Aalto University
School of Business

Distribution of Value Added in a Global Service Production; The case of a Finnish service provider

International Business

Master's thesis

Tsegahun Serbessa

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ABSTRACT

The objective of the research is to show the role of Finnish companies in the global value chain. One intention is to map out the Case Company translation and localization service value chain and show all the participants involved in the creation of value added. Another intention is to show how value added is distributed among the value chain participants as well as geographically. Furthermore it also analyzes the governance relationship between the lead firm and the rest of the value chain members.

The theoretical framework was based on Global Value Chain (GVC) analysis tailored to the unique characteristics of services. Theory of GVC analysis was chosen because it provides a suitable framework to analyze the structure and dynamics of global industries. The research is a micro-level representation of the GVC analysis. Moreover the focus was mainly on three dimensions of GVC analysis; input output structure, geographical analysis and governance.

The research was carried out in a case study format. The analytical approach was a mixed research method where both qualitative and quantitative data were gathered. The main sources of information were the multiple interviews conducted with the Case Company representative. Moreover public offices and other databases are used to collect the necessary data.

The findings revealed that the Case Company, Sanoma Group, Elisa, Across and Freelance translators take part in the creation of value added. The result also indicated that the Case Company captures significantly higher proportion of the value added created followed by the freelance translators. Furthermore Finland captures the utmost share of value added created from the Case Company translation and localization service.

In conclusion the research showed contribution of the Case Company to the Finnish economy using service GVC analysis framework.

PREFACE AND ACKNOWLEDGEMENTS

This report is a thesis for the completion of my Master Program studies at Aalto University School of Business in International Business. The research is part of ETLA's[1] value chain analysis project.

I would like to express my appreciation for many people who helped me in the process. This thesis would not have been possible without their support. Foremost among those are my thesis supervisor Asta Salmi and Iiris Saittakari from my university as well as Jyrki Ali-Yrkkö from ETLA. Thank you for giving me an opportunity to take part in such an amazing project as well as for your generous support and guidance throughout the process.

I also want to extend special word of thanks for Mr. Dahlqvist from the Case Company. He has always been thoughtful and very kind to provide me with all the necessary information. Thank you for your cooperation and time.

Last be not the least is all my group members in the ETLA project; Satu Leppänen, Iiris Sortti, Iris Rauhalahti and Eetu Koponen. Thank you for your insightful comments. I have a wonderful time working with you all.

[1] ETLA , the Research Institute of the Finnish Economy, is the main sponsor of this research

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1 INTRODUCTION

1.1 Research Background

The global economy has changed significantly over the last decades. The two economic aspects that have seen major changes are perhaps production and trade (Gereffi, et al., 2005)**.** Since the late 19th century both production and trade have gone global. Improvement in trade costs as a result of advances in communication and transportation (Jacks, et al., 2010) are the reasons behind the shift. Along with globalization of production and trade, came intense competition for both resources and market. Companies now have to compete not only against domestic firms but also with international companies which have strong network of production as well as market. Efficiency and innovation are key determinants to win the stiff global competition. That is what motivates companies to carefully analyze the increasingly complex and global value chain for potential improvements.

International companies today have a global value chain performing design, production and marketing operations in different geographic locations. Multinationals outsource and/or offshore part of their activity to different geographical locations. Outsourcing benefits companies from factor disparities among different countries. Nonetheless outsourcing also raises a concern whether the tie between multinationals and their courtiers is gradually fading and whether multinationals are driving wealth out of the national borders. This is important because the nation's prosperity is directly dependent on how well its businesses are doing in the market and who is benefiting the most from their success. A nation's Gross Domestic Product (GDP) is the sum of the value added by its firms (Ali-yrkkö, 2010). Given that, global value chain analysis helps to identify the role of companies in their global value chain and also the role of countries in a global industry. This is important because the role and position of a company in a particular value chain determines the

economic benefits it will be able to generate and capture. It is also important for countries as their position in a global value chain is a crucial factor for their prosperity.

Hence, understanding one's value chain is important not just for companies but for all stakeholders. Companies, policy makers and the public at large benefit from the global value chain analysis. Value chain analysis presents a clear picture of the value creation process and allows companies to identify weak links and potential spots for improvement. It also helps to understand distribution of gains and power alignment along the chain. In addition, value chain analysis allows nations to understand their role in the global economy and take the necessary policy measures to benefit from local innovations.

This research is part of ETLA's value chain analysis project. The overall objective of the ETLA project is to identify the role of Finnish firms in the global value chain. Given that, the research takes a Finnish company (which will be referred to as the Case Company hereafter) and shows its role in the global value chain. Thereby, it examines the distribution of gains from its global production network. The research is expected to map out the Case Company's value chain from raw materials up until the final product reaches in the hands of customers. Furthermore it also identifies who captures the utmost value added from the Case Company global service value network. Finally the research shades light on the power asymmetry and governance among channel members.

1.2 The Language Industry

This section is about the Language industry. I will introduce what the language industry comprises, its overall structure, size and importance. Afterwards I will zoom in and discuss the Case Company background. Thus, at the end of this section, the reader will have a clear understanding of what the language industry in general and the Case Company activities in particular looks like.

1.2.1 **Industry Background**

Language industry is a very diverse service sector. Research sponsored by the European Commission (2009) identified the industry to comprise translation, interpretation, software localization and website globalization, language technology tool development, language teaching, consultancy in linguistic issues, organization of international conferences with multinational requirements and language related activities in corporate environment.

Language industry is an important sector for the world economy. Its importance has increased with globalization and international trade. The role of the industry could be seen from two perspectives. Firstly, in a broader view, language industry facilitates international trade in all sectors of the economy. Secondly, it is a recession proof rapidly growing industry in itself which creates many job opportunities (European Commission, 2009). Language industry facilitates international trade through enhancing communication among trading parties. This is very important particularly for service industry where there is often a great deal of direct interaction between service providers and their clients. Moreover the language industry is also important for creating job opportunities. According to European Union classification of economic activities called NACE Rev. 2, Professional, scientific and technical services sector is classified under division 74 (Eurostat, 2011). This sector has seven economic sub-sectors under it; one of them is other professional, scientific and technical services such as design, photography, translation and interpretation services. This

subsector employs a little short of a million people, in EU, generating €33 billion in value added (Eurostat, 2012). Furthermore, during the recent economic crisis, the industry has been one of the bright spots in an otherwise a grim economic field (European Commission, 2009). In general language industry plays a key role for the global economy.

In Europe, translation industry is important both socially and economically. There are 23 official languages used by the European Commission and more than 200 languages spoken in the region as a whole. Communication between the member states as well as with the rest of the world creates big demand for translation and interpretation. According to some rough estimates, the cost of language services in all EU institutions is about 1% of the annual general budget of the EU which is calculated to be around €1.42billion annually (DG Translation, 2012). Yet the importance of the language industry is not just limited to the Commission but also for all businesses which have some interest in the international market.

Language industry is a multibillion service sector in Europe. Its total value was around €8.4billion in 2008 and it was forecasted to surpass EUR12 billion by the end 2012 (European Commission, 2009). Moreover the industry is among the fastest growing in the region with a very conservative annual compounded growth rate of 10% until 2015 (European Commission, 2009). With such a double digit growth, the total turnover for the industry is expected to exceed €16.5 billion by the end of the forecasted period. According to the research conducted by EU, in 2015 the real value of the industry may reach more than €20 billion (European Commission, 2009). Translation and interpretation sector (including software localization and website globalization) alone amassed EUR5.7 billion annual turnover in 2008. All the remaining sectors together generated EUR2.7 billion in turnover. Hence translation and interpretation is the biggest sector accounting for close to 68% of the turnover in EU language industry. The following Figure 1 below shows the

relative size of different sectors in the EU language industry and their forecasted growth for the next few years.

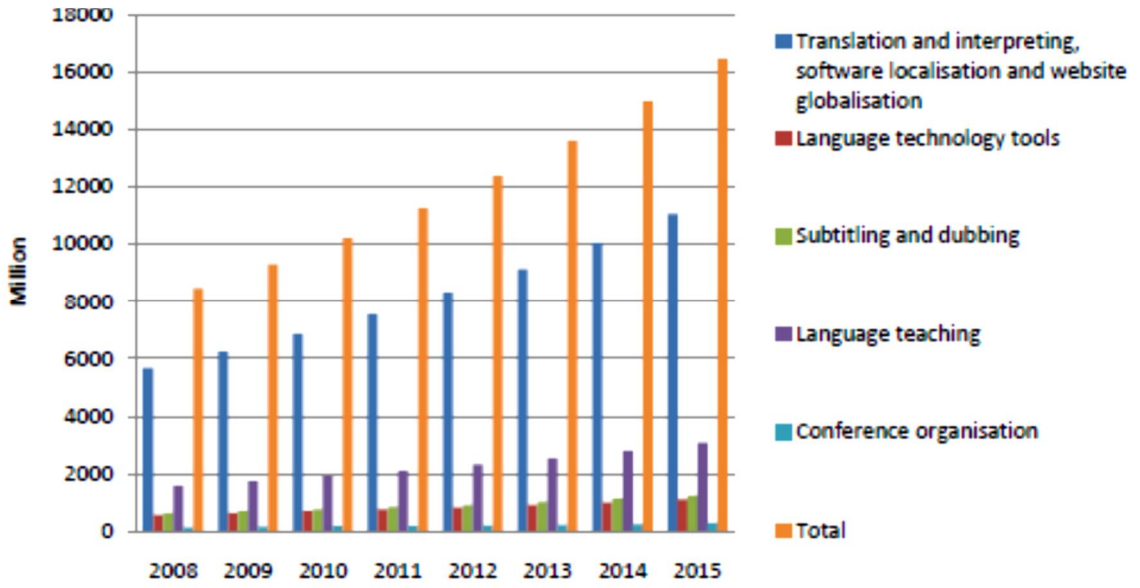


Figure 1. EU language industry, adopted from (European Commission, 2009)

Language industry structure

The language industry is a very fragmented industry. There are more than 26,000 companies around the world in translation and interpreting sector alone (Klein, 2012). Apart from the big and dominant language service providers, the industry is dominated by freelance translators. Researchers estimated freelancers to account for around 50% of the entire translation market share (European Commission, 2009). Whereas the European Union of Associations of Translation Companies, EUATC, estimated the overall market share of translation companies to be only around 25% in 2006 and forecasted to rise 30-40% by 2016 (EUATC, 2006 as cited in European Commission, 2009). The primary reason for the gradual market gain by translation companies is the growing number of languages

required in a single project (European Commission, 2009). Moreover what is very interesting is that 43% of translation service providers have no in-house translators at all and they depend on freelancers entirely. Another 36 % have less than 10 in-house translators. This clearly shows a huge reliance of even big translation firms on outsourcing translation work to freelancers (European Commission, 2009). Refer to figure 2 below for the number of translators working for LSPs[2].

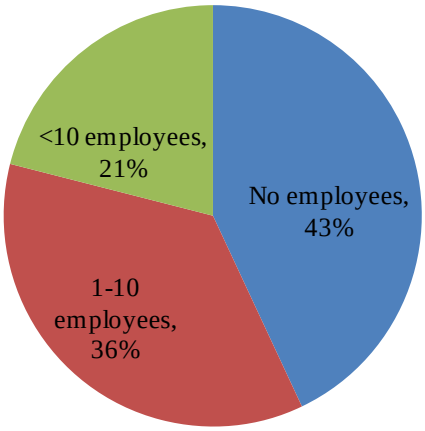


Figure 2. Translation companies employment (European Commission, 2009)

In the past decade there has been rapid increase in the number and size of translation companies through mergers and acquisitions. As a result the translation sector, not only in EU but globally, is a highly consolidated market creating a threat on smaller firms. According to the (European Commission, 2009) research *"the combined turnover of the 15 biggest translation companies in the world represents 10% of the world market and 50% of the market for translation companies"*. Most of these big players in the global language industry are US or EU firms (Romaine & Richardson, 2009). The following Figure 3 depicts the revenue breakdown by region of the top 30 global language service companies.

[2] LSP is an acronym for language service provider

According to the Common Sense Advisory, the Case Company for this particular research has generated an annual turnover of USD30.4 million ranking 25th among the hundred world leading language service providers (Kelly & DePalma, 2012). What drives the growth of the translation industry, in particular, is the global expansion of online communication (Romaine & Richardson, 2009). Following the increase in online communication, US and European firms are spending more to tailor their message and reach potential audiences in growing markets.

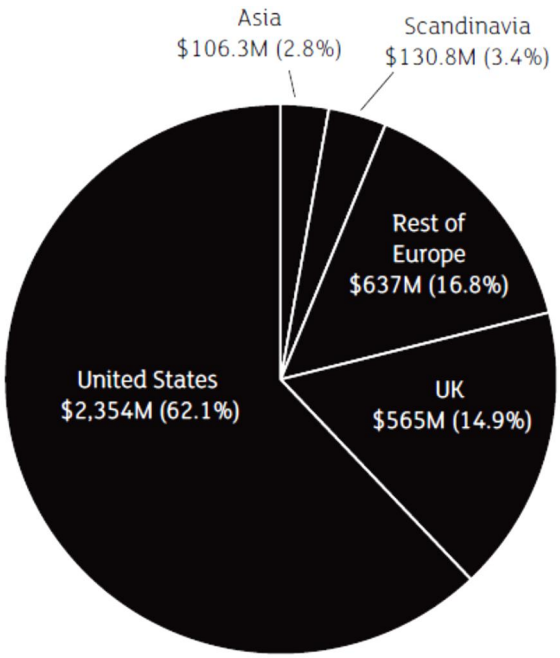


Figure 3. Origin of leading LSPs, adopted from Romaine & Richardson (2009)

Language industry in general and translation service in particular is characterized by a stiff competition. There is a very low entry barrier (European Commission, 2009) to the translation sector, encouraging more individuals as well as new companies to enter the industry. Constant entry of new firms and individuals to the translation business has drove supply up without a proportional increase in demand. As a result there is a fierce competition not only among translation companies but also with freelancers. Unfortunately

the increased competition did not lead to improved quality (European Commission, 2009). The lack of entry barriers has allowed unqualified translators to flood the market pushing price down and discouraging qualified translators from joining the market. Despite the availability of numerous translation certifications, there are only few certified translators in the market. There is no real incentive for translators to get certified and the correlation between being certified and the amount of work translators get or the price they charge is very weak (Romaine & Richardson, 2009). This is not to say that certification is not an advantage at all; it is for instance very important when it comes to work related to government offices.

The Finnish translation industry is EUR117.4 million a year turnover economic sector (Statistics Finland, 2011). The following Table 1 below shows the overall Finnish translation & interpreting industry in numbers. The data does not show whether freelancers are included in the numbers. The research by (European Commission, 2009) estimates, for the year 2008 for instance, the turnover may reach up to EUR203 million and an additional 14 400 more employment as freelancers.

Table 1. Finnish translation & interpreting industry **(Statistics Finland, 2011)**

	Actual data				
	2006	**2007**	**2008**	**2009**	**2010**
Enterprises	954	1 056	1 146	1 168	1 238
Personnel	1 221	1 454	1 499	1 455	1 559
Turnover (1 000 EUR)	89 655	117 259	124 044	113 514	117 390
Wages	23 333	29 549	32 589	32 482	34 253
Wage/employee	31.30	32.3	34.20	33.90	34.60
Turnover/enterprise (1 000 EUR)	94.00	111.00	108.20	97.20	94.80
Turnover/employee (1 000 EUR)	73.40	80.60	82.80	78.00	75.30

1.2.2 **Case Company Background**

The Case Company is language service provider owned by a Finnish based European media Group which operates in a number of countries. The Case Company was acquired by the Group in 2009. According to the information from the Group's website, alignment between parts of their business and the Case Company was the reason for acquisition. The Case Company was established in late 1960s with the aim of providing language training. At the time they were only operating in the Finnish market. Since then the company has come a long way. Currently they provide a range of support services for companies going international. The following are some of the Case Company's service focus areas:

- Language training
- Communication skills training
- Management and leadership training
- Translation
- Editing and localization
- Terminology management solutions, and
- Documentation and consultation services

The Case Company, today, is the leading wide-ranging globalization service provider in the Nordic market. Among the service lines listed above, this research focuses only on translation and localization service. This particular service line is chosen because the case company is undergoing changes and they would like to find out rooms for potential improvement in their value chain. Moreover, the other reason is that, translation and localization service is information rich compared to the other services the Case Company offers.

Currently the Case Company has offices in eight different countries. The head office is located in Finland and it is responsible to coordinate functions of the other international offices. Their international offices are located in Sweden, Denmark, Norway, Russia, UK

and China. Role of the international offices does not differ much. The main reason for international expansion is following their customers. Some clients require their suppliers and to follow them to international market. In addition, as demand from a certain country increases, the Company opens office. International offices allow the Case Company to be closer to the market and understand specific needs of the market. Furthermore international offices also enable the Case Company to provide the local touch and customization of message that they promise to their clients.

The Case Company uses their employees and freelance translators to provide the service. They have more than 500 professional employees in all their offices. Moreover they have a huge global network (1000+) of freelance translators and third party agencies which will be employed as necessary. As a study by European Commission (2009) indicates firms in the language industry are highly reliant on freelancers. Thus the Case Company is not unique in using a network of freelancers. In general the Case Company uses in-house employees, freelance translators and/or third party agencies, depending on the projects and the skill set required.

To sum up the Case Company is the leading Finnish language service provider with international operation in eight different countries. This research will cover the translation and localization service. This particular service has been chosen because of its information richness and the change the Case Company is undergoing in the service line at the time of the research.

The next section will establish the research gap and defines the research problem. The problem gap and the research problems together make the case for the importance of the research.

1.3 Research Problem and Gap

In this section I demonstrate the gap in researches done so far in the global value chain analysis field of knowledge.

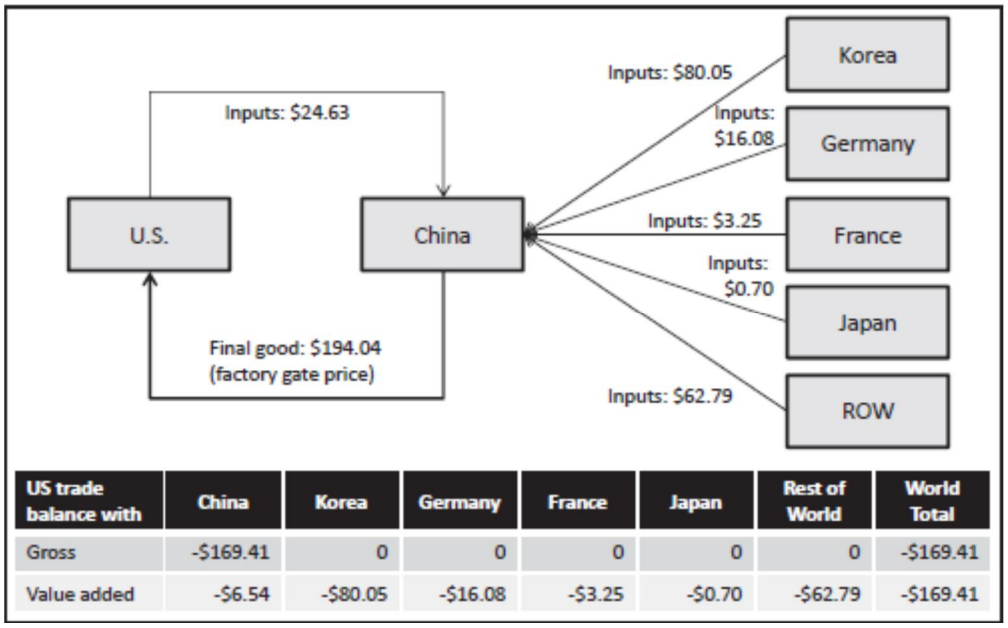
In the past decade value chains have experienced a global change. Labor intensive productions are shifting to emerging markets. Increased industrial capability and cheap factor endowments have made emerging markets competitive for production. Similarly Multinational firms are experiencing vertical disintegration and outsourcing (Gereffi, et al., 2005). Multinationals usually outsource non-strategic activities and focus resources on areas where they have comparative advantage. Thus vertical disintegration allows firms to focus limited resources on areas of their expertise, and outsource other activities to partners. In doing so, international firms enhance their effectiveness and efficiency to stay competitive in the market. As a result global trade has gradually shifted from exchange of goods to trade in tasks (Grossman & Rossi-Hansberg, 2008) where parts of value being added in many different locations, eventually creating global value chains.

