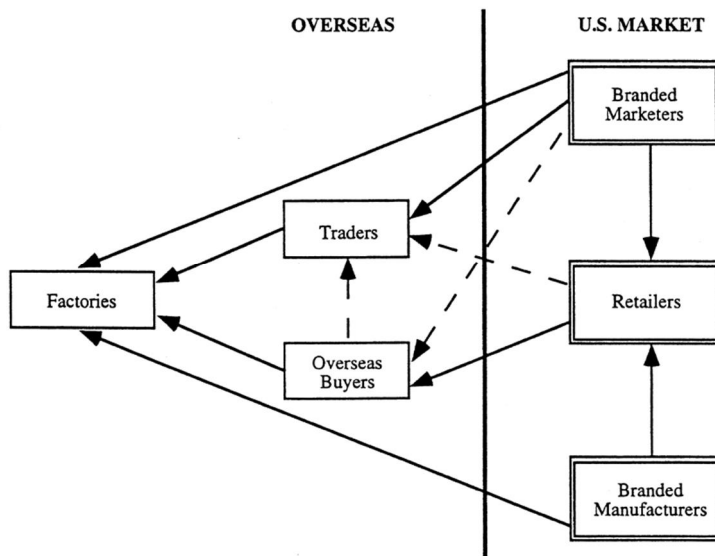
Notes: Solid arrows are primary relationships; dashed arrows are secondary relationships.

Source: Gereffi (1999, 42)

The key differences between commodity chain and global commodity chains theories can be summarized as the difference between, how globalization is viewed and why this research on commodity chains is carried out. Bair (2005) explains that the world-systems theory, i.e. commodity chains, considers globalization as a process which

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started along with the development of capitalism and researches commodity chains as a part of global capitalist economy (all countries together), whereas GCC theory underscores that globalization has actually started recently as a result of integrated production systems and is interested in national developments.

For the GCC it can be concluded that this framework is useful for scrutinizing global industries. Gereffi (1999) summarize well the four distinct aspects, in which the global commodity chains framework has added to the academic discussion. This framework (1) involves explicitly internationality as an dimension, (2) illustrates the power used by the lead firms (producers or buyers) in the commodity chains, (3) proposes that through coordination of the whole commodity chain there is competitive advantage to be gained, and (4) considers organizational learning as a key action to be taken within the firms in order to secure their position in the chain. Even though much of the contemporary research has been carried out within the realms of GCC framework, the focus is highly on the governance issues, which are not the focus in this study. At the same time the focus is only on the industry as itself, whereas in this study an attempt to provide analysis and conclusion on the firm level is relevant.

2.1.4 Global Value Chain framework

The third, and the most recent, framework is the Global Value Chain framework (GVC). It was further developed from the GCC framework and is the most up-to-date framework to help in understanding the value chains, especially in terms of development studies. The difference between GVC and GCC frameworks is the emphasis of international business literature on the first one and the emphasis on sociological literature on the second one. However, both of these frameworks focus mainly on 'how the concept of value-added chain can inform firm-level strategies of industrial upgrading' (Bair, 2005, 154). Despite the focus on development studies, this information can also be utilized in all kinds of value chains in different economic environments.

Dembinski (2009) gives a definition to global value chains through defining each word on its own. Most important ones are 'value' and 'chain'. Value added can be calculated on both national level as well as company level, where at company level 'value added is equal to the difference between turnover and inputs bought from outside, as such it corresponds to the sum of remunerations of enterprise's factors of production (labour and capital)' (Dembinski, 2009, 115). Chain can be defined either on technological or economical level, where on technological level it is merely 'process of transformation of inputs into a final product' and on economic level it refers to 'economic transactions taking place between firms' (Dembinski, 2009, 115).

Kaplinsky defines value chain as 'the full range of activities which are required to bring a product or service from conception, through the intermediary phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use' (2000, 121). Value chain was introduced for the first time already in 1960's, but became a popular concept through the writings of Porter. Kaplinsky names three key elements of value chain analysis: barriers to entry and rent, governance, and systemic efficiency. Gereffi et al., on the other hand, define global value chains as 'the set of intra-sectoral linkages between firms and other actors through which this geographical and organizational reconfiguration of global production is taking place' (2005, 318). However, it is important to note here that the global value chains are not static, but the roles evolve over time due to changes in the business environment (Dembinski, 2009).

Global value chain literature observes mainly four features of globalization of production. First, it takes into consideration the historical development; second, emphasizes the uneven distribution (both geographically and sectorally); third, claims a higher level of differentiation and specialization; and fourth, notes the increasing amount of developing country ownership (Gereffi et al., 2005). Considering these features, Sturgeon explains that there are three main concern areas in GVC framework, on which the focus should be put:

> 1) the character of linkages between tasks, or stages, in the chain of value added activities…2) how power is distributed and exerted among firms

and other actors in the chain; and 3) the role that institutions play in structuring business relationships and industrial location. (2008, 22)

Gereffi et al. (2005) argue that despite the disintegration of production through globalization, and on the other hand, re-integration of these activities within the firm (global value chains), this process does not occur automatically, but instead requires careful management. At the same time it needs to be noted that the scope of GVC theory is not exactly correct for this thesis, even though, as the theories mentioned before, it can be contributed of many things this study carries out, especially in terms of defining the global value chains. However, the strong role of governance and institutions in GVC theory is not the suitable perspectives acting as the theoretical base for such an empirical thesis as this, but it is definitely strongly supporting the main theory of this study.

The three points mentioned above are mainly the same core issues, which were covered by the GCC framework, and therefore, it is important to explain them in more detail next. The first two points will be covered under governance and the last point separately.

GOVERNANCE – power and determinants of firm-level coordination

Gereffi et al. (2005) introduce a typology of five governance structures of GVCs; markets, modular value chains, relational value chains, captive value chains and hierarchy (Figure 2). This typology is constructed based on three variables, which are the complexity of transactions, the codifiability of information, and the capability of suppliers. As can be seen from the Figure 2, the five types of governance vary according to their degree of explicit coordination and degree of power symmetry in the value chain. *Market*, is the first type, and here the role of governance is the least important, since the cooperation is very much like on the spot markets, and therefore it is easy to switch from one party to another. In *modular* value chains, there is a tendency to focus on certain customer specifications (turn-key services), but there is no specific

cooperation on both sides, rather suppliers try to produce customer specific solutions with generic machinery and capital outlays for resources.

Figure 2: Five global value chain governance types
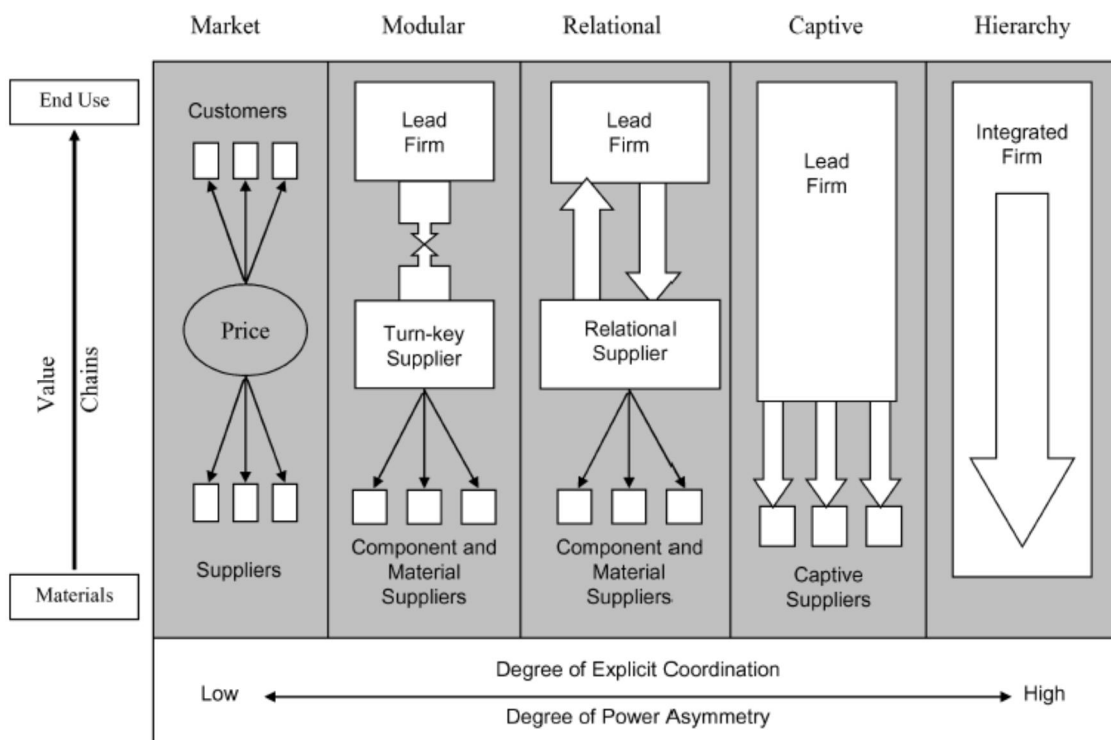
Relational value chains involve complex relations between parties, and through this already higher dependency on each other and high asset specificity, which also increases the amount of governance needed. The key issue here is relation, which can be managed, for example, through reputation. *Captive* value chains encompass a multitude of suppliers, which are dependent on the lead firm, and therefore their switching costs are high. Due to this lead firm has the possibility to impose a great deal of control on its suppliers. *Hierarchy* value chain is the most controlled or governed of the five types, and is many times referred to as vertically integrated firm. Hierarchy is reflected in both

on task level, but also on intra-organizational level, where the headquarters are the symbol of control.

The three variables, which enabled to form the typology introduced in the previous paragraph, are also the basis for the global value chain governance theory (see Table 2). *Complexity of transactions* is completely depended on how complex outputs the buyer is looking for from the supplier. The more complex these outputs become, the more there is need to control the suppliers. Regarding *ability to codify transactions,* there is tendency that the more complex the transactions are the harder they are to codify. *Capabilities in the supply-base* imply that when the functions are carried out in-house (hierarchy) otherwise in close control, the capabilities are low. However, capabilities do improve as suppliers get more experience, and therefore there is a tendency to move towards the other end of the spectrum in governance type.

Table 2: Key determinants of global value chain governance

Governance type	Complexity of transactions	Ability to codify transactions	Capabilities in the supply-base	Degree of explicit coordination and power asymmetry
Market	Low	High	High	Low
Modular	High	High	High	↑
Relational	High	Low	High	
Captive	High	High	Low	↓
Hierarchy	High	Low	Low	High

Source: Gereffi et al. (2005, 90)

It is worthwhile to note that power in the chain, or governance, is a crucial question regarding value chains (Sturgeon, 2008). Therefore, the idea of 'buyer' and 'supplier' driven value chains in the GCC framework is also applicable here. However, part of the power in the value chain can also be held by institutions, consumer or workers if considering the business environment of the company. In the governance framework, the power can be either held by lead-firms or suppliers. Lead-firms tend to be either buyers or producers, which have the purchasing power in the value chain and allows

advantage in coordinating value chain activities. Suppliers are categorized either according to whether they can be referred to as platform leaders, where there is clear dominance in the market, or merely having competence power, which means indispensable competencies. Examining power in the value chains is more than what is included into the governance framework, but for the purposes of this study this gives a sufficient picture of the topic.

INSTITUTIONS

The third part of the GVC framework, institutions, has a clear impact on global value chains, their composure as well as location (Sturgeon, 2008). Bair (2005) draws attention to the need of more research within the area of institutions in order to gain more thorough understanding of the global value chains. There are studies, which underline the importance of institutions in the examination of value chains (Gereffi et al., 2005; Daviron & Ponte, 2005; Talbot, 1997), but more is needed to understand the different ways institutions are affecting the global value chains. Institutions included regulatory mechanisms of nation states, but also other intergovernmental institution such as the European Union or World Trade Organization. Even though institutions merely shape the business environment of the value chain, the ways institutions move with their regulatory actions, has a clear impact on global value chains (Bair, 2005). In some cases institutions can cause more harm than benefits to the value chain participants (Talbot, 1997), and many of the actions can be very slow to change. Institutions have an effect on global value chains through establishment of rules or a setting for the value chain. Therefore, the effect institutions have on global value chains can be, for example, the extent to which developing country participants can benefit from the value chain (Bair, 2005) or global agreements can affect the value chain participants, as in the coffee industry, where producers were put into a weak position (Ponte, 2005).

2.1.5   Value creation in global value chains

In the discussion concerning the value, its creation and distribution, in global value chains, it seems to be key to briefly address three important topics, namely the definition, measurement, and allocation of the value.

Regarding the challenges the previous frameworks face, Gereffi & Sturgeon note that despite the application (Barham et al., 2007; Vind & Fold, 2007; Evgeniev, 2008; Sturgeon et al., 2008; and Pietrobelli & Rabellotti, 2007) of the framework in the recent research, global value chains 'framework provides a conceptual toolbox, but quantitative measures are lacking' (2009, 5). Tackling this challenge has been the focus for researchers, and also this study will contribute to this part on the product level, but still extent its analysis partially to industry level. Also Gibbon, Bair & Ponte (2008) point out that even though Global Value Chains have been under research, there is hardly any research centered on the question how value is created in the global value chains (except for Daviron & Ponte, 2005). The distribution of value within the global value chains, however, has been touched upon (Talbot, 1997) very briefly.

Bowman & Ambrosini (2000) make an important notion about defining 'value'. Authors differentiate between *use value*, which is the value perceived by the consumer, and *exchange value*, which linked to the price of the product. It should be noted here that this study uses the definition of exchange value. Bowman and Ambrosini argue that the key determinant of new *use value* is labor performed by the company, and the differences in adding value or generating profit between companies is derived from different ways of taking advantage of the labor. In terms of capturing the value, or value distribution, the authors come to the same conclusion as the industrial and economy development researchers that the buyer-seller relationship are crucial especially regarding power.

