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Value Chain Services

– Developing the next competitive edge within packaging logistics

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Value Chain Services – Developing the next competitive edge within the packaging industry

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Abstract

Title: Value Chain Services – Developing the next competitive edge within the packaging industry

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Issue of study: Manufacturing firms have a hard time competing with goods only. It is considered that everyone can produce and therefore the competition is solely based on cost. The solution is to increase the value of the offer. Services show great potential in increasing customer value. In addition services are harder to copy and can generate constant stream of income (through contracts). The packaging industry is no different than other manufacturing industries, the competition is increased and prices are forced down. Services within the Supply chain (Value chain) are becoming more important and can create competitive advantage.

Purpose: The purpose of this thesis is to identify existing value chain services, service needs, and service demands in the field of logistics and distribution. The purpose is also to propose relevant prerequisites and factors for an actor in the packaging industry aiming to develop services within the packaging industry.

Method: An abductive research approach is used in this master thesis. This approach enables a flexible research between empirical and theoretical studies. The main approach is of a qualitative character where a case study has been conducted at a company in the packaging industry, with semi structured interviews as main source of empirical information.

Conclusion: The value chain services, service needs and service demands identified by the case company centrally and on respective market are compiled. In conclusion it can be stated that the current service offer in the central organisation does not correspond completely with what the market companies actually offer their customers. Different terms are used to describe the same services in different parts of the organisation which obstruct communication. In order to suggest relevant prerequisites for service development a prerequisite framework is created. The framework summarises theory, empirics, and analysis on the subject of prerequisites for service development in the packaging industry. The framework is divided into five steps: Identify and Understand, Categorise, Create and experience, Package and establish, and Update.

Key Words: Packaging industry, service, service development, competitive advantage

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Lund, February 2012

Christoffer White Simon Leonardsson

Denotations

Some terms are frequently occurring in the thesis and are therefore explained in advance.

- **Case company** – the company that is studied
- **Customer** – the customer of the case company. The customer is, due to the nature of the case company’s products, always a manufacturer and will on occasion be referred to as *Manufacturer*
- **Distribution Center** – Intermediary that can be controlled by customer, retailer or be independent
- **Retailer** – last part of the Value chain before end consumer
- **Service Department** – The company´s current service department (Does not include Value Chain Services described below)
- **Value Chain Services** – VCS. Services provided by the case company aimed at operations along the value chain (Definition of terminology)
- **Wholesaler** – sells to professional businesses and not to standard end consumer

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1 Introduction

1.1 Background

Numerous manufacturing firms today are having difficulties competing with goods only. The general opinion is that everyone can produce goods and the competition is based solely on production cost (Grönroos 1990). In order avoid this development towards cost focus solely, the manufacturing business is changing with an increasing part of the profits made from services. In the competitive global market, companies are using resources to create services that increase the value of their offerings. The goal is to gain competitive advantage (Matthyssens *et al*. 2006), through differentiation rather than cost. Normann (2000) states that, in today's economy, value creation is more and more related to immaterial products. The transition towards services can be described on a goods-to-service continuum (Davidsson *et al*. 2009). The trend indicates moving from a product-based strategy, seen in many stable manufacturing companies, towards a capability-based strategy compliant with the service organisation (Cagliano *et al*. 2005).

For many manufacturing companies just selling products is not enough if they want to increase business (Brown *et al.* 2009). Earnings from industrial products are decreasing and at the same time services show potential of replacing these losses of earnings (Gebauer *et al.* 2004).The global market is very competitive and actors do whatever they can to profile themselves. However, companies that have succeeded in the field of services reckon that there are further advantages than that of standing out. Service contracts (maintenance etc.) give a constant stream of income, unlike manufactured products that are sold once. The capital investment is lower and margins are higher. Another aspect than pure financial gain is the difficulties for rivals of copying a service, which has a potential of bringing competitive advantage (Brown *et al.* 2009).

In the manufacturing business of packaging, the industry is expected to grow worldwide in the coming years. The development markets are forecasted to represent the major part of this growth between 2011 and 2016 (Platt 2011). There are examples of packaging companies from the development markets establishing business in other markets. GA Pack, a Chinese flexible packaging company, is initiating production of packages containing dairy and non-carbonated drinks in Germany. This move is considered to seriously challenge the three main actors in this area – Tetra Pak, Elopak and SIG (Packnet 2011). Further down in the supply chain the demand is changing. Marketing support and increased levels of customization are requested. This decreases the margins for the manufacturer and ultimately the margins of the packaging company (Olsson *et al.* 2004).

During the last years, services, especially communication and business services have been ranked the fastest growing segments of the economy. During the 1990's the share of the service business doubled (Triplett and Bosworth 2001).

In a highly competitive global market companies are using resources to increase the value of their offers. These resources, or bundled resources, have to be: valuable, rare, inimitable and non-substitutable in order to successfully increase the value of the offer (Barney 1991).

The growth of the services sector has raised the awareness of researchers and practitioners about the importance of services in the supply chain (Chase et al. 2007). According to Christopher (1998) it is no longer enough for organisations to operate as an "isolated and independent entity", instead collaboration in the supply chain is the suggested way to gain competitive advantage. Porter (1990) further emphasizes this by stating that competition is moving towards effective value systems or supply networks rather than within individual organisations. This moves the focus to the supply chain as a whole instead of looking at the individual organisations within it (Knowles *et al.* 2005). Fearne and Hughes (1999) lists "service level and the way of doing business" as one of the key success factors in the supply chain. The packaging system is in turn argued to be important for the supply chain. Packaging is recognised to have a significant role on the efficiency of logistics systems and activities such as distribution, storage, and handling (Twede and Parson 1997; Ebeling 1990; Lockamy 1995). Consequently this awareness has also reached the packaging business. To be able to adapt to the faster changing world with more competition, and more demanding customers and consumers, packaging companies are changing their strategies and starting to develop their businesses towards service orientation. Based on the packaging industry dilemma of identifying opportunities with services, this Master thesis will examine how companies within the packaging industry can explore the supply chain to identify services in the process of creating the next competitive edge.

To be able to identify service opportunities within the packaging industry, with a focus on the supply chain, this Master Thesis will study a packaging company and map its current service offers and identify customer needs and demands. With this information service gaps and service opportunities will be discovered. Besides finding the service opportunities, this Master Thesis will also focus on identifying important prerequisites for developing services in the value chain aimed at creating a competitive advantage.

1.2 Research question and purpose

1.2.1 Research question

- What current services, service needs and demands can be identified within distribution in the packaging industry?
- What are important prerequisites and factors for creating a competitive edge within value chain services for the packaging industry?

1.2.2 Purpose

The purpose of this thesis is to identify existing value chain services, service needs, and service demands in the field of logistics and distribution. The purpose is also to propose relevant prerequisites and factors for an actor in the packaging industry aiming to develop services within the packaging industry.

1.3 Delimitation and target groups

1.3.1 Delimitation

The thesis focuses on supply chain services for core products in the packaging industry. The packaging industry is a broad subject and is therefore narrowed down to fast moving consumer goods (FMCG). Supply chain services are services that create value for the customer linked to the physical flow of goods. The secondary package (and all higher levels of packaging) is considered to be part of the supply chain but not the primary package. The reasoning is that primary package is rarely handled in the supply chain. The limitation to core products aims to exclude for example maintenance and spare-parts but not packaging materials.

Vertically this thesis treats services that are aimed to add value in the supply chain between the first customer and the retailer, which is from filling machine to shelf at retailer, illustrated by the doted red rectangle in Figure 1 Delimitation of thesis. The first customer is the one that buys goods from the manufacturer. The services inquired do therefore not include transport to first customers. The first customer is highlighted in Figure 1 Delimitation of thesis because this is the manufacturer's customer and all services downstream conducted by the manufacturer will add value to the first customer and therefore create a competitive advantage for the manufacturer. Between the first customer and the retailer there might be one or many intermediaries. These intermediaries can be either external logistics companies (3PL) or actual possessors of the goods. Regardless of the ownership structure of the goods it is within the scope of this study. The retail part of the value chain is the last step that is included in the scope. The critical point is where the consumer gets a hold of the product. Storing and moving goods within the retailer are considered value-adding activities for the retailer and are therefore included in the study.

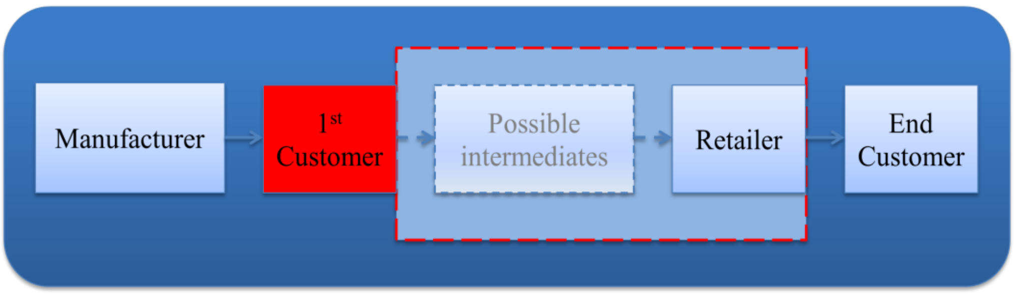

Figure 1 Delimitation of thesis

The literature suggests that it is important to consider the entire system, including product features and perceived value, to enhance the possibility to create services and products that better fulfil the customers need (Olsson 2006). The implication of this is that not only customers and retailers should be involved in development of services but also the end customer. In this thesis, however, the end customer is not taken into account. The reason for this is practical because it is not possible to add the end customer within the scope of this Master Thesis.

1.3.2 Target groups

The target groups of this master thesis, in its entirety, are both companies creating supply chain services within the packaging industry and people with academic interest in the subject. Some segments of this thesis might also be of interest for others, in different contexts, than it originally was intended for.

2 Research approach

The purpose of this Master Thesis is to identify existing services, needs and demands in the field of logistics and distribution, and to identify important prerequisites for service development. Based on that, the Master Thesis will have both a descriptive and explorative purpose. The descriptive purpose is according to Denscombe (2010) a detailed account of the study in order to provide a clear picture of what is going on. This is related to the first part of the purpose where the aim is to identify the existing services, needs and demands. The explorative purpose is described by Denscombe (2010) as a purpose that investigates new areas and seeks to generate new theories and concepts. This is related to the second part of the purpose where the aim is to identify important prerequisites for service development.