International firms have been under scrutiny for pushing wealth beyond national borders through their global supply chains. Nonetheless there are also researches showing that international firms, despite their outsourcing and moving part of their activity abroad, still contribute to the economic success of their nations. The confusion is often from the type of trade measurements employed to see where value is created and who captures the utmost value added despite production is performed globally. Traditionally global trade has been measured using gross export values. However critics argue trade in tasks provide a better representation of the reality today than traditional gross export techniques (Gereffi & Lee, 2012).

Traditional measurements assign the entire gross export value, of a given product, to an exporting country (Gereffi & Lee, 2012). However, in the context of global value chain, production is often performed in different countries and global trade is dominated by

intermediate goods. The shift in global trade from exchange of goods to trade in tasks and intermediate goods makes is difficult to understand who is creating and capturing value added accurately using traditional methods. Components and intermediate goods traded internationally have a hidden value added embedded in them which often inaccurately assigned to the country which does the assembly and export to the target market. The main problem in traditional measurements is that they do not capture the indirect export hidden in intermediate goods trade. Hence the results could often be very misleading. (Gereffi & Lee, 2012).

A research conducted on Apple's iPhone4 demonstrates the essence of the problem very well. The iPhone is designed in California and components come from different part of the world. The assembly is performed in China by a Taiwanese original design manufacturer, Foxconn (Refer Figure 4 below). Foxconn charges a factory gate price of USD194.04 for every iPhone assembled in its factory. The problem is traditional measurements allocate the entire value added USD194.04 from each iPhone to China where Foxcom makes the final assembly. However that is not accurate. As shown in the figure most of the components are not produced in China, rather imported to China, i.e. there is hidden value added in each component imported to China. The value of all imported components to China amounts to USD187.5. The only value added in China, through assembly, is USD6.54. Components imported from Korea, Germany, France, Japan, and other countries, excluding USA, are valued at USD162.87. The remaining USD24.63 is imported from USA. That means for every iPhone imported to USA, Chinese share is only USD6.54 and the remaining USD162.87 is indirect export from other countries. Traditional trade measurements, however, fail to show this hidden indirect export clearly.



US trade balance with	China	Korea	Germany	France	Japan	Rest of World	World Total
Gross	-$169.41	0	0	0	0	0	-$169.41
Value added	-$6.54	-$80.05	-$16.08	-$3.25	-$0.70	-$62.79	-$169.41

Figure 4. iPhone trade balance adopted from Gereffi & Lee (2012)

The best possible way to understand who creates and captures value is using value added method. In the above research, for instance, the unit retail price of an iPhone is USD600. Apple retains 45-60% depending on who distributes the product. Country wise, US captures 49-64% of the value added depending on where the phone is sold (OECD, 2011). China's share of value added, in contrary, is only 1-16% depending where the iPhone is sold. Refer to Figure 5 below.

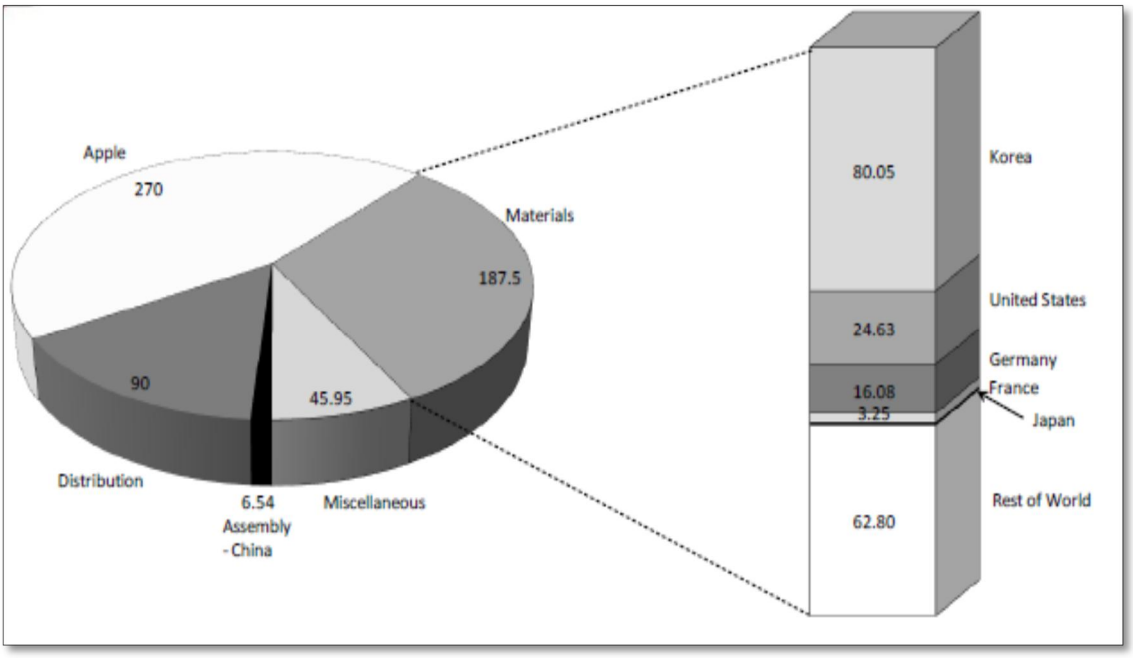


Figure 5. iPhone value creation and capturing, adopted from OECD (2011)

This is important not just for companies but for policy makers as well. In the iPhone example above traditional trade measurements charge China USD194.04 in trade deficit for every iPhone imported to the United States. However the accurate figure is USD6.54; the remaining USD162.87 trade deficit is to other countries such as Korea, Japan, Germany, and France (Figure 5 above). Therefore such a clear and accurate understanding of the global trade allows policy makers to adjust their trade policy towards different countries accordingly.

So far there are limited number of researches on value creation and capture along global value chain. The researches done are mostly concentrated on US multinationals. Prominent researches in the field include the ones on Apple's iPod and HP's notebook (Linden, et al., 2009) and on iPad and iPhone (Kraemer, et al., 2011). The only other similar research

performed outside US is the one conducted by Ali-yrkkö (2010) on Nokia N95 headset. Nonetheless currently there are few more researches undergoing in the ETLA's value chain analysis project including this particular research. However, majority of these researches are focused on tangible products.

Research on Whitevector Ltd. (Rummukainen, 2011) is the only one performed on services. My research as well as the research on Whitevector are both part of the ETLA project. While it is important to study the manufacturing goods value chain thoroughly, I believe that adequate level of attention needs to be directed towards the service sector as well. The number of researches done so far on services is not really comparable to the importance of services in the global economy. Services account for nearly 72% of the global economy in general and 68% of Finland's total value added in particular (WTO, 2011). As of 2010 Finland's global trade in services has reached USD46.3 billion in value (OECD, 2012). Moreover services account for 71% of the entire employment in Finland (WTO, 2011). Considering such high importance of services, both interns of contribution to the nation's economy as well as in creating employment opportunities, more researches need to be done on services.

There are important differences between Rummukainen's (2011) research on Whitevector and this one. Whitevector is a relatively small startup company which provides social media chat report service. Their service is unique and innovative that there are not many rival firms, not just in Finland but throughout Europe, competing head to head with them (Rummukainen, 2011). In contrast, the Case Company in this research is a big international company operating in a highly competitive industry. Besides, the language industry is a highly fragmented industry where a lot of firms provide nearly identical value proposition. There are many big multinational firms with a global reach in the industry. Yet firms in the language industry are not only facing competition from other rival firms but also from freelancer translators. Freelancers offer cheap alternative translation creating massive

downward push on price. The impact of freelancers cannot be underestimated as they capture nearly half of the entire translation market share. Hence the two researches are different in the dynamics of the industry their respective case companies operates in.

Moreover Rummukainen's (2011) research focus was on how to benefit from innovation. The author investigates distribution of benefits from innovations among all parties involved in the value chain. This research, on the other hand, focuses service global value chain (GVC) governance. It analyzes not only distribution of value added but also the governance among channel members. Rummukainen's (2011) also talks about governance; however, what makes this research different is that it shows the way unique characteristics of services significantly impact how the different GVC dimensions lead to the distribution of value added. In general, beyond our focus on services, the two researches are different in their theoretical approach to the otherwise fairly close research questions.

To sum up the research is about GVC analysis and value creation as well as capture along service global value chain. There are very limited researches done in the area so far. Most of these researches are done in US; the only other prominent work outside US is the one performed on Nokia N95 headset. Nevertheless, these researches focus on manufacturing goods. Consequently, there are no similar researches conducted on services apart from the one done by Rummukainen's (2011) on Whitevector ltd. Nonetheless, despite their focus on services, the two researches vary in their perspective and the dynamics of the industry they focused on.

1.4 Research Objectives and Questions

The overall objective of ETLA's value chain analysis project is to identify the role of Finnish firms in the global value chain. There are multiple researches undergoing in parallel. Each research in the project has separate case company to investigate. The Case

Company for this particular research is a Finnish language service provider. Among their service lines, translation and localization service will be the focus for this research. Provided that, the research is expected to show value creation and capture along the Case Company translation and localization global value chain. More specifically the thesis shows who create value added and how this value added is distributed both geographically and company-wise. Further it shows the governance between the Case Company and the rest of the value chain participants.

Based on research gap and the research objectives discussed above the main research questions are the following:

i. What is the value chain of the Case Company's translation and localization service?
ii. Who creates value in translation and localization service?
iii. How is the added value distributed geographically?
iv. What kind of governance relationship the Case Company has with its translation and localization value chain participants?

The first three research questions are provided to me from ETLA which is the main sponsor of the value chain analysis project. The fourth research question is unique to this research and it sets my work apart from the rest of the researches in ETLA's value chain analysis project.

1.5 Definition of Key Terms

Case study: (Piekkari, et al., 2010) defined case study as a research strategy that investigates a phenomenon in its real-life context, relating it to theory and seeking to understand what the empirical phenomenon is a case of in theoretical terms.

Mixed methods research: Johonson & Onwuegbuzie (2004) defined mixed method research as "the class of research where the researcher mixes or combines qualitative and quantitative research techniques, methods, approaches, concepts or language in to a single study."

Service supply chain: the definition by Baltacioglu *et al* (2007) of service supply chain will be adopted in this research;

> "the network of suppliers, service providers, consumers and other supporting units that performs the functions of transaction of resources required to produce services; transformation of these resources in to supporting and core services; and the delivery of these services to customers"

Value added: refers to the difference between sales price and all purchased inputs (Dedrick *et al*, 2008). Value added should not be misunderstood with gross profit as the later refers to sales price minus cost of goods sold. In other words gross profit excludes not only purchased inputs but also labor cost. Value added does not exclude labor cost.

Value chain: refers to a chain of activities required to bring a service or product from raw material to the end product and then reach final consumers**.** As Kaplinsky & Morris (2000) put it, value chain includes all the activities a firm undertakes to bring a product/service from its conception all the way through production, delivery, consumption and disposal.

1.6 Scope and Limitations of The Research

This section is about delineating the scope and identifying the limitations of the research. Some of the limitations are inherent to the methodological design employed and the rest are specific to the case.

1.6.1 **Limitations**

The research design employed is a mixed research methods (Peltomäki & Nummela, 2004; Tashakkori & Teddlie, 1998; Jick, 1979). Qualitative and quantitative data is used in a methodological triangulation (Tashakkori & Teddlie, 1998) to acquire an in-depth understanding of value creation and distribution in a global service value chain. However, in spite of all its benefits, triangulation is not without limitations. One limitation of the mixed methods is that, replication of the research outcome could be challenging (Jick, 1989; Riege, 2003). This is especially true to the qualitative part of the research. Information gathered to get in-depth understanding and map out the Case Company value chain came from the company representative. There is no guarantee that one would get a similar data if somebody else, from the Case Company, is interviewed the same set of questions. Furthermore my expertise, knowledge and intuition (Fletcher & Plakoyiannaki, 2011) is a vital part of the case study and has a bearing on the replication of the outcomes. Nonetheless I have taken steps to mitigate these risks. Firstly, the interview questions had to do with factual information rather than feelings and perceptions which would greatly reduce the risk. Furthermore additional written materials, produced for internal and/or external purposes, are used to augment the objectivity of the data gathered.

Making inferences is one of the main aspects of researches. Yet generalizability (Riege, 2003) is another issue inherent to the case study approach. Since I used a case study approach, the results obtained from the research are specific to the case company. Hence any generalization made, to all service firms universally, based on the results may not be accurate. The outcomes of the research are highly intertwined in to the unique

characteristics of the Case Company. Such particularity (Welch et al, 2011) makes generalization of the research outcomes uncertain. The issue is, there is no way of knowing empirically to what extent any two firms are similar. As a result generalization of the outcomes of this research should be made with a great care. Furthermore, the study is a single case study (Fletcher & Plakoyiannaki, 2011) and because half of the data is qualitative, it is difficult to statistically establish an argument that the data is representative of some larger population. Hence it is only possible to make analytical generalization (Riege, 2003) where the outcomes are generalized to some broader theory.

In calculating distribution of value added, I could not obtain the necessary data on one of the Case Company value chain participants, namely Across. The company supplies translation software to the Case Company. Instead two competitors of Across, SDL and Sajan, are taken to estimate the missing figure. More specifically the average of the profit margin of the two companies is taken as a profit margin for Across. Such approach is not the first time to be used in similar circumstances as it has been used in Nokia N95 (Ali-yrkkö, 2010) research.

To sum up, the research has few limitations. Firstly replication of the research outcome could be challenging due to its qualitative aspect. Moreover the researcher personal knowledge and intuition also have an impact on the outcome reached and it is possible that two researchers could not reach on entirely similar conclusion. Finally, I have made some estimation, based on other players in the industry, due to lack of information. Even though these estimations are not expected to have large impact on the outcome, it is possible that there could be some very minor discrepancies.

1.6.2 **Scope**

The research does not cover all service lines the Case Company offers. The case company, as mentioned previously in this thesis, has seven service lines. However, only translation and localization service is covered in the research. The remaining services are outside the scope of the study. Care should be taken in extending the outcome of the research to the other service lines as their value chain and distribution of gains could be different.

The second point is related to the theoretical framework employed. In the research I have employed Global Value Chain (GVC) analysis framework. For instance, Gereffi & Fernandez-Stark (2011) has applied GVC framework in a relatively similar reasearch situations. Originally, GVC analysis is a global industry wide analysis. It covers all the actors of an industry (including all lead firms, their suppliers and distributers) which take part in the production process of a product or service. However, this research is micro level representation of the GVC analysis model, i.e. it only covers the Case Company translation and localization service value chain participants. Other firms which operate in the language industry but not specifically in the Case Company value chain are outside the scope of the study.

More specifically, GVC analysis has four dimensions; input output structure, governance, geographic and institutional context. The focus in the research, however, is on the first three dimensions. The institutional context will not be covered, empirically, to the same depth as the other first three does. This is mainly because the research method employed which is a single case study. This approach does not allow covering such broader issues as the ones covered in the institutional context. Institutional context examines local and international business environment and policies which affect the industry. However, the focus of this research is a single company value chain and all the data gathered is limited within that scope.

To summarize the research covers the case company translation and localization service value chain and all its participants. The input output structure, the geographical distribution of the value chain participants and the type of governance that exist among them will be assessed. Nevertheless the institutional context of the value chain will not be covered with the same depth as the other three GVC dimensions.

2 LITERATURE REVIEW

This chapter is about the literature review on GVC analysis. It will lay down the theoretical background the research is constructed on. It analyzes what has already been done in the GVC analysis field, with special emphasis on services, and where this particular research fits in. Furthermore it identifies the gap and how this research contributes to fill that. Last but not the least, it shows how significant this particular study is and how it aims to contribute to the service value chain field of knowledge.

The literature review is organized as follows. The first part elaborates the research setting employed. Next I will discuss distinguishing characteristics of services and their impact on service value chain models. I will then take each of the four dimensions of the theoretical framework and review them in detail. Finally I will introduce the theoretical framework employed in the research based on the literatures reviewed.

2.1 Research setting

This section is about the research setting of the research. Firstly I will establish the background of the debate on global value chains. The background information mainly covers the argument put forward by Reich (1990) and Tyson (1991); the two pioneers in analyzing the effect of globalization of value chains on the relationship between corporations and their countries. Secondly I will discuss different theoretical models which explain factors that influence the ability of firms to capture the utmost benefit from their global value chain. I will mainly raise two theoretical frameworks; first “Profiting from technological innovation” by Teece (1986) and second the global value chain (GVC) analysis model developed by Gereffi and his colleagues (Gereffi, et al., 2005, 2006; Greffi & Lee, 2012; Gereffi & Fernandez-Stark, 2011).

Globalization of value chains has been the subject of intense debate among scholars as well as the public at large. An important aspect of the debate has been whether corporations are driving wealth out of their country through their global value chain. The debate came to prominence by Reich (1990) who argued that globalization has eroded the bond between multinational corporations and their countries. Reich's main argument was that companies which outsource or move their high value adding activities to other geographic locations do not contribute to their nation's economy compared to foreign firms that open a subsidiary and perform value adding activities in that country. The author took two corporations to make his case; Corporation A and B.

> **Corporation A**: headquartered in U.S, owned and managed by U.S. citizens. However most of its employees are non-Americans and the company undertakes most of its high value activities in other countries.
>
> **Corporation B**: foreign company headquartered outside U.S. Most of its managers and shareholders are citizens of another country. However majority of its employees are Americans and the company undertakes most of its activities within the borders of U.S.

Reich claims Corporation B, with most of its high value adding operations in U.S., is more "U.S." and contributes more to U.S. economy compared to Corporation A, which locates its high value adding operations abroad. Reich (1990) further argued that a nation multinational corporations' success does not necessarily lead to the economic competitiveness of their country. When it comes to national competitiveness it is neither the ownership of corporations nor where the corporations are headquartered that matters the most. The most important factor is where these corporations locate high value adding, high paying jobs. Provided that, important corporations for a nation's economic future are the ones which invest with in the country.

From the nations' perspective, what is most important is the knowledge, and skills of their workforce. Globalization has enabled almost all factors of production, except human capital, to be easily duplicable anywhere in the world (Reich, 1990). Skilled workforce is the most critical resource for nations' competitiveness (Reich, 1990). Hence nations should build their human capital and infrastructure to improve their future economic competitiveness. Consequently corporations, regardless of their ownership, contribute to the nation's economic success when investing in the country and contribute in building the work force, which then further attracts other investment. As a result, Reich (1990) recommended, the aim of nations' policies should be to promote global corporations that build human capital as it is the ultimate factor driving nations' economic competitiveness.

In her "They are not us" article Tyson (1991) refutes Reich's (1990) argument. The author argued ownership matters and hence foreign firms should not be considered similar with local companies. Tyson stressed that considering foreign firms as locals may pose a threat to national security in the long run. Therefore nations' should keep an eye on national control and diversity of suppliers, as well as protect themselves from paying high prices for poor technologies. Both scholars agree in the importance of human capital and infrastructure. Yet, Tyson pointed out that most U.S. companies still have their high value adding activities located within U.S. Tyson acknowledges that foreign affiliates are increasingly becoming like local companies. However, according to her, if it was not for the political system and trade restrictions, foreign companies usually prefer to import than engage in production in a foreign market. Usually the problem with foreign affiliate's domination becomes clear only in the long term. As their domination increased, domestic firms will be squeezed out of the market. Gradually the nation will become dependent on foreign firms for key components, which according to Tyson is a threat to the national security (Tyson, 1991).