In the value chain research, there are three main ways of measuring the 'value' (Gereffi et al., 2001). First method of measurement is profit, where it is considered how much return an investment brings. However, the problem is that an investment (or capital used) is only one factor within the production process and there is rarely enough data available at the level of analysis. Second method of measurement is value added, where

the total value of the product is broken down into shares of value between the participants in the value chain. Third method of measurement is price markups, where the focus is on sales margins. Sales margins indicate the share of value created by the participant in the chain, and as can be understood that due to the different product cost structures this measurement is highly unreliable and incomparable.

Regarding value creation, there is another aspect to be considered, which is 'smiling curve'. Figure 3, adapted from Pajarinen, Rouvinen & Ylä-Anttila (2010), conveys an important message concerning, which processes are the most significant in value creation. As can be seen from the figure, research and development (R&D) activities and design processes are adding value the most, whereas manufacturing and distribution tend to be the processes adding the least value. However, when the product is on the market, marketing and customer support are adding value more and more, branding being the highest value adding process. For international or global companies, the least value adding activities are usually carried out in low cost countries, while the rest of the more value adding processes are kept in high cost countries. This figure gives an important picture of the different activities, which are presented by Porter (1985) as value chain activities, and how they relate to value creation.

Figure 3: Smiling curve
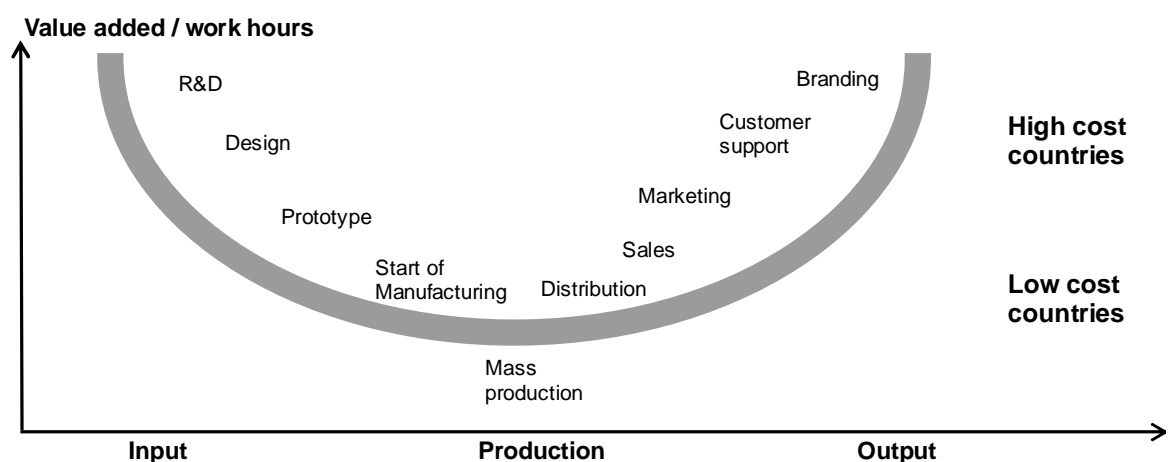
Source: Adapted from Pajarinen, Rouvinen and Ylä-Anttila (2010)

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2.1.6 Porter's value chain

Even though grand part of the global value chains literature does not distinctly mention Porter as an important contributor to the formation of global value chain literature, Hu & Huifang (2009) and also Gereffi et al. (2001) among others recognize the role of Porter. Porter developed the school of company value chain, which takes a look into the activities performed by a single company to produce value in form of a product (see Figure 4). This value chain was then further developed by Porter into system of company value chains (see Figure 5), where Porter examines the interdependencies of multiple company value chains, and which by global value chain literature is known as global value chain. This theory, along with Porter's considerations of how business becomes successful (Figure 6) and the definitions of GVC theory presented before, is chosen as the main theoretical foundation for this thesis. Porter's theories in all their simplicity represent the needed theoretical framework and the structure for the empirical part of this thesis.

Porter's value chain introduces five incremental activities in value creation namely inbound logistics, operations, outbound logistics, marketing and sales as well as service. These are direct functions, which add value to a specific product within a company. Additionally, there are support activities (like human resources or procurement), which only indirectly add value to the product, but since the value chain consists of all different processes of a company, support activities need to be factored in. A sum of these activities plus a margin, which is the value-added (profit) that remains within the company after the product moves on in the value system and all the costs have been covered, is the final price of the product for that part of the value chain.

Figure 4: Value Chain
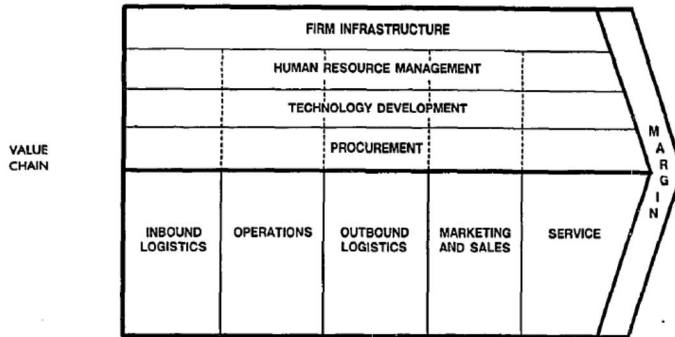
Dembinski (2009) notes that the introduction of Porter's framework into management literature helped companies in determining, which operations should be performed within the company (highest value added) and which operations outside of the company (lowest value added). It is also apt to add here, since Porter introduced the idea of value chain into the management literature, that Porter's value system is often divided into 'upstream' and 'downstream', where upstream functions are supply chain management related and downstream functions are distribution channel related.

Porter's global value chain, value system, is depicted below (Figure 5). It is a compilation of different kinds of value chains through which a product reaches a consumer.

Figure 5: Porter's Value system
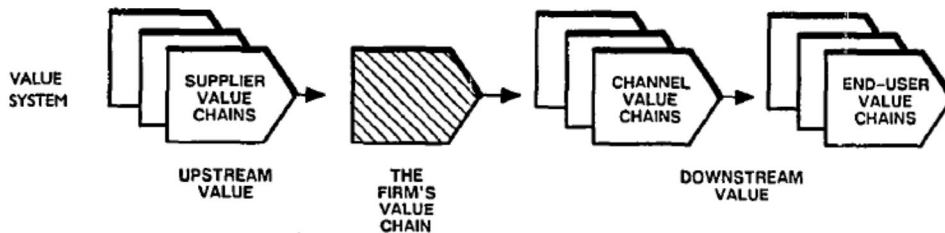
After having discussed Porter's views on value chain and value system, an interesting question remains: How does this relate to strategic positioning of a company within a value chain? Porter (1991) starts explaining the importance of value chains through a concept - *firm success* (see Figure 6).

Figure 6: The determinants of success in distinct businesses
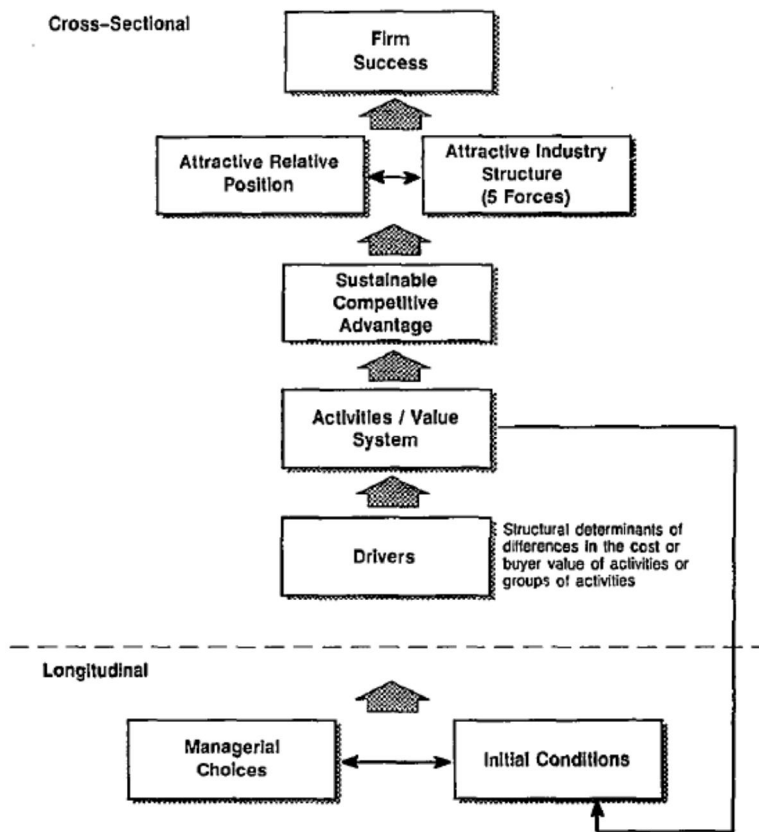
To achieve firm success, a company needs to be involved in an industry, which has the potential to produce revenues, and to have a good stand within that industry compared to the competitors. This is one of the ultimate questions to ponder upon. In order to gain this *attractive relative position* in the industry, the company needs to possess a

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competitive advantage, which should be sustainable of its nature. For a company to have that competitive advantage which results from cost, differentiation or scope, derives from the way companies do business – how companies arrange the activities performed to achieve the competitive advantage over other companies. That is to say that global value chains are very much at the heart of strategy crafting, since strategy and value chains have an effect on each other. Without fully perceiving your value chains, how and where value is created, the company is left with empty strategy, since everything relies on what activities the company has in its value chain and especially how it is performing them.

2.1.7 Kogut's industry value chain

As Porter became known as the founder of school of company value chain, Kogut (1985) developed thinking on the industry perspective (school of industry value chain), where the focus is on company strategy developing to the uncertain markets. One of the reasons for this uncertainty of markets is extreme differences between companies in value chains. Kogut discussed value chains as a tool/method for analyzing different strategic choices a company can make. Kogut defines strategy as 'the attempt to create competitive advantage by investing in the link that generates the product attribute most strongly desired by consumers and which corresponds to the firm's distinctive competence relative to its competitors' (ibid, 17). In Kogut's opinion 'the design of international strategies is based upon the interplay between the comparative advantages of countries and the competitive advantages of firms' (ibid, 15).

Every company is in a value chain and there are two possibilities for a company to be involved. Company can either be only one link in a value chain or it can have several links, which would mean that it is carrying out a wider range of operations and is vertically integrated (ibid). There are two main techniques in strategy formulation, industry competitive analysis and analysis of market segments in terms of allocation of resources (ibid). Industry competitive analysis provides two possible strategy outcomes, cost or differentiation, and analysis of market segments in terms of allocation of resources (value chain) is used to answer, how to carry out cost or differentiation

strategy. In cost strategy, value chain is depicted and evaluated based on the total costs of different parts of the value chain and then compared to the competitors. In the differentiation strategy, the focus is on each part of the value chain contributing to the market value.

2.2   The Finnish food industry

2.2.1   The Finnish food industry as a part of the global market

Food is a necessity with an almost never ending demand, where globalization has contradicting effects. On one hand, globalization is enlarging the market and leveling the playing field, but, on the other hand, food is subject to protectionist activities between countries. As was mentioned in the introduction of the GVC framework, institutions may have a strong effect on global value chains for example through standards, which is the case for agribusiness, and through agribusiness to the food industry. Another important factor is the continuous concentration at all points in the agricultural value chains (United Nations Industrial Development Organization, 2006). Humphrey (2004) notes, that the agricultural market has been facing the trend of vertical coordination, which reiterates the fact that the different participants in the value chains have undergone a period of concentration from farmers to retail. These are also developments that have a clear impact on the Finnish food industry, which will be discussed next.

As the global food industry, also the Finnish food industry is fairly stable even when the global economy is not. Even so, global food industry has clear impact on the national industries in the globalized world, meaning that when there are changes globally, they will also be experienced on a national level (Elintarviketeollisuus, 2010). The Finnish food industry is mainly using Finnish raw material (85%) and with its output covers 80% of the Finnish food market. There are many small and medium sized companies,

since in 66% of the companies only have 5 or less employees. Nevertheless, production can be found everywhere in Finland with a quite even spread. Russia and Sweden are the most important export countries, and the most important export products are cheese, alcoholic drinks, and butter (ibid). The Finnish food industry has become increasingly concentrated, since 1995, when Finland joined the European Union. Lehtinen (2009) argues that there is a lack of competition within the Finnish market; there are only a few big players. As an example Lehtinen (2009) mentions bakery, dairy, and meat and mill industries, where the production is in the hands of 1-3 biggest players, and their market share varies between 60-80% per industry.

However, as Brännback and Wiklund (2001) mention, the Finnish food industry has undergone severe changes during the past decades. After the collapse of the Soviet Union and access to the European Union, the Finnish food industry has been facing both the challenges and opportunities posed by globalization, more specifically deregulation of the industry. The change from a household industry into a high-technology driven industry has been caused by the increasing competition enabled by the free competition. After 1995 the cost efficiency and rationalization of process were crucial for the food industry companies to survive in the fierce competition. Table 3, below, explains the development in the Finnish food industry in more detail.

Table 3: The Change in the Finnish Food Industry

Business process	Finnish food industry before 1995	Finnish food industry 1995-1999	Finnish food industry 2000- Functional food
Market dynamics	Stable	Saturated	Emerging, volatile
Production processes	Mass production	* Rationalisation *Cost efficiency	* Innovation * Value creation * Collaboration * Alliances
R&D	0-2 %	0-2 %	10-20 %
Pricing	Producer-based	Consumer-based	?
Product	Single product	Product range	Product-range
Market communication	Mass communication	Tailored communication	Interactive market communication, information intensive
Competitive scope	Local	Regional	Global

Source: Adapted from Brännback and Wiklund 2001

Concerning the future of the food industry, Elintarviketeollisuusliitto (2010) has identified some important global trends of the food industry. As with many other industries the international competition has been an increasing trend, and will also be in the future. Even though food industry has long remained a domestic industry, the whole industry is now facing even fiercer pressures for further globalization. Another growing trend is the demand for fresh, healthy and easy-to-use products, especially in the developed world, whereas much of the developing world has not reached this yet. Consumers and other stakeholders are also keen on 'green' issues such as the protection of the environment, and this is a trend that is estimated to have long lasting effects on the industry.