The approach chosen for this Master Thesis is an abductive approach. The basis of this choice is that it is a suitable approach when the objective is to discover new things, other variables or other relationships. This is supported by Dubios and Gadde (2002). The abductive approach is an iterative research study between theory and empirics. The process is iterative not only between theory and empirics, but also between what is known and what is learnt (Gummesson 2004). The abductive approach can be seen as a mix of deductive and inductive approaches. Where in the deductive approach the researcher first studies theory and then studies the reality to find concurrence (Jacobsen 2002). The inductive approach is when the researcher studies the reality without expectations and pre-knowledge and gathers information to later construct theories (Jacobsen 2002).

This study has a focus of understanding the role of services and to construct a generic view of the world of services within the packaging industry, in order to be able to identify future service needs. A qualitative research is appropriate and is therefore the selected approach. According to Holme and Solvang (1997) the qualitative research is focused on description and understanding. This research method is focused on a holistic view and enables the researcher to understand the social context and structures. The relationship between the researcher and the research object is closer than in a quantitative research. The researcher studies the phenomenon from the inside and has an understanding of that his/her presence has an effect on the study. The research is often done by non-structured interviews and observations. The interesting things are the unique and different. Because of the extent of time and resource that is put into each studied unit, the amounts of units studied are few.

In contrast to the qualitative research the quantitative approach, in general, converts information into amounts and numbers and it can be done on many different variables. The collection of information is often done by standardized surveys. The result of the survey is easy to generalize, can be statistically evaluated and clearly presented in graphs and figures (Holme & Solvang 1997).

2.1 Case study

"A qualitative Case study gives an intensive, holistic description and analysis of a single event or unit"[1] (Merriam 1994). This quote sums up the reasons quite well of using a qualitative case study as the chosen method of this Master Thesis. The case study will be of a major packaging company with customers world-wide. Case studies are used to study a contemporary phenomenon that is sometimes hard to isolate from its context. A Case study describes one, or a small number of cases, and does therefore not claim to provide general results applicable to other situations (Merriam 1994). Data collected for case studies is mainly qualitative and the study is considered to be flexible since the questions and objectives can be changed during the process of the research. The most commonly used methods for gathering data in a case study are through interviews, observations and documents (Höst *et al.* 2006).

[1] Authors translation

2.2 Data collection

Information will be gathered by both conducting interviews within the central part of the company and also among several local market companies in South America and Asia. The interviews will be semi-structured. The semi-structured interview has a list of questions but this list does not have to be followed strictly (Höst *et al.* 2006). Based on the background and position of the interviewee the goal of the interview will differ. This is also a way of securing the validity of the information gathered. Depending on the background and position, the interviewee will have different knowledge and possibilities of delivering the information wanted. The goal can be of getting a broader picture of the case company or more explicitly gather information on existing services and customer needs. By talking to people it is easy to add questions towards a certain direction if the interviewer suspects that there is more to be found. Another advantage of the personal interaction in an interview is the possibility to understand what the interviewee really thinks. In this thesis it is especially important in the matter of understanding to what extent the services are value-adding. Selection of the interviewees is aimed at getting knowledge about what services are offered today in the industry on the different markets and what needs there are that are not fulfilled. Since the interview will be with people scattered around the world some of the interviews will be conducted via telephone.

10 interviews will be conducted and the positions of the interviewees are different:

- Manager Package Specification & Design
- Package Specification Manager – 2 of the interviewees have this position
- Product Manager
- Retail Manager
- Portfolio Manager
- Product Portfolio & Localization project Manager
- Product Manager, Sales & Distribution Solutions
- Marketing Manager
- Manager Packaging & Distribution Solutions

The reason for the difference in positions of the interviewees is because of the difficulty of finding a time and date in their busy schedule, and existing contact relations will be used with the different market companies to speed up the study.

The answers received from the interviews are compiled in the chapter

Empirical findings.

To secure the reliability of the information gathered from the interviews, the interviews will be recorded, transcribed and then sent back to the interviewees for verification. This procedure is recommended by Höst *et al.* (2006).

The literature studied includes books, scientific articles, dissertations and other publications on the internet. The article database of the University of Lund, LibHub, was primarily used to find the literature. For the information to be valid there has to be a connection between the information gathered and the problem formulation (Höst *et al.* 2006). To determine the validity of the information gathered from the literature, the purpose and research questions of the thesis were consulted regularly. A critical approach to all information gathered was exercised. Questions that should be asked about each source according to Höst *et al.* (2006) are[2]:

- Has the material been reviewed, how and by whom?
- Who guarantees the credibility?
- Is the methodology credible?
- Are the results developed in a context that is suitable to this study?
- Have the results been verified or acknowledged and have they been referred to in other credible studies?

[2] Authors translation

2.3 Verification

The verification of a case study is divided into internal and external validity, and reliability or consistency. The internal validity is how the results correspond with reality. Is the researcher studying what he/she expects to be studying? Ratcliffe (1983) points out three perspectives when measuring the validity of the research. Firstly, the information does not speak for itself; there is always an interpreter or translator. Secondly, observation or measurement of a phenomenon cannot be done without changing it. Thirdly, numbers, equations and words are abstract, symbolic representations of reality, not reality itself. To secure the internal validity of the information gathered, the people examined or interviewed can review the information (Merriam 1994). In this Master Thesis internal validity has been secured by applying this method.

The external validity means in which extent the results of the study can be applied in other situations than the one observed (Merriam 1994). As stated above the case study describes one, or a small number of cases and does therefore not claim to provide general results applicable to other situations. Instead the issue of generalization should according to Kennedy (1979) be left on the reader who wishes to apply the results on its own situation.

Reliability means in which extent the results can be repeated, that is, will the results be the same if the study is repeated? Reliability is a problematic term since the human behavior is inconsistent. Qualitative research is not aiming at isolating laws for human behavior but rather tries to describe and explain reality from the point of view of the people living in it (Merriam 1994). Reliability and validity is linked to each other. Therefore Guba & Lincoln (1981) says that it is more important to focus on internal validity instead of reliability, because it is impossible to reach internal validity without reliability. In the ripples of this statement of Guba & Lincoln, this Master Thesis will focus on internal validity.

2.4 The master thesis process

The thesis stretches over a time period of 20 weeks. During this time several different tasks have been performed, see Figure 2 Project process. The parts that have been left out in the Project process are primarily of softer character like the iterative process of specifying the purpose and general discussions. The first step of the process was to study the methodology literature as a basis for the chosen method. The literature was written down to an extensive summary that eventually led to the Research approach. The theoretical frame of reference started to take shape a couple of weeks into the project. The beginning of this process consisted of wide browsing of information regarding multiple subjects. As the interviews and the empirical study were initiated the theory was narrowed down and successively led to the framework used in the thesis. Interviews were transcribed shortly after they were conducted in order to remember details. The empirics gathered from interviews were summarised based on what information they contained. The opposition of another thesis, a mandatory element the master thesis was performed in week 14. The analysis linked together empirics with theory and also laid ground for the conclusions and recommendations of the thesis.

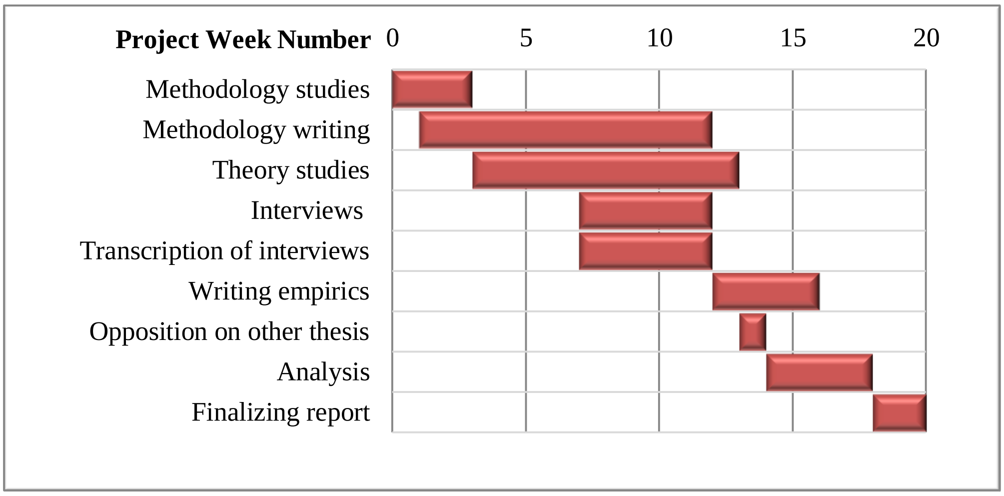

Figure 2 Project process

3 Theoretical frame of reference

The theoretical frame of reference is based on the three main areas: 3.1 *Service theory,* 3.2 *Theory on product and service development,* and 3.3 *Packaging logistics.*

Chapter 3.1 and 3.2 are primarily used to answer the second part of the purpose in the analysis: developing a prerequisites framework for creating a competitive edge in service development. Chapter 3.3 is concerning background information on the industry and context, and is useful throughout the thesis.

3.1 Service theory

3.1.1 Service innovation

Service innovation is the key to survival in these fast changing times. Customer expectations are rapidly evolving, and as needs change, innovation is the primary defence to commoditization (Peng *et al.* 2008).

The economies around the world have changed from traditional economies characterized by muscle power to knowledge economies characterized with brain power. In this change focus has shifted from goods to services. Due to the increasing amount of economic competence, companies gaining a competitive advantage from differentiation of goods are becoming rare. Services have different characteristics than goods in numerous ways (Peng *et al.* 2008):

- Production and consumption of services occur simultaneously
- Services are heterogeneous, goods are homogenous
- Services are expectation-related, goods are utility-related
- Services are intangible, goods are tangible
- Services are reusable, goods are recyclable
- Objective of services is customisation, for goods it is reliability

Services are active collaborations between customers and suppliers and result in "value co-creation" (eBRC 2005). The difference in transaction models are displayed in Figure 3 Traditional Transaction System (Peng *et al.* 2008) and Figure 4 Service Transaction System (Peng *et al.* 2008). Figure 3 Traditional Transaction System (Peng *et al.* 2008) show the traditional transaction system model and Figure 4 Service Transaction System (Peng *et al.* 2008) show the service transaction system model. In the service systems the people, and the relationship between them, play a dominating role. All stakeholders in the supply chain of a service system interact to create value.