More recent researches also confirm that there is still a tie between companies and their country of origin. For instance Finland captures 50% of the value added from Nokia N95 smart phone (Ali-yrkkö, 2010), and 95% value added from Whitevector ltd. Chat report service (Rummukainen, 2011). Similarly U.S. captures about 54% of the value added from iPod (Dedrick, et al., 2008). Nonetheless these researches add other important elements to the discussion which include the concept of value added and the position of corporations with in their global value chain. Based on these researches, in the current economic and trade environment, the most relevant question to ask is the distribution of value added in the global value chain of corporations.

Teece (1986) developed a model which explains who benefits from products in a global production network. His model is constructed around three pillars: *Dominant design paradigm, Appropriability regime,* and *Complementary assets.* When a product is launched to the market for the first time, competition usually is based on design differences. During this initial phase, named dominant design paradigm by Teece (1986), the market is not settled for one design. Consumers switch among alternative products until a winning set of product characteristics emerge. Once a winning design is determined, the firm has to protect it properly to keep imitators and followers at bay. Failure to do so, allow competitors to introduce enhanced design while keeping the original features almost intact. In this phase a firm which has a winning design has the upper hand in gaining the utmost benefits.

Gradually the competition shifts towards price and scale once the market is settled for a "*dominant design*". At this phase, which Teece dubbed it as Appropriability regime, other environmental factors determine who profits from value propositions. Innovation does not stop entirely; however, the focus shifts from product innovation to process innovation where efficiency throughout the supply chain cost reduction becomes the primary focus. Teece (1986) argues Legal mechanisms such as patents, copyrights, and trade secrets

should be effectively throughout the two phases for a firm to capture the utmost benefits. Effective protection of proprietary right keeps imitators and followers at bay. In due course the firm will be the one capturing the utmost value added from its product.

Complementary assets, which are the last element in Teece model, are about complementary goods and services that enhance functionality of the innovation. Over time competing firms find it difficult to beat one another based on price only. Complementary products, especially those that require high asset specificity, would become critical at this phase. Ultimately a company which has a control over those specific complementary assets comes out capturing the most value. (Teece, 1986).

The main deficiency of the Teece (1986) model is that it does not say much about global network of production. Today products are often produced by multiple companies forming a chain of value adding activities. Components and sub components of a product or service are often produced by more than one company. Therefore, it is only logical to think that all the firms which participated in bringing the product from conception to its final consumption share the benefits as well. In light of that, we need a theoretical framework that explains what determines the distribution of value added and the ability of a firm to capture the utmost value added in its global value chain. GVC analysis framework (Gereffi, et al., 2005, 2006; Greffi & Lee, 2012; Gereffi & Fernandez-Stark, 2011) has all the necessary tools for in depth analysis of global value chains.

GVC analysis provides a framework to carry out an in-depth analysis of the structure and dynamics of global industries (Gereffi & Lee, 2012; Gereffi, et al., 2005). As the name indicates, the core of the GVC analysis is value chain which refers to all the value adding activities that bring a product from conception to final consumption and beyond (Gereffi & Fernandez-Stark, 2011). Value adding activities include design, production, marketing and customer support. These activities are usually performed by different actors on different part of the world. Given that, GVC analysis offers the right framework to unveil all the

stakeholders, the dynamics, governance, policies and geographical distribution of the global industries (Gereffi & Lee, 2012; Gereffi, et al., 2005).

GVC analysis provides a framework both for companies as well as countries to find out and improve their position in a global industry (Gereffi & Lee, 2012; Gereffi, et al., 2005; Gereffi & Fernandez-Stark, 2011). The analysis provides a holistic view of global industries from two vantage points; *top down* and *bottom up* (Gereffi, et al., 2005, 2006; Greffi & Lee, 2012; Gereffi & Fernandez-Stark, 2011).

- **Top down GVC analysis**: is all about "*governance*" i.e. it shows power asymmetry along the value chain and how the lead firms use the power to shape distribution of profits and risk in the industry (Gereffi & Fernandez-Stark, 2011).

- **Bottom up GVC analysis**: is about "*upgrading*" and it focuses on strategies that nations, economic blocks and other stakeholders could employ to move up in the global value chain.

This research adopts a top-down GVC analysis approach. This is because; the focus of the research is only the Case Company translation and localization service value chain and its participants. The bottom up approach would be appropriate if the main focus was to identify suitable policies and strategies that will enable nations and economic blocks move higher in the global value chain (Gereffi & Lee, 2012). The micro level approach employed in this research does not provide the necessary tools to investigate such broad issues.

According to (Gereffi & Fernandez-Stark, 2011) GVC analysis has four dimensions, which are

- **Input output structure**: refers to the process of transforming inputs in to final products. The transformation process is often represented by a set of value adding boxes connected in arrows showing the flow of tangible and intangible inputs (Porter, 1985;

Bruhn & Georgi, 2006; Gereffi & Fernandez-Stark, 2011). Each box in the chain illustrates value adding activities performed by participants and returns that they are cashing in.

- **Geographical analysis**: as mentioned before, value adding activities are usually performed by different actors in different parts of the world. The geographical analysis, hence, enables to infer the role of countries or economic regions–in a particular global industry–depending on the geographical concentration of the lead firms in the area.

- **Governance**: identifies the power asymmetry among the value chain participants. Governance is the authority that determines the power relationships and how resources (such as financial, material and human capital) are distributed within the chain.

- **Institutional**: it has to do with the local, national and international policies and conditions that influence the value chain.

However, as mentioned earlier in this thesis, the research is a micro level representation of the GVC analysis. It is only the Case Company and participants of its value chain that are covered. The input output structure does not establish industry wide value chain. Instead it only maps the Case Company's translation and localization service value chain. The model will show all the value adding activities and actors performing the activities from input to the final consumption. The same is true for the geographic and governance dimensions; they are limited to the Case Company's value chain participants. In the geographic dimension, for instance, only the Case Company value chain participant and their geographic location will be identified. In general the research is a micro level adaptation of the GVC analysis framework where the focus is on the Case Company's translation and localization service value chain.

In subsequent sections I will continue assessing the literature following the four dimensions of the GVC analysis framework. Before that, however, I want to review services and their peculiar characteristics. The Case Company is a pure service provider and they have no tangible products in their value chain. Hence, I believe, it is very important to establish how services and service value chain is different from manufacturing goods. Based on that, I will establish the input output structure, geographical, governance and institutional analysis of services.

2.2 Services

Services are the tertiary sectors of the global economy which includes all economic activities outside agriculture and industry (Bruhn & Georgi, 2006, p. 6; Cook et al, 2001; Ellram et al, 2004). As a result services constitute very diverse economic activities making them very difficult to define (Ramachadra, et al., 2010, p. 5). One way to understand services could be to contrast them with manufacturing goods. For instance services are performances or deeds compared to manufacturing goods which often are things (Ramachadra, et al., 2010, p. 5). Services are usually intangible and do not grant ownership of anything (Lovelock, et al., 2009, p.12; Ramachadra, et al., 2010, p.4). Service production, however, may be tied to tangibles (Lovelock, et al., 2009, p.12). Generally services include all economic activities outside industry and agriculture.

Despite services being the residuals of the agriculture and the industry sector, they are the driving force of the global economy (Bruhn & Georgi, 2006, p. 6). Their role in global economy can be seen through their contribution to the total global value added (GDP). The total value added by the service sector accounted for 71.8% (World Bank, 2010) of the entire world GDP. The share is even bigger if only developed economies are considered. For instance in Euro area, services account for 74% (World Bank, 2010) of the member states cumulative GDP. Same is true for Finland which has a vibrant service sector that

accounts close to 68%–compared to only 19% for manufacturing–of the entire value added. Finnish service sector has also an annual growth rate of 2.1%. The domination of service sector in Finland is also clearly visible in the share of its total employment; 71% (World Bank, 2010) of employed people in Finland work in the service sector. Therefore services are the very important sector of the world economy in general and of Finland in particular.

The importance of services and extensive servitization of the world economy, however, is not matched with comparable attention from scholars and researchers towards the service sector (Ellram, et al., 2004; Gereffi & Lee, 2012). That is one reason, according to (Ellram, et al., 2004), why services lag behind manufacturing in performance and process excellence. Manufacturing firms have been more successful in integrating their supply chain (Giannakis, 2011), from raw materials to the end customers, better than service organizations did. The lack of scholarly work in service supply chain so far could be attributed to various factors. Some point to the fact that the world economy had been dominated first by the agriculture and then by manufacturing sector; it is only in the last few decades that services came to prominence (Ellram et al, 2004). On top of that, historically supply chain management (SCM) has been tightly related to manufacturing (Ellram et al, 2004; Baltacioglu et al, 2007). As a result most of the widely accepted supply chain models, such as Porter's value chain and SCOR models are all manufacturing focused and have limited applicability for services.

Peculiarity of services (Giannakis, 2011) is what makes applicability of supply chain models questionable. Peculiar characteristics of services include lack of tangibles, absence material flow, diversity, and their contextual and predominantly process nature (Giannakis, 2011). Services are predominantly intangible (Bruhn & Georgi, 2006, p. 14) as they are performances rather than things (Baltacioglu et al, 2007). Intangibility makes logistics activities such as transportation less relevant. In most cases there is no flow of components or work in progress in service supply chain which is common in manufacturing. Moreover,

simultaneous production and consumption (Baltacioglu et al, 2007) makes outbound logistics irrelevant. Therefore, it is necessary for service producers as well as consumers to be available in the service environment during production (Sampson, 2000). Sampson (2000) compares the simultaneity nature of services to the concept of Just-in-time (JIT), except that in services JIT is a requirement, not an option as it is for manufacturing. Services are also heterogeneous and cannot be standardized (Bruhn & Georgi, 2006, p. 13; Baltacioglu, et al., 2007). Consequently, customers experience is different every time the service is delivered. Services are also perishable and not possible to stock to buffer demand fluctuations (Bruhn & Georgi, 2006, p. 13; Baltacioglu, et al., 2007). There is no inventory in services; unused capacity is lost forever and it is not possible to recover it back (Baltacioglu et al, 2007; (Bruhn & Georgi, 2006, p. 14). Such peculiar characteristics are what make services unique and applicability of popular SCM questionable.

Yet we need to be cautious in using the above listed peculiar characteristics to all kinds' services. Services are diverse in nature (Bruhn & Georgi, 2006, p. 6; Cook et al, 2001; Ellram et al, 2004). The diversity raises a question whether intangibility, heterogeneity, inseparability, and perishability (IHIP) are applicable to all services (Moeller, 2010; Vargo & Lusch, 2009). For instance simultaneity and inseparability are not applicable for translation and localization service. Customers do not need to be available in the service environment during translation; consumption happens well after production is completed. Similar to the translation and localization service, there are many other services where the IHIP are less applicable.

In the following paragraphs the peculiar characteristics of services, IHIP, will be closely examined. I will review the arguments for and against IHIP. Moreover I will also analyze on to what extent IHIP is applicable specifically to the translation and localization service.

Intangibility

Intangibility refers to services lack of palpable and tactile characteristics (Vargo & Lusch, 2004). Intangibility is the most important characteristic of services from which all the other differences emerge (Bateson, 1979 as cited in Lovelock & Gummesson, 2004). Bateson contended that services are doubly intangible as they possess both physical (impalpable and cannot be touched) and mental (cannot be grasped mentally) intangibility. Generality, accessibility to the senses, has also been presented as another dimension for intangibility (Lovelock & Gummesson, 2004). However, I would argue that generality is not really a unique third aspect, rather an underlining cause for the physical and mental intangibility of services. Services are intangible because they are inaccessible to human senses and hence difficult to comprehend mentally. Given that, I would argue physical and mental intangibility as a more comprehensive explanation. Others, however, took intangibility in its general sense and did not made distinction between physical and mental intangibility. Kotler (2003, as cited in Lovelock & Gummesson, 2004) for instance stated that unlike tangible goods, we cannot sense services with our sensory organs before we purchase them. Yet others such as Pride and Ferrell (2003, p. 324) just stressed on one aspect only; they said "*intangibility means that a service is not physical and therefore cannot be touched…or physically possessed*" (cited in Lovelock & Gummesson, 2004). In general intangibility refers to the physical and mental intangibility of services (Vargo & Lusch, 2004).

Intangibility as Kotler put it, however, could be contested whether it uniquely identifies services. Kotler (2003, as cited in Lovelock & Gummesson, 2004) said it is not possible to sense services before purchase. However, there are services which customers could physically evaluate before purchase such as hotel rooms for instance. The wide use of internet in booking hotel rooms, without checking the rooms in person, may make the example somewhat weak. Nevertheless it is possible to check the rooms before renting them. Kotler's argument could also be challenged whether inability to sense services

before purchase is unique. There are tangible goods which consumers cannot sense before purchase. In buying a music CD, for instance, the buyer cannot sense the inherent value he is buying, which is the music, before purchase (Gummesson, 2004). The principal value is deeply concealed in the CD and the protective nature the package does not allow customers to sense the music before purchase. Once again internet adds a level of complexity to the argument. For instance, during online purchase even if a product is perfectly tangible customers cannot physically evaluate it before delivery. Hence whether customers are able to sense a product before purchase fails to effectively differentiate services from tangible goods. We should see beyond purchase situation in to delivery and consumption to determine differences between services and goods.

The problem with intangibility or IHIP in general, is not the characteristics failing to uniquely identify services but the point of reference they are applied (Moeller, 2010). Moeller's (2010) *FTU framework* shows the points references where IHIP should be applied clearly. The framework has three stages of service provision and two types of resources. The three service provision stages are *Facilities, Transformation and Usage* (FTU). Whilst the two types of resources are *customer resources* and *provider resources*. Facilities refer to all the provider resources used to produce and deliver the service including tangibles such as machines and intangibles as in the skills and knowledge of employees. These facilities are prerequisites for the service provision and remain unused if there is no demand for the service. Transformation is about the change that occurs on customer or provider resource during service production. The actual service is often the transformation that occurs on the customer resources. The transformation of provider resources is usually a distribution mechanism for the actual service. Customer resources could be customers themselves as a person, their physical possessions, their rights, and/or their data (Lovelock, et al., 2009; Moeller, 2010; Sampson, 2000). During the service production process, provider resources act up on the customer resources resulting in the transformation of customer resources which is the service.

Moeller (2010) employed the FTU framework to show at which stage exactly the IHIP should apply in service production. In the framework, facilities are usually tangible whereas providers and customers resources could also be tangible or involve some tangibility. If a customer input is tangible then the outcome would also be tangible (Moeller, 2010). However she argued the core of the service is the transformation of the customer resources and intangibility should be related neither to the providers nor to the customer resources but the transformation. Hence a service may include some tangibles but the performance is intangible and that it is where intangibility should be applied (Moeller, 2010).

The issue with referring intangibility to the resource transformation is that it is not unique to services; transformation of goods is not tangible either. What is unique for services is that customer resources are affected by the transformation process (Lovelock, et al., 2009; Moeller, 2010). There is no customer resource involved in the transformation (production process) of tangible goods. In general intangibility refers to the transformation process, but this does not differentiate services from goods. What differentiates them is the involvement of customer resource (Lovelock, et al., 2009; Moeller, 2010). Given that, I would argue that transformation of customer resources should be the point of reference where intangibility is applied and it is this characteristic that is unique for services.

With regard to the Case Company translation and localization service, the customer supplied resource is the original message or idea. The Case Company writers and editorials work on the idea to develop the original content. Translators then work on the content and translate it to a desired language. In the process, translators use portals, translation software and other technology tools which corresponds to what Moeller (2010) called facilities. Writers, editorials, and translators are what she referred to as provider resource and the original message is the customer resource. The service will be produced when the customer resource is integrated with the provider resource. Finally the output could be delivered as a soft copy or a hard copy. Hence in this particular case the customer input, the

transformation and the output happen to be intangible. Yet as Moeller (2010) argued intangibility should be referred to the transformation customer resources which is the content development and then translation not the input or the output.

Heterogeneity

Heterogeneity refers to the difficulty of establishing standards or producing uniform output (Clemes et al, 2000; Lovelock & Gummesson, 2004; Vargo & Lusch, 2004). Heterogeneity is especially prevalent for labor intensive services (Clemes et al, 2000). The reason behind service heterogeneity is resulted either "*from customer interactions with the service operation"* or from "*variation in customer perceptions of service experiences*" (Lovelock & Gummesson, 2004). Customer interaction with the service operation is expressed in the form of supplying input – called *customer supplied input* or *customer resource* (Lovelock & Gummesson, 2004; Moeller, 2010; Sampson, 2000). Customer supplied inputs are unique for services and it is difficult for service providers to alleviate elements of heterogeneity entirely from them. This is mainly because, firstly such inputs come from different people and secondly the ability of service providers to exercise control over customer inputs is rather limited (Moeller, 2010). However, the second cause for service heterogeneity (which is resulted from differences in *customer perceptions*) is not unique for services (Lovelock & Gummesson, 2004; Moeller, 2010). Different customers may have different sense of value and hence obtain different level of satisfaction from virtually similar goods/services. Given the argument, the correct point of reference for service heterogeneity would be customer supplied input (Moeller, 2010).

Inseparability

Inseparability refers to the simultaneous production and consumption of services (Clemes, et al., 2000; Vargo & Lusch, 2004). Unlike services, manufacturing goods have sequential

nature of production, purchase and consumption (Vargo & Lusch, 2004). However, there are many separable services (Lovelock & Gummesson, 2004). The following classification of services allows identifying separable and inseparable services. The classification is based on the kind of customer supplied input (Lovelock, et al., 2009) in the production process.

Services could be classified in to four broad categories on the basis of the kind of *customers supplied input* and the *nature of the service act* (Lovelock, et al., 2009, p. 15). Customers supplied input could take one of four forms; *customer bodies, minds, belongings,* or *information* (Sampson, 2000; Moeller, 2010). The service act, on the other hand, could be either *tangible* or *intangible*. Table 2 below shows the four categories of services based on the above two criteria. The first categories of services are *people processing*. These services involve some tangible act performed on people's body (e.g. Healthcare). Second category services are *possession processing* (e.g. Repair service) that involve tangible act performed on client's possession. The third category services are *mental stimulus processing* and involve intangible act on people's mind (e.g. Education). The last service category is *information processing* services; these are intangible services directed towards client's possessions (e.g. banking).

Table 2. Categories of services (Lovelock, et al., 2009)

Nature of the service act	Direct recipient of the service	
	People	Possessions
Tangible actions	People processing (services directed at people's bodies)	Possession processing (services directed at physical possessions)
Intangible actions	Mental stimulus processing (services directed at people's mind)	Information processing (services directed at intangible assets)

Information processing and possession processing services –table 2– are perfectly *separable* (Lovelock, et al., 2009), i.e. customers do not need to consume the service as it is

produced. For such services production and consumption can take place sequentially, more of like manufacturing goods (Lovelock & Gummesson, 2004; Lovelock, et al., 2009; Moeller, 2010; Vargo & Lusch, 2004). The Case Company translation and localization service is one example of information processing services. Clients consume the translation once the project is completed and the final output is delivered. Mental stimulus processing services could also be separable with the help of technology. For instance distance education using recorded DVDs is one such service. However the last category of services – people processing – are inseparable; customers need to be available in the service production environment and consume as it is produced. As shown in the classification people processing and some mental stimulus processing services are inseparable; possession processing and information processing services are separable.