2.2.2   Value added in the Finnish food industry

When discussing the value added in the Finnish food industry, several aspects need to be covered including description of the value chain, cost structure, distribution of value added within the food industry but also compared to other industries.

Regarding the mapping of the Finnish food industry value chain Elitarviketeollisuusliitto (2010) has depicted the value chain as can be seen in the Figure 7. The value chain consists of the following participants. First in the value chain are the raw material producers (farmers, etc) and suppliers of packaging. Second part is the food industry, which will add value through different processes, after which the products are sold either to wholesalers or retailers on in retail business or alternatively to the wholesalers of HoReCa[4]. Before reaching the consumption phase, the products are sold to the either retailers, public or private HoReCas, or other (e.g. gas stations). These entities will then sell the product to the end-costumer, which value healthiness, responsibility, easiness, and pleasure in the product (Elintarviketeollisuusliitto, 2010, 3).

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[4] Hotel, Restaurant, and Catering

Figure 7: The Value Chain of the Finnish Food Industry
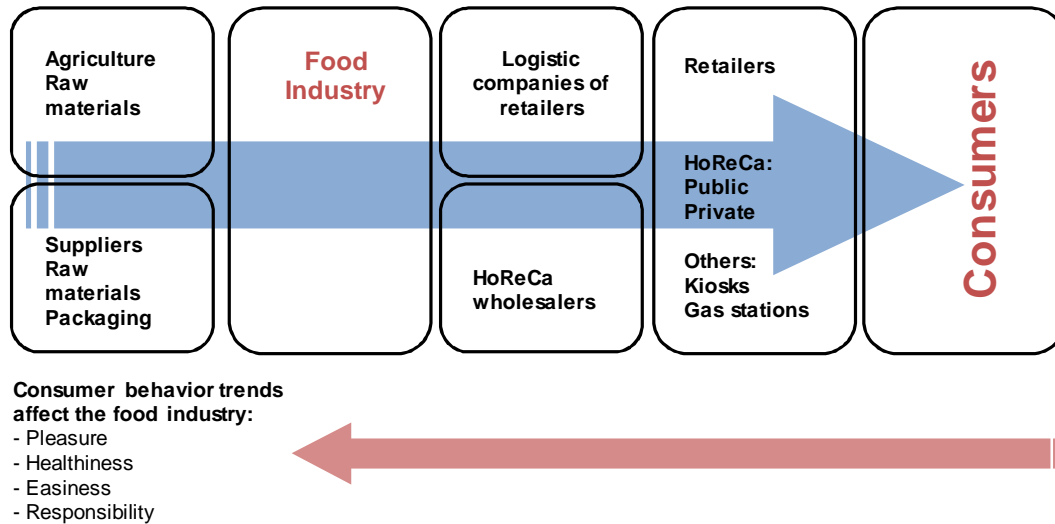
Source: adapted from the Elintarvikeliitto presentation, Elintarviketeollisuus, (2010)

Another important part of describing the value chains in the Finnish food industry is to examine the cost of the Finnish food industry. It can be clearly concluded that the *material costs*, around 60%[5], are by far the biggest portion of overall costs. Another important cost factor is the *employee costs*, which form a share of 13-14%. Additional costs mentioned in the cost structure are *other costs (15-16%), depreciations (3-4%),* and both *interests* and *taxes* around 1% (Elintarviketeollisuusliitto, 2010).

When discussing the value added in the Finnish food industry, refining meat and slaughter is the activity, which adds value the most. Three other high value adding activities are bakeries, milk refining, and malt and other beverages. All these activities comprise roughly two thirds of the total value added in the Finnish food industry, which is 2,3 million Euros. The lowest value adding activities are malt, spices and sugar (ibid).

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[5] All the percentages are based on turnover

Figure 8: The gross value and value added of production by industry in 2009
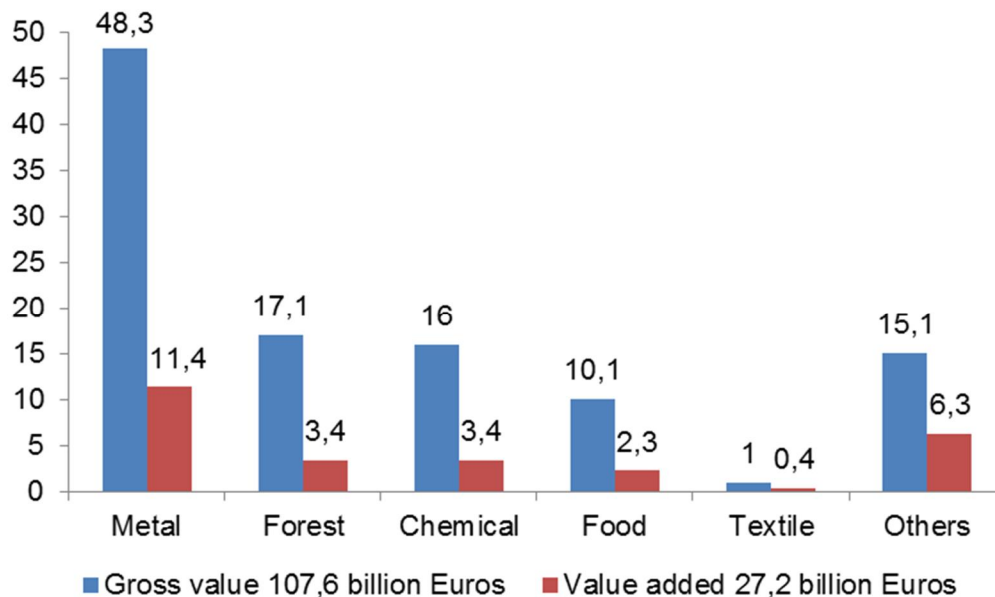
Source: adapted from the Elintarvikeliitto presentation, Elintarviketeollisuus, (2010)

In the figure above (Figure 8), the value added and gross output in the Finnish food industry are compared to other industries. As was already mentioned, food industry is the fourth biggest industry in Finland, after metal, forest and chemical industries. The value added of the four biggest industries is about 20% of the gross output, whereas the average of all other industries is around 40%. Food industry (23%) is second in valued added right after the biggest industry – metal (24%).

Regarding the food industry value chain, the retail has still a lead position in the value chain and is increasing its power with the growth of the private label market. At the beginning of the value chain, problems are caused by the raw material prices, where the trend is two folded: growing and unstable prices. There are many reasons for this: 'growth in demand, decrease in stock, production of biofuels, climate change, growing oil prices, lack of investments, decrease in cultivated land, and investor speculation' (Lehtinen, 2009, 1). Therefore the products of the food industry value chain continue to have low margins and it is suspected that 'the price levels will be harmonized globally' (Elitarviketeollisuusliitto, 2010, 19).

Arovuori, Karikallio & Pyykkönen (2010) are expecting a deeper integration of the agricultural market, which also includes the food industry. This can be seen in the direct impact of the global developments in the national food prices. Authors also note that the food industry is special in price forming when compared to the rest of the agribusiness. The price forming is much more complex, since competition in the home markets and consumer behavior are the most significant drivers for price forming. To further complicate the situation, Arovuori, Karikallio & Pyykkönen (2010) note that the situation can be quite different even on a product level. For example, the European market for meat is very much integrated, which means that global developments have play an important role in the Finnish meat market, whereas the strong role of the home market supply in dairy products restricts the impacts of the global economy to some extent. Importing has been a slowly growing trend, but this again varies greatly between different product categories.

Researchers also confirm that in Finland the role of retail has become stronger. In addition, the markets of other food industry value chain participants have globalized in much faster manner than the one for retail. A vivid example of this is the lack of competition in the Finnish retail market, since three biggest retailers of food industry controlled more than 90% of the market (Arovuori, Karikallio & Pyykkönen, 2010, 8).

Below is presented the figure, which explains the how the value is distributed between the key participants in three different product group value chains (Figure 9). Here it can be clearly detected that the value created percentages of retail, food industry and agriculture differ substantially from one product group to another. The value created by the retail is worst in meat products, whereas both dairy and grain products are good value generators for it. The share of value creation for agriculture in grain products is low, but in dairy products relatively high.

Figure 9: Forming of food prices in the Finnish food industry value chain in 2007
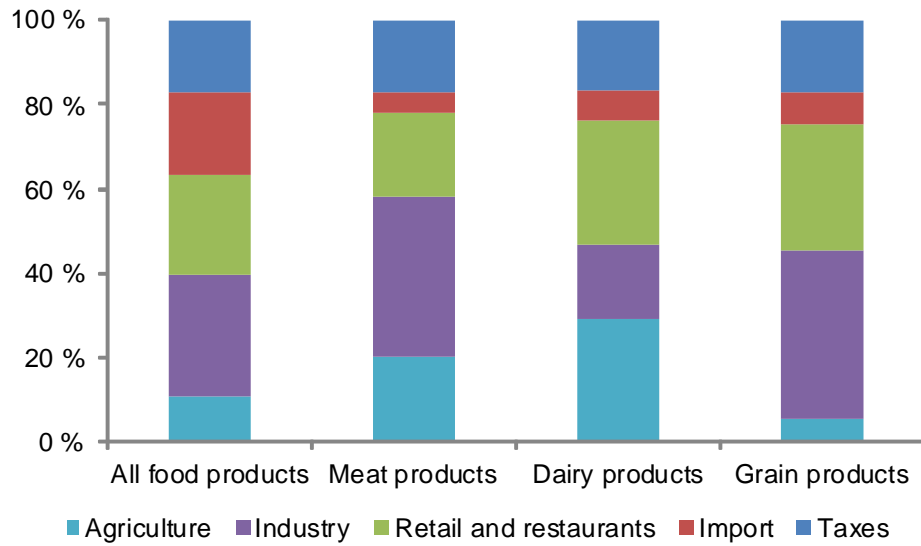
Source: Adapted from Arovuori, Karikallio & Pyykkönen, 2010

3 METHODOLOGY

In this section the research method of the empirical part is explained, and also some basic assumptions in science philosophy background are covered. Since the field of study is business and administration, which is under the umbrella term of social sciences, the focus will only be on the relevant discussion for social sciences. First, there will be a brief overview on the science philosophy background of the study, then the research method used will be explained in greater detail, and in the end the quality of the research will be evaluated.

3.1 Background of the research in science philosophy

It is important to first determine how this study places itself in terms of science philosophy and what the assumptions are behind the study. According to Niiniluoto (1980) the purpose of science philosophy is to problematize and to question perceptions, to explicate unclear perceptions, and to argue for perceptions of different branches of science. These perceptions then develop into established assumptions, which are used to perceive the world and science. Burell & Morgan (2000) give five points which need to be taken into consideration concerning the assumptions about the nature of social science. Firstly, ontology defines the nature of existence. The debate is between realism, which believes that our existence is dependent on some external factor (there is a real world on which everybody can agree on), and nominalism, which believes that people create their own existence (the real world is very much subjective). Secondly, epistemology examines the nature of knowledge. Here the debate is centered on positivist and anti-positivists. Riley et al. (2000) state that for positivists the only true knowledge is scientific, observable and objective, whereas anti-positivists believe the knowledge is personally experienced, and as Burrell & Morgan (2000) note, the social science cannot be objective. Thirdly, human nature, where there are also two theories. Voluntarism portraits a human being as having own will and possibility to influence the course of action while determinism focuses on external factors such as environment and concludes that the course of action is more determined by the situation. Fourthly, methodology specifies the most applicable research method. Ideographic is about

detailed observation of society and nomothetic puts emphasis on more standardized research tools. Fifthly, there is the question whether the research is always influenced by the values of the researcher or not.

Based on preferences in each of the above mentioned categories there have been paradigms developed. Burdell & Morgan define paradigm as a 'commonality of perspective which binds the work of a group of theorists together' (2000, 23). They also have determined four paradigms: functionalism, interpretivism, radical structuralism and radical humanism. Chua (1986) has criticized Burrell and Morgan and suggest that there should be only three paradigms: positivism, interpretivism, and critical. The division made by Chua (1986) is generally accepted within the social sciences and Riley et al. (2000) focus on positivism and interpretive research in their book

Taking a closer look into positivism reveals the following characteristics. Positivism believes that there is a real existence, which is objective and tangible; scientific knowledge is the only true knowledge; value-free research should be attained; and 'the findings of research should be capable of explanatory generalization' (Riley et al., 2000, 10). The major criticism of positivism include inappropriate research techniques for social phenomenon in attempt to produce objective results, social phenomenon are much more complicated and include different kinds of variables than ones from natural sciences, research cannot be value-free, and positivists resort to using unscientific behavior in order to get results out of something that is not researchable with their methods (Riley et al., 2000). Interpretivists, on the other hand, see the world as subjective; consider values of the researcher to interfere with research; and focus on meanings not only facts. The problem with interpretivism is the possibility of becoming either too subjective or not being able to be sure whether the research is subjective in terms of acquiring the mindset of the target.

There are various kinds of research that can be carried out and can fall under each of the paradigms discussed above. Therefore, it is important to define some of them before moving on to dealing with research methods in greater extent. According to Riley et al. (2000) these are pure or applied primary or secondary, theoretical or empirical, and descriptive or explanatory research. Pure research refers to research, which, at least in

the beginning, has no practical application intended, whereas applied research naturally aims at applicability of the research. Primary research collects original and new data and secondary research focuses on utilizing already collected data. Empirical research is in principle equivalent to primary research, since they both collect new data. However, as Riley et al. (2000) note, empirical findings need to be evaluated through a theoretical frame work. Theoretical research can include both primary and secondary methods, but tends to be more focused on secondary research.