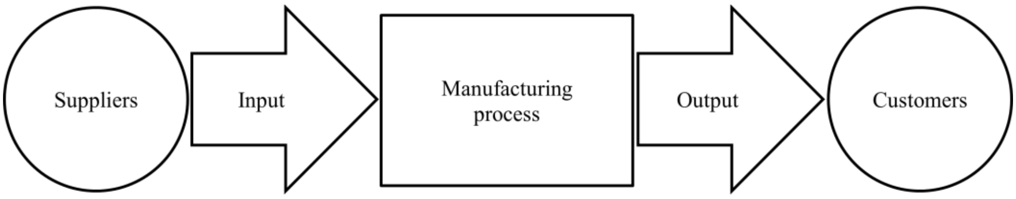

Figure 3 Traditional Transaction System (Peng *et al.* 2008)

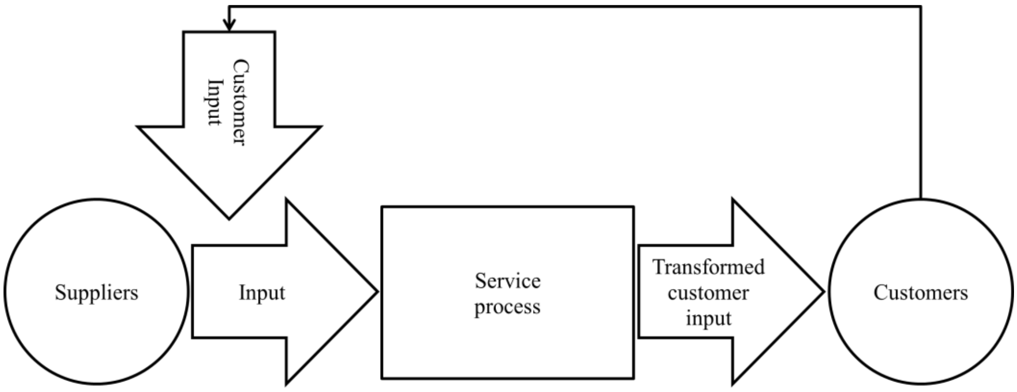

Figure 4 Service Transaction System (Peng *et al.* 2008)

In most developed nations in the world the service innovation has a high priority (Chesbrough & Spohrer 2006). Still, most of the knowledge of innovations comes from manufacturing of products rather than services. It is a misconception that service innovations can be modelled after manufacturing frameworks (Rouse & Baba 2006). Taking the differences in characteristics into account, OECD has listed several factors that are specific to service innovation (Bitner & Brown 2006):

- Services are knowledge-based and drive growth
- Service innovation comes less from traditional research and development and in greater scale from knowledge from outside sources and collaboration
- Service innovation is dependent on highly skilled and educated people
- Due to importance of human factors, entrepreneurship is a key factor

Service innovation is a change to a service system, which consists of interacting clients and providers.

Technology has a big impact on the service systems. It has changed the way services are perceived, developed and delivered. An example is the self-service technologies (SST) such as ATMs, online reservation etc. Technical innovation is both a driver and enabler of service innovation. It is important to understand customer behaviour when implementing technical solutions. The actual technical solution is often the smaller part whereas getting the customers to actually use the technology can be tricky. The non-technical service innovation is relationship innovation between people which can be divided into three sub categories:

1. Supply innovation, six-sigma etc.
2. Demand innovation, clients describing what they want
3. Relationship innovation, standardization of processes and interactions

In the Difference Point of Service Quality Delivered model the value chain system is divided into three components; suppliers, employees and customers. The DPSQD shows that improvement of the service system is different depending on where the improvement is performed.

3.1.2 Creating service competitive advantage

A way of creating a competitive advantage is to do something that others are not doing or to do it better. The following model, Figure 5 Circles to create strategic advantage (Gustafsson & Johnson 2003), describes how to create a service competitive advantage.

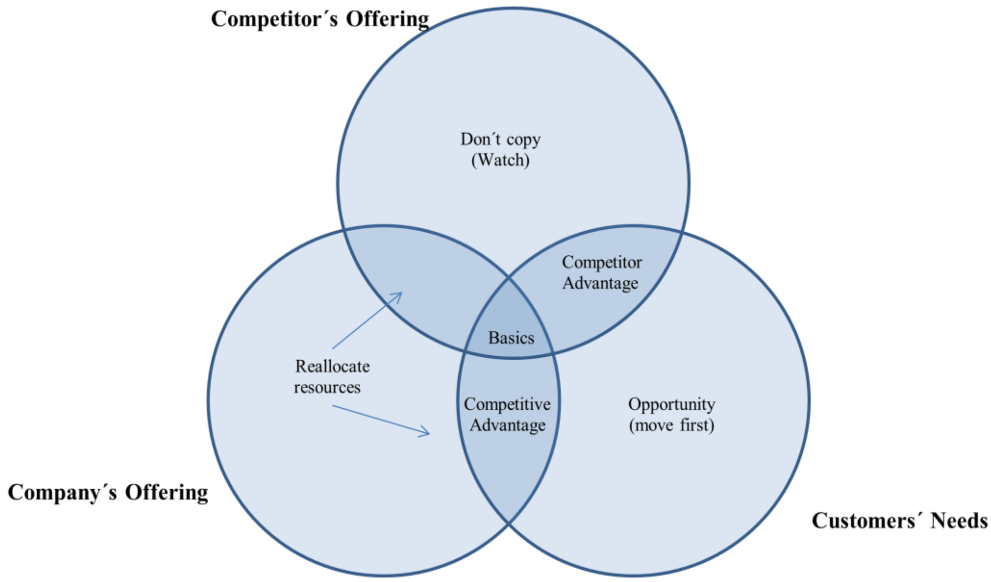

Figure 5 Circles to create strategic advantage (Gustafsson & Johnson 2003)

The circles illustrate the service offerings you and your competitors offer, and the customers´ needs. The area which is overlapped by all circles is called basics because this area illustrates the basic needs of customers that are already satisfied by you and your competitors, these services are taken for granted by the customers and has to be satisfied. The area covered by you and the customer needs marks your competitive advantage. In the same way the area of customer needs which is covered by your competitors is their competitive advantage (Gustafsson & Johnson 2003).

The area covered by both you and your competitors but not by the customer needs is an area of interest. Many companies copy competitors’ services without checking if they fulfil any customer needs. Benchmarking on “best in class” can often make companies lose focus on customer needs. The arrow wants to emphasise that this is an area where resources used can be reallocated from (Gustafsson & Johnson 2003).

The areas of you and your competitors´ offerings that do not overlap each other or customer needs are areas from which your resources can be reallocated from thus this area do not add value to the customer. There can be a value of monitoring your competitors´ offerings in this area if you believe that the customer needs are moving towards them, but there is no sense using resources to copy these service offerings (Gustafsson & Johnson 2003).

The area of customer needs which is not covered by either you or your competitors is where the opportunities lie. Reallocating the resources to this area will help your company to move first and create a customer advantage (Gustafsson & Johnson 2003).

3.1.3 Service management

Customer knowledge has increased explosively and their needs are getting more individual. Two-way communication between company and customers is important; if not, the potential of customer relations is not fully exploited (Normann 2000).

Value is transferred in two directions. The concept of producers versus customers is considered to be misleading. Value chains can be seen as networks instead. More can be squeezed out of every resource by collaborating with customers – the relationships become assets. A means of transaction of immaterial elements have to be developed (Normann 2000).

The basic idea of a service tends to be simple but the issue is to create a system that can reproduce services with high quality. Customers judges services by how they are presented and performed, and less by the service itself. Service organizations are more sensible to quality of management than other organizations. The critical success factors have to be identified and ethics have to reach out to all employees since they are the ones meeting the customers (Normann 2000).

There are several factors that create vicious circles that collapse service organisations (Normann 2000):

- Complication of service management system – Expectations of services that cannot be fulfilled
- Out of control growth - Reproduction formula of service system has to be good
- Inappropriate power structure – Lack of balance between local and central parts
- Lack of compliance between service package and customer expectations – Even a small change in the supportive service might lead to dissatisfaction

- Bad or careless management – “retailing is detailing”, care about the small things; small profit margins, focus human energy (employees)
- Inappropriate economic control systems – An orientation towards people tend to be a common denominator in service organisations. The control systems should be formed accordingly
- Inability to attract the right staff – Company needs an image that attracts good personnel, other ways a vicious circle is almost inevitable

3.1.3.1 Service package and expectations

It is when service is not what is expected it is noticed, either it is lack of service or service that is worse than expected. If everything is good and as it should be it is not noticed. Exceptionally good service can be noticed however; it leads to satisfaction rather than enthusiasm. The customer does not always know what is best for him; sometimes he demands something that makes him worse off. A service company has to manoeuvre pass this issue and listen and interpret customer but not accept everything he says. When adding a new service or level of quality it is hard to decrease the customers’ expectation afterwards. Therefore, the company has to be confident to manage the changed service package. If customer expectations are not fulfilled loss of credibility is a probable scenario. Furthermore the service package should not make the company lose attention to the core business. For example; a low price retailer that adds services and in consequence has to increase prices (Normann 2000).

3.1.3.2 Loyalty

Superior value of products or services delivered to customers leads to customer loyalty, the real driver of financial performance (Reichheld *et al.* 2000; Heskett *et al.* 1997). Loyalty and profits are strongly linked to value created for customers. Customers are loyal to a company as long as it offers them superior value compared to its competitors (Khalifa 2004). A study at a retail bank depositors state, that completely satisfied customers are 42% more likely to be loyal than only satisfied customers (Heskett *et al.* 1997).

3.1.4 Customer orientation

The long term success factor is not how much we can get out from our customer, but how our customer is succeeding on its market. To care about the customer’s success result in long term collaborations rather than occasional transactions. The customer is the company’s most important stakeholder. A way of highlighting this is to regard oneself as a part of the customers business and that the offer should not be seen as a result of the production process but as a contribution to the customer’s value creation process (Normann 2001).

To be able to understand the customer´s business the supplier has to find out what is most important for the customer. This is often their customer´s customer. This means that to be customer oriented the company does not only have to understand their own customer but also their customer´s customer. This new focus is illustrated in Figure 6 Customer relations (Normann 2001).