Inseparability should be used in reference to the customer input (resource) instead of an entire service as a single entity. *"If inseparability is related to customer resources and not the customer himself the attribute of inseparability is perfectly applicable"* (Moeller, 2010). Thus inseparability should not be taken to mean that customers are inseparable from the service production. As Moeller (2010) put it "*inseparability does not mean that the customer necessarily has to be present during the entire transformation process. It means that the customer's resources, which are to be transformed, have to be present*". If the customer input is the customer him/herself, then he/she needs to be present in the service environment. However if it is the customers possessions, for instance, the customer does not need to be available during the production process. Therefore by focusing on the customer resource instead of service output, the critiques on inseparability could be resolved.

Perishability

Perishability refers to the inability of services to be saved, stored, reused or returned (Moeller, 2010; Clemes et al, 2000; Vargo & Lusch, 2004). Because of perishability, service providers cannot produce for inventory to readily satisfy future demand. From inventory perspective, perishability makes build-to-order or just in time a norm for services unlike manufacturing where JIT is an option (Moeller, 2010; Sampson, 2000). However, it should be noted that there is a difference between capacity perishability and output perishability. Capacity perishability refers to the potential to be of value to customers and it is a unique problem for service (Moeller, 2010). Nonetheless service output is not always perishable; some services may be reasonably durable. A surgical procedure, for instance, is a durable output from a patient perspective and so is a haircut or education. The Case Company translation and localization service is also another durable output. Once the content is developed and translation is done, customers may use and reuse the material for a longer period of time. Such services are more durable than some goods which perish rather quickly, such as food items (Moeller, 2010; Sampson, 2000). Hence perishability of capacity is a more important challenge for service providers than output perishability.

The following Table 3 summarizes the concept, criticism, and recommended point of reference for each IHIP.

Table 3. Analytical table summarizing IHIP

IHIP	Core concept	Criticism	Point of reference
Intangibility	Services are physically impalpable and difficult to grasp mentally	Ambiguous definitions, No services are purely intangible	Transformation of customer resources
Heterogeneity	Lack of standardization and hence variation in outputs	Automated services are not anymore heterogeneous than manufacturing goods	Customer resources
Inseparability	Simultaneous or inseparable production and consumption	There are many separable services which do not require the customer to be available in the service facility during production.	Customer resources (could be customers in person, their physical objects, right or data) Not necessarily customers in person
Perishability	Services cannot be saved, stored for later use or reused	Does not distinguish between perishability of outputs and perishability of capacity as the former could be reasonably durable.	Service providers capacity

In summary, IHIP have been criticized as unique feature of services; their applicability to all kind of services as well as their ability to effectively identify services from manufacturing goods is questionable. In the above paragraphs I have discussed the criticism of each of IHIP and the recommendation provided by other scholars to address the problem. One of the suggestions was provided by Moeller (2010) who recommended assigning each of the IHIP to a specific stage of service production process instead of using them as characteristics for the entire service package as a single entity (refer figure 6 below). I have also shown the exact reference point for the application of IHIP in the service production process.

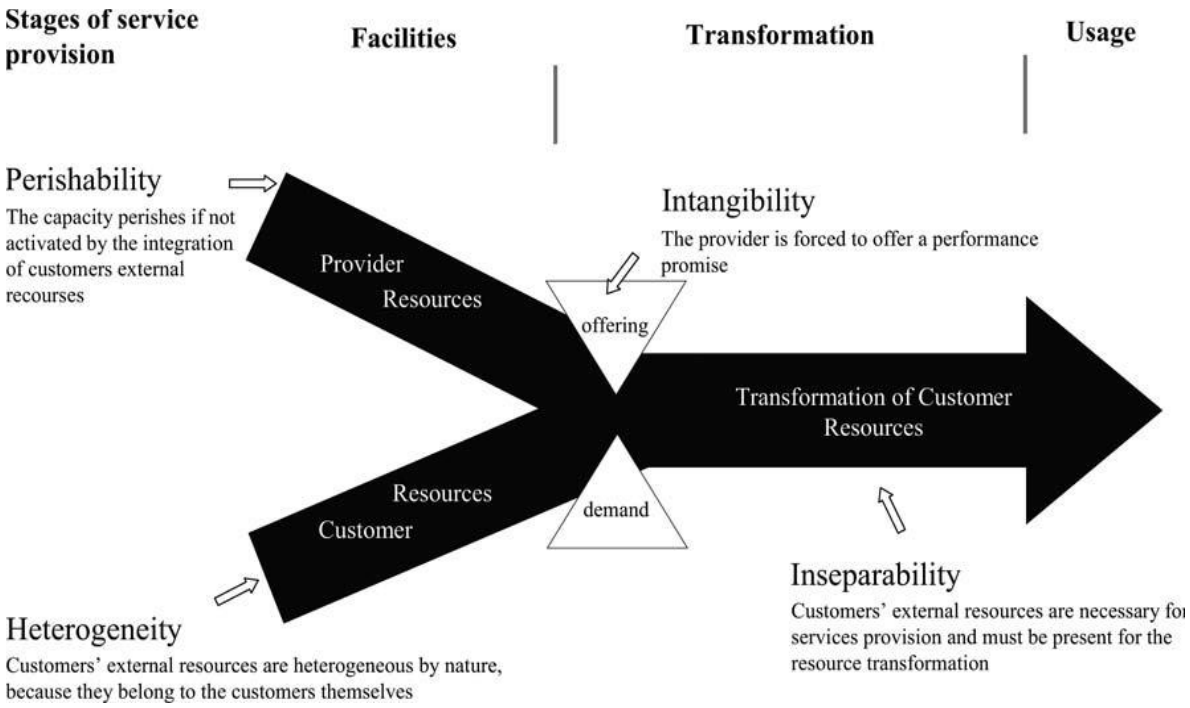


Figure 6. IHIP point of reference on service production process (Moeller, 2010)

In addition to IHIP, services have other unique characteristics. One example is customer supplier duality. Sampson (2000) argues unlike IHIP customer supplier duality is a unique characteristics of services which perfectly distinguish services from manufacturing goods. In the following section I will review the concept and implications of customer supplier duality in depth.

Customer supplier duality

Service customers have an active role in the service production process (Bruhn & Georgi, 2006, p. 16). They do not only consume but also supply the primary input for the service production. Leaving feedback aside, the primary role of manufacturing good customers is

consumption. Consequently, customers come on the end of tangible goods supply chain. However, in services production starts with customers supplied input (Sampson, 2000; Moeller, 2010). Service firms then produce the service by integrating *provider resources* with customer resources (Moeller, 2010). Therefore, customers come at the beginning and at the end of the end of the service supply chain. Referring to the dual role of service customers Sampson (2000) called the phenomenon as *customer supplier duality* and service customers as *customer-suppliers*.

Services have bidirectional supply chain. In manufacturing supply chain, materials flow from suppliers to customers where as payment and feedback flow in the opposite direction. However, if we only take the flow of inputs and outputs, manufacturing supply chains are unidirectional (supplier → producer → distributor → consumer). In contrast, service supply chains are bidirectional (Sampson, 2000) with customers supplying inputs at the beginning and consuming the outputs finally.

Customer-supplier has multiple managerial implications. One is that, the main service production process cannot start before customers supply their inputs (Sampson, 2000). For instance, a university could not deliver education before students provide their mind ready to learn. There are usually considerable amount of backroom work which the university has to do beforehand. However the main service provision starts if and only if students are available. Hence customer resources are the primary inputs and have to be present for the service production to start.

Another managerial implication of customer-supplier duality has to do with heterogeneity of service outputs. One reason for non-standardization of service outputs could be the fact that customers input is not always the same standard (Moeller, 2010. Two customers may have a different experience after watching the same movie with in the same service environment. This, according to Sampson (2000), is the result of the variability in the customers input (such as their mood, previous experience etc.). However, especially in

labor intensive services (Baltacioglu et al., 2007), producer related causes (such as tiredness or health condition of a consultant) could also contribute to service heterogeneity. Other environmental variability (e.g. power cut off) may also cause heterogeneity in service outcomes.

Services supply chain, unlike tangible goods, are bidirectional and short (Sampson, 2000). Most pure services have a single level value chain while some have two levels. The number of level show the number of stages an input passes through before it is transformed in to an output ready to be consumed. The service supply chain will be a single level, if the service provider transforms the input to output without sending it to any other third part. However, if there is another supplier involved in the production (other than the customer and the service provider), it would be a two level supply chain. Care should be taken not to confuse other value chain participants that have a supporting and enabling role. Such short value chain helps reduce the number of firms which finally share the benefit.

Services do not pay for customer supplied input (Sampson, 2000). Airline companies for instance do not pay for passengers and their baggage which is a prime input for air transportation. This has a major implication on the cost structure of the service provider as it keeps the total variable cost very small. As a result fixed cost usually dominates the cost structure of service providers (Sampson, 2000). Continuing the Airline example above, the other variable cost for air transportation is catering which are insignificant compared to fixed costs such as planes and labor etc. The same is true for the case company; the only significant variable cost they incur is payment for freelance translators or other agency resources. It is worth to note that the case company uses freelance translators or other agency resources, only if the required skill is not available in house. All the other major resources are fixed i.e. they do not pay more for the extra customer they serve. As customers do not charge service providers for the customer-supplied input, similarly service providers do not charge for the transformed customer-supplied input when returning it

back. The customer pays only for the value added on the customer-supplied input. Therefore the important element of service providers' cost structure is often fixed cost.

The cost structure has a very important impact on service location decision. Service location tends to depend more on the location of customers than suppliers (Sampson, 2000). This is mainly for two reasons. Firstly, the fact that service firms obtain the primary input from customers is one reason to locate closer to their customers. Secondly, the amount of money service firms could save (as percentage of their total cost) by moving their facility to cheap labor geographies is not as significant compared to manufacturing firms. Instead, staying closer to their customers allows them to understand the market better and be more responsive to the changes in customers demand or taste. Hence service firms benefit more by locating closer to their customers than they save by moving to countries where labor is cheap. Location decision is important, especially, as this research investigates the role of the case company to the national economy. If the location of the service firms is influenced more by their customers' location, what does this mean for a service provider from a small open economy such as Finland? Where is the majority of the case company customers located? Small population means limited market and if depending on the location of customers the company location varies, how does that affect the case company's contribution to Finnish economy?

Bidirectional supply chains are inherently JIT (Sampson, 2000); service producer cannot control when a customer-supplier brings the input (which is demand). Once the customer-supplied inputs are delivered, customers expect it to be processed either immediately or in short period of time. However there are two ways service providers could influence demand. One is controlling demand so that it doesn't exceed certain constant level Sampson, 2000; Baltacioglu et al, 2007), for example through reservation and appointment. The second is price incentives to influence the magnitude of peaks and valleys in demand (Sampson, 2000; Baltacioglu et al, 2007). However, it is questionable how effective these

two strategies could be for the case company. The cost of the translation may not be the most significant factor in deciding when client firms decide to internationalize which drives the need for translation for instance. Hence the price incentive they could get from the case company for postponing the work for a little while may not be an attractive option. The fragmented and highly competitive nature of the translation industry also increases the pressure on the firms to be more flexible in meeting their clients' request. Finally, in almost all bidirectional supply chains, customers can easily monitor the value added by service providers. A service customer may not for instance understand every step a physician is doing to help him; but he still can determine whether value is added or damaged depending on his health progress after the treatment.

2.3 Service input output structure

In the previous section I have reviewed what services are and the characteristics that make them different from manufacturing goods. IHIP and customer supplier duality have significant impact on services input output structure. In this section I will continue building on the discussion, by showing how these distinctive characteristics impact service input output structure.

The input output structure is really about the stages of transforming inputs in to final products (Baltacioglu, et al., 2007; Gereffi & Fernandez-Stark, 2011; Giannakis, 2011). The transformation includes value adding activities that convert inputs from inception to their final consumption (Gereffi & Fernandez-Stark, 2011; Giannakis, 2011). These activities were first identified by Porter (1985) as primary and support activities. Primary activities are "*involved in the physical creation of the product and its sale and transfer to the buyer as well as after sales assistance*" (Porter, 1985, p. 38). They include inbound logistics, operations, outbound logistics, marketing & sales, and service (Porter, 1985, p. 40). Support activities on the other hand are those that support the primary activities

including procurement, technology development, human resource management and firm infrastructure (Porter, 1985, p. 46). Input output structure is therefore about the value adding activities which transform inputs in to the final products.

However, from GVC analysis framework perspective, Porter's value activities (logistics, operations, marketing etc.) are too general. In practice, each of the value adding activities has sub-activities often performed by different players. Hence, it does not allow achieving the objective of GVC analysis. Previous research on Apple's iPod and HP notebook (Linden, et al., 2009) and Nokia smartphone (Ali-yrkkö, 2010), for instance, showed multiple component manufacturers and separate assembler proving that Porter's primary activities do not go deep enough to reveal specific value activities performed and the actors performing them. Therefore, GVC analysis needs to go deeper and identify each value adding activities, the actors taking part, and actors share of the added value.

At the core of GVC analysis is value and how value is created and captured along the value chain (Gereffi & Lee, 2012; Gereffi & Fernandez-Stark, 2011; Gereffi, et al., 2006; Humphrey & Schmitz, 2001). The term value chain is important because it reflects that value is enriched as the product/service progresses through the chain (Kathawala & Abdou, 2003). Therefore it is vital to clearly explain value and how it is created in the value chain. The following few paragraphs define and review the concept of value and the process of value creation in a value chain.

Value is a subjective concept (Bowman & Ambrosini, 2009; Lepak *et al*, 2007) which refers to different, but related issues. From customer perspective, value refers to *consumer surplus* (Bowman & Ambrosini, 2009) i.e. it is how much customers think a product/service is worth (Lepak, et al., 2007). Customers' subjective perception of the products worth determines how much money they are willing to exchange for it (Bowman & Ambrosini, 2009; Lepak *et al*, 2007). From the provider perspective, on the other hand, value refers to the value of the firm which is what remains from the revenues after all the

costs are deducted (Bruhn & Georgi, 2006, p. 16). Nevertheless both customers and providers perspectives of value are related; the higher the firm's product/service is worth in the eyes of the customer, the better would be the firm's revenue. Hence the financial success of a firm primarily depends on its ability to produce value which customers are willing to exchange for certain amount of monetary value. A monetary value which is at least high enough to cover its production cost (Lepak et al, 2007).

Nonetheless, in a global value chain performance by the lead firm alone is not enough to be competitive in the market. The end value that a firm creates is determined by the amount and quality of value created in each link of the value chain (Porter, 1985, p. 133). The entire value chain needs to be integrated and perform as good in their respective activity. Effective value chain integration often requires the capacity to supply adequate volume with required quality and competitive cost to the next participant in the value chain (Porter, 1985, p. 133). Therefore, integrating all value chain participants and gearing them towards a common goal (Porter, 1985, p. 133) is central to a value chain success.

Value has two components; *Use* and *Exchange* value (Bowman & Ambrosini, 2009; Lepak et al, 2007). Use value is customers' perception regarding the utility of a product or service. Whereas exchange value is the amount of monetary value users are willing to exchange for the use value. Ability of a firm to create unique use value determines its position in the market (Bowman & Ambrosini, 2009; Porter, 1985, p. 131). A firm which create a unique product, hence a novel value proposition, is able to earn above average returns (Bowman & Ambrosini, 2009; Bruhn & Georgi, 2006, p. 16; Lepak et al, 2007; Porter, 1985, p. 130). Novelty of the value created is dependent on the subjective judgment of the target users. *Uniqueness* and *suitability* for a desired task (Amabile, 1996; Porter, 1985, p. 130) are the two factors that influence users' perception of value originality. Customer *knowledge* of the offer, *alternatives* available and the *cultural*, social and specific *context* in which they are embedded (Amabile, 1996; Lepak *et al*, 2007) determine perception of value originality.

Hence Unique use value which is suitable for the task at hand enable a firm earn a premium exchange value in the market.

Providers' long term interest in a value proposition depends on the amount of value slippage. It is quite rare that a firm entirely retains all the benefit generated from a product/service. Usually gains are shared by all the stakeholders involved including value chain members. Lepak *et al* (2007) refer to the situation as *value slippage*; it is a situation where a provider is unable to retain all the value added created alone. As value slippage increases, providers interest in creating the value for long term declines. Once the distribution of value added among the Case Company and the rest of the value chain members of the translation and localization service is determined, it is then possible to see the extent of value slippage and the long term interest of the Case Company on this particular service.

Once the input output structure is mapped out, the next important step is figure out distribution of value added among channel members. In other words, identifying who is capturing more of the consumer dollar. Geographical distribution of value added is also important, given that a product/service is produced in a global value chain.

In conclusion input output structure is the first dimension of the GVC analysis. It shows all the value adding activities and the actors taking part in transforming inputs in to final products. Moreover the analysis also identifies the geographical location of value chain participants. In doing so, the analysis determines how value added is distributed among participants as well as geographically. Thereby it identifies the role of nations in the value chain under investigation.

2.4 Geographic scope

Geographical analysis is the second dimension of the GVC analysis framework. The purpose of geographical analysis is to find out where value chain players are located (Gereffi & Fernandez-Stark, 2011). The analysis will draw on the value chain participants identified in the input output structure. Once the location for all the players is identified, the role of countries will be identified. Moreover the geographical distribution of added value will also be calculated (Gereffi & Fernandez-Stark, 2011).

Service firms have become the engine of the world economy for the past few decades (Laanti, et al., 2009; Lehmann, 2009; José Pla-Barber, 2012). Service firms are also actively engaged in internationalization. Global exports for 'Other business services'[3] have reached USD 935 billion (WTO, 2011) and it has been growing at an average annual rate of 9% from 2005 – 2010 (WTO, 2011). Half of the other business service export has been from European firms (WTO, 2011) implying the prominent role of the Europe in the service sector. Similarly international trade for 'Other business services' trade has also been steadily growing in Finland (OECD, 2012); refer to figure 7 below. Overall services are an important part of the global trade.

[3] According to the WTO classification of services translation and interpretation are classified under 'Other business services'.

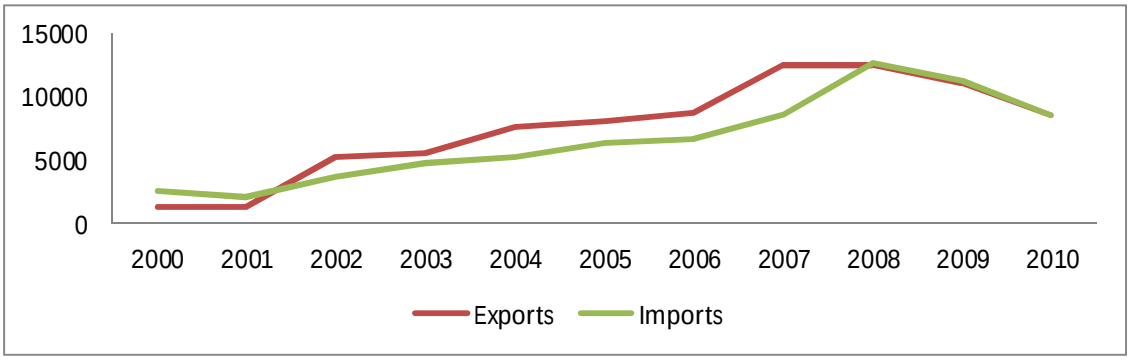


Figure 7. Finnish 'other business service' import/export (OECD, 2012)

Internationalization of service firms is not the same as that of manufacturing firms. A research conducted by Lehmann (2009) on Swiss firms show strong support for this argument. Lehmann took service and manufacturing firms and compared their internationalization. The findings showed that there are important differences between service and manufacturing firms in their motives for internationalization, target market and market entry strategy, and challenges they encounter when going international (Lehmann, 2009). In the following paragraphs I will review these differences in brief.

Service firms internationalize both for reactive and proactive reasons. The research by Lehmann (2009) identified four main motives why service firms' internationalize.