Descriptive research concentrates on portraying an image of the research object and describing the phenomenon. Explanatory research, on the other hand, tries to explain the phenomenon and the relationships related to it. Based on these concepts, the researcher would determine this study as applied research, because of the value produced for the target company but also for the national research; relying strongly on primary information sources and therefore on empirical methods; and descriptive in nature since the aim of the study is to find out what is going on in the global value chain of the Finnish food industry.

Having discussed the suitable approaches the researcher needs to decide, which one out of the approaches is the best one for the purposes of this research. Researcher finds positivist approach most suitable for this research since this study aims at finding objective and value-free results, which can then later be generalized and possibly used in theory-building. Since this study is exploratory in nature, it tries to capture what are the global values chains alike, but not to explain why. Therefore, drawing on the data collected should be as objective as possible, which then in turn allows further research to focus on the explanatory side.

3.2   Research method

When choosing the research methods for this study, it needs to be considered that the purpose of the study is to delve on the global value chain of one company to help better understand the global value chains. Therefore, this study is qualitative in nature and uses case study approach. In the following paragraphs it is explained, why this research method is chosen while both qualitative and quantitative research methods are discussed. After that a closer look is taken into the unit of analysis, data collection and analysis, and research quality.

3.2.1   Qualitative research method with a case study approach

Taking into consideration that the phenomenon that is under study, global value chains, has not been widely researched on a company nor product level, a qualitative research method would be the most appropriate in order to most comprehensively answer the research questions of this study, which are descriptive in nature. Qualitative research is an important research method and 'is oriented towards analyzing concrete cases in their temporal and local particularity and starting from people's expressions and activities in their local contexts' (Flick, 2006, 30). Even though quantitative research is still seen as predominant, qualitative research sprung from the shortcomings of quantitative research and a mixture of both is increasingly being used today.

According to Flick (2006) there are four essential features of qualitative research, which need to be considered: appropriateness of methods and theories, perspectives of the participants and their diversity, reflexivity of the researcher and the research, and variety of approaches and methods in qualitative research. In the first feature, qualitative research allows the effects of contextual conditions, and therefore makes it possible to research a much wider array of issues than is possible with just quantitative methods. The second feature allows qualitative research to go much deeper in understanding, since interrelations and multi-perspectives can be taken into account and not excluded. Third feature allows subjectivity in qualitative research and even considers the inclusion of the researcher as strength. Fourth feature merely underscores the fact that qualitative

research allows variety of approaches and methods, and therefore enriches the results and discussion. The choice of the research method from quantitative and qualitative depends mainly on the research problem. Even though both methods are many times used, the integration of the methods is still very much unsolved (Flick, 2006).

Within the qualitative research method, a case study approach is chosen. The purpose of a case study is to 'produce knowledge of specific place and time bound conditions, phenomena, processes, meanings and knowledge' (Peltola, 2008, 111). Another definition by Yin (2003, 11-15) is that 'case study can be described as empirical research, where the phenomenon is examined in real life situation, in its own environment'. In this research, case study is used to describe or to explain the research object. However, it needs to be noted that there are various types of case studies: 'critical, extreme, unique, typical, revealing, concerning future, and based on longitudinal sample' (Laine, Bamberg & Jokinen, 2008, 32). The most appropriate type for this study would be the revealing, since the research aims at better explaining a phenomenon which is 'known but is not researched' (ibid, 33). The other approaches have a wrong emphasis either by concentrating on the extremity of the phenomenon on some scale (critical, extreme, unique) or by concentrating on time (future, longitudinal).

There are two ways of defining a case: practical or theoretical (Häikiö & Niemenmaa, 2008). The most suitable starting point for this research is the practical approach, since the research problems have partly been brought up by another research and are yet remain unexplored and therefore there are no present established theoretical frameworks to draw upon. Nevertheless, the research, which closely touches upon the research questions of this study, need to be carefully examined and the theory used as much as possible.

The challenge with the case study approach, according to Peltola (2008), is that even though case studies aim at describing a specific and unique phenomenon, it should not refrain from trying to explain the phenomenon and from understanding the linkages behind it. By doing this, case study approach would also lead to some generalizability, which enables the development of theories. Even though the generalizability of the

results of a case study it debated by the academic literature, the researcher believes that there is a possibility to generalize to some extent.

3.2.2 Unit of analysis

Yin (2003) explains that case studies can consist of either single or multiple cases, and there can be single or multiple points of analysis. For the purposes of this study, the single case approach is used, since there is a great need for understanding the phenomenon of value creation within the global value chains, instead of a more comparable approach. This is supported by Easton, who argues that with a single case study more in-depth understanding can be obtained, and therefore a larger number of cases does not secure higher quality of the study: 'Researching greater numbers of cases, with the same resources, means more breadth, but less depth' (1995, 382). It needs to be noted here that the case company was already chosen by Etla to be part of the larger study, and therefore researcher could only indicate interest to Etla to choose the company also for this study. In addition, it can be concluded that the case company was very willing to participate, but along the way indicated that wanted be part of this study only anonymously.

Another important concept is the unit of analysis of the study. Ragin (1992) defines the unit of analysis as something that the case is of. This means that the unit of analysis is the issue the researcher is trying to say something about. Therefore, there is a single unit of analysis, which is value chain, and more specifically on company level. However, it needs to be noted here that there are units of observation within the study, and the researcher collects data on these units of observation in order to say something about the unit of analysis. These units of observation are the four products, or product groups, being analyzed.

Despite the quite narrow scope of this study, a single case with one unit of analysis, this will be part of a larger study by Etla, and this further justifies the research method the study has. The Etla project will take the different case studies and make comparisons between the cases studies, since they are from different industries, but at the same time

based on the congruent research approach and replicable data collection and analysis, there can be more comprehensive generalizations made on the national level. Nevertheless, in the scope of this study, analytical generalizations are possible on the industry level as Yin (2003) explains.

3.2.3 Data collection

The data collection of this study was carried out through two ways: interviews and data bases. This means that both qualitative and quantitative data were used, and next the collection of both data will be discussed in more detail.

In terms of interviews, there was one semi-structured interview (for the interview questions see Appendix 1) conducted with a company representative on February 23rd 2011, and this interview acted as a kick-off for this research. The interviewee was identified by Etla and approached via phone and email by Etla representative in beforehand, but also a preliminary meeting was arranged before the actual interview to explain and engage the interviewee to the Etla project, and concurrently to this study. Therefore, the interviewee was well informed and the three-hour interview took place in the company premises. A representative from Etla was in charge of the interview. The interview was not recorded, nor later transcribed, since there were two interviewers present to take notes. Also the purpose of the interview was to understand the 'bigger picture' and to assure the researcher would receive right kind of quantitative data from the company. In addition to this face-to-face interview, there were many additional follow-up questions posed via email. Additional information was also collected from the sourcing department of the company and this was done via email as well. Through this interview the researcher was able to map the case company product value chains, but also to verify or request additional information during the analysis phase.

The main part of the analysis is based on quantitative data retrieved from various data bases. The main source for the quantitative data was company's own business intelligence systems, through which all the suppliers, locations and prices were acquired. Nearly all this information came through the company representative. Other

quantitative data, such as financial statements of suppliers, could be retrieved from databases of Orbis (foreign companies), National Board of Patents and Registration of Finland (domestic companies), and Etla (domestic companies). Also the ten most important suppliers were contacted via email in order to get the product level value added percentage and to obtain information on the origin of suppliers of suppliers. Half of the contacted suppliers were able to provide the needed information, and the rest were estimated through database information.

There are some limitations to the data, since the researcher cannot verify whether the quantitative data provided by the systems is actually correct. Another limitation is also the fact that the value added percentage used for the suppliers in this study is based on the company level and not product level. Therefore, the accuracy of results should be considered, even though the accuracy is enough to see clear trends.

3.2.4   Data analysis

First of all, based on the interview data, the researcher mapped the value chain of each of the case products. In addition to mapping the value chain activities, also more comprehensive categories were identified, which were then inserted as the headlines for the table. To illustrate a map of a global value chain, an example from a pilot project by Etla is provided below (Figure 10). This pilot case analyzed the global value chain of a Nokia N95, and this pilot case was also used as a basis for this thesis.

Figure 10: Etla's Nokia N95 Pilot case
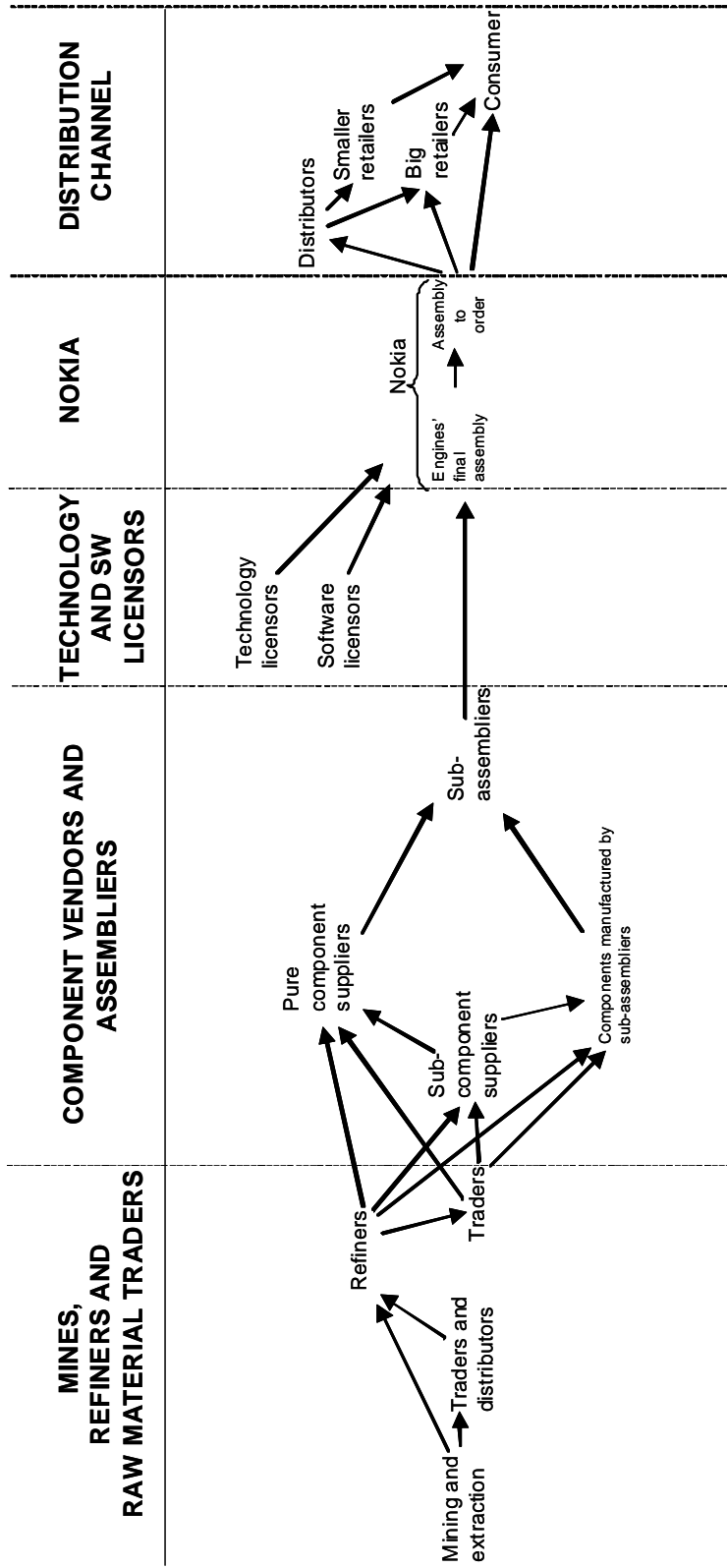
Source: Etla (2011)

After the mapping of the value chain, the calculations were started to find out, how the value is distributed across the value chain, both in terms of companies and geographical locations. First, the value distribution was calculated between the key players that were identified in the interview phase. Then through the data received from the company business intelligence systems it was possible to calculate, how much each value chain participant added value along the value chain. Below is presented an example on how the calculations were carried out (Figure 11).

Figure 11: An example of how value distribution is calculated

Retailer's* sales price (without VAT)	100
Retailer's* purchase price	50
Retailer's* value added	**50**
Case company's sales price	50
All raw material purchases of case company	20
Purchased logistics	5
Case company's value added	**25**
Direct labor costs	
Other production costs (excluding energy)	
Sales and marketing costs	
Other management costs	
Operating profit	
Value added of 1st tier suppliers	**12,5**
Value added of suppliers of suppliers	**12,5**

* for illustration purposes includes
also distributor and wholesaler

Source: Etla

In the Figure 11, the Retailer's sales price (without VAT) is the price paid by the end-user, and retailer's value added can be calculated by subtracting the purchase price of

the retailer, which is at the same time the case company's sales price. For the purposes of this illustration, retailer also contains both wholesaler and distributor. To find out the case company's value added, all raw material and intermediate product purchases of case company and also purchased logistics need to be subtracted from the case company's sales price. The rest is the value added by 1st tier suppliers and their suppliers. The division of value between different suppliers was calculated by using the value added percentage for that specific supplier, which was calculated by dividing turnover with the sum of personnel expenses, depreciations, and earnings before interests and taxes (EBIT). This amount is withheld by the 1st tier supplier, and the rest can be contributed to the suppliers of suppliers (2nd tier). In short this can be depicted with a few formulas as follows:

$$VA_D = P - P_1$$
$$VA_C = P_1 - P_2$$
$$VA_S = P_2 \times [(EBIT + depreciation + labor\ cost)/\ Net\ sales]$$
$$VA_{SS} = P_2 - VA_S$$

P	= final price for the customer	VA_D	= Value added distibution channel
P_1	= price the final product is sold to the distribution channel	VA_C	= Value added company
		VA_S	= Value added supplier
P_2	= price for the components	VA_{SS}	= Value added supplier of supplier

The value added percentage of each company was also used to allocate the value added geographically. The geographical positioning of value divided the value added in one of the three categories: 1) Finland, 2) rest of the EU, 3) and other parts of the world.