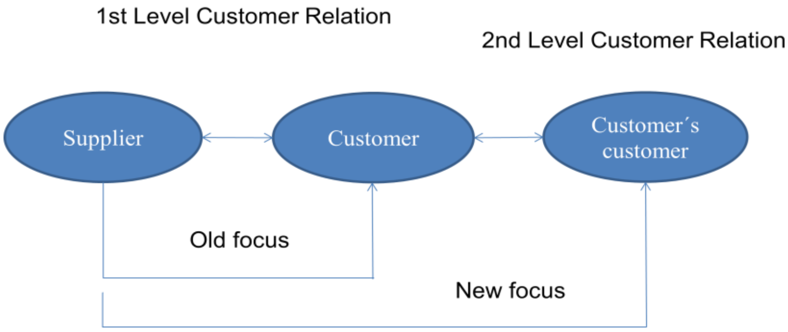

Figure 6 Customer relations (Normann 2001)

3.1.5 Distinction of services (SSP and SSC)

The strategic use of product services is said to have reached its maturity stage. Already in 1972 Levitt stated that everybody is in the service industry. The distinction of services is based on whether the service is of traditional nature, e.g. after-sale services, or if it is more advanced (Caspedes 1994), e.g. IT consulting. Burger and Cann (1995) are suggesting that traditional services about guarantees and maintenance are not enough anymore. These services have to be complemented with ones that fulfil customers increasing expectations and design corresponding service solutions. Lanconi 1995 started distinguishing services that supported the customer after the sale. The services aim at integrating the supplier's product into the organization of the customer and advance its business objectives (Burger and Cann 1995). Hunt (1976) argued for the importance of classification schemes in marketing. It was not until the resent past that Frambach *et al.* (1997) proposed a classification based on transaction and relation. Mathieu (2001) takes this basis further and classify the services according to whether they support the supplier's product (traditional after-sales service) or service that supports the client's action in relation to the supplier's product (e.g. training service). The first type of service, that supports the product (hereinafter termed SSP), is a more traditional service whereas the second, that supports the customer (here in after termed SSC), is linked to the concept of a more advanced product offer. The SSP's aim is functionality of the product and access to it. The SSC aims to support specific client initiatives and enhance the customer organization. Customer support services[3] (CSS) are aiming to support customers and lets the company become a service provider rather than being a provider of product-related services (Gebauer 2007).

The point of the classifications is related to the efforts of creating respective service. Creation of SSC requires intimate knowledge of the client's operations and understanding of how the service will support core activities. The supplier's work concerning an SSC is said to never end, the aim is to optimize all processes, actions and strategies that is associated with the supplied product. The recipients are another difference between the two types of services. For a SSP the recipient is the product itself, for a SSC it is a person, the client. The relationship intensity between the supplier and customer it low for a SSP and high for a SSC. The relationship intensity refers to number of people/departments involved, the level of involvement and the importance of commitment-trust. In the aspect of customisation the SSP is a standardised product, i.e. low customisation level, and the SSC is highly customised (Mathieu 2001).

Mathieu's (2001) study shows that, when asked for what services you deliver/are delivered to you, both suppliers and clients tend to mention SSP's a lot more frequently than SSC's. Further on the study also shows that all parties asked (suppliers, clients and distributors) mention SSP primarily in most cases. The conclusion of this is that development of SSC is a marketing opportunity since this kind of service is less traditional and less common among suppliers. This means that there is a potential discrimination power.

An issue is that the suppliers tend to focus too much on their own product and disregard the client's application, whereas participation of a famous supplier in the commercial negotiation could be seen as a competitive advantage (Mathieu 2001).

The implications can be summarised into:

1. SSP is a traditional and common service. In contrast the SSC presents promising opportunities. Managers should therefore enhance the firm's ability for implementing SSC. The two main areas where skill has to be built are within relationship management and customisation. SSC requires good interaction between supplier and client not only based on cultural proximity but also the capacity and willingness to fulfil customer's expectations. This requires highly trained personnel that possess relational and technical skills. Managers should consider people the main assets. This is seen as the major

[3] The authors find Customer Service Support, CSS, very similar to Services Supporting Customer, SSC, and will therefore be considered as substitutable. In the analysis SSC will be used exclusively.

shift from moving from a manufacturing culture to a service culture, from SSP to SSC.

2. Services are more a thought construction than an objective reality. The supplier creates a conceptual speech whereas the client talks more in terms of action. The speech of service offering is weak and faltering, lacks clarity and accuracy, and is traditional. Managers should therefore carefully develop communication strategies that clearly describe value proposition to the customer. The difficulties lie within creation of shared understanding of the service offering within the organization and the insurance of possessing the skills and resources to deliver it. Service supporting communication has to be clearer and sharper. This kind of efficient communication may also lead to reinforcement of the relationship process.

3.1.6 Measurement of Supplier Service Quality in Supply Chain (SSQSC)

Services are rated by customers based on several factors. By understanding and considering the factors that the customer judge a service on, it provides the service supplier with valuable information about the current portfolio and future development.

SSQSC is a tool that identifies Supplier Service Quality Dimensions in the context of Supply Chain. The objective of SSQSC is to provide identification and opportunities of improvement in supplier service quality perceived by the customer.

Seth *et al.* (2006) identifies seven factors to measure SSQSC:

1. **Service reliability**. This factor is linked to reliability, correct quantity, confidentiality and quick solutions to complaints. Professionals consider this dimension as correct service delivered and rank it highest. This dimension has been identified in several other quality tools.
2. **Credibility**. This includes the supplier's reputation of providing a credible service. The dimension is a combination of honestly in operations, positive attitude and innovativeness in operation.
3. **Service competences.** Competence of providing a consistent service. This factor contains six sub items: knowledge/skills, understanding, consistency, easy approach, right tools and competent employees.
4. **Intra-organisational communication.** The level of communication and speed at which information is shared between interacting companies. It is both about fast communication and fast response at all points. Communication is a key to a well functioning supply chain and is even said to be a substitute for inventory.

5. **Service flexibility.** The ability to provide services adapted to the changes in requirement – meeting changed requirement in a dynamic environment. Flexible in terms of conditions from the supplier and IT use in its operations.
6. **Financial trust.** Maintaining financial trust between trading partners. The sub factors are: timeliness, trustworthiness, financial strength and minimum price charged. The financial management is argued to be the back bone of both manufacturing and service operations.
7. **Pleasant environment.** Maintaining a good business environment between involved parties. This is a combination of two factors: willingness and courtesy. The quality of the service is directly linked to the quality of the working environment.

The factors can be assessed either separately, to provide quality indications on factor basis, or in total, to evaluate service quality in general. SSQSC can be plotted over a period of time in order to identify trends and benchmark implementation of, for example, new managerial practices. SSQSC can by customers be used as a tool for comparison between different suppliers and is therefore important to understand. Finally, SSQSC scores can hint in what direction improvement work should head (Seth *et al.* 2006).

3.2 Development of products and services theory

3.2.1 Product development

The product-development model describes the phases of developing a product. The model is illustrated below in Figure 7 Product Design and Development Process (Ulrich & Eppinger 2008) and descriptions of the phases follow the figure.

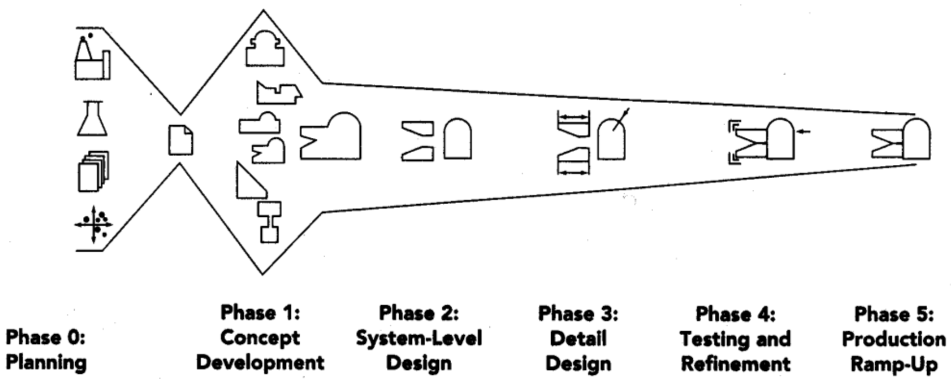

Figure 7 Product Design and Development Process (Ulrich & Eppinger 2008)

Phase 0: This is a phase before the actual process has begun. A Project Mission Statement is constructed which contains: target market, business goals, prerequisites and delimitations.

Phase 1: In this phase the needs of the target market are identified and product concepts are generated. After evaluation one or more product concepts are chosen for further development and testing. A concept is a description of shape, function and capacity. Often specifications, analysis of competing products and economical justification are also included in the concept.

Phase 2: In this phase the definition of product architecture, structure of subsystems and components is decided. Final composition diagram is also often decided in this phase. Outcomes from this phase are geometrical layout of the product, functional specification of the subsystems, preliminary process flowchart and composition process.

Phase 3: Here a complete description of all specifications is created. Control documentation, blueprints, specifications on parts to purchase, process plan on production and composition are created. Two critical factors in this part of the development process in production cost and robustness.

Phase 4: Prototypes are made and evaluated. The evaluation is done internally and also at key customers. The goal with these tests is to answer questions on performance and reliability, and to identify necessary changes.

Phase 5: Production is started. The purpose of this phase is to train the staff and solve remaining problems in the production process. Products in this phase are sent to certain chosen customers and evaluated closely. Full production will be reached gradually and during this transition the product will be launched to the market.

3.2.2 Service development

When developing new services, or services that are supposed to replace old ones, the company must build competence in service development. The development process of SSC, however, differs from the one of product development and should instead be more service oriented rather than product oriented. (Gremyr *et al.* 2010).

A key issue in determining success in service organizations has been identified as a structured and systematic New Service Development process, NSD, (Cooper & Edget 1996, Kelly & Storey 2000), see Figure 8 NSD process model for experience. The inputs of NSD process are service innovation strategy and customer characteristics, and the process is defined as five stages: *experience needs identify, experience design, service system design, experience testing,* and *new service launch* (Jiang 2008).