- **Following their client**: service firms go to international market following their major clients (Laanti, et al., 2009; Lehmann, 2009).
- **Leverage their country's reputation**: in the research, Swiss service firms implied Swissness (country's reputation) gives them an extra edge in international competition (Lehmann, 2009). Considering the economic prosperity of Finland and Switzerland, perhaps it is likely that Finnish firms may also enjoy similar advantage against other firms, especially against firms from less developed economies.

- **Internationalization as a reference in competition**: service firms use their international presence as a reference to win sales. This has to do with services lack tangibility. Service firms provide their international presence as a reference to their credibility and success. For clients on the other hand, international presence of a firm assures them the reliability and trustworthiness of the firm to deliver on its promises.
- **Small domestic market**: firms also internationalize if their domestic market is rather small.

The research showed that, of the four motives discussed, using internationalization as a reference found to be more important for service firms than manufacturing (Laanti, et al., 2009; Lehmann, 2009).

Target market selection is another area of difference between service and manufacturing firms. Both group firms identified sales potential is the most important criterion for target market selection. However beyond this similarity there are significant differences between the two. Cultural and linguistic similarities (Psychic proximity (Laanti, et al., 2009)) found to be more important for services (Lehmann, 2009). Importance of psychic proximity could be explained by the significance of personal contact for service delivery. Moreover availability of qualified staff is also an important market selection criterion for services than it is for manufacturers. This is in fact not surprising considering personnel knowledge and skills determines the quality of service output. Therefore psychic proximity and availability of ample skilled labor are more important for service firms' market selection strategy than for manufacturers.

Unique characteristics of services constrain firms to direct market entry modes. Service firms often export directly by sending employees to clients' site abroad. The second most used strategy is cooperation (in the form of joint venture and strategic alliance) with a foreign partner. Cooperation is desirable especially when the psychic difference between home and host market is rather big and the foreign partner is believed to provide valuable

support in bridging the gap. The research by Lehmann (2009) provided parallel outcomes with the one conducted by Laanti, et al., (2009) on internationalization of service firms from SMOPECs[4]. Both researches showed that firms from SMOPECs tend to form cooperation with a foreign partner to make up for their shortcomings in the international market. However, companies prefer to establish fully owned subsidiaries if the risk of compromising confidentiality of critical market know-how is rather high. An own subsidiary is also preferred if the firm needs a strong control on the output quality and maintaining service quality is demanding. Overall service firms use direct export much often and indirect export less than manufacturing firms.

Intangibility of services adds to the challenges of service firms' marketing strategy. For instance, it is easier for manufacturing firms to explore competing products in the host country market and adjust their strategy and message before entering a foreign market. However, that is not possible for service firms; it is not possible to examine the service without actually consuming it. Moreover provision of services often requires close personal contact between clients and providers' employees. This has two implications. Firstly it requires service providers to engage in direct entry modes and strong presence in the target market from the beginning. Secondly close contact between the service provider and clients makes language and intercultural competence very important. Acquiring and retaining both technically and linguistically competent employees and move them around to different countries is challenging.

SMOPEC service firms also have challenges due to rather small domestic markets. Moreover big international firms are relatively free to enter SMOPECs further driving the competition. The challenge is that firms from larger economies generally have a more competitive cost structure and hence competitive price. Large domestic markets allow firms achieve economies of scale. Thus service firms from larger economies tend to have more

[4] SMOPEC is an acronym for small and open economies

competitive cost structure even before they internationalize. Their competitive cost structure will further be reinforced once they internationalize. Consequently, in order to achieve economies of scale, SMOPEC service firms will be forced to internationalize rapidly. However the challenge, especially for capital intensive service sector firms is that, the initial investment required is too big. Small country firms usually find it difficult to raise all the resources required from the limited domestic pool. Advantages of economies of scale for large firms will be even more amplified at the global stage. Therefore these problems will be deepened further as SMOPEC firms' progress from international to a global stage. (Laanti, et al., 2009).

Economies of scale challenges often require SMOPEC service firms to adopt an alternative evolutionary path (Laanti, et al., 2009). Their path is often different from the one put forward by mainstream internationalization theories. One strategy is to avoid capital intensive industries (Laanti, et al., 2009) where they would be at a natural disadvantage to the larger firms from large economies. Firms also tend to internationalize through joint ventures and strategic alliances more often. Gradually, once they built their capability, they evolve to fully owned subsidiaries (Laanti, et al., 2009). In general service firms often adopt alternative evolutionary path to internationalize.

In summary, geographic analysis allows determining the location of all the participants and the role of countries in the translation and localization value chain of the Case Company. Research shows differences between internationalization of service and manufacturing firms in terms of motives of internationalization, target market and market selection strategy and the challenges they face in the process.

2.5 Governance

This section is about the governance element of the value chain. Governance is the third dimension in the GVC analysis. I will first elaborate the concept of the governance and proceed to assessing different types of governance.

Value chain governance refers to the inter-firm relationship which coordinates activities of the value chain participants (Humphrey & Schmitz, 2001). It refers to the parameters by which members of a certain value chain are governed. The parameters are related to what, how, when, how much and at what price is a product or service is produced. Usually some firms in a value chain set or enforce these parameters and other members are expected to abide by them. The firm that sets the parameters for other value chain members to follow is referred to as the lead firm (Humphrey & Schmitz, 2001). Hence governance is a situation where some firms in a value chain operate according to the parameters set by others.

The two important parameters are *process parameter* and *product parameters*. Product parameter related to the question what to produce, or in other words, the characteristics of the product/service and its conformance with the requirements. Process parameters on the other hand have to do with standards that have to be met in the production (Humphrey & Schmitz, 2001). Value chains could be classified into two broad categories based on these two parameters as *buyer-driven* and *producer-driven*. In buyer-driven governance retailers or recognized brand names often set and enforce key parameters. Such firms often focus on design and marketing while they leave the significant chunk of production activities to their partners. Buyer-driven governance is usually costly for suppliers mainly because it forces suppliers to make asset specific investment which in turn increase their rigidity and dependency on the buyer. On the other hand in a producer-driven value chains producers with important technologies and production process dictate the parameters. A value chain member which sets and enforces the parameters is referred to as a lead firm. (Humphrey & Schmitz, 2001).

Moreover, governance allows understanding the relationship and power asymmetry among channel members (Gereffi, 2011; Gereffi, et al., 2005; Gereffi & Fernandez-Stark, 2011). The power asymmetry determines who controls and coordinates activities of the chain. Moreover it is also important to identify how financial and other resources are allocated along the channel (Gereffi & Fernandez-Stark, 2011). GVC literature shows five types of value chain governance structures (Gereffi, et al., 2005; Gereffi & Fernandez-Stark, 2011). The classification is based on three important factors

- Complexity of transactions
- Codifiability of the information flow, and
- Capability of suppliers.

Interaction among these three factors determines the level of influence channels members have on one another and the nature of their coordination. Based on different combinations (high or low) of the three factors, the type of value chain governance that could exist between channel-members differs. Table 4 below depicts different value chain governance and the underlying determinants.

Table 4. Determinants of value chain governance (Gereffi et al., 2005)

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

I. **Market structure**: involves less complex transactions. Standards and technical requirements are easily codifiable. Moreover there are many technologically capable suppliers in the market. Suppliers can perform their activity with minimum support from

other channel members. Consequently there will be less control between the supplier and the lead firm.

II. **Modular structure**: occurs when transactions are complex but easily codifiable and the suppliers have the required capabilities to deliver the standards. Suppliers use generic machineries allowing them spread investment over many different customers base.

III. **Relational structure**: involves circumstances where transactions are complex, suppliers' exhibit superior capabilities, but standards are tacit and difficult to code. The parties involved are mutually dependent and work cooperatively for mutual benefit. Nonetheless lead firms still determine what is needed and have some degree of control over suppliers. Such structures allow producing customized products. Moreover building relational structures is time consuming and often difficult to switch to other suppliers.

IV. **Captive structure**: occurs when transactions are complex, standards are easily codifiable but suppliers have poor capability to meet the standards. Low supplier's competence means the lead firm has to provide a closer supervision and guidance while locking the supplier in to make sure the competence will not be accessible to competitors. Captive relations often involve situations where small supplier which depend on few buyers. The buyer often has a strong control forcing the supplier to operate as required.

V. **Hierarchy structure**: is an opposite of the market option. It occurs when there is no technologically capable supplier in the market and it is difficult for the lead firm to articulate and codify the standards clearly. In hierarchical setup the supplier is owned by the lead firm making it easier to have a very close control and flow of tacit knowledge which is required to produce the component.

To sum up governance relationship among value chain participants could range between arm's length market and hierarchical structures depending on the complexity of the transaction, codifiability of the information flow, and suppliers capability. Moreover governance is important because it will help to understand the power asymmetry among

participants and the ability of firms to secure significant returns from their product or services.

2.6 Institutional context

Institutional context is the fourth and last dimension of the GVC analysis framework. This dimension is about how the local and international conditions and policies affect value chain (Gereffi & Fernandez-Stark, 2011). In this section I will briefly review the institutional dimension and its key concepts. As discussed in the scope of the research, the discussion in this section will not be as detail as the other three dimensions. The main reasons are related to the single case study approach employed in the research. Institutional context, however, analyzes broader local and international policy issues which impact the translation industry in general. Such broader policy issues are outside the domain of a single company case study approach.

A definition put forward by North (1990; as sited in Pereny, 2012) clearly shows what institution refers to. The definition is given as follows:

> "Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction. In consequence, they structure incentives in human exchange, whether political, social or economic."

Value chains exist deeply embedded within the institutional context (Sturgeon, 2001). Institution refers to the rules of the game under which businesses operate in and abided by (Pereny, 2012). The institutional context includes the entire local, national and international environment which shapes the interaction between all the actors and stakeholders of the value chain (Gereffi & Fernandez-Stark, 2011; Pereny, 2012; Sturgeon, 2001). Economic social and institutional dynamics are the elements of the institutional context. Economic conditions have to do with the cost of factor endowments including key inputs, skilled labor, and access to financial resources. Social environment includes availability of skilled

labor, labor participation and access to training and education. Finally the institutional dynamics is about the rules and policies of the land including tax system, labor policy etc. (Gereffi & Fernandez-Stark, 2011).

2.7 Theoretical framework

In this section I will introduce the theoretical framework employed in the research. The framework is built on the premises drawn from the literatures reviewed. It is constructed from three main building blocks; the determinants, moderators and the outcome of the research. Refer to Figure 8 below.

As mentioned earlier, the objective of the research is to show the role of the Case Company in its global value chain. It investigates whether the Case Company is able to capture the highest economic returns from its translation and localization service. To do so, first the research maps out all the Case Company value chain participants and their geographical location. Second, distribution of value added among the chain participants as well as country wise will be studied. Combining that information, the research will then show how much the Case Company contributes to the national economy. Furthermore the research investigates sustainability of the Case company position in its value chain using its governance with the other chain members.

Expected outcomes of the research (dependent variables) are determined by the complex interaction among the four dimensions of the GVC analysis (Fernandez-Stark, et al., 2010; Gereffi, et al., 2005; Gereffi, 2011) and peculiar characteristics of services (Bruhn & Georgi, 2006; Sampson, 2000). Nevertheless the institutional dimension of GVC analysis is outside the scope of the research. The broken line connecting the institutional context to the

service characteristics in the theoretical framework represents the fact that it is outside the scope (Figure 8).

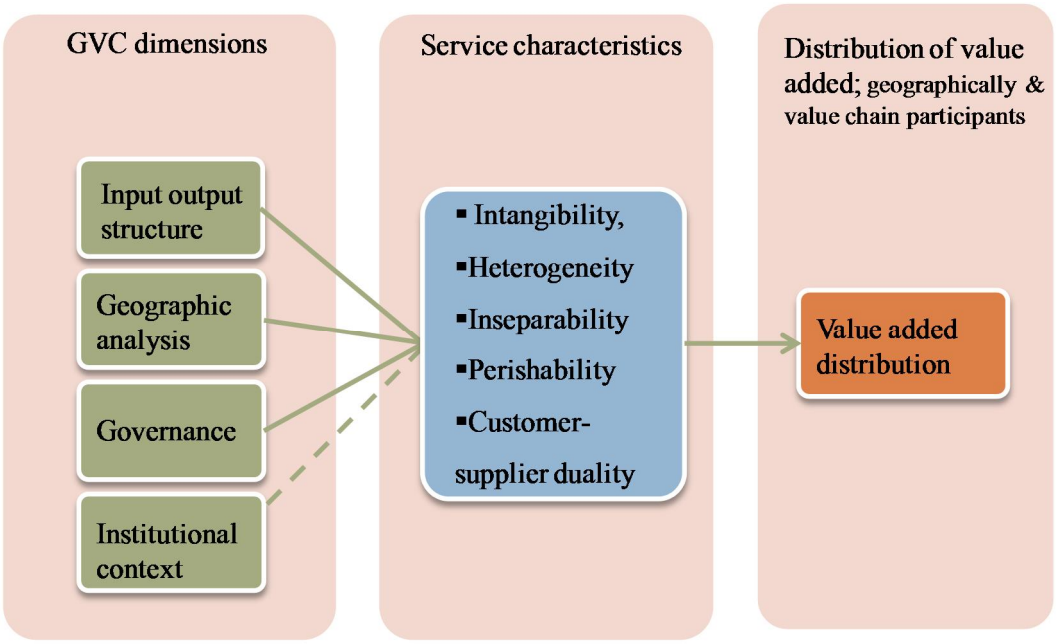


Figure 8. Theoretical framework of the research

The research mainly focuses on the input-output structure, geographic analysis, and governance dimensions. This is mainly because the research is a micro level analysis of the original GVC framework. It only covers the Case Company and its translation and localization service value chain participants. The institution context on the other hand covers broader policy and regulatory environments which affect the industry both at the national and global level (Gereffi, et al., 2005, 2006; Greffi & Lee, 2012; Gereffi & Fernandez-Stark, 2011). However, it is not possible to address any such broader issues from a firm level analysis which is the approach employed in the research. Hence the prime focus is to map out the Case Company translation and localization service value chain,

identify all the participants, their country of origin, governance and power asymmetry among them and distribution of value added.

Unique characteristics of services (the moderators) include intangibility, heterogeneity, inseparability, perishability and customer supplier duality. These characteristics have a significant impact on how the different GVC dimensions lead to the distribution of value added. For instance, services in general have *short value chains* (Sampson, 2000) limiting the number of parties which finally share the value added created. *Intangibility* of services also makes logistics activities inapplicable. Consequently the input output structure will lack such activities as inbound and outbound logistics which is typical for tangible goods value chain. The effect of *heterogeneity*, on the other hand, is evident on process parameters decision (Humphrey & Schmitz, 2001). The biggest challenge in standardizing service output is the variation in customer supplied inputs (Moeller, 2010). Service providers lack control over the customer supplied inputs which eventually factors in the variation of service output quality level. Furthermore, customer supplied input is *inseparable* from the service production process (Moeller, 2010). Even more, in the case of people processing services production in general cannot be separated from consumption (Bruhn & Georgi, 2006; Lovelock, et al., 2009). Such inseparability makes services to *perish* quickly, i.e. they are impossible to store for the purpose of buffering demand fluctuations. As a result decisions such as where and when to produce the service needs to take inseparability and perishability in to consideration. Finally *customer supplier duality* also key moderator in the distribution of value added. Service customers do not only consume the output but also supply the primary input for the production process. Nonetheless they do not charge the service provider for supplying these resources. Hence it is important to find out whether these unique characteristics are applicable to the case company translation and localization service and to what extent they affect distribution of value added.

To conclude, the research employs a micro level service GVC analysis framework. The theoretical framework employed shows how the four dimensions of the GVC analysis determine the distribution of value added. Moreover the model also shows the way the characteristics of service influence the link between the four dimensions of GVC analysis and the distribution of value added.

3 Research Design

As I discussed earlier in the thesis, the research is part of a larger project conducted by ETLA. Each research in the project has a different Finnish Case Company. Among these studies the ones conducted on Nokia's N95 headset (Ali-yrkkö, 2010) and Whitevector Ltd (Rummukainen, 2011) are two examples. Based on the results (from these case researches) ETLA aims to infer the role of Finnish companies in the global value chain and their contribution to the national economy. Given this, the objective of this particular study is to find out the role of the Case Company in its own value chain and determine how distribution of value added. Finally the research also shows how much the case company is contributing to the national economy through its translation and localization service.

The output of the study uncovers all the participants in the translation and localization service of the Case Company from the raw material up until the final product reaches in the hands of customers. Based on the value chain and further numerical analysis it is then possible to show distribution of benefits derived from offering this particular service mentioned above. The result from the study helps both the Case Company as well as Finnish policy makers. The Case Company can identify weak links in their global value chain and take improvement measures so that they will be able to capture the highest added value share. Policy makers on the other hand may take measures that improve the nation's comparative advantage enabling Finland to attract more foreign investment. The research is, therefore, designed to obtain detail information which helps to achieve the above discussed objectives.

3.1 A mixed methods case study approach

The research is a case study on the added value of the Case Company's translation and localization service. Let us first discuss what makes case study approach suitable for this research. First of all case study research design is provided by ETLA. Nevertheless I also believe it is the most suitable research design to effectively address the research questions. Here are the main arguments for the case study approach. Services are highly diverse (Sampson, 2000); their value chain is different from one company to another accordingly. Even companies which operate within the same industry and market may have totally different order delivery structure. In addition, globalization and vertical disintegration of international companies have further sophisticated service value chains. Deeper understanding of value chains is therefore best served with a research design such as case study that allows in-depth and contextual (Rebecca et al., 2010; Eisenhardt, 1991) investigation. Fletcher et al., (2011) also argued that case study allows an in-depth understanding of the topic under investigation. It allows the researcher to study the role of the Case Company in its real-life context (Eisenhardt, 2007) and look for answers to the research questions. Given this, I believe, the case study approach enables me gain a thorough understanding of the Case Company's value chain and other suppliers and distributors involved as well as their roles accurately.

Dedrick *et al* (2008) showed the applicability of case studies in a similar research scenario. They investigated global innovation network of Apple's iPod and HP's Notebook. The Case study approach enabled them to find a detailed microeconomic level answer for Reich (1990) and Tyson's (1991) macroeconomic argument; the argument was about the role of international corporations for their nations' economic prosperity and distribution of added value in their global production network. In a similar vein of research Ali-yrkkö (2010) took Nokia N95 headset and studied their value chain in great detail. He was able to dismantle the headset in to its more than 600 component parts and analyzed the whole value chain from the very beginning until the product reaches to the final customers. A

study on Whitevector Ltd. by Rummukainen (2011) is another research used case study approach. All these studies practically illustrated how a case study approach could be effective in similar situations.

Once again as part of the ETLA project, I was suggested to use a single case study approach. As mentioned above case study was chosen because it generates in-depth information of the subject within its real life context. This purpose is best served by a single case study (Piekkari et al, 2010). For these reasons I have a single case company with only one of their service line, which is translation and localization service, is chosen for in-depth investigation. This particular service line is chosen because of its information richness and the changes the Case Company is undergoing at the time of this study.

Within the single case study context, however, I have adopted a triangulation approach (Tashakkori & Teddlie, 1998). The core concept of triangulation is the use of different viewpoints and techniques to understand a topic under investigation (Jick, 1979). There are four different types of triangulation; data, investigator, theory and methodological triangulation (Tashakkori & Teddlie, 1998). The one that is applied in this research is a methodological triangulation. Methodological triangulation refers to the use of both qualitative and quantitative methods and data to study the same phenomena within a single study or in different complementary studies. I have used both qualitative and quantitative methods, in a complementary way, to study the subject which is value added.