3.3   Criteria for quality evaluation

3.3.1   Validity and reliability of the study

According to Yin (2003) there are four main ways to evaluate the validity and reliability of a study. These are 1) construct validity, 2) internal validity, 3) external validity, and 4) reliability. Next the study will be evaluated in terms of these four tests.

Construct validity is about using the correct measures for the concepts being studied. Construct validity can be strengthened in three ways: multiple sources of evidence, chain of evidence, and revision by key persons. All of these are used in this study, since both qualitative and quantitative data is used from different sources, chain of evidence is established, and the draft report is reviewed by the key persons from company as well as Etla side. The construct validity is therefore high. Internal validity, on the other hand, is not applicable for this study, since it measures the validity of causal relationships, which are present in the explanatory studies, not in exploratory studies like this one.

External validity, however, is important when considering the generalizability of the findings. Yin (2003) states that external validity is one of the biggest problems of case study approach, since generalizability tends to remain modest. This problem can be addressed by using already generalized theories as the basis for the study, and therefore increase the external validity. Nevertheless, for the purposes of this study, the external validity cannot be increased, since the possibilities of utilizing existing theories are minuscule. Therefore, the external validity remains modest. In terms of reliability, which means repeating the exactly same study by another researcher, the probability of getting the exactly same findings is very high. This is because quantitative data is the main source and it requires only little interpretation to apply the formulas to the data. Also all the steps are explained in detail in this section of the report, and therefore the study is highly reliable.

3.3.2 Limitations

In this part the limitations of this study are discussed. In the previous part limitations of data were already discussed, but here the focus will be put more on the study as a whole. One limitation is that this is an exploratory study, which means that the study cannot provide an answer to the question 'why'. However, answering to the 'why' questions is part of the larger project by Etla and will be covered there. Another limitation from the point of view of the researcher is that there is a fixed conceptual framework given by Etla. The problem is that in order to keep the results from different studies congruent there cannot be too many variations in the studies, even though some studies would require that.

Further limitations include data availability. Data availability concerns mostly the resources to collect the data. Due to the tight schedule for the empirical results and other engagements of the researcher, but also the case company representatives, time became a scarce resource and might have affected the results. Concerning limitations in data collection, the researcher had to mainly rely on data provided by the case company due to the time constraints, but also due to potential problems in accessing other data. There are no specific researcher biases to be mentioned here, but having an Etla representative balanced the power relationships and made data collection easier. Also the understanding of industry specific jargon might have posed some limitations to this study.

4   EMPIRICAL FINDINGS

In this section, the main focus is on presenting the empirical findings of this study. First, the case products are introduced on a product group level, after which the findings are discussed and briefly analyzed taking each research question one by one. A more thorough discussion will be provided in the next section

4.1   Introducing the case products

As explained in the methodology section one case company from the food industry was chosen for this study, and four distinct products were taken under scrutiny. However, it was requested by the case company that the name of the case company and the names of the products would not be revealed in any part of this study. Therefore, to guarantee the confidentiality of the information and results, the four products chosen for value chain decomposition are discussed on more aggregate level by using the following categories:

- convenience food
- refined meat
- canned food
- poultry

Convenience food aims at the ease of consumption and includes products from drinks to fruits or from soups to pastas. Refined meat refers to processed meat, whereas canned food and poultry are self-explanatory. The purpose for taking these four categories is to enable the research to have a comprehensive look into the different product categories the company operates in. Also, by covering this combination of average products, the results can be considered to have more explaining power within food industry and within the company.

4.2 Findings

In this part the findings of this study will be presented and explained. Each research question will be covered in each part and some preliminary explanations to the findings are offered.

4.2.1 Mapping the value chain

The first research question was to depict *the structure of the value chain for the chosen product(s) of the case company*. The value chain for food industry is quite simple if compared to the one, for example, in mobile industry. Porter's value system (Porter 1985) along with Etla examples (Etla, 2011) provides the basis for mapping the value chain. When examining the value chain of all the four case products, there are only four major phases within the value chains. The first part of the value chain can be labeled as the *primary sector and raw material traders[6]*, where both the food related raw materials as well as packaging raw material are produced. The value chain starts from growing the raw materials (wheat, spices, etc.) and drilling of oil, and providing these raw materials to the next phase, which is the *processors of raw materials[7]*. Here the value added is generated through further refining the raw materials and making partial assembly or parts of the final product. For some case product raw materials, this is already an in-house operation, but for the most it is not. Processing raw material is followed by core operations of the *case company*, which is to take both raw materials and more refined material, and ensemble them into the final products. As the last part of the value chain, the *distribution channel* can be identified, where both logistic and sales of case products are important factors.

Since there are only minor differences between the value chains of the case products, it is suitable to present only a one common value chain in the Figure 12. For product specific value chains see Appendix 2.

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[6] For this study, can be used for most situations interchangeably with the term *suppliers of suppliers*

[7] For this study, can be used for most situations interchangeably with the term *1st tier suppliers*

Figure 12: Unified product-level value chain for the case company
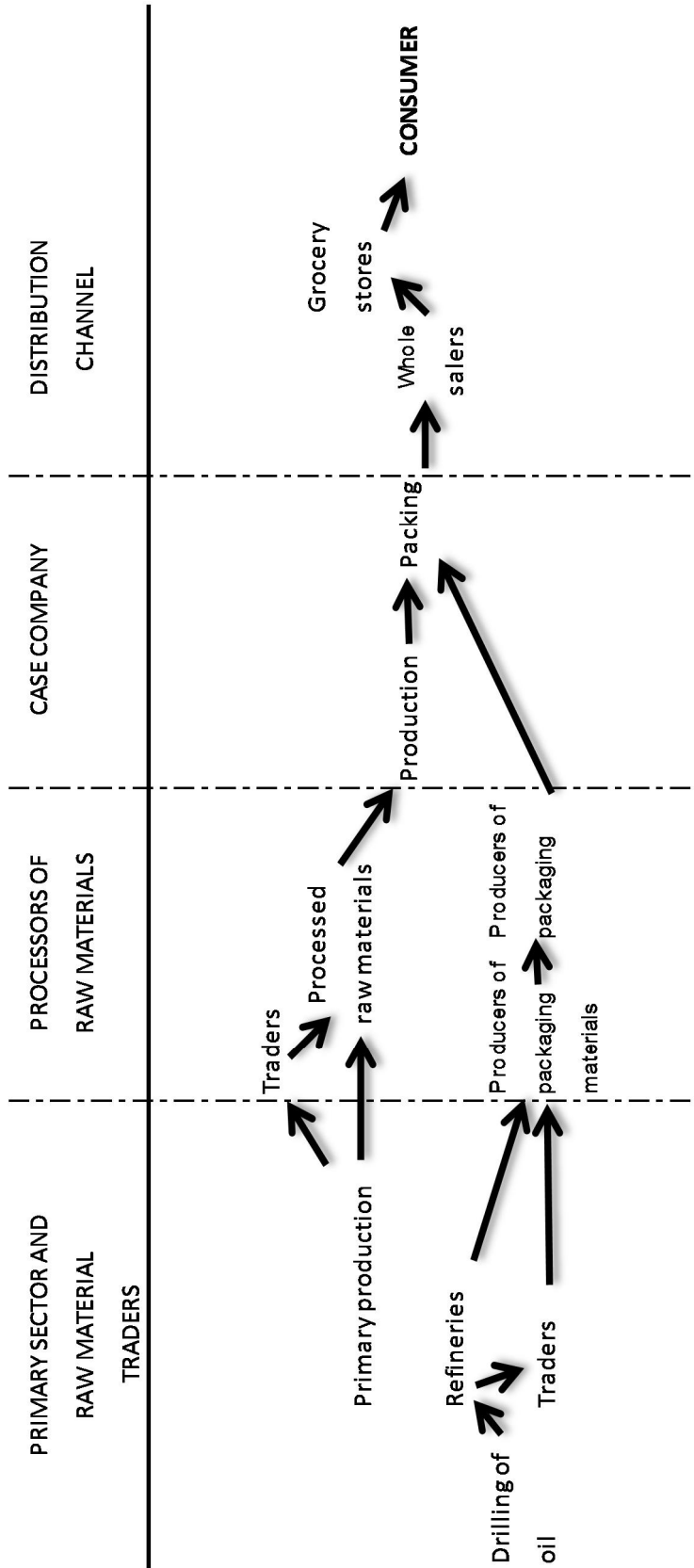
4.2.2 Value distribution – chain participants

Looking into the value distribution within the product value chains, major differences in how the value is spread between the value chain participants can be detected. The value share of the *case company* varies between 26 to 38 percent, mostly staying closer to 38 percent. *Wholesale and retail*, on the other hand, have a share of 30 to 47 percent of the value created, and also here the focus is closer to the 47 percent. Outbound *logistics*[8] take up a share of 2 to 4 percent of the value. The share of value created by the *suppliers of the case company* can be as low as 6 percent, but then ranges all the way up to 26 percent. The situation is nearly same for the *suppliers of suppliers* whose share of the value creation is somewhere between 3 and 24 percent.

However, it can be already noted that the main findings concerning value distribution between chain participants in the Finnish food industry are that *wholesale and retail* create most of the value, whereas the *case company*, the producer of the final product, comes as the second. The role of suppliers (or their suppliers) is highly dependent on the product specific value chain, but the role of logistics seems to be quite constant.

Due to these distinctions between different product categories it is beneficial to look at each product individually. Also some discussion is provided in order to explain some of the reasons behind these differences.

CONVENIENCE FOOD

Regarding the value distribution within the value chain for convenience food (Figure 13), most of the value is created by the *wholesale & retail*, whose percentage is the highest within this category (47%). It needs to be noted that naturally only a marginal part of the value creation by *wholesale & retail* is their profit. For the *case company*, value creation is of average, but interesting is that the share of work performed by the case company in the value creation is highest of all the products under examination. Most likely this results from the relative complexity of the product. The share of

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[8] Outbound logistics is the movement of product from the case company to the distributor, and does not contain the logistics in the upstream value chain.

logistics within convenience food is slightly higher, which can be due to the nature of the product in terms of lower shelf life. Otherwise this category represents a clear average of all the categories under study. Packaging costs are quite high for this product, which again means that less value is left for the raw material suppliers.

Figure 13: Value distribution within the value chain - convenience food
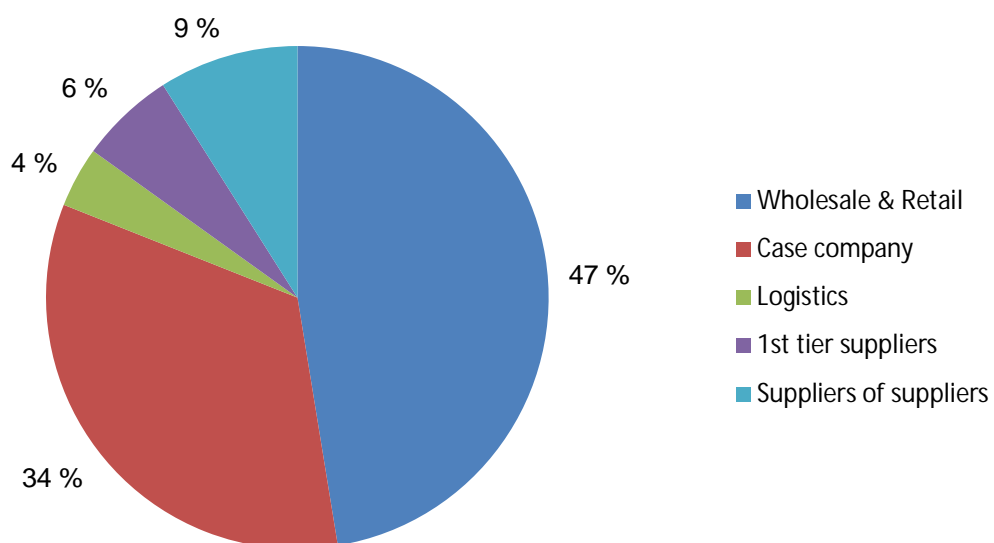
POULTRY

In this category *case company* creates most of the value with a share of 38 percent (Figure 14). This is partially explained by the fact that the case company has vertically integrated the most value adding part by carrying out slaughter operations in-house. Therefore, the share of work in value added is fairly big, whereas the role of raw materials is average, and for packaging share is very small. *Wholesale & retail* remain in one third of the value creation, whereas the 1st tier suppliers mark down a remarkable 26 percent of the value creation. In other words, value adding activities are here centered on 1st tier suppliers and the case company. It is noteworthy here that the 1st tier suppliers tend to be farmers already, and since slaughterhouse is an in-house operation,

it enables the case company to create more value within the value chain. It is obvious that since the product is very simple the importance of farmers for value creation is remarkable. By keeping slaughterhouse operations in-house, the case company is making a strategically smart move and capturing more value.