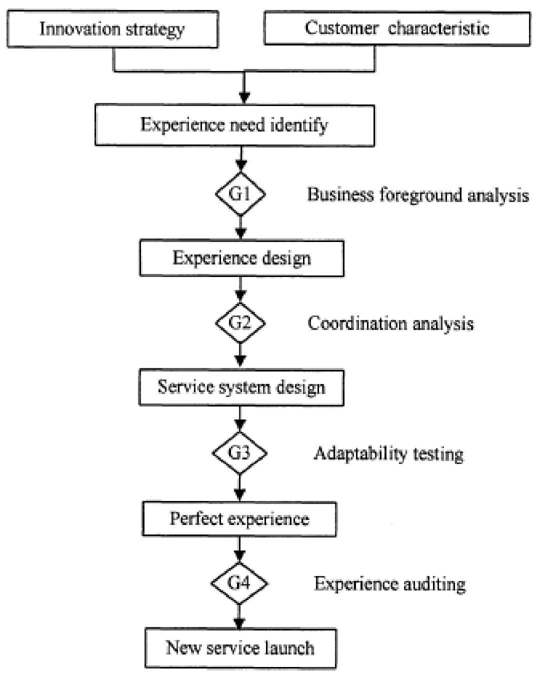

Figure 8 NSD process model for experience

3.2.2.1 Experience needs identify

The successful development of new services is dependent on knowledge of underlying customer experience needs. This is why experience need identification is an important way by which companies can derive new and valuable ideas for services (Jiang 2008).

Since service experience is unique to every individual customer and the service consumption situation, experience needs identify can be described as the conceptualization of the elementary components and some common core characteristics of the customer experience. Specifically, Schmitt (1999) identifies five Strategic Experiential Modules: sensory experiences (sense); affective experiences (feel); creative cognitive experiences (think); physical experiences, behaviours and lifestyle (act); and social-identity experiences that result from relating to a reference group or culture (relate) (Schmitt 1999)

3.2.2.2 Experience design

Experience design is an approach to create emotional connection with customers through careful planning of tangible and intangible service elements, (Carbone & Haeckel 1994). Experience design is connecting experiences that are functional, purposeful, engaging, unique, sustainable, and memorable. Since companies cannot manage a customer's emotions or involvement, they can manage the clues or contexts embedded in customers´ experience. An experience clue is anything that can be perceived, sensed or recognized by its absence which forms the customer experience (Jiang 2008).

3.2.2.3 Service system design

The service system design settles the location of service facilities and distribution of experience touch-points based in the available resources. It also assigns stochastic customer demand to each part of the system by allocating enough capacity, so as to minimise the fixed costs of service facilities and acquiring service capacity, as well as the variable access and waiting cost. During the past decade, service delivery styles and service channels have changed a lot, customers can search for information, purchase products and attain services by multiple channels. This means that it is a puzzle to distribute the limited resources with reason and to deliver perfect experience through the touch-points. There are two ways of solving this puzzle. The first approach includes a probability constraint that ensures that the actual experience exceeds a certain level. The second approach incorporates the basic platform and raw materials directly in the objective experience then customers can co-create their own unique experience using self-service technology (SST) (Jiang 2008).

3.2.2.4 Experience testing

It is important to create a feedback and correction loop in the service development to be able to verify the anticipated effects and correct failures prior to launch. It is important to prevent competitors from getting knowledge about the organizations plans therefore the testing is often made in simulated environments. The experience testing involves: business foreground analysis, coordination testing, adaptability testing, and experience auditing (Jiang 2008).

The new service ideas are analysed in light of business aspects. Crucial to the development is the need for tight control of the process in order to reduce costs and efforts to increase the speed of the development process to maximize the potential competitive advantage. Coordination means that new service ideas acquired from experience identification keep coherence with innovation strategy, is compatible with organizational environments, and is guaranteed resources. Adaptability refers to the capability to integrate a company´s interaction and a customer´s experience based on evolving customers´ needs. Experience auditing gets customer reaction to the content, delivery and marketing mix variables of the new offer, and enables refinement prior to launch (Jiang 2008).

3.2.2.5 New service launch

The perfect experience is unique, durative, and a far reaching impression. It can be awakened repeatedly and capable of providing intrinsic value at each touch-point. The launch stage of the new service development is of crucial importance, it includes full scale launch and post launch review. The full scale launch refers to service performance evaluation and service process modification, and post launch review refers to roll out of the service to the entire target market. The managerial role as a link and coordinator between market reaction, employee training and service process, is important to produce a profit in the long run (Jiang 2008).

3.2.3 Creation and reproduction of services

It is important to be able to reproduce a successful service. The reproduction is divided into three steps. First step is to analyse the service management system closely to find what is referred to as the "simple logic"; the key success characteristics. The second step concerns how to formulate and control the success characteristics. The third step is to obtain the tools, such as management systems and support systems, enabling reproduction. The second and third step can be regarded as the process of "packaging" the service management system containing everything that is needed for delivering a service. There are several pointers when creating a reproduction formula (Normann 2000):

- A description of the service and level of quality that has to be reached
- Retaining of central control components that does not have to be locally adapted but are necessary for the service system
- Create and communicate central guidelines and success formulas. These can be done through instructions and central control of hiring processes, image etc.
- Develop information and reporting systems that aims to representing the "simple logic" of the management system or the success factors in order to direct attention
- Create central competences in areas where the knowledge can create economies of scale

When expanding a service internationally there are three requirements that have to be fulfilled to get business breakthrough (Normann 2000);

1. The company possess an advantage of a successful service system on the domestic market
2. There are strong personal ambitions among people high in the organisation to internationalise
3. Willingness to invest resources and time required to reach breakthrough

3.2.3.1 Client as customer – customer as fellow producer

The customer plays a central role in the service business. The customer appears two times: in market segment and as part of service delivery system. The customer judges both of these appearances. The customer is being both a producer and a consumer. The customer's involvement is seen as a way to reach cost efficiency (Normann 2000).

3.2.3.2 Development of SSC (CSS[4])

Developing SSC requires the service supplier to consider some additional critical factors and guidelines:

The effect of changing customer needs exceeds the effect of increased competitive intensity. In practice this suggests that companies should not wait until they lose competitive advantage until they start developing customer supportive services. Critical steps of offering a CSS are: high managerial recognition, improvement of service orientation in the corporate structure, and human resource management (Gebauer 2007).

A manufacturing company that want to switch from providing product-related services to offering CSS instead has to find the balance between external environment, business strategy, and organisational design. Companies need to dedicate sufficient effort to increase the service orientation of corporate culture and human resource management. If this is not done, it will be difficult to develop a CSS business. These investments, in effort and time spent, will pay off in the overall profitability (Gebauer 2007).

Looking at critical dimensions for SSC innovations it is important to widen the scope from the offering to other factors related to the service transition of the company to the development project. The importance of these dimensions shows primarily in long-term development of a series of services where factors like transition towards service orientation, development project, and offering plays a bigger role (Gremyr *et al.* 2010).

[4] The authors consider SSC and CSS to be the equivalent

Any company can develop a successful CSS, not everyone can deliver it successfully over a longer period of time, and then a sufficient degree of service orientation is required. This orientations both technological solutions as well as focus on customer relationships. Case studies show the difficulty of implementing a service orientation outside of the service division (Gremyr *et al*. 2010).

Bundling of technological solutions and service has proven to be a core characteristic among companies producing CSS. It is thought to be a natural step for manufacturing firms to move into the service business by providing a product that consists of both an intangible and a tangible component. This strategy of combining components also supports the selling organisation that in many cases is not used to selling intangible services (Gremyr *et al*. 2010).

3.3 Packaging logistics

3.3.1 Packaging and packaging system

The packaging system highlights the natural interaction between the different hierarchical levels of packaging and facilitates the understanding of the relation between the packages, see Figure 9 Packaging System Levels (Hellström & Saghir 2007). The primary package is the package that is containing the product. The secondary package is designed to contain several primary packages (Hellström & Saghir 2007). The tertiary level is needed to produce a standard unit load (Corner & Paine 2002). This means that the tertiary package can be just a pallet or roll container but in other cases it has to be a package which in turn is put on a load carrier.

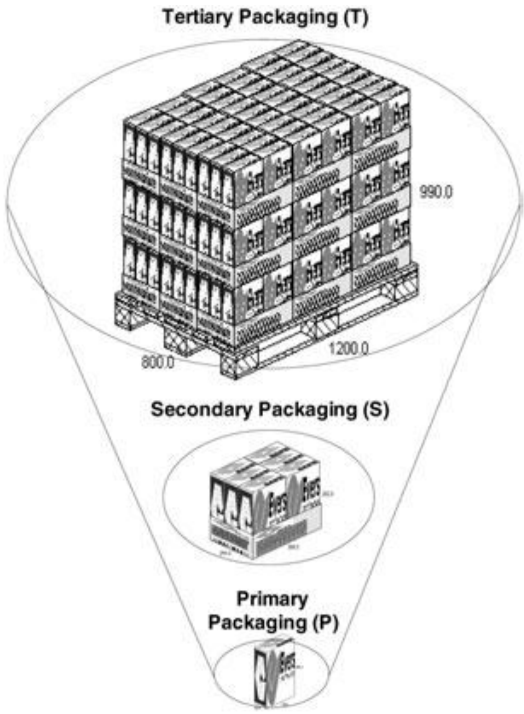

Figure 9 Packaging System Levels (Hellström & Saghir 2007)

The packaging has multiple functions. Paine (1982) highlights the basic functions of protecting, containing, preserving and communicating. Protection is not only a barrier protecting the contents from the environment but also has the function of protecting the environment from the contents. Containing is linked to simplification of handling the product along the distribution with transport and warehousing. The preservation function is especially important in packaging of food products; it ensures that the contents remain fresh. The communication function of a package can be divided into three sub categories: communication of contents (informative), promotion of products and maximisation of communication with customers. Communication is a function that is more important in competitive markets.

All levels of the packaging systems are needed for an efficient distribution and specific functions can be linked to the different levels, i.e. if the primary package has the functions of containing, preserving and informing the secondary package has the function of protecting (Corner & Paine 2002).

Packaging is in many cases considered to be part of an integrated system involving actors throughout the supply chain. This system involves all levels of packages and logistic activities such as warehousing, transport, materials handling, and inbound logistics operations (Johnsson 1999). By adapting logistics and packaging activities to each other the packaging becomes more efficient in fulfilling its logistical role (Bowersox & Closs 1996). It is stated that good packages interact well with the companies material handling equipment and allows for efficient utilisation of both storage and weight constraints (Stock & Lambert 2001). Packaging is consequently interacting with most logistics activities and has therefore impact cost such as, vehicle investment, operational costs, production, material handling, inventory, and costs related to information processing and purchasing (Stock 1998).