The research questions were my starting point (Jhonson et al, 2007; Peltomäki & Nummela, 2004) for methodology selection. Such a pragmatic approach dictated my choice for mixed methods approach. It is pragmatic in a sense that the selection is based on whether important elements of the research problem remains unresolved or poorly addressed if a single paradigm is used (Jhonson et al, 2007). Let us see this in a bit more detail. The research has three important questions; identifying the Case Company's translation and localization service value chain, who creates value and how the added value is distributed

along the chain and geographically. Looking at the questions, it is clear that they have both qualitative and quantitative elements. Hence mono-method research approach (Tashakkori & Teddlie, 1998) does not provide adequate tools to answer all the three questions entirely. Hence by choosing mixed methods approach I have used "*what works*" (Jick, 1997) best for the situation rather than limiting the potential of the research.

Qualitative data gathering and analysis techniques are the most suitable approach for the first research question; what is the value chain of the Case Company's translation and localization service? Unbundling the translation and localization service, structure of the order delivery, journey of the offer from raw material to the final customers, all the value chain members involved in the production as well as delivery of the service, the tasks involved and where they are performed are all obtained from the interview and other qualitative data sources. Finally, based on the information gathered, the Case Company's value chain is mapped as shown in figure 9. On the other hand quantitative data and analysis are the most appropriate to answer distribution of value added which is another question in the research. Financial figures such as annual turnover, EBIT, and employee expenses are used to gain insight in the distribution of value added. Simple mathematical calculations are then run on the figures to identify distribution of value added both company wise and geographically. These formulae are provided from ETLA. The result obtained from the calculations answered the second and third research questions of the study. Therefore the choice of mixed methods approach was a natural one as the research questions demanded both techniques if to be answered thoroughly.

Moreover inclusive nature of mixed methods approach is another reason for its selection. It allows the use wide range of techniques and methods to answer the research questions. Its pragmatic aspect provides the researcher enough flexibility to gather and analyze both qualitative and quantitative data making the outcome more certain and reliable (Jick, 1979). Johonson & Onwuegbuzie (2004) also stressed combining qualitative and quantitative

research in a single study provides richer information. I was not limited to neither qualitative nor quantitative data; instead diverse array of data and techniques were used to unearth the Case Company value chain making the outcome more valid, reliable and information rich (Jick, 1979; Peltomäki & Nummela, 2004). For these reasons I have used mixed methods approach (Peltomäki & Nummela, 2004; Tashakkori & Teddlie, 1998; Jick, 1979) in my study.

Within the mixed methods the order, role and purpose (Peltomäki & Nummela, 2004) of the two methods (qualitative and quantitative) is not similar. I have used the two paradigms in a sequential manner (Peltomäki & Nummela, 2004). The qualitative part was done first followed by the quantitative part. The qualitative part enabled me to gain a deeper understanding of the Case Company translation and localization service value chain. At a result I was able to identify all the value chain participants, their role and map out the entire value chain. After that using quantitative data and analysis mechanism I was able to figure out how value added is distributed along the value chain as well as geographically.

The purpose of the qualitative part was both topic-related (Peltomäki & Nummela, 2004). Topic-related purposes are pursued when the field of area is yet rather unexplored and only limited existing knowledge is available. Hence, in a way, it is an inductive case study (Tashakkori & Teddlie, 1998). There are only few researches done to date on distribution of value added along the global value chain. Since the debate started between Reich (1990) and Tyson (1991) only few works have been done on whether globalization has eroded the tie between international corporations and their countries or otherwise. The research done by Dedrick et al (2008) and Ali-yrkkö (2010) are the two prominent works. Especially, only a single research (on Whitevector Ltd. by Rummukainen, 2011) is done focusing on services. On the other hand the purpose of the quantitative part is more of method related as the calculations were necessary to find out the distribution of gains among value chain

members. According to Peltomäki & Nummela (2004) a research purpose is method related when the use of mixed methods is obligatory for technical reason.

To sum up the research is a single case study approach. Within the single case study context I have used methodological triangulation i.e. both qualitative and quantitative data are used to obtain a deeper and contextual understanding of the Case Company value chain. The choice of mixed method was based on the research questions. Some of the research questions are quantitative and the rest are qualitative in nature. Despite the use of the two research paradigms in a complementary way, the two methods have distinct order, role and purpose in the study. The two are used sequentially; first the qualitative part was run to unbundle the service, figure out all the value chain members, their role etc. After that the quantitative part was performed to calculate distribution of value added. The purpose of the qualitative part was topic related as there were not many works in the field. On the other hand, the quantitative part has a method related part as it was necessary to use such methods to be able to calculate distribution of the added value.

3.2 Unit of analysis and Sampling method

As mentioned in previous paragraphs the research is a holistic case study. The core entity (also called unit of analysis) under investigation (Fletcher & Plakoyiannaki, 2011) is added value. Units of analysis refers to a *unit* in the real world context that the researcher observes (Fletcher et al, 2011). Value added does not mean gross profit; the two concepts are not one and the same. Value added is what the company is left with after paying all its purchased input cost (both material and service) and overhead expenses from sales. It does not exclude cost of direct labor. Gross profit on the other hand deducts both purchased inputs cost and direct labor as Cost of goods sold (COGS). Dedrick et al., (2008) showed the difference between value-added and gross profit as depicted below in figure 8.

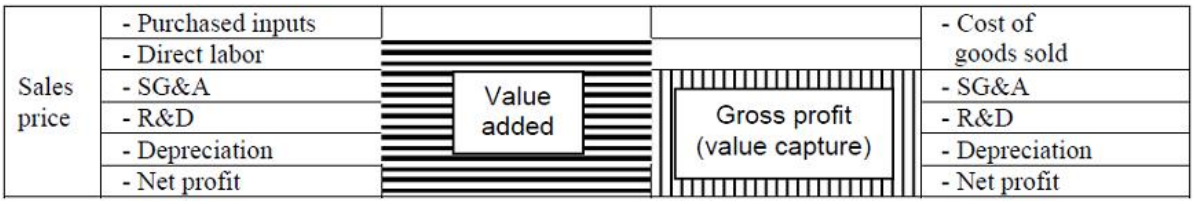


Figure 9. Components of value added and gross profit

Purposeful sampling technique has been used to choose the Case Company. Patton (2002) described purposeful sampling as a situation where cases are picked because of some characteristics. A Case Company from service industry was picked to make sure the maximum diversity (patton, 2002) among case companies in the ETLA's value chain analysis project. Most of the other case companies in the project are tangible good manufacturers. The Case Company in this research however is a pure service provider with no flow of tangible goods involved in its value chain. The only other service company involved in the project is Whitevector Ltd (Rummukainen, 2011). Involving service producers gives the necessary diversity to the sample case companies in the project.

The main purpose of the overall ETLA project may not be complete without adequate representation of service providers among the case companies. ETLA aims to infer the role of Finnish companies in the global value chain. As stated earlier in this thesis, more than half (67.8% as of year 2011) of the Finnish total GDP is comprised of services (CIA, 2012). Therefore having service providers sufficiently represented among the sample case companies would make a perfect sense. When it comes to picking this particular Case Company, however, convenience (Patton, 2002) was the main reason behind. The data required to answer the research questions is not publicly accessible and companies usually carefully protect it from outsiders. Without their willingness it would have been very

difficult to have any access. As a result, it was necessary to pick the Case Company that was willing to fully cooperate

In general the Case Company was purposely picked from service industry to achieve diversity to the sample in the project. Information richness, convenience and willingness to participate in the study are other factors considered in picking this particular Case Company in the research.

3.3 Empirical Unit and Data collection

Analysis of the value added was based on information gathered from the Case Company as well as other external sources. The Empirical units in the research are Case Company personnel, annual reports and other financial reports such as annual income statements from all the value chain participants. Empirical unit refers to the unit from which the researcher collects data (Fletcher *et al*, 2011). Both primary and secondary data sources have been used to gather data. The main source of primary data has been interviews. Three interviews had been made with the Case Company's Vice President Strategic Marketing; one face-to-face and two over-the-phone interviews. In addition email has been used to gather quantitative data. Firsthand data gathered during the interviews has been very crucial in mapping out the company's localization and translation business.

A set of questions provided by ETLA had been used during the interviews. The questionnaire could be found enclosed in Appendix 1. The questions covered all the information required to map the Case Company's value chain as well as analyze the distribution value added. Hence the interviews were structured (Wengraf, 2004, p. 59) as the interview questions were detailed enough to cover all the required areas. I only made minor adjustments to make sure that the phrasing would be relevant to services.

Income statement, publicly available annual reports and other financial data were also gathered directly from the companies as well as from other sources such as Orbis company information and National Board of Patents and Registration of Finland (PRH) database. The figures had been used to calculate the distribution of value added among all members of the Case Company translation and localization value chain.

3.4 Calculating distribution of value added

The role of a company in the national economy could be seen from the amount of value it contributes to the total GDP. As mentioned earlier in the research GDP is nothing but the "*sum of the values added by all the organizations in a national economy*" (Ali-yrkkö, 2010). The global value chain, however, spreads wealth beyond the national borders to all the nations of the value chain members. Hence it is necessary to find out how much share of the total added value the Case Company retained from its translation and localization business. The research is made only in one service line of the Case Company. They produce other services which are not covered in the study here. Hence, it should be noted that the total value added the Case Company contributes to the national economy is more than what is going to be shown in the outcome of the research as their other services also contributes additional added value.

The interview conducted with the Case Company representative is used as a starting point for the calculations. Based on the data from the interview I was able to map the value chain of the Case Company. All the companies involved in the value chain contribute to the total value added created from the service; as well as share the benefits accordingly. Once the value chain was mapped and all the participants were identified, I gathered financial data to calculate the value added distribution. The data was gathered from both primary sources, the Case Company, and secondary sources such as annual reports, Orbis company information database as well as National Board of Patents and Registration of Finland

(PRH) database. The financial data gathered include annual turnover, employee expenses, Earnings before interest and tax (EBIT), depreciation and amortization and purchases. The formulae used in the calculation were obtained from ETLA.

The calculation is done in two steps. First the value added margin for all the value chain members is calculated. Then each value chain members share of total added value is calculated. Below I will go through the calculation process in a bit more detail.

Step 1- calculating value added margin

$$\text{Value adding margin} = \frac{\text{EBIT} + \text{Depreciations} + \text{Cost of employees} + \text{Rent}}{\text{Turnover}}$$

EBIT stands for earnings before interest and taxes (Operating profit)

OR

$$\text{Value adding margin} = \frac{\text{Turnover} - \text{Purchases}}{\text{Turnover}}$$

Both these formulae could be used to calculate the value added margin. However, the second formula is more accurate when a firm is making loss (Rummukainen, 2011). The Case Company has exhibited a loss for the year 2010; hence the second formula is used to calculate value added margin for them. For the other entire value chain member however both formulae could be used as their income statement shows profit in the fiscal year considered for the calculation.

NB: One of the value chain member firms, called Across, financial data was not available publicly or through school library database. Hence two competitors namely Sajan and SDL are used to estimate financial figures for Across. However these two competitor firms vary

significantly in terms of their annual turnover. SDL is quite big global company with significantly higher annual turnover than Sajan. Hence I used the average of the two firms to avoid any extreme cases and estimate the value added margin for Across.

Step 2- Calculating each value chain member share of total added value

$$\text{Share of total Value added} = \text{Provider's value adding margin} * \text{Provider's cost for the Case Company}$$

Once the calculation of value added margin is completed, the next step is to find each value chain participant's share of total added value. The actual calculation is done using the share of total value added formula given above. The formula needs two figures, value adding margin and each members cost to the case company. Value adding margin is already calculated in the first step. Each member's cost to the case company is obtained from the Case Company. Multiplying the two figures gives the share of each value chain member's total value added. The result from step two identifies how much and by whom the added value is created for the translation and localization service of the Case Company.

Step 3: geographical distribution of value added

Location of headquarter is used to identify geographic distribution of value added for all participants except the Case Company. The Case Company has international offices in different countries. I have allocated the Case Company's share of value added among all its subsidiaries, including the head office in Finland, using regional turnover information. I

would have liked to divide the value added the same way for the suppliers as well. However, it was not possible for two reasons. Firstly, regional turnover data for the suppliers was not accessible. Secondly, there was no accessible data to determine from which specific supplier subsidiary the Case Company bought the product or service input. For these two reasons I have allocated suppliers' value added to their headquarter country. Nevertheless the value added created by suppliers was quite low. Thus, any bias in geographic distribution of value added as a result of that will not be very high.

As mentioned above, the Case Company has offices in eight different countries. For the sake of convenience, these countries are put in to four regions as Finland, Other EU, Russia, Asia and Others. Term “Others” represents countries where freelance translators are residing. To estimate the Case Company’s international offices value added share, I used each offices contribution to the total turnover in year 2010. Based on the turnover from each region I calculated their contribution rate as a percentage of the region’s turnover over total turnover. Using the rate, I then calculated what percentage of the value added assigned to the case company in step two is distributed among the head office and their international offices. This is done by multiplying the share of total value added assigned to the case company (on step 2) by the rate.

Table 5. Rate of added value distribution among Case Company subsidiaries

case company	Rate
Head office	85.4%
Other EU susidiaries	5.4%
Asia subsidiary	4.6%
Russian subsidiary	4.6%

The find the geographical distribution of value added the value added at the subsidiary level of the case company needs to be added to the remaining value chain participants based on

their geographical location. For instance the value added share of the case company head office will be added to the Sanoma and Elisa's value added share to find out Finland's share. There is no other value chain participant from Russia and Asia contributing to the value added other than the case company subsidiaries located there. Hence geographical distribution of value added at the case company subsidiary level remains unchanged for those two regions. The resulting figures look as follows

Table 6. Geographical distribution of value added

Location	Geographical distn. Of value added
Finland	€ 11 256 259,96
Other EU	€ 818 270,85
Asia	€ 587 312,25
Russia	€ 587 312,25
Others	€ 3 305 922,50

Freelance work is usually done in different geographical locations depending on the language in question. The following chart shows different scenario of value added distribution when the freelance work is done in Finland, Other EU 27, Asia, Russia, or North America.

Table 7. Geographical distribution of value added under different scenarios

Location	Geo. Distn. Of value added if Freelance work is done in				
	Finland	Other EU 27	Russia	Asia	North America
Finland	€ 14,562,182.46	€ 11,256,259.96	€ 11,256,259.96	€ 11,256,259.96	€ 11,256,259.96
Other EU 27	€ 818,270.85	€ 4,124,193.35	€ 818,270.85	€ 818,270.85	€ 818,270.85
Asia	€ 587,312.25	€ 587,312.25	€ 587,312.25	€ 3,893,234.75	€ 587,312.25
Russia	€ 587,312.25	€ 587,312.25	€ 3,893,234.75	€ 587,312.25	€ 587,312.25
North America	€ -	€ -	€ -	€ -	€ 3,305,922.50

4 Empirical Findings

In this section I will present the results of my research. The section will be structured in to three main parts; findings, discussion, and implications of the findings.

4.1 Findings

In the following part, I will present the empirical findings of my research in detail. The findings are structured in three parts. First I will present the Case Company translation and localization service input output structure. The distribution of value added among value chain participants and geographically will be discussed consecutively. Finally governance among the participants will be assessed.

4.1.1 Case Company Input Output Structure

There are five parties involved in the Case Company translation and localization value chain. They are the Case Company, freelance translators, Elisa, Sanoma Group, and Across. However, there is no tangible component passing from one value chain member to another. Determining the Case Company translation and localization service input output structure (i.e. value chain) is important for two purposes. It allows identifying all the value chain participants, and how the value added is distributed among them. In other words it helps to understand who creates value as well as whom captures what share of the total value added. I have had multiple interviews with the Case Company representative. Based on the information obtained, I was then able to map the value chain as shown below in Figure 9. I used set of questions provided by ETLA in the interviews. Please refer Appendix 1 for the interview questions.

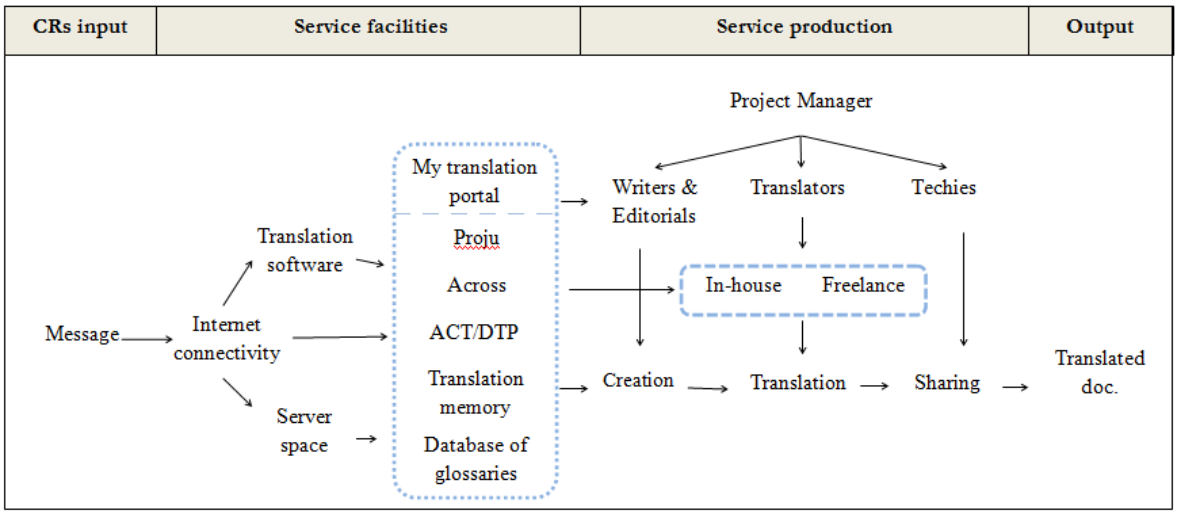


Figure 10. The Case Company translation and localization input output structure

The first step was to unbundle the translation and localization service package in to its component parts to reveal all the value chain participants involved starting from the very beginning of the production process. Dedrick et al., (2008), Ali-yrkkö (2010), and Rummukainen (2011) all did the same in their respective studies. As shown above in figure 9, the Case Company uses services and technologies from different sources to be able to provide its translation and localization service. These technologies and services include translation related software, internet connection, server space, translation service and so on.

Answers for the research questions of the thesis are embedded in the details the Case Company's translation and localization value chain. Hence it is important to dig in to the details and understand the value creation at each section. To do that, I have segmented the input output structure in to four sections as follows:

- Customer input
- Service facilities
- Service production, and

- Output

Following here I will take each segment of the input output structure and discuss it in more detail.

I. Customers inputs

The Case Company is a pure service provider and its inputs are all intangible. The service production process starts with a client having some interest in an international market. One of the challenges of going international is differences between markets. International markets differ in many respects; language, cultural, social and legal differences are only few to mention (Onkvisit & Shaw, 2009). Target customers may speak different languages and may have different social, cultural and legal norms compared to the company's home market. Hence any firm that wants to do business, not only has to translate the message but also adapt it to the cultural and legal norms of the target audience. Hence as business goes international the need to translate marketing materials and webpages to the language best understood by the target audience becomes ever so much important. In fact it is not only external communication materials that have to be translated but also internal working language and materials may also change. Usually this is where localization and translation companies come in to the picture.

The Case Company has a broad range of customer base; private and government businesses as well as small and large firms. The common denominator among their wide range customers base is that they all have some form of international business. Services are processes (Bruhn & Georgi, 2006) and depending on the client's need the starting point for the Case Company's localization and translation service package may vary. Some clients come with a ready content, looking for a translation service only. For such clients the service process starts at the point of translation; and the content is considered as a primary

raw material. Others, however, want the Case Company to help them starting from the content development phase. Hence in cases where the Case Company is involved from the content development phase, the message is considered to be a raw material rather than the content. Currently majority of the Case Company's customers come with a ready content; the Case Company is predominantly engaged in translating and localizing the content in to a desired target audience language and culture. However there is a growing trend in the background. The number of clients who require content creation as part of translation and localization service package is increasing gradually. More customers are coming with a message yet to be encoded and developed in to content. Encoding the message and developing the original content as well as translating it in to the desired language and cultural norms would therefore comprise the full service package.