Figure 14: Value distribution within the value chain - poultry
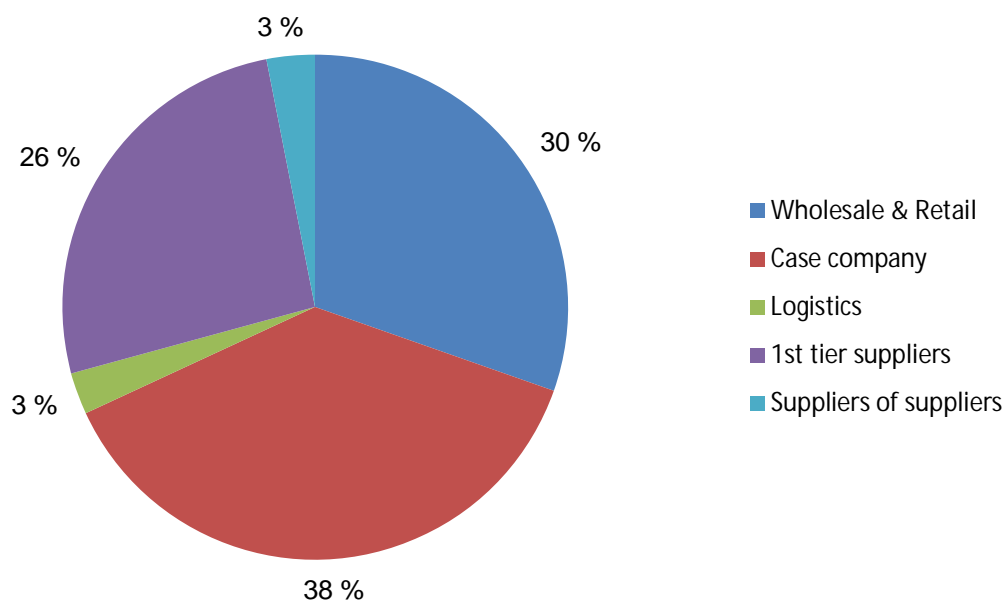
REFINED MEAT

Refined meat category has two major value chain participants, who create value, *wholesale & retail* and the *case company*, and their combined share of the value creation is 84 percent (Figure 15). The case company creates value the same way than for poultry – vertical integration. The slaughterhouse operations as an in-house activity guarantee more value for the case company. This is even highlighted by the fact that the share of work or packaging for refined meat is very small, compared to the share of raw materials, in this case especially meat, in the value creation. The researcher cannot provide any specific reason for the extensive amount of value created by the *wholesale & retail*.

Figure 15: Value distribution within the value chain - refined meat
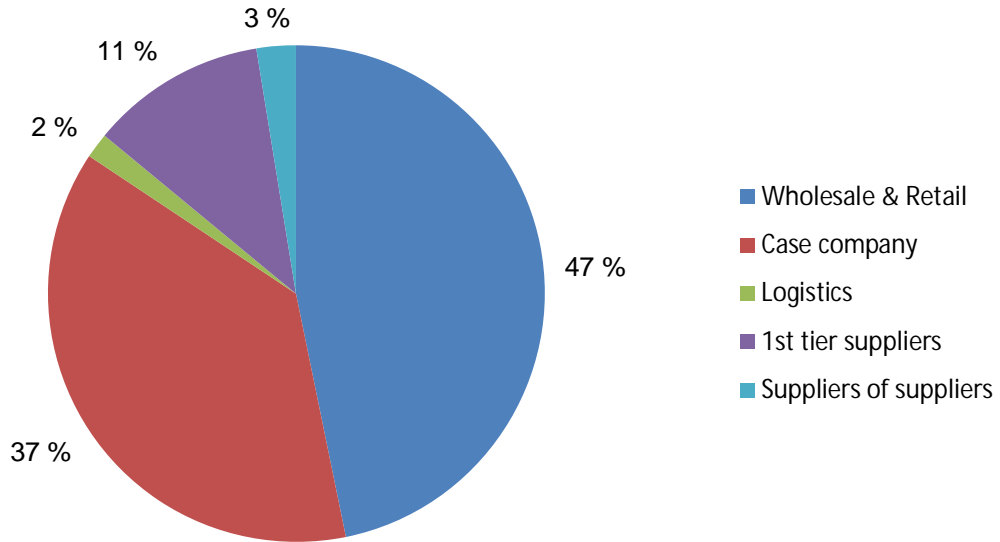
CANNED FOOD

Canned food is the most distinctive out of the categories under study. Even though *wholesale & Retail* again obtain a high percentage of value creation, this category is by far the lowest for the *case company* with only 26 percent of value added (Figure 16). Another noteworthy issue is that suppliers of suppliers are catching a 24 percent share of the value, which means that a quite large amount of value is going straight to the primary sector within this category. The share of raw materials in value creation is remarkable, but even more striking is the high share of packaging material costs. Given that the *case company* work costs are relatively low, high packaging material costs along with the raw material costs explain the importance of all kinds of suppliers in value creation.

Figure 16: Value distribution within the value chain - canned food
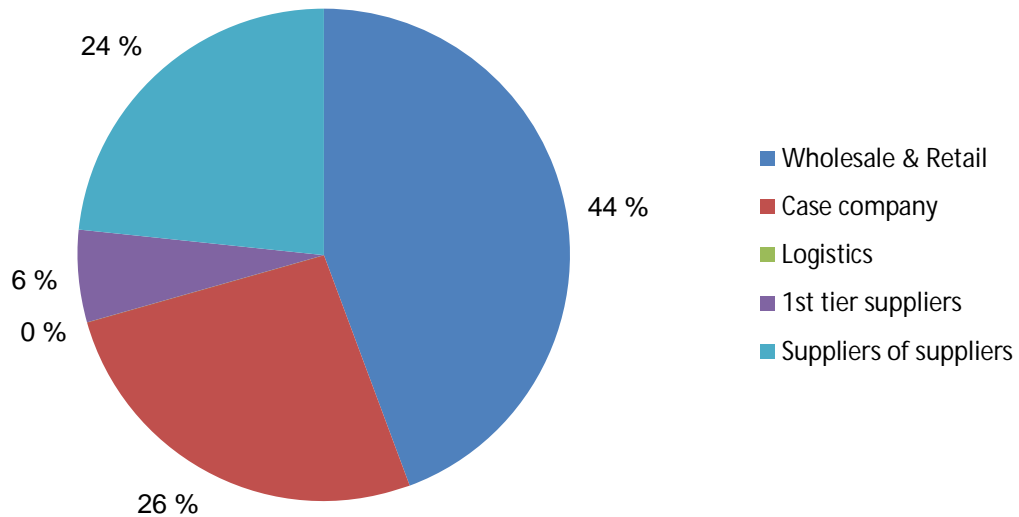
4.2.3 Value distribution – geography

As the purpose of this thesis is to research the global value chains in the Finnish food industry, also the geography of the value creation is of high interest. Therefore, the second research question is *how the total value added is spread to different countries/regions*, and findings to on this question will be discussed in this part.

Considering the Finnish food industry, it is not surprising that for all the products majority of value creation takes place in *Finland*, the share ranging from 84 percent to 99 percent. However, it is interesting that the distribution is not alike for all the products, but clear dissimilarities exist. *Other EU-27 countries* are the second most important location for value creation, especially for the canned food, where the share of value creation reaches up to 16 percent. What is remarkable is that countries outside of Europe are not involved in the value creation to high extent, since the value creation percentages for *other countries* are close 0 percent.

Based on the literature review, it could be expected that most of the value is created in Finland. All of the *wholesale & retail* value stays in Finland, since the products are only

sold in Finland. The same is valid for the *case company* value creation, since all the operations are located in Finland. Therefore, the value going outside of Finland is derived mainly from *supplier* operations. A more detailed picture can be obtained through Figures 17, 18, 19 and 20, where also a few remarks are included in terms of their specialty.

CONVENIENCE FOOD

Convenience food seems to be clearly a Finnish product (96%), even though other EU-27 countries do create a 4 percent value share (see Figure 17). The relatively high percentage of value creation, compared to other products in this study, in other EU-27 countries is due to the complexity of the product, and much of the raw material, for both packaging and the food itself, is imported from these countries. However, the role Finland remains strikingly high.

Figure 17: Geographical value distribution – convenience food
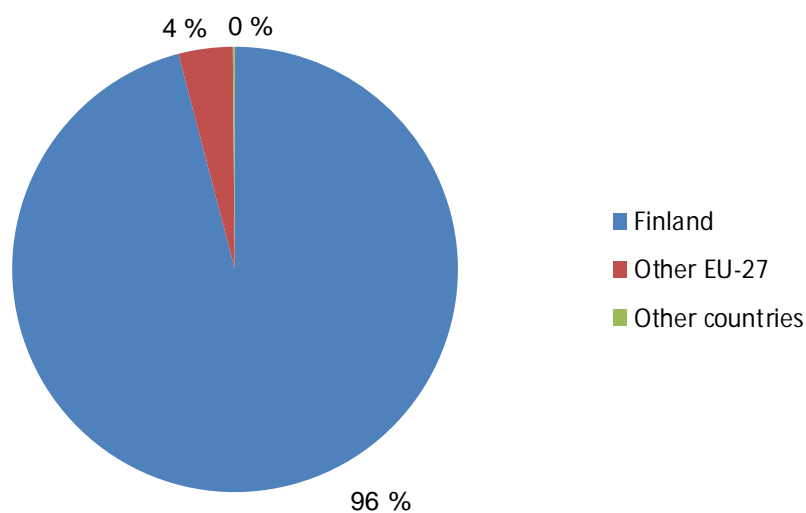
POULTRY

The value chain of poultry is the simplest regarding geography (see Figure 18). Finland creates 99 percent of the value, while other EU-27 countries get only 1 percent, and other world countries slightly above 0 percent. Packaging is an important part of the value that is generated outside of Finland. Otherwise the most important raw material, poultry itself, is completely produced and processed in Finland, which enables the striking value creation for Finland.

Figure 18: Geographical value distribution – poultry
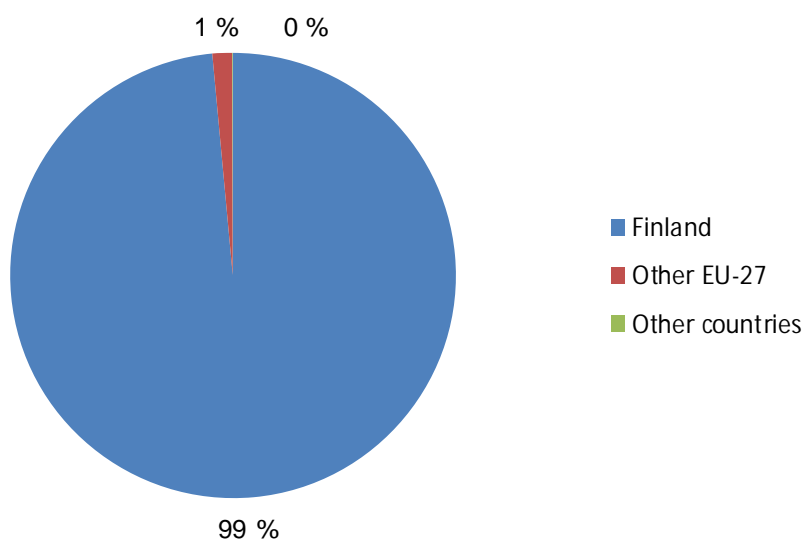
REFINED MEAT

Refined meat remains the same, in terms of the share of other countries, since only slightly above 0 percent of value is created there, but the share of other EU-27 countries is clearly higher than for poultry and slightly higher than for convenience (see Figure 19). Finland has the highest percentage with 95 percent while other EU-27 gains 5 percent of the value. Here the value created in other EU-27 countries is explained by some of the key, even though not high value adding, raw materials being produced there.

Figure 19: Geographical value distribution – refined meat
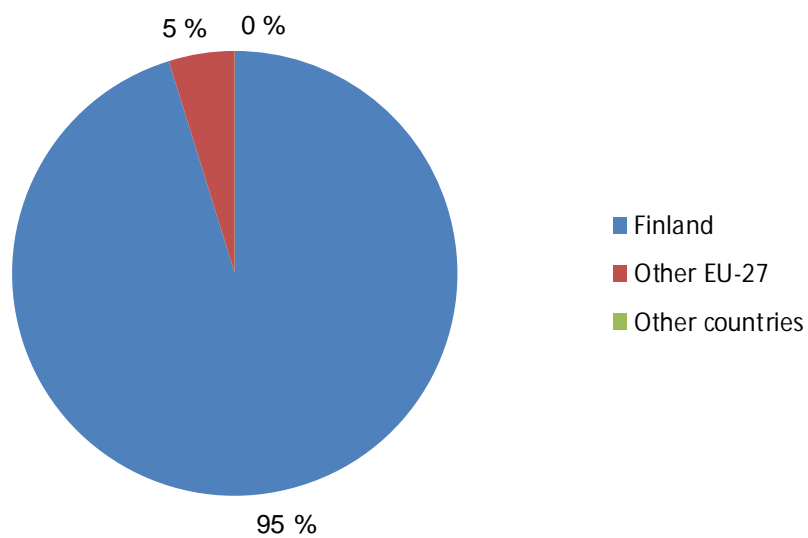
CANNED FOOD

Canned food is the only category, which stands out from the products under this study. Even though Finland still creates clearly the most value, other EU-27 countries have a significant share in value creation of canned food (Figure 20). This can be partially explained by the nature of the product. Since canned food has longer shelf time and is not considered as a fresh product, there is also less tendency for the consumer to resist foreign raw materials, and therefore the most cost sensitive raw materials can be acquired from outside of Finland. The acquisition of key raw materials from outside of Finland, and mainly for cost reasons, explains the share of other EU-27 countries in value creation. Even though the value creation is relatively low, only 16 percent, it is still the highest share that goes outside of Finland in value distribution of the products under study.