3.3.2 Supply Chain Management

Management and organisational structure has in enterprises, in the past, been divided into functional areas (e.g. marketing, R&D, procurement, warehousing, finance etc.). In the modern value creation logic other divisions are proposed: Product life cycle management (PLM), Finance management, Production and logistics management and engineering, and Supply chain management (SCM). These areas are connected to the core of entrepreneurship: value adding. In normal business conditions value is related to a product or a service and the added value creation is along the value chain, from raw material to consumption. The amount of value added in the different stages depends on the business and industrial environment but PLM and Finance management typically stand for a just over half and Production and logistics management together with SCM for the rest. In comparison Production and logistics management SCM add about twice as much value to the enterprise (about 30% of total added value) (Ivanov & Sokolov 2010). SCM is one of the key components of enterprise management and is responsible for balancing demand and supply along the entire value-adding chain (Christopher 2005).

3.3.2.1 Changing supply chains

Increased integration is thought to make the supply chain more efficient and effective. The underlying driving forces are outsourcing, focus on core competence, internationalisation and international competition. Shortened lead times and reduced inventory are changes that have been driving the need for integrated in supply chains during the past decade. This is also enhanced by alliances between companies and mergers and acquisitions. A stronger focus on customer orientation and customer order production has increased the variety of products and services resulting in a growing number of different types of supply chains (Hertz 2006).

3.3.3 Definition of terminology

Distribution (CSCMP 2010): The activities associated with moving materials from source to destination. Can be associated with movement from a manufacturer or distributor to customers, retailers or other secondary warehousing/distribution points.

Value chain (CSCMP 2010): A series of activities, which combined, define a business process; the series of activities from manufacturers to the retail stores that define the industry supply chain.

Supply Chain Management (CSCMP 2010): Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies. Supply Chain Management is an integrating function with primary responsibility for linking major business functions and business processes within and across companies into a cohesive and high-performing business model. It includes all of the logistics management activities noted above, as well as manufacturing operations, and it drives coordination of processes and activities with and across marketing, sales, product design, finance, and information technology.

4 Empirical findings

In the following chapter the empirical information gathered is presented. As described in the methods chapter the information has been collected through ten interviews with people with various positions within the case company, both centrally and in the market companies.

The *Empirical findings* chapter is divided into two main sections. First, the findings from the case company are described in general, with case company description, denotations, trade archetypes, and service concepts, followed by development and offering of new services. In the second part of the chapter, current service offers, needs, demands, services in pipeline and competitors service offers are compiled.

4.1 Case company description

The case company is a large company in the packaging industry. The case company is a worldwide actor. The company consists of a central organisation and several market companies spread all over the world. The company is selling packaging material and filling machines. In addition the company provides its customer with supporting services, primarily linked to the manufacturing.

The market company is a part of the case company. There are several market companies all around the world. The market company is the part of the organisation that has customer relations. It has the responsibility to sell the case company's products. It cooperates with the case company´s central departments, to exchange knowledge and to create market strategies. The market company offers technical service to the machines sold but local differences between the market companies result in different competencies in these services. Since the market company is responsible for customer relations it is also the market company that works close to the customer to ensure customer satisfaction. This leads to the creation of value adding services that in different ways try to ensure customer satisfaction. These services are created and delivered both locally and from the central organisation.

4.1.1 Trade types

A model over the different distribution scenarios has been developed by the case company in order to identify and fulfil the different needs along the value chain. The value chain has been studied in detail and three main types have been identified. These main types of trade archetypes can, in turn, be divided into eight more specific scenarios.

Traditional trade

See Figure 10 Traditional trade. Traditional trade is typical for development markets such as Thailand, China and India. This type of distribution chain is rather unpredictable. Another field where traditional trade is used is in HORECA (Hotels/Restaurants/Café) where a small number of products are distributed to a large number of consumers. In traditional trade pallets are seldom used, instead a distribution unit that can be transported by small trucks or even bicycles are used. The main needs here are protection for the rather unconventional modes of transport and splitability: the possibility to split the secondary packages without losing protection. The consumer is buying one package at the time which means that selling *Rotation* is one unit. The power in this type of distribution is at the product brand owner. Traditional trade can in turn be divided into a China specific scenario and one more general scenario.

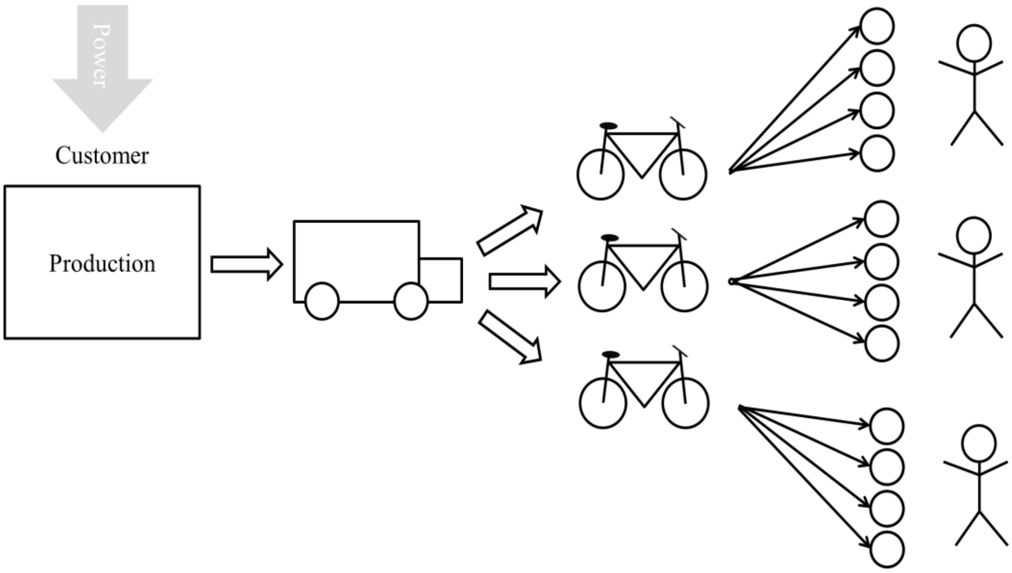

Figure 10 Traditional trade

Modern trade

See Figure 11 Modern trade. Modern trade is palletised distribution that passes by a Distribution Center (DC) and ends in a number of hypermarkets, supermarkets or convenience stores. This type of distribution has changed over time. 10-15 years ago the customer had most of the power but today the retailer has taken over. "Cost control" is divided between customer and retailer. In general the customer takes cost and control up to the DC, and then the retailer takes over. The transparency is limited and the customer has limited ability to see the retailers flow. The retailer is gradually, in pace with the increased power, demanding more and more from the customers. Sometimes the retailers also own the brand. Modern trade can be divided into four scenarios depending on the *rotation* which in turn depends on the value of the product (commodity, branded or niche). Depending on the value different amounts of money can be spent on secondary package etc. Walmart is a typical retailer within modern trade. Though volumes are great pallets are often repackaged in the DC.

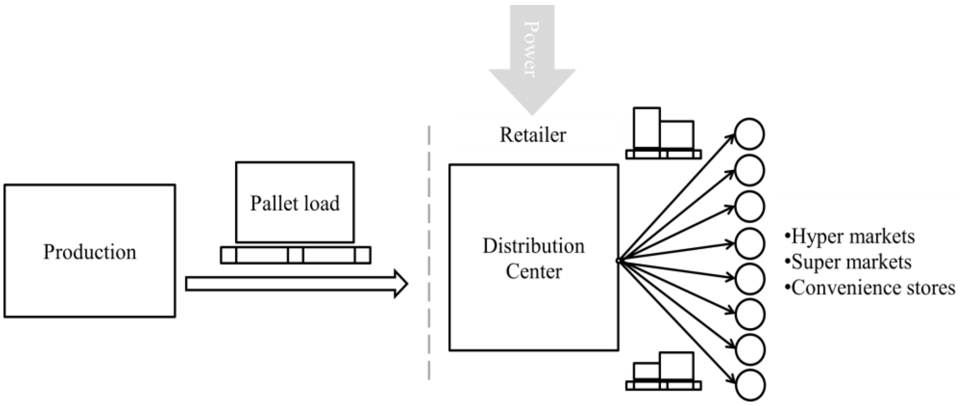

Figure 11 Modern trade

Modern direct

See Figure 12 Modern direct. Modern direct is when the pallet in principle goes straight to hypermarket or "cash and carry". Within the Modern Direct archetype there are two different scenarios. The first one represents the cost driven, for example white milk in Germany. Aldi and Lidl have their own brands and the producer (customer of the case company) is a strict co packer. In this scenario it is all about pushing bulk since rotation at retailer is high. The second scenario is more typical for juice. The reason for modern direct in this case is the ability to brand the product using the display unit.

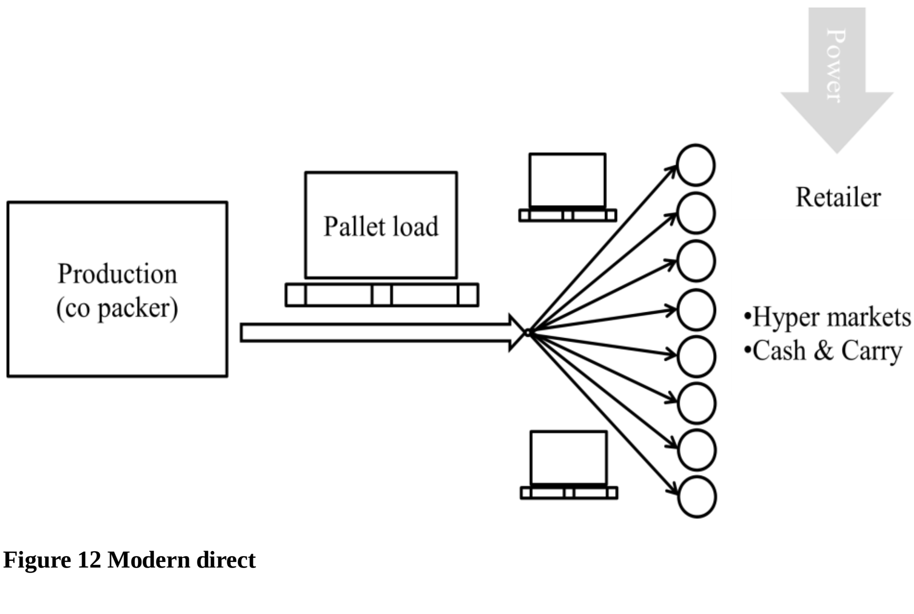

Figure 12 Modern direct

4.2 Maintenance service of today versus the concept of Value Chain Services

The case company´s main offering today is maintenance service complemented with an array of services. The Service Department offering can be described as services providing knowledge, technical competence development, spare parts, tools and methodologies to design, manufacture and support customers and the case company. The scope of these services is within the operations at the customer from the beginning of the production line until the product leaves the production. In the future it is desired to not only focus on the inside of the production, but to expand the services offer along the value chain, a concept under development named Value Chain Services (VCS). The VCS developed centrally are going to be of the character that can naturally be copied or reused by other organisations within the company. The primary target is that the market companies will be able to use the services on their own. The case company stresses the importance of only including services that are actually going to be used in the VCS concept. Today VCS is an unspecified concept that is part of the future road map.