The Case Company's translation and localization service package has variations as discussed above. Nevertheless together with the Case Company representative I have decided to take clients' message as raw material rather than content. According to the Vice President Strategic Marketing put it, it is a growing trend. More customers are requiring content creation as part of the service package. Thus starting the value chain analysis from client message as a raw material not only shows the full picture but also address a growing service shift developing in the background. The second reason is that value chain analysis which starts only from the translation is a sub set of the one starting from the content creation. Starting the process from content creation is inclusive and ultimately incorporates the translation function making the analysis more complete. Therefore from this point on, for the reasons discussed above, clients' message is considered as principal raw material for the localization and translation service package.

II. Service facilities

Service facilities refer to all the resources (both from the Case Company itself and its suppliers) that create capacity for the Case Company. In this case it includes server space and internet connection and translation software. These resources make it possible for the Case Company to communicate with customers, produce as well as deliver the service effectively and efficiently. The parent company, Sanoma Group, provides the Case Company with a comprehensive ICT platform which includes server space, Microsoft software and Wintime financial system. The server space together with internet connection enables to make resources (such as translation tools, portals and databases) accessible for both internal and external users. Elisa, a Finnish internet service provider, provides the Case Company with the required internet connection. Remote accessibility of translation tools and customer contact would have been very difficult if not impossible for globally distributed Case Company's offices, freelance translators as well as clients.

Moreover the service facility includes 'Mytranslation portal', translation memory and glossaries database as well as various translation software and tools. My translation portal is a web based platform that connects clients and the Case Company throughout the service production process. It provides a digital environment where clients and the Case Company Project managers and translators collaborate to produce the service. More specifically the portal provides two main benefits:

- It will make ordering, validating the offer as well as receiving the translated document easier
- It will improve efficiency and effectiveness, hence cutting the lead time (The Case Company, 2011)

Integrated to the My translation portal is Proju and Across. Proju is a database containing information on the translators, writers and editors. In-house and freelance translators'

information such as their areas of specializations and language combinations could be found from Proju. Depending on the service requirement of a client, the project manager assigns a writer or translator with appropriate skills. Across on the other hand is common translation software from a company called Across.net. Proju is developed by in-house specialists. The integration of Proju and Across to My translation portal is done by in-house specialists and two IT consultant firms called Intelligent Precision Solutions and Services Oy (IPSS) and Systems Golden.

To make sure translation quality and consistency in use of terminologies, the Case Company uses project and company specific translation memories and database of glossaries.

III. Service production

Translation and localization service production involves three distinct stages; creation, translation and sharing. Depending on the client's need the Case Company could be involved in all three or in the second and third stages only. However, for the reasons discussed earlier, I proceed with a scenario where the Case Company takes part in all three stages.

Clients come to the Case Company with message that they want to reach to their audience. The message has to be encoded first, before any translation work starts. Encoding, in this context, refers to the process of transforming a message in to a content that could be received and understood by the clients' target audience. The encoding process where the idea is transformed into content is referred to as *creation*.

Following here I will discuss what actually happens in all three stages of the service production; creation, translation and sharing.

1. **Creation**

Once a client validates terms with the Case Company, a specific Project manager will be assigned for their account. The project manager is responsible to look after the client and assign the necessary resources to produce the desired service. Assigned technical writers draft the message first. Copy editors work on the draft to make sure that it is technically correct. Finally the document will be reviewed by quality assurance. The whole process of transforming the client's message in to content is referred to as encoding. The output for the creation process is therefore a document or content with a desired message encoded in it. The client plays an active role in the creation process.

2. **Translation**

Translation task starts once the message is encoded in to content. The project manager assigns a translator, with appropriate areas of specialization and language combination. Translators profile in Proju database is used to identify the right translator. A translator employed is always a native speaker of the language in question. If the required skill is not available from in-house translators, they use their 1000+ global network of freelance translators (The Case Company, 2011)

A critical resource in translation and localization service is human capital. The Case Company has in-house translators plus a global network of freelance translators' as well as other agency resources. Other agency resource is only used when all the project managers are fully occupied and cannot take further assignments. In such circumstances the company buys the service from other agencies.

The first thing in the translation process would be conversion; the content which could be in different file format will be converted in to a Word file. The conversion is made with the help of CAT/DTP software. CAT/DTP is not a name for single software but a range of translation tools. Large parts of CAT/DTP software are located in China. The translation

process is then performed once the conversion is finalized. Translators use Translation memory and Translation database to cross reference and make sure consistency with previous works. The translated word document will then be converted back to the original file format. The conversion is made with CAT/DTP the same as before. The output from the translation stage would be, therefore, a translated file. After the translation is completed it will be reviewed by specialists from the Case Company as well as the client company. There will not be any back and forth file sending as both the client as well as the Case Company reviewers could access the file from My translation portal. If there is any compliant from the client, a notification will be sent to the translator to work on the file once again and make the required changes.

3. Sharing

The final stage in Translation and Localization service is sharing of the translated files. The Case Company's techies and editorials would make the file available to be downloaded by the client.

IV. Output

As shown above in the sharing stage of service production, the final output is a translated document fine tuned to the target audiences' social, cultural and legal norms. There are no in-bound or out-bound logistics (Bruhn & Georgi, 2006) involved in the Case Company's localization and translation service. This is because the clients directly provide the raw material to the Case Company and also receive the translated document directly from the Case Company. Clients could access the document directly through 'My translation portal'. As a result there are no distribution or logistics companies involved in the service.

4.1.2 **Distribution of value added among value chain members**

The analysis, in the previous section, showed that the value chain participants in the Case Company translation and localization service to be Sanoma Group, Elisa, Across and freelance translators. The total value added created from the translation and localization service is accordingly distributed among these firms and the Case Company. Financial data such as EBIT, Cost of employees, Depreciation, Annual turnover, and Purchases are used to calculate distribution of value added both at the firm level as well as geographically (see section 3.4 how the calculation is performed). The figures used for the Case Company are from year 2010 while for the rest it is from 2011.

In certain cases it has been difficult to obtain all the necessary financial figures for the calculations. For instance financial data on Across was not accessible through different data sources employed in the research including Orbis. Instead I used financial figures from two competitors of Across to carefully estimate the missing figures for Across. The Two competitors used are SDL and Sajan (2010). To be more precise, the value added margin for Across is calculated as the average of the Sajan and SDL value added margins. SDL is a global translation software and content management service provider (SDL, 2012). It is a publicly traded company and financial data until 2011is available publicly. Sajan is also a global translation services, software localization and cloud-based translation management software provider (Sajan, 2012). However the latest data found for Sajan is from the year 2010. The two firms, Sajan and SDL, differ significantly in terms of their annual turnover. To eliminate any extreme cases, the average of the two firms value adding margin (which is 55%) is used for Across's calculations hereafter.

The use of freelance translators and third party agencies is quite popular in the language industry (European Commission, 2009). The Case Company also employs its global network of freelance translators and external agencies (as necessary) to provide the desired service for customers. Basically freelance translators and third party external agencies are

two different things; the former being individuals who do translations while the later are business firms. Nevertheless, for the sake of simplicity and convenience, I refer to both of them as freelance translators hereafter.

Unfortunately payment that the Case Company has made for freelance translators could not be obtained from the information sources used in the research. It is also difficult to estimate the figures as the payment rate changes from one language to the other and from project to project. However the financial data obtained from PRH database indicates that the Case Company has paid €4,405,922.50 for outside services in 2010. There is no further detail provided regarding what exactly these outside services are. However during the same year the Case Company has paid €1.1million for IT services to different firms. Deducting the payment made for the IT services from the total payment made for outside gives €3,305,922.50. I have assumed that this money to have been paid for Freelance translators.

Given that, results from the calculation indicates, the Case Company, Sanoma Group, Elisa, Across and Freelance translators share the total value added created by the translation and localization service. The biggest share (77%) is captured by the Case Company which is the lead firm in this particular translation and localization value chain. The second biggest share (20%) is captured by Freelance translators. The rest 3 % is distributed among Sanoma Group, Elisa and Across equally. The key resource in services in general and in translation and localization service in particular is the human resource, i.e. the translators. This is one of the things what the distribution of vale added clearly indicated. Freelance translators captured much bigger value added share compared to all the other value chain members except the lead firm. Internet connectivity from Elisa, server space and other IT facilities from Sanoma as well as translation software from Across are all very important in creating and/or providing the service. However their importance could be considered as indirect; enabling the translators and other company personnel to communicate, produce and deliver

the service. Refer Figure 10 below for the firm level distribution of value added from the translation and localization service.

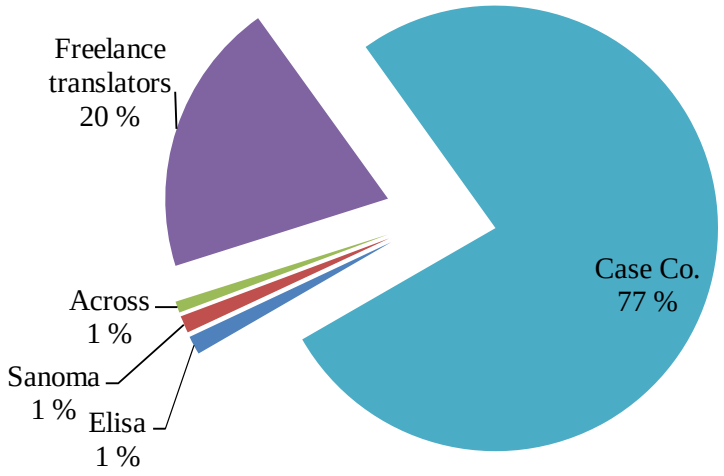


Figure 11. Firm level distribution of value added

4.1.3 **Geographical distribution of value added**

Geographical distribution of value added is determined based on the location of the value chain participants head office (for all suppliers except the Case Company) and their share of the total value added from the service. The Case Company has offices in eight different countries and their share of value added is allocated to all its subsidiaries, including the head office in Finland. It was not possible to do the same for the suppliers because that kind of information was not available. Nevertheless, the bias will not be significant as the value added created by the suppliers was very low.

Subsidiary level financial figures were not accessible for the Case Company. Nevertheless, regional turnover (Home market, Other EU and Others) has been obtained from the PRH report. From the interviews I had with the Case Company representative I have learned that outside EU the Case Company has subsidiaries only in Russia and China. Hence I have assumed the region represented by "other" in the PRH report to be Russia and Asia (specifically China). Given that I have divided the turnover assigned under "other" equally in to two and assigned it to Russia and Asia. Given that in the analysis, for the sake of simplicity, I have classified geographical locations in to Finland, Other EU 27, Russia, Asia and Others. The term "Others" represent, the geographic locations where the freelance translators are located.

Finland, where the Case Company is headquartered, captured the highest share (68%) of the total value added. Nearly 20% of the value added is captured by a country or region where the freelance translators are located. As discussed in the value chain analysis part the Case Company does the translation by native speakers of the language in question. This implies a freelance translator could be a native speaker from any one of the 200 languages the Case Company provides translation services on; the value added is hence allocated to that particular country accordingly. 4.94% went to Other EU27 where the head quarter for Across as well as majority of the Case Company international offices are located. Russia and China also captured 3.5% each. Refer figure 11 below for the geographical distribution of value added.

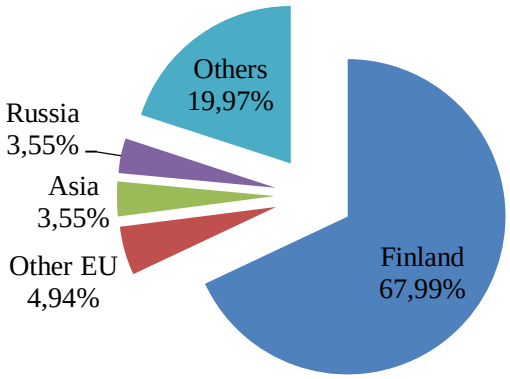


Figure 12. Geographical distribution of value added

As argued above there is a possibility that freelance translators could be from Finland, Other EU27, Russia and Asia. In cases when they are located in Finland, the total value added share of the nation goes up to 88%. The result is parallel with the other research done on Whitevector Ltd (Rummukainen, 2011). Both Whitevector and the Case Company for this particular research are pure service providers. These companies captured significantly higher share of value added compared to the tangible goods studied in a similar study. The following Table 8 and Figure 12 presents changes in value added captured when freelance translators are from different regions.

Table 8. Geographical distribution of value added under different scenarios

Location	Geo. Distn. Of value added if Freelance work is done in				
	Finland	Other EU 27	Russia	Asia	North America
Finland	€ 14,562,182.46	€ 11,256,259.96	€ 11,256,259.96	€ 11,256,259.96	€ 11,256,259.96
Other EU 27	€ 818,270.85	€ 4,124,193.35	€ 818,270.85	€ 818,270.85	€ 818,270.85
Asia	€ 587,312.25	€ 587,312.25	€ 587,312.25	€ 3,893,234.75	€ 587,312.25
Russia	€ 587,312.25	€ 587,312.25	€ 3,893,234.75	€ 587,312.25	€ 587,312.25
North America	€ -	€ -	€ -	€ -	€ 3,305,922.50

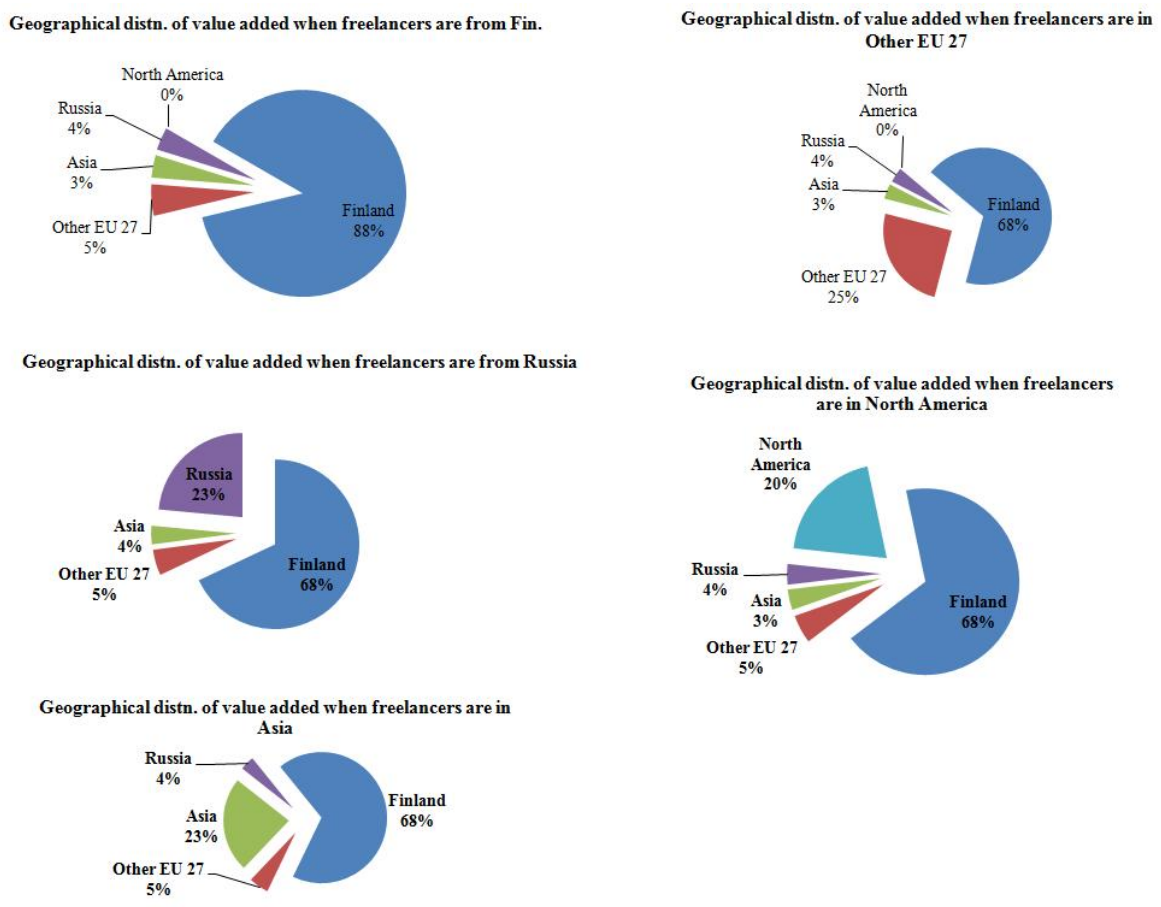


Figure 13. Geographical distribution of value added under different scenarios

4.1.4 **Governance**

This section is about the governance structure between the Case Company and each of its suppliers. Based on the information gathered, I would argue that the relationship between the Case Company and its parent group is hierarchical. As an owner, in spite of the degree of flexibility the Case Company might have in its operation, there are administrative decisions and tools that come from the parent group and need to be followed by all members including the Case Company. For instance there are ICT resources the Case

Company gets through the Parent Group. These decisions are made in such a way that maximize the benefit of the entire group and the Case Company most likely have, if any, limited degree of flexibility to make an independent decision.

The relationship between the Case Company and Elisa or Across could most likely be close to the market option. Both Elisa and Across big international firms with long term experience in their respective market. Hence it is reasonable to assume that these firms are very capable firms in delivering the required service for the Case Company. Moreover internet connectivity for Elisa as well as language software for Across are very common kind of services implying that complexity of transactions and ease of codifying the transactions between these two companies and the Case Company is relatively easy. As a result the governance structure between the Case Company and Elisa or Across seems to be close to market structure.

The relation between the Case Company and its freelance translators and the third party agencies is a little more complex. Firstly, the most important resources in translation and localization service are the translators. Hence it is very important, for the Case Company, to maintain lasting relationship with freelance translators who are known for their quality work and fair price. On the other hand, for freelance translators, maintaining lasting relationship with the Case Company assures them reliable stream of business. Moreover the power asymmetry between the two parties may not be significantly tilted toward one of the parties as both are entirely independent from each other except for businesses opportunities. This suggests that the relationship between the Case Company and the freelance translators is based on mutual benefit and is far more than price only. As a result I would estimate the two parties to have a relational kind of value chain governance between them.

4.1.5 **Unique characteristics of services**

The Case Company localization and translation service has shown some of the unique characteristics discussed in the literature review. Among these characteristics are service heterogeneity and customer supplier duality. Never the less the translation and localization service is not characterized by perishability, simultaneity or intangibility.

According to Lovelock, et al.'s (2009) four categories of services, translation and localization service is an information processing service where an intangible act is performed on customers' possession. In this case the content development and translation which is the intangible act is performed on the original customers' idea or message which is the customers' possession. The research supported the Lovelock, et al.'s (2009) claim that information processing services are characterized by manufacturing like sequential production and consumption. The translation and localization service showed sequential production and consumption. Consumption happens after the production is completed and the Case Company handed over the translated document back to the client. Consequently the client does not need to be available in the service production environment during the production process. In fact the translator and the client could even be in different country without any significant impact on the outcome. Moreover the research also supported Moeller's (2010) argument that the correct point of reference for inseparability of services is the customer resource. The customer resource in the translation service is the idea or content. These resources cannot be separated from the production process. In fact production of the content development and translation service cannot start before customer provides the idea or content for the writers and translators to start processing.

Translation and localization service is also accessible to human senses as opposed to the claim that services in general are intangible. The translated document can be seen or touched whether it is in hard or soft copy. Both the input, as content ready to be translated, and the output are tangible. The same is true with perishability. The translated document is

fairly durable and does not perish immediately. Clients may use the translated document for extended period of time so long as the message is not obsolete.