Figure 20: Geographical value distribution – canned food
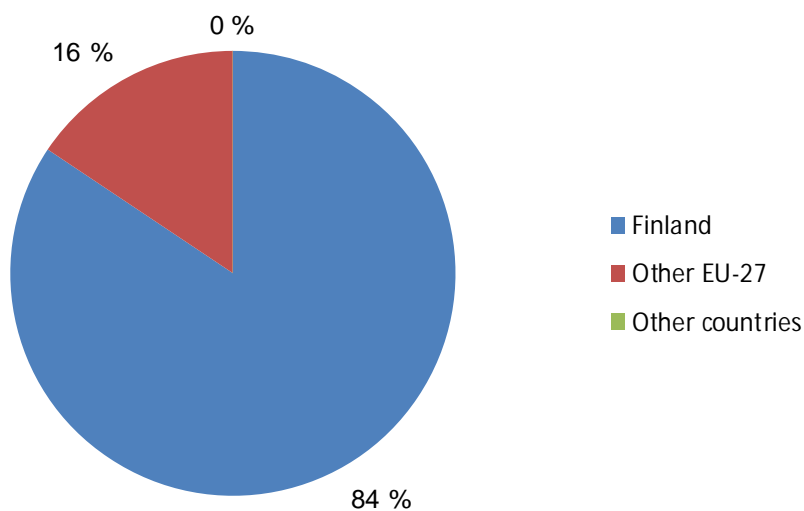
5 DISCUSSION AND ANALYSIS

As the findings of this study were presented in the previous section and also discussed and analyzed to some extent, a more in-depth discussion and conclusive analysis will be carried out in this section. The purpose of this discussion is to both summarize and find larger patterns in the findings, but also to give potential explanations for the reasons for the findings both through industry knowledge but also academic literature presented in the literature review part.

5.1 Clusters still present within the Finnish food industry

Despite the fact that in the beginning of this thesis it is assumed that 'countries and regions no longer specialize in industries or clusters but in functions of a company and finally in work tasks' (Pajarinen, Rouvinen & Ylä-Anttila 2010, 13), it seems that the Finnish food industry persists as a very traditional industry. Therefore, it can be stated that globalization has not broken down national clusters within the food industry to the extent it has done in other industries and the participants in global value chains can still be considered in larger modules rather than in functions of a company or work tasks. Hence, no such dramatic change has taken place in the food industry value change as could have been expected. Reflecting back to the main theory of this thesis, Porter's value system (Porter, 1985), it can be stated that the whole value system of the Finnish food industry has not started to break down, so that certain parts of the value system would be dislocated from the original food industry status quo.

One of the reasons for this can be, food industry being one of the most traditional industries, that the ties to the locality and the importance of food for the consumer are still keeping food a somewhat local product. This is also emphasized by the fact that the trend amongst Finnish consumers is pro local products. All the phases in the value chain need to be present in Finland to some extent to guarantee a local product, and this prevents the regions to specialize too much. Another explanation is that the global value chain for food industry is not as sophisticated as for many other industries, meaning that

the value chain is quite simple, but also the product is not complex. Third issue to be discussed here is the political side, where countries tend to practice protectionism when it comes to the food industry. This encourages further steps towards self-sustainability in order to guarantee the food supply. Last, the preservation time of food products restricts their mobility, and therefore naturally helps to maintain food industry as a local industry. Even though there has been much development in preserving food items and raw material, there are limits to this.

5.2   Most of the value created in Finland

Based on the findings of this study, it can be clearly stated that the trend for food industry seems to be that much of the value is created in Finland. Even though this is not true for all parts of the products, most of the food industry products that have been examined in this study can be considered as Finnish products. These findings also confirm the findings of Elintarviketeollisuus (2010) where it is stated that 85 percent of the used raw material in the Finnish food industry is Finnish.

However, the Finnish food market is gradually opening up and the effects of globalization are present. Even though the food prices have not been rising very fast, the global developments might force the Finnish food industry to take advantage of the global food markets more effectively, since the raw material prices and cost of labor in Finland tend to be clearly higher. Remarkable at the moment is that the globalization has only slightly penetrated the supply market in the Finnish food industry. For example, the wholesale and retail and high value added processing are controlled by the Finnish companies. The Finnish market is very concentrated; both in terms of production and retail, and therefore competition would benefit the whole market. However, the Finnish market for any product tends to be estimated very small, and consequently many foreign companies do not attempt to enter the market.

Nevertheless, the consumer preferences in terms of taste and origin of the food hinder the food industry from becoming a truly global market. This is true especially for the Finnish food industry, whereas in many other countries the development is opposite.

Consumer preferences controlling the Finnish food industry is enabled only through the high standard of living in Finland, and therefore the ability to make choices in terms of food. It also needs to be taken into consideration that the image of the company also has a huge impact on how much the company can exploit the global food market.

5.3   Value added varies from product to product – distribution and food industry create the most

The findings of this study show that the value added percentages by different value chain participants vary between products. This confirms some of the findings of Arovuori, Karikallio and Pyykkönen (2010), stated also in the Figure 9, but most importantly this shows the average value added by all the value chains participants. Therefore, the purpose of this thesis is not to explain only each of the differences between products in value added, even though it is of importance to highlight this very fact, but to show trends in how the value is created, the distribution of value, within the whole value chain.

Hence, it can be stated that production, the case company, and wholesale & retail control the food industry value chain in Finland with their pricing power. Based on the interview with the case company representative, wholesale & retail are in the best position, because of the high concentration on the market. Due to the control over the value chain wholesale & retail have the ability to pass, e.g. the rising production costs, on to the consumer. This has also put the case company in worse position, since the rising production costs are not as easily passed on to the wholesale & retail. The high concentration of the market, there are only 1-3 big retailers on the market, forces the food industry to sell through these channels, and again worsens the negation power for the industry. In the worst position, in terms of power, are the suppliers, which have to fight against the rising costs, but have the least amount of power in the value chain. Therefore, the supplier market has also concentrated massively during the past decades, since it is forced to take advantage of the economies of scale.

Having discussed briefly the amounts of value added and how the power is distributed along the value chain, it also needs be noted that value added does not equal profit.

Profit is only one part of the value added, and therefore the profit margins vary, even though are not revealed in this study for competitive reasons.

5.4   Strategy for the Finnish food industry

This research shows trends concerning how the value is created in the Finnish food industry, but also who is able to create it. There are still ways of improving and making the whole value chain more effective. As a result of these improvements, the value chain participants could create more value, but most importantly gain power in a value chain, which seems to be driven by remarkable cost pressures.

First, it is the observation of the researcher that the Finnish food industry value chains are fairly uncooperative. It seems as the participants in the food industry value chains are more after each other than optimizing the value chain in order to produce the best product for the customer or cut the costs. This negative attitude might lead to stagnating value chain, which does not move on due to, for example, power issues. A better strategy for the value chains would be to cooperate as much as possible, and the researcher believes that the value chain that understands this and puts it into practice will quite rapidly outshine the others.

Another significant problem in the Finnish food market is that there is too little competition in terms of retailing in the Finnish food industry. It is questionable whether there is place for more Finnish based retailers, but there definitely is a need for foreign competition. There have been attempts by the foreign food industry companies, and at least one of them is still operating successfully on the market – Lidl. The problem here is that the Finnish food market is not very lucrative due to is size and partially due to its location. Besides the entry barrier of a few established Finnish players is a high hurdle for any company to overcome.

An example of a strategic move within the food industry is private label. Wholesale & retail made a strategic move to vertically integrate their value chain, and began production. These products were made in the production factories, which were running under capacity, and wholesale & retail only paid the cost of production. In this manner,

new cheap brands were developed to the Finnish food market, for example Pirkka and Rainbow. This enabled the whole & retail to capture some of the market share within the food market first recognizing that there is a demand for cheaper private label products and then making the strategic move into production. Here it should also be said that concerning the strategic moves, it is of utmost importance that because the Finnish market is such a small market, the demand needs to change first – not the other way around.

6 CONCLUSIONS

6.1 Summary

Global value chains are an increasingly important topic to examine due to its ever-changing nature, but also due to the implications it has on the whole world. The same holds true for the food industry as well, since it is one of the oldest, but also most important and renowned industries for the humankind. However, there is no industry functioning without the global value chains, which have been evolving greatly during the past decades due to the globalization, and these far more complex value chains pose challenges for both economies and the corporate world to understand value creation and distribution.

As it has been continuously stated throughout the literature review, there is a vast lack of research, albeit much of ongoing research exists, concerning global value chains. The previous research mainly focuses on the global or industry level, and thus this study takes an in-depth approach in order to describe the global value chains, in terms of how value is created and distributed, on a product level. Therefore, this study both expands on the existing literature by performing research on empirical level within the traditional food industry, but also helps the global value chains research to tackle the issue of value measurement. More precisely, this thesis has taken a look into the value chains of the Finnish food industry to find out how value is created and distributed. Through the research questions, which focused on mapping the value chain, calculating the value created by each value chain participant, and finding out where the value is geographically distributed, statements can be made concerning the Finnish food industry, food industry in general, and also product level value chains.

Even though this study did not test much of the theory straight from the book, there was much value created for the management level. One of findings of this study was to identify the value chain participants (on broad level) in a Finnish food industry value chain, which are the primary sector, refiners of raw materials, food industry companies, and distribution. Another finding was that the most value of these value chain

participants is created in the downstream of the value chain by distribution and food industry companies, whereas upstream of the value chain is capturing less value due to the low value adding activities performed. Third finding was that Finnish companies create nearly all the value created in the Finnish food industry. Fourth, the Finnish food industry remains very traditional, where the impacts of globalization are so far experienced only to some extent. Nevertheless, some of these findings can be considered to confirm some of the findings of previous academic studies like the mapping of the food industry value chain.

6.2 Managerial implications

It is obvious that the topic of this study has clear-cut implications for the corporate life. The managerial implications range from strategy crafting to running the daily business operations. It is of utmost importance to grasp the value creation and capture dimension of a company in order to fulfill the ultimate goal, which is to increase shareholder value. When the company management has a clear understanding of what the complete value chain of their product is, what position the company has in that value chain, and where in the value chain is potential for capturing extra value, the company can make deliberate and strategically sound choices to improve their position within the markets. Moreover, the company is able to gain competitive advantage and grow sustainably by remaining a one step ahead of their competitors. Constant re-evaluation of the value chain position enables the company to seize and take advantage of the first mover advantage.

The fact that the Finnish food industry has remained quite self-sustained also contains an important strategic question of whether the companies are fully realizing the benefits of the developing global food markets. Despite the consumers' favoritism for local, made-in-Finland products, the opening Finnish food markets and the pressure for cost effectiveness encourage companies to fully examine opportunities provided by on-going globalization. The findings, and discussion, of this study should provide assistance to the food industry companies in thinking where more value could be created and captured.

6.3   Suggestions for further research

In terms of future research, there are two evolving research projects on global value chains, which should be mentioned here. The first project was already mentioned in the literature review under the name Bellagio group, and it continues examining the phenomenon of global value chains from the viewpoint of the industrial economy and development research along with local and territorial research. Most of the research has centered on the governance issues, and therefore especially value creation within the global value chains needs more attention in the future.

Another research project – Value Chains 2020, which started in July 2011 by IMD and Eindhoven University of Technology[9], aims at developing new strategies for value chains through researching the continuously evolving global value chains. This project is more aligning with the needs of the corporate world and has relatively ambitious goals to address a wide arrange of research questions, which can be found from their website.

As stated before, a lot remains to be done for the global value chains research. This study was not theoretical in nature, but more empirical to find out important answers to the Finnish food industry companies. Much of the global value chains research will continue on the guidelines, which are defined by the two major projects described in earlier paragraphs. However, in terms of this study, the researcher would suggest the future research also to focus developing more accurate measures of value within the global value chains, having a look into the food industry of other countries or regions to compare the results, but also to extend the research to other industries including service industries.

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[9] This research project is owned by IMD from Lausanne, Switzerland, and Eindhoven University of Technology from Eindhoven, Netherlands. For more information visit:
http://www.imd.org/research/global-centers/value-chain/#/about-us/research-initiative-and-schedule/

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Appendix 1

TEEMAT JA KYSYMYKSET

1) Tilaus-toimitus –ketjun rakenne tällä hetkellä

Tilaus-toimitusketju kuvaa siten organisaatioiden asemaa toimijaverkossa, sekä tuotteen tai palvelun koko matkaa raaka-ainetoimittajalta lopulliselle kuluttajalle. Siihen kuuluu kaikki ne yritykset, jotka osallistuvat tuotteen/palvelun valmistamiseen ja toimittamiseen asiakkaalle.

Tilaus-toimitus –ketjun analyysillä on tarkoitus kartoittaa jonkun nykyisen ja siten olemassa olevan tuotteen tai palvelun matkaa organisaatiolta toiselle ja lopulta kuluttajalle/loppukäyttäjäyritykselle.

Tällä kysymysjoukolla pyritään saamaan selville case-yrityksen oma asema tilaus-toimitusketjussa. Samalla selvitetään case-tuotteen/-palvelun koko tilaus-toimitus –ketju. Välttämättä tätä koko ketjua ei pystytä selvittämään pelkästään case-yritystä haastattelemalla vaan voi olla, että on tarpeellista haastatella myös keskeisimpiä toimittajayrityksiä ja/tai asiakkaita.