The concept of VCS is an opportunity to tie customers and customers' customers even closer to the case company. It is a natural step forward from only providing technical services, like maintenance, that is the major service offer today. VCS´s are recognized in the company's future strategy which signals the level of importance.

4.3 Development and offering of new services

The development of services within the case company is based on the experience that the case company has gathered after being an actor in the packaging industry for a long time and having installed many packaging lines world-wide during this time. The case company sets up a strategy to reach a desired position within a ten year horizon containing mapping of the current position and identification of gaps to get there. Within the company there is one department that works with marketing and provides all input for the strategy. Different studies are conducted by this department such as customer requirements and customer satisfaction studies. The result of this comprehensive study shows how satisfied the customers are. The strategy is also built on customer input and production archetypes. The new ideas for the service roadmap are however based on vague information of customer needs and the further away in the future it refers to the more of just an idea it is. The case company believes that because of their experience in the industry they have, in many cases, better knowledge about the customers' needs than the customers themselves. A feasibility study is then performed on the suggested specification of a "wish list" of services filling the identified gaps. This process works in the same way as the one for development of equipment or materials. The case company believes there is an advantage in developing services centrally because it is expensive to make sure that the service development project is heading in the right direction. A business manager analyses the commercial part of the service development.

All existing services are represented on the homepage; in form of leaflets, internal/external presentations, and movies. The marketing company uses these products as a toolbox. Working in the market you should be aware of the existing services, and also be able to listen to the customer to make room for customisation. All markets work actively with the feedback from Customer Satisfaction, CS, surveys and it is the Key Account Managers (KAM) role to act upon them.

4.3.1 Experiences and opportunities in developing new services

Getting from idea to deployment is a great challenge. It is one thing to understand needs, define and develop a service and it is one thing to successfully launch it on the market. The case company has a lot of ideas and "brainpower" – that is not the issue. Getting impact throughout is. It is important to understand customer needs and provide an attractive solution.

Today the interviewees of the case company believe that customers have little knowledge of services provided, and the validation and testing services performed internally by the case company. One challenge, of the VCS concept, that has been identified is therefore to make the services visible for the customers, tangible and measureable. An example that illustrates this provided by the case company is that one customer decided to change supplier but after a short time regretted the decision based on the complementary services that where offered by the case company and not by its competitors.

It is the Key Account Managers (KAM) on the market companies that are the ones in contact with the customers and therefore they have the responsibility of making the customers aware of the case company´s service offers. The Service Department in the central organisation has struggled to clarify the KAMs role to take responsibility of all portfolio products including services. The result of this is that the KAMs focus on Packaging Material and equipment, because these are the products that create revenue, and has limited knowledge about services.

Since many services today in most cases are only recommendations there is risk that the customers will not follow these. It is found hard to motivate customers to invest because of the distribution of cost and gains between the manufacturer and the retailer. A reason for this is, especially in traditional trade markets, that a wider cost perspective is not popular. The focus is around the initial cost of machinery. A new way of thinking is required. VCS can hopefully lead to more collaboration between the affected parties.

The case company sees a great potential within services since coverage is relatively low compared to the number of production lines installed world-wide. Service contracts are aimed to increase from 15% of the sales to 60% within a 10 year period. In the long-term contracts the case company works regularly with maintenance. These contracts could also include Value Chain Services.

Developing a new concept (VCS) is also believed important as a huge consolidation has taken place where the biggest customers represent a large amount of the total sales. A big customer is typically 800 times bigger than a small. One of the effects is that service development has to be considered globally since the same customers can be represented on many markets. Different markets are mature in different ways and this has to be taken into account centrally when developing services. This maturity of the market also affects the wider cost perspective in the sense of the balance between cost and protection. When there is too much damage or waste along the chain, which is common in developing markets, it does not matter what is done on the other areas when protection is not fulfilled. This leads to the difficulty in offering services that analyse damages and so on, because the customer does not want damages in the first place.

Looking at differences in demand from market to market is not only a matter of maturity. The management in the market companies on the different markets also have an impact. Depending on what their interests are they push for different things. If a senior person has a certain interest he might be able to push it into the market even though it is not really mature enough. The key is to make sure that there are resources supporting the project.

The customer demands and needs of a greater environmental focus are increasing. It might not contribute to the target of increased sales but it is important for the case company to profile themselves environmentally. Surveys have been conducted with a number of the case company's biggest customers regarding environmental plans. In their long-term strategies they have clear targets for what they expect from their big suppliers in support of their environmental strategies. Environmental questions are therefore both in the case company's and their customers´ strategies.

The Chinese market is a big market for the case company. The Chinese market has some special characteristics that are of interest for understanding the market. In this market much of the handling is done manually and there is a great turnover in personnel. This leads to that there are a lot of problems in handling and since the turnover is fast and unpredictable it is difficult to train personnel to handle the packages correctly. The turnover of personnel is due to the high increase of the market salary in relation to the increase of salary when staying within a company, i.e. you can raise your salary quicker if you change jobs often. The high rate of manual labour is simply because of cost focus, labour is cheaper than automation technology. The problems followed by the high turnover of manual labour, lack of training, and consequently the lack of experienced personnel, is that the primary packages are not packed correctly in the secondary package and that the secondary packages are not handled correctly, this results in leakage and problems with package appearance. Another implication of the cost focus that the customers use is the use of secondary packages with lower quality than recommended. Lower quality is cheaper. This also leads to quality problems. To solve this, customers hire people to check every package that arrives to the DC and repack the ones that are defect. The reason for this action is simply because it is cheaper to hire people to inspect the arriving packages than increase the quality of a large amount of secondary packages. Since the customer is only responsible until the DC, which is about half way in the distribution chain, this is the cheapest solution for them. But this solution implies the same problems for customers downstream. Another aspect of this market is the power structure of the market. There are a few very strong producers and then the power diminishes downstream finally to the retailer. A result of this is that it is very difficult for the retailers to send their demands upstream. This is another reason for why the producer does not bother with secondary packages with higher quality since their responsibility ends at the DC.

4.4 Identification of current service offer, service need and demand

In this following section the service offers, customer service needs and demands identified through the interviews are presented. The chapter is divided based on interviews within the central organisation and the different markets studied. This is to give the reader a picture of how different the markets can be.

4.4.1 Current service offer: Central organisation

Value Chain Service, VCS, is under development and therefore no Value Chain Services are offered. However, today there are several services offered that could be categorized as Value Chain Services in the future. These services have to fulfil the requirement of being aimed at supporting activities (distribution) and not core activities (packaging production). Today all of the services within the value chain are free of charge. The VCS offered today are: Package Performance Data Collection, Distribution Chain Audits, Secondary Package Recommendations, Test Filling, Merchandising solutions, Packaging Training & Handling Guidance, Quality Process for Secondary Package, Transportation test.

Package Performance Data Collection (PPDC) is a service that aims to identify leakage and appearance issues of packages along the value chain. This service is based on the fact that savings can be made from increased package performance. Waste in turn is reduced by decreased leakage from packages during transport. The problem with leakage is linked to two aspects; first, it indicates a broken package. Second, the fluid content that is leaked weakens the secondary package and risk the protection of the other, non-leaking, packages. PPDC is well-used everywhere today and is expanding to comprise more package types.

Distribution Chain Audits (DCA) is commonly used and consists of a one week long study of the distribution chain. The DCA is used to identify “low-hanging fruits” by following the distribution chain and get the general picture. This service is always the first step and is the predecessor of for example PPDC.

Secondary Package Recommendations (SPR) are recommendations regarding the measures and material of secondary packages. The case company does not provide anything but recommendations. The recommendations are based on best practices but can be compromised and suboptimal if customer has special needs. The case company has the knowledge centrally and is trying to reach out with the information but it is difficult. Offering this knowledge throughout the organisation would decrease the trial and error session of development.

Test filling is a service that allows customer to test fill their products in one of the case company's packages before they have the equipment themselves. The test is performed in Sweden, India, and China. The strength of the package is not tested.

Merchandising solutions are solutions that help the retailer sell the products, e.g. sales stands and multipacks. Merchandising solutions are developed centrally based on requests from customers. Until now the solutions have, in many cases, been pushed towards the market and have not reached out as desired. This is changing and a lot of effort is put down into deployment where the case company follows the product to the retailer to see how it works in practice. A portfolio of solutions is available for customer to select from. It is important to structure and clarify the service to decrease the level of work that has to be repeated.

Packaging Training & Handling Guidelines (PT&HG) is a service that train and guide workers to correctly handle the packages during packing operation in order to optimize time, number of employees, the looks of the packages and ergonomic environment. PT&HG is done but only in limited scale. Some markets are providing the service locally. One difficulty is to motivate people to follow the guidelines.

Quality Process for Secondary Package (QPSP) helps the customers find the right quality of the cardboard used for secondary packages. This leads to more stabile boxes that protect primary package better and reduces waste. This service aims at customers that do not have the possibility to test the material themselves. QPSP is in the start-up phase and the outcome is unknown.

Transportation test, a service aimed at identifying issues that occur during transportation.