Moreover the translation and localization service value chain is also bidirectional. Customers provide the initial input and finally once the service is produced they consume the output. Hence, the outcome is parallel to Sampson's (2000) claim that services have bidirectional supply chain and service customers are not only final consumers but also suppliers of the primary service input.

4.2 Discussions

This section discusses the findings of the research in light of the literature reviewed. In the discussion, I will raise five major and one additional point. The major points are related to the following issues:

- Input output structure of the Case Company value chain
- Reasons why the Case Company and freelance translators capture significantly high value added share compared to the remaining value chain participants
- Geographic distribution of value added
- Bond between Finland and the Case Company, and
- Governance of the Case Company value chain.

Furthermore the additional point is related to the unique characteristics of services. I will start with the major points and proceed to the additional point as follows.

The input output structure analysis has identified all the Case Company translation and localization value chain participants. The parties involved are the Case Company, Sanoma Group, Elisa, Across, freelance translators and third party agencies (refer to Figure 9). These parties, either directly or indirectly, have contributed to the production and delivery

of the service. Provided that, the input output structure has enabled to address one of the main question of the research which is who is creating as well as capturing value added. The parties listed above have all participated in creating and capturing the value added. The Case Company is able to provide the translation and localization service by integrating its facilities and resources with its suppliers resources.

The analysis has also showed how the value added is distributed among the value chain participants. The Case Company has captured significantly higher (77%) value added share compared to all the other value chain participants. Freelance translators captured 20%, while the remaining 3% is shared among Elisa, Sanoma and Across a percent each. There could be different explanations why the Case Company captures such high value added share. Following here I will discuss two explanations.

Dedrick et al., (2008) argued that a global value chain participant with critical information and standards as to how to integrate component parts captures the highest share of gains. Accordingly, translation is one of the Case Company's business area and they have more than half a century experience in the field. That shows the Case Company has the knowhow and expertise how to best serve their customers translation needs by putting all the resources together better than the other value chain members. Some of the suppliers in the value chain are perhaps bigger than the Case Company. However, when it comes to the translation related needs of customers, it is the Case Company that has better knowhow and market experience.

Another explanation may have to do with the length of the value chain. Services, unlike tangible goods, have a very short value chain (Sampson, 2000). Most pure services providers have a single level value chain, while some have two levels. The Case Company translation and localization service value chain is either one or two level depending on whether in-house or freelance translators are used. In situations where in-house translators are used, the Case Company value chain will be single level. If freelance translators are

employed, it would be a two level value chain. All the other value chain participants have a supporting and enabling role. Such short value chain helps reduce the number of firms which finally share the benefit making the value added pie that channel members share bigger.

Freelance translators captured the second highest value added share (20%). It is significantly higher especially compared to the other three participants which only captured 1% each. This could be explained by how important the translators work is for the whole service package. Baltacioglu et al., (2007) argued that in services the most important resource is human capital; that could well be the reason why freelance translators captured significantly higher value added share next to the Case Company. It is obvious that it would not be as efficient and effective to produce and deliver the service without the internet connectivity, translation software and other IT tools. Nonetheless such resources could not create any value by themselves without people acting on them. Human capital is unique in that they are capable of creating new use values (Bowman & Ambrosini, 2009). Other resources cannot create more use value on their own except what they already have. Hence the unique ability of freelance translators in creating new use value could be one reason for them seizing the second highest value added share.

This research along with the research on Whitevector Ltd. showed that services capture significantly higher value added share compared to tangible products covered in similar researches. Apple's iPod captured 36%, HP notebook (26%) and Nokia N95 (49%). These are noticeably lower compared to Whitevector's (88.1%) or the Case Company here (77%). The difference remains similar for the geographical distribution of value added as well. It is not possible to make any statistical generalization based on a case study with such limited sample size. Nevertheless one may wonder whether services in general are able to retain higher value added share compared to goods. As said before, the limited number of observations only allows for theoretical transferability, not statistical (Fletcher &

Plakoyiannaki, 2011). However, considering that pure services have very short value chain (Sampson, 2000) and human capital is usually the most important resource in service production (Baltacioglu et al., 2007), this could be the case. Nevertheless, further study with large enough sample needs to be conducted before claiming that services capture higher value added share compared to tangible goods in general.

The geographical distribution of value added covers multiple continents. Finland captured significantly higher value added share compared to other countries. Share of Finland ranges between 68%-88% depending on the location of the freelance translators. The other 4.94% is captured by Other EU27 and China and Russia captured 3.5% each (Refer figure 11). In general Finland, where the Case Company is headquartered, captured much higher value added share.

The Case Company has offices in eight different countries and they have customers from all over the world. However the internationalization of its value chain has not eroded the tie between the company and Finland. The company is able to retain a significant amount of value added share and also contributes to the Finnish economy. In this regard the research is parallel with Tyson's (1991) argument who claimed that the fate of corporations is still closely tied with their nations. However, how the geographical distribution of value added share and the tie between the company and its country is evolving is up for debate. This is mainly because as it is noted from the interview, the Case Company opens offices following its customers' location. Sampson (2000) also argued that service companies' location decision is much more dictated by the location their customers than their suppliers'. Considering the small size of the Finnish market, as the company grows and attracts more international customers the location of their office and hence Finland's share of added value might change in the future.

The relationship (governance) between the Case Company and its suppliers is another intriguing area. As a parent company Sanoma Group has a hierarchical relationship with the

Case Company. The relationship between the Case Company and Across as well as Elisa seems closer to the market structure (Gereffi et al., 2006). Nevertheless the Case Company seems to have relational kind governance structure with both third party agencies and freelance translators.

Additional points I would like to discuss are related to the unique characteristics of services. The research confirmed the argument made by Sampson (2000) who questioned simultaneity, perishability, and intangibility as unique features of services. The analysis showed that simultaneity and perishability does not apply to the translation and localization service. Translation and localization is an example of *information processing* services (Lovelock, et al., 2009). For such services production and consumption is sequential rather than simultaneous (Lovelock & Gummesson, 2004; Lovelock, et al., 2009; Moeller, 2010; Vargo & Lusch, 2004). Customers do not need to be in the service facility when documents are being translated. In fact the translator and the client could even be in different country without any significant impact on the outcome. What cannot be separated is the customer resource (Moeller, 2010) which in this case is the original message. The case company cannot start producing the service before a customer provides the message. Moreover, once the translation is finalized, the document will be made available through Mytranslation portal for customers to download. The translated document can be used for long period of time as long as its content does not become obsolete. This supports Moeller's (2010) argument that some services output does not perish instantly, what is perishable is service providers capacity.

The last point I will raise is customer-supplier duality (Sampson, 2000). The research backed the duality of service customer roles in a practical way. Customers supply the primary input for the service process as well as consume the final output. The service production does not start until customers supply the Case Company with the customers' resources. The customer supplied resources in this case is the message or the idea. The

Case Company then starts producing the service, specifically developing the content and then the translation, by integrating their resources with the resources presented by customers. Once the content is developed and the translation is finalized, then again customers use (consume) it for their desired purpose. Hence service customers do not only consume the service output but they are also key input suppliers for the production process. This effectively makes the Case Company value chain bi-directional (Sampson, 2000). Moreover service companies, including the Case Company, do not pay for customer supplied inputs. This is important as it allows them to keep their variable production cost low.

To conclude the research questions have been answered using a global value chain analysis framework. The parties involved in the creation and capture are the Case Company, Elisa, Sanoma Group, Across, and freelance translators/third party agencies. The Case Company captured 77% of the value added followed by freelance translators/third party agencies with 20%. The remaining three members captured a percent each. Geographically, Finland captured the highest share with 68-88% value added share depending on the location of freelance translators. Russia and Asia captured 3.5% each whereas the other 4.9% is captured by Other EU.

4.3 Implications of the findings

The most important resource for translation and localization service is skilled labor. Technology including translation software, portals and databases only come then. Technologies enable Case Company translators, techies and editorials to produce the service but do not create additional use value for customers by themselves. Therefore, emphasis should be given to human capital for the Case Company to be able to stay competitive.

Another point is related to the intensity of competition within the translation industry. Translation industry is a highly competitive industry with low entry barriers. Yet, competition is not only from rival translation firms but also from low cost freelance translators. Hence continuous service innovation is crucial to keep ahead of competition. Nonetheless, in such mature industry, there is always a risk that competitors may quickly follow suit and start offering a similar service package ultimately bringing the competition down to price. As a result the Case Company needs to closely with its supply chain it participants and find ways to bring cost further down.

Moreover, translation and localization service customers are not only final consumers of the service output; they are also primary input suppliers. One impact of such a bidirectional value chain is that customers have implicit expectations for value added. They can evaluate the amount of value added to their input better than customers of manufacturing goods do. It is therefore crucial that the Case Company maintains high quality in its service to satisfy and exceed customer expectation.

Finally, customer supplier duality could put the Case Company in a precarious position; i.e. customers may provide poor quality input and expect unrealistic value adding. This is especially important as the case company has started providing a full package service which includes original content development. Ill-defined original customer message (poor quality input) negatively affects the quality of final output (content and finally translated document). Yet the Case Company has very limited control over the original message. Hence it is important for the Case Company experts to support customers in clarifying the original message to make sure that the original content is of high quality.

5 Conclusion

The research is part of the ETLA value chain analysis project. The overall purpose of the project is to determine the role of Finnish firms in the global value chain and their contributions to the nation's economic success. As part of the ETLA project, the objective of this particular research is to identify who creates and captures the utmost value added in the Case Company global value chain. Their by the research shows distribution of value added both company wise and geographically.

The research has three important questions; identifying the Case Company translation and localization service value chain, who creates value added and distribution of value added along the value chain as well as geographically. To answer these questions I have conducted a single case study analysis with a mixed research methods approach. The methodological triangulation employed has allowed me to collect both qualitative and quantitative data to gain an in depth understanding of the Case Company value chain.

The theoretical framework employed is a service GVC analysis framework. The analysis has four dimensions. However in the research, I have only focused on the first three namely input output structure, geographical and governance dimensions. The institutional aspect of the analysis, however, is outside the scope of the research.

The findings of the research have shown that both local and international firms are involved in the Case Company value chain. Nonetheless it was the Case Company which captured the highest added value share at 77%. Freelance translators captured 20%, far higher than the remaining three channel members which took 1% each. Moreover the study showed that there is a strong link between the Case Company and its country of origin, Finland. This is clearly seen as Finland captured close to 68% value added share. In fact the share of

Finnish added value could rise up to 88% depending on the location of the freelance translators.

The result supported two of theories addressed in the literature review. One is Dedrick al. (2008) point that in a global value chain a member which controls critical information and standards as to how to integrate resources together to satisfy customers benefits the most. Secondly, Sampson (2000) argued that customer supplier duality is the unique characteristic of service. Intangibility, heterogeneity, inseparability and perishability on the other hand may not be applicable to all services. The research showed, for instance, that simultaneity, intangibility and perishability are not applicable to translation and localization service. Hence the two claims have been supported by the research findings.

An interesting pattern between the results of this research and the other similar researches is that, services captured significantly higher value added share compared to manufacturing goods. Case study approach does not allow making any statistical generalization (Fletcher & Plakoyiannaki, 2011) as to whether services in general capture a higher value added compared to manufacturing goods. Nevertheless there are some signs which points towards that and it is worth investigating it further. This is not unrealistic especially considering that most services have very short (one or two level) value chains (Sampson, 2000).

Finally, as mentioned earlier in this thesis, the research is a micro level representation of the service global value chain analysis. This is to say that it did not cover the entire global translation and localization industry. Nonetheless, the research has shown the importance of the translation industry for the national economy and its bright future prospects. Hence it would be highly beneficial for the Finnish economy to conduct an industry wide GVC analysis to determine the nation's current position in the global translation industry. Such industry wide researches would provide recommendations on how to position the country in the right spot with in the global translation industry value chain so that the country would capture the highest share value added.

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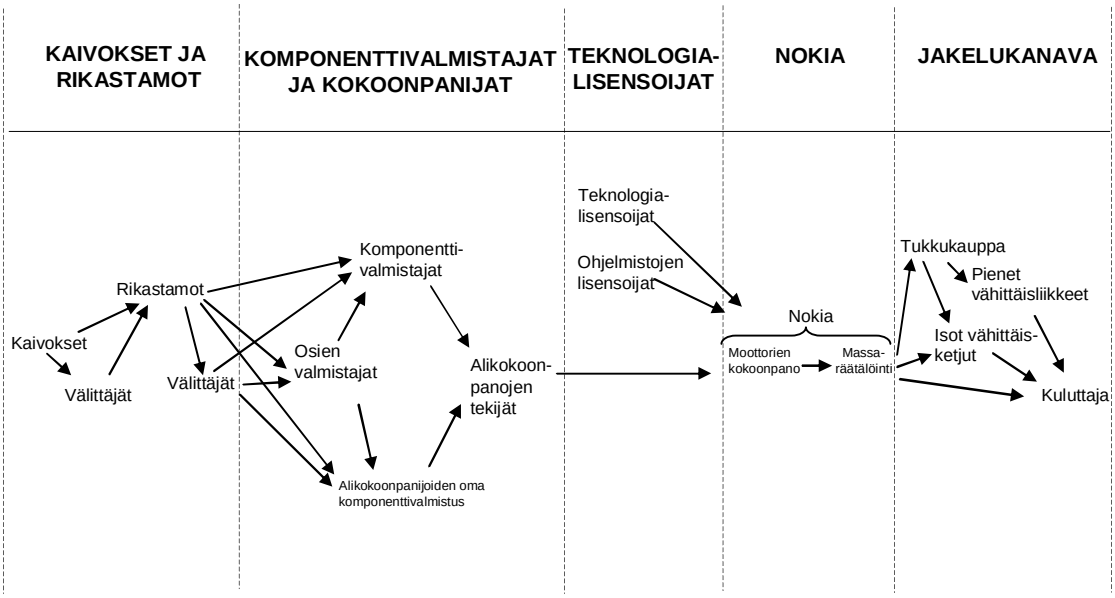
7 Appendices

7.1 Appendix A. Translated ETLA Questionnaire

1. The structure of the order-delivery- chain at the moment

The order-delivery chain describes the position of the organisations in the actor network, and the journey of the product or of the service from the raw material suppliers to the final consumer. All the firms that participate in the production of the product/service or in the delivery of the product to the client are part of the chain. The purpose of the order-delivery-chain analysis is to map the journey of an existing product or service from an organization to another one and finally to the consumer or the end user firm.

Through this group of questions we aim define the position of the case-company in the order-delivery chain. At the same time we are tracking down the whole order-delivery-chain of the case product or service. It may not be possible to track down the whole chain just by interviewing the Case Company and thus it may be necessary to also interview some strategic supplier companies and/or clients.



- Who are your direct clients or who do you sell your products to?
- Who are the clients of your clients and possibly their clients?
- Which are the central changes in the client group since the year 2000/in the 21st century?

2. The product structure, the suppliers and the geography

Through these questions we aim to determine the product structure of the case product. Which parts the product or service consist of? Additionally, the price and origin of every component and the raw material is detected. An essential part of this theme is to find out how many inputs related to the product are bought from other companies.

What is the component-specific BOM (Bill of Materials) of the case product, including a detailed list of all the components and raw materials used? If the assemblage of the product

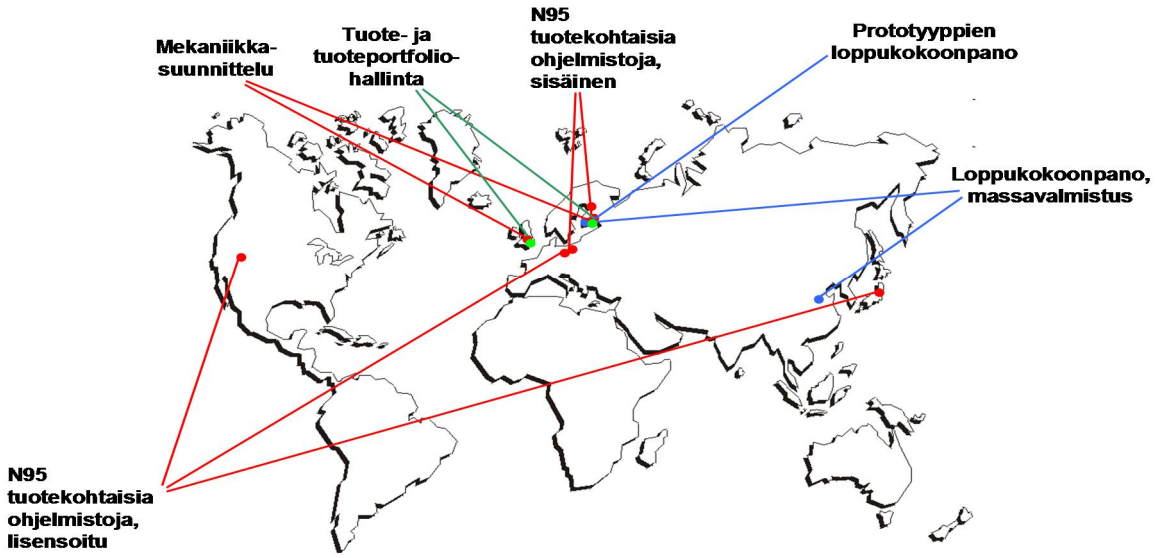
is done e.g. in two different countries, it would be advisable to have the BOM of each of these countries.

The following information is needed of every component:

- The name of the component or of the raw material
- The name of the supplying company
- The price you pay
- The country of manufacture: where was the component or raw material produced?
- The design or the R&D country of the component (naturally this does not apply to the raw material)
- Who are the suppliers or subcontractors of the suppliers?
- The licences and royalties paid
- Which are the total costs of the product assemblage?
- The other costs (energy, logistics, overheads)
- In addition to the physical components, the possible licences or other immaterial inputs that have been purchased will be included.

3. The tasks related to the product and their location

- Which are the central tasks related to the production, development and maintenance of the product/service?
- Based on the model below, where were/are the tasks performed?



Examples of the tasks

- Tasks related to the development of the product or service
- The concept design/planning
- The industrial design
- The software development
- The manufacturing of the product or the realisation of the service
- Prototype manufacturing or piloting of the service
- Mass manufacturing or production of the service
- Others
- The product management and the control of the product portfolio
- Sourcing
- Sales, marketing and branding

Other questions

- What is the selling price of the product?
- Does the selling price vary according to the region (to different countries) or the client?
- What is the price paid by the consumer (if known)?
- Which are the terms of delivery when the product is sold?

4. Calculating the distribution of the added value in the organizations

Through these questions we aim to detect the origins of the added value in the order-delivery-chain. The total added value of the product/service is the tax free price paid by the end consumer. This total added value can originate in dozens or hundreds of companies. Each part of the order-delivery-chain purchases raw materials, components or services, refines or processes them and sells them on to its own clients. The added value of each organisation is calculated in the following way:

Value added = the selling price of the product or the service – all the purchases related to the production of the product/service

We can attain the same result by using the following formula:

Value added = Business profit + the labour costs related to the production of the product or service + the write-offs/depreciation related to the production of the product/service + the rents related to the production of the product/service

7.2 Language industry forecast

	Total turnover (million €)							
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Translation and interpreting, software localisation and website globalisation	5 675	6 243	6 867	7 554	8 309	9 140	10 054	11 059
Language technology tools	568	624	687	755	831	914	1 005	1 106
Subtitling and dubbing	633	696	765	842	926	1 019	1 121	1 233
Language teaching	1 579	1 737	1 911	2 102	2 312	2 543	2 797	3 077
Conference organisation	143	157	172	190	209	229	252	278
Total	8 454	9 300	10 230	11 252	12 378	13 616	14 977	16 475

Figure 14. Language industry forecast, adopted from European Commission (2009)