- Millainen on tuotteen tilaus-toimitusketjunne rakenne käyttäen lähtökohtana tai malliesimerkkinä seuraavaa kuvaa?
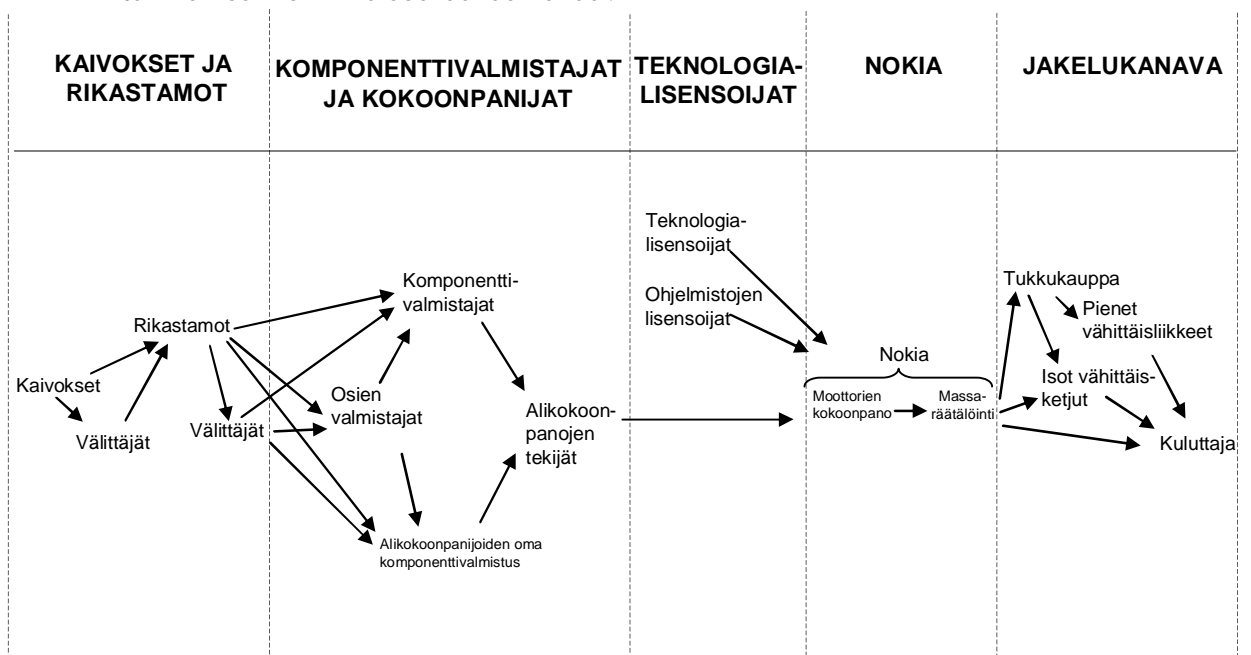
- Ketkä ovat suoria asiakkaitanne eli kenelle myytte tuotteenne?
- Ketkä ovat asiakkaidenne asiakkaat ja mahdollisesti heidän asiakkaat?
- Mitkä ovat keskeiset asiakaskuntaa koskevat muutokset 2000-luvulla?

2) Tuoterakenne, toimittajat ja maantiede

Näillä kysymyksillä selvitetään case-tuotteen tuoterakenne eli se, että mistä osista tuote tai palvelu koostuu. Lisäksi selvitetään jokaisen osan tai raaka-aineen hinta sekä se, mistä ko. osa tai raaka-aine hankitaan. Oleellisena osana tätä teemaa on sen selvittäminen, että kuinka paljon tuotteeseen liittyviä panoksia ostetaan muilta yrityksiltä.

Mikä on case-tuotteen komponenttikohtainen BOM (Bill of Materials) sisältäen yksityiskohtaisen listan tuotteen sisältämistä kaikista osista, komponenteista ja/tai raaka-aineista. Koska case-tuotetta kokoonpannaan kolmessa eri maassa (Suomi, Kiina ja USA), niin kustakin näistä tarvittaisiin oma BOM.

Jokaisesta osasta/komponentista tarvittaisiin seuraavat tiedot:

- Osan, komponentin tai raaka-aineen nimi?
- Toimittajayrityksen nimi?
- Teidän maksama hinta?
- Valmistusmaa eli missä komponentti on valmistettu tai missä raaka-aine tuotettu?
- Komponentin tai osan suunnittelu- tai t&k-maa (ei luonnollisestikaan koske raaka-aineita)?
- Keitä ovat näiden toimittajien omat toimittajat/alihankkijat?
- Maksetut lisenssit tai royaltit?
- Mitkä ovat tuotteen kokoonpanokustannukset?
- Tuotteen muut kustannukset (energia, logistiikka, overheadit)?
- Mitkä ovat keskeiset toimittajakuntaanne koskevat muutokset 2000-luvulla?

Fyysisten osien lisäksi mukaan tulee myös mahdolliset lisenssit tai muut ostetut immateriaaliset panokset.

3) Tuotteeseen liittyvät työtehtävät ja niiden sijainnit

- Mitkä ovat keskeiset tuotteen/palvelun tuottamiseen, sen kehittämiseen ja ylläpitoon liittyvät työtehtävät?
- Missä työtehtävät tehtiin/tehdään käyttäen lähtökohtana tai malliesimerkkinä seuraavaa kuvaa?
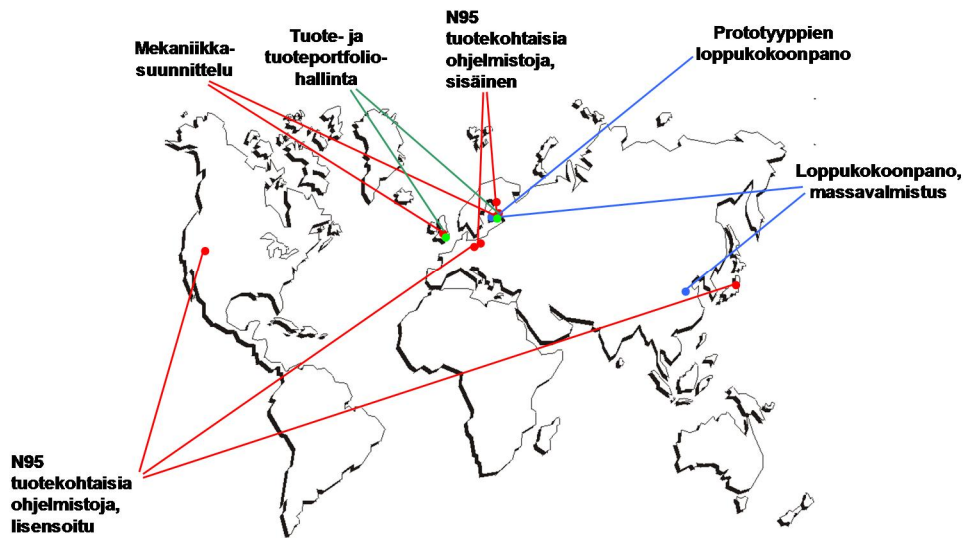
ESIMERKKEJÄ TYÖTEHTÄVISTÄ:

Tuotteen tai palvelun kehittämiseen liittyviä tehtäviä

- a. Konseptisuunnittelu
- b. Teollinen muotoilut
- c. Ohjelmistokehitys

Tuotteen valmistus tai palvelun toteutus

- d. Protovalmistus tai palvelun pilotointi
- e. Massavalmistus tai palvelun tuottaminen

Muut

- f. Tuotehallinta ja tuoteportfolion hallinta
- g. Sourcing- eli hankintatoimi
- h. Myynti, markkinointi, brändäys

4) Muut kysymykset

- Mikä on teidän myyntihintanne tuotteelle?
- Vaihteleeko myyntihinta alueittain (eri maihin) tai asiakkaittain?
- Mikä on kuluttajan maksama hinta (jos tiedossa)?
- Millä toimitusehdoilla tuote myydään?
- Jos "vapaasti asiakkaalla", niin kuinka paljon toimittaminen aiheuttaa kustannuksia (rahti, vakuutus, yms.)?

5) Arvonlisän jakautumisen laskeminen organisaatioittain

Tällä kysymysjoukolla selvitetään arvonlisän syntymistä tilaustoimitusketjussa. Tuotteen/palvelun kokonaisarvonlisä on sen loppukäyttäjän maksama veroton hinta. Tämä kokonaisarvonlisä voi syntyä kymmenien tai satojen eri yritysten toimesta. Jokainen tilaus-toimitus –ketjun osa ostaa raaka-aineita, komponentteja tai palveluita, jalostaa tai prosessoi niitä ja myy eteenpäin omille asiakkailleen. Kunkin organisaation arvonlisä lasketaan seuraavasti:

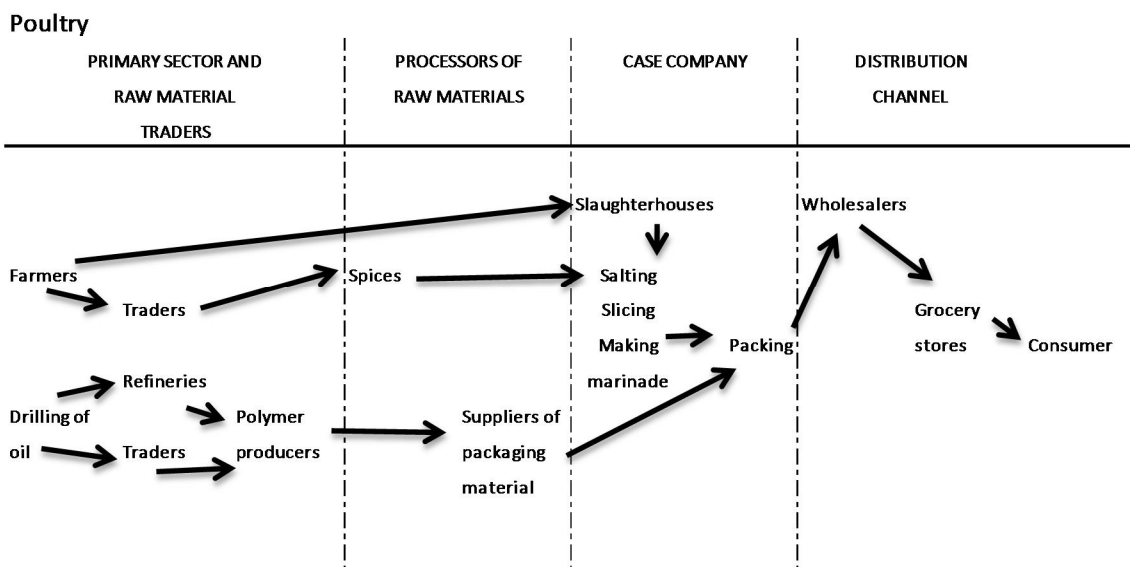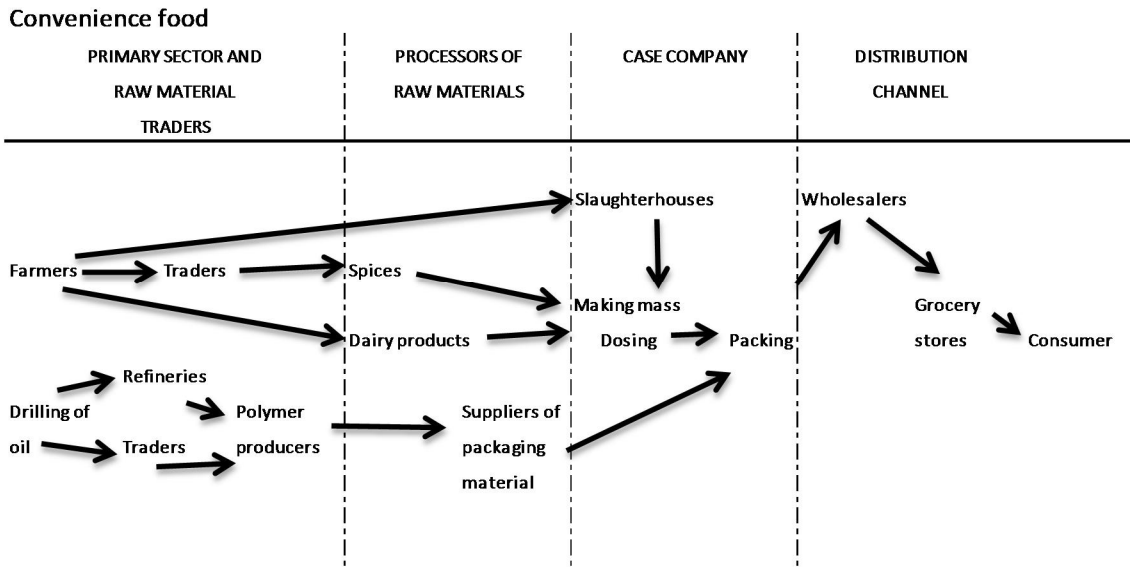> Arvonlisä = Tuotteen tai palvelun myyntihinta – kaikki tuotteen/palvelun tuottamiseen liittyvät ostot

Samaan lopputulokseen päästään myös kaavalla:

> Arvonlisä = Tuotteen tai palvelun liikevoitto + tuotteen tai palvelun tuottamiseen liittyvät työvoimakustannukset + tuotteen tai palvelun tuottamiseen liittyvät poistot + tuotteen tai palvelun tuottamiseen liittyvät vuokrat

Appendix 2

Product specific value chains

Convenience food

| PRIMARY SECTOR AND RAW MATERIAL TRADERS | PROCESSORS OF RAW MATERIALS | CASE COMPANY | DISTRIBUTION CHANNEL |

Farmers → Traders → Spices

Slaughterhouses   Wholesalers

Dairy products

Making mass

Dosing → Packing

Grocery stores → Consumer

Drilling of oil → Refineries

Traders → Polymer producers

Suppliers of packaging material

Poultry

| PRIMARY SECTOR AND RAW MATERIAL TRADERS | PROCESSORS OF RAW MATERIALS | CASE COMPANY | DISTRIBUTION CHANNEL |

Farmers → Traders → Spices

Slaughterhouses   Wholesalers

Salting
Slicing
Making
marinade → Packing

Grocery stores → Consumer

Drilling of oil → Refineries

Traders → Polymer producers

Suppliers of packaging material

Refined meat

PRIMARY SECTOR AND RAW MATERIAL TRADERS	PROCESSORS OF RAW MATERIALS	CASE COMPANY	DISTRIBUTION CHANNEL

Farmers → Traders → Slaughterhouses

Spices

Salting
Smoking → Packing
Slicing

Wholesalers
Grocery stores → Consumer

Drilling of oil → Refineries
Traders → Polymer producers → Suppliers of packaging material

Canned food

PRIMARY SECTOR AND RAW MATERIAL TRADERS	PROCESSORS OF RAW MATERIALS	CASE COMPANY	DISTRIBUTION CHANNEL

Farmers → Traders

Raw material → Chemicals → Jam → Packing

Wholesalers
Grocery stores → Consumer

Drilling of oil → Refineries
Traders → Polymer producers → Suppliers of packaging material