4.4.2 Current service offer: Market Companies

4.4.2.1 Current service offer: South American market

The South American market companies offer a vast amount of services to help their customers and retailers. The interviewees on this market were a Product Manager and a Retail Manager. Both managers mention their Zero Waste Program first on the question on current services. This program is based on training sessions for everyone who comes in contact with the product throughout the distribution. The training sessions are preceded by a complete analysis of the value chain to find focus areas for the training, which is on handling guidelines of the package to ensure the quality of the package and product. Both also mention a World Class Manufacturing (WCM) tool which is a set of best practises that is offered as a service to the customer. The WCM includes: a program where quality issues are mapped, customization of secondary package, analysis of filling machine usage, analysis of pallet usage, shrink plastic usage, transportation test, and distribution logistics and procedures. The retail manager says that the services included in the WCM are also offered as single services. The transportation test is offered in new product launch to test the product quality in transportation aspects. Recommendation for secondary packages are given from the case company centrally but the retail manager stresses that they offer a service to customize the secondary package to the customer's specific needs. The Product Manager adds services such as multipack solutions, shelf ready solutions, help with shelf management and product exposure for the retailer, help the customer to design the packages so that the products clearer present their usage, they offer promoters of products at retailers, and they have a package appearance team who identifies problems in relation to the package appearance and do follow-ups throughout the value chain.

When it comes to development of value chain services on the South American market it is an ad hoc development together with the customer. They communicate to certain contacts in the central organisation when developing services but there is no developed routine for developing services. In the same way successful service projects and best practises are communicated to their own contacts in the central organisation.

4.4.2.2 Current service offer: Vietnamese market

The interviewee on this market was a Marketing Manager. The first service offer stated by the marketing manager was marketing support. The marketing support included different services related to creating and launching a new product and includes support with: new product development, new product concept, consumer research, consumer insight studies, marketing strategy, corporate strategy, product positioning, and support in deciding what marketing mix to launch. Other services or support offered are: Strategic support which includes distribution strategy on how products can reach the market efficiently; Market intelligence, the case company is such a large company that it can afford to purchase studies on market analysis and market dynamics that the customer cannot. The case company also helps the customer to choose retailer and to choose what geographical area to focus sales in. The market company also offer services within merchandising such as solutions for display packages and category management. Recommendation and guidelines for handling the primary and secondary package are offered. Specifications and recommendations for secondary package, and instructions and guidelines to ensure secondary package material quality are also offered.

4.4.2.3 Current service offer: Chinese market

The interviewee on this market was a Packaging and Distribution Solution Manager. The support of the customer starts right out of the filling machine, if they have any problems with the package services which are provided to find the root cause of the problem. A common problem is leakage. The service then supports the customer in finding out if it is the packaging material that is the issue or the filling machine.

In some projects support is given by checking the status of the customer warehouse. Many customers, even globally, pay much attention to the production itself but not on what happens after production, one such thing is the warehouse. Services are aimed at educating the customer that a small investment/cost can improve the quality after the production. Pallet pattern recommendations and secondary package recommendations are services in this area which can increase the quality after the production. The pallet pattern recommendations have to be customised because each customer uses different pallets, shelves with different height and width, and so on. An audit at the customer is always done before these recommendations are customised. The secondary package recommendations are also only a recommendation and these recommendations are seldom followed due to different reasons that will be discussed further on in this thesis.

Another type of service is to follow their typical distribution, from warehouse to DC. In this service the typical distribution route is investigated and all the activities along the way are checked. The distribution might be by truck, train or boat, and the activities are on- and off-load. This is very important for the case company to understand. The product/package is often out of sight, even for the customers. Currently this service is done for selected customers, big ones and ones with a lot of problem in this area. This service leads to different types of recommendations that can increase the quality of the packages. After the DC the packages are distributed to retailers and wholesalers and in this area the customer does not care about what happens because the customer's responsibility ends at the DC. The retailer is difficult to help because of the great diversity of products and packages and the small fraction of the total number of packages that are produced in the case company's equipment. Recommendations are given on how to stack the products.

4.4.3 Competitors service offer

The knowledge within the case company on competitors is limited. There is a database where market companies can share best practices within the company. If a competitor has superior solution of some kind, photos can be taken and uploaded to the database and be used for future development.

In knowledge of the case company, the competitors do not offer any service linked to the value chain. What they do offer is packaging equipment (Distribution equipment) that packs packages into secondary packages. This is done by a lot of suppliers but the case company is the biggest supplier of this equipment. None of the other suppliers (competitors to the case company) are willing to take responsibility throughout the value chain. They only ensure material supply and functionality of machines.

The retail manager on the South American market company states that the competitors on the market showed up not long ago. The competitors do not offer services towards the retailers but they have a large focus on secondary packages, especially communication on the secondary package. A result of this is that they have put barcodes on the secondary package which helps both the retailer and the consumer. The retail manager believes that this is something that they have to apply to their own services in the near future.

4.4.4 Services in pipeline

On the question of service being developed, in pipeline, answers were mostly received from interviewees from the central organisation. Since these services are under development centrally, the market companies´ answers on needs and demands might already be covered by the services in pipeline.

Value Chain Cost – the cost of getting the products through the entire value chain. Waste and handling costs are included in this model. Having a model like this will ease return of investment calculations towards the customer. This clearly shows the value of the service to the customer. This is a big opportunity to highlight the value of Value Chain Services in contrast to existing services. The customer today has very a limited possibility to see the entire product flow. The customers seldom have any idea of what the distribution looks like and simultaneously the case company offers one solution that has to fit all possible kinds of distribution. The big opportunity lies in, through VCS, making the value chain transparent. This can be done thanks to large knowledge that already exists within the case company. In extension collaboration is required between the case company, the customer, and the retailer. To achieve cost savings and higher efficiency collaboration is a must.

Secondary Package Design, SPD, helps the customer to design secondary packages with regards to in-store functionality and graphical design. This service does not exist in all parts of the case company today but has potential. The case company has a lot of knowledge to meet secondary packaging needs.

Managed service is a service in pipeline. The service consists of the case company taking over operations at customer. The case company takes care of everything within operations and provides staff as well. Managed service is at a concept stage but has been performed at customers already.

Cost Guarantee is another service in pipeline that gives the customer a guarantee on his operational cost. This means that the customer is guaranteed a certain cost for the production which is a big commitment by the case company. The advantage is that collaboration with customer is much closer, and therefore the knowledge about the customer is increased, which provides a competitive advantage.

Other services in pipeline are tray solutions and distribution solutions.

4.4.5 Value chain demand

4.4.5.1 Value chain service demand: Central organisation

Requirements mapping is performed in order to locate demand. This was done through several studies. The results were scattered and contained everything from fancy multipacks (multiple packages packed together) to demands for certain robustness. The list of demands obtained was broken down into more explicit demands:

- Protection: Valid for the entire value chain and is more or less a basic requirement. The customers demand the case company to provide a package that stays whole and clean – this cannot be compromised
- In-store functionality: It is the trend towards retail ready packaging (secondary packages that can be put directly on shelf) where solutions allow the user to quickly get the products on the shelf. The retailer wants to shorten the lead time to shelf where the product is exposed and can generate revenue. It is a lot about turnover and efficiency. The bigger retailers have specific levels of number of replenishments a employee can perform per hour and they constantly want to increase it
- Appeal: Make sure that brand value is increased by, e.g. multi-packs
- Cost: Decrease total cost
- Environment: This is stressed by both regulations and retailers. Reduce, reuse and recycle are considered to be key drivers. Walmart has stated that zero waste from packaging should be achieved in 2025. All other retailers are working with transport, decrease fuel usage and transport distance

In general where the markets are less developed and the distribution is more demanding than other platforms, the need and demand for fancy print on the secondary boxes is limited and the focus is instead on transportability. Also the packages are unpacked one by one and are then placed on the shelf which also reduces the need of fancy printing on the secondary packages. In more developed markets secondary packages are placed on the shelf which increases the demand for ready to display solutions, in these markets the attractiveness is more in focus.

The less developed the customer and markets are the maintenance service, the uptime of the machines, becomes the primary concern for customers. A more mature market appreciates the other services offered today but also demands an even higher level, increased amount of, service.

The American market is interesting. The driving forces are FDA and big retailers like Walmart. The demand from the customers often originates from these strong actors, e.g. the transport packages are specified by these retailers to fit in their supply chain.

Regarding the demand of customers’ customers it is difficult to study. Customers of the case company do not have very much information besides pallet efficiency.

4.4.5.2 Value chain service demand: South America

In South America there are a couple of big retailer chains established on this market such as Carrefour, Walmart, and Grupo pao de Acucar. The product manager states that retailers have very different demands because they create their own standards. A common demand is that all retailers are raising the bar regarding quality. The retail manager is more specific regarding the demands. The demands found are: multipack, where especially smaller multipacks are requested; mega trays, which would replace the secondary package on the pallet and therefore make the distribution easier, it does not have to be managed when put into the shelf; packages that are easy to carry and easy to distribute; new ways of distribution; a more flexible distribution equipment; fractional load, would lead to a higher frequency of deliveries which is demanded because of the higher demands of space utilization. The retail manager states that more negotiation and discussion directly with the retailer is needed to identify demands downstream the value chain. Since the retailers are not spoken to directly the demands according to the customers are only discounts.

4.4.5.3 Value chain service demand: Vietnam

The demands on the Vietnamese market are much related to the secondary package where retailers want smaller, more robust and more eye-catching secondary package. The marketing manager interviewed also states that the retailers want more consumer activities to attract more consumers. The customers of the case company do not state any explicit demands.

4.4.5.4 Value chain service demand: China

The customers on the Chinese market do not often come to the market company and ask for help in problems in the value chain because this is not their responsibility. If there is a problem with leakage the customer wants the case company to increase the packaging material quality, which means the thickness, because this is what they provide. The customer will not increase the quality of the secondary package because this implies cost for them, but if it can be proven that an increase of the secondary package quality is the best option the customer can be convinced to do this, although this is not always the case.

4.4.6 Value Chain need

4.4.6.1 Value chain service need: Central organisation

Within the packaging industry three main trends have been identified: sustainability, greater efficiency (handling and distribution) and shopability. The latter regards a possible change of distribution structure in the future, e.g. internet shopping of commodities. Potential in these areas is seen as large and it lies within the case company's future strategy, but the concrete ways of handling it is yet to be conceived. It might lead to an own distribution system in the end. The large retailers that are driving the development of internet shopping do simultaneously want the customers to physically come to the stores to increase spontaneous top-up shopping.

A lot of effort by the case company has been put into understanding the customer, distributor, retailer, and end customer. Needs are not always explicitly expressed, and difficulties of observing needs might therefore occur. Things that the case company identify as problems might not be seen as a problem by local retailers. The recommendations given to customers are not always enough and there is a need for greater commitment from the case company.

There is a need of greater customisation of secondary packages. For example: The primary package should carry the message and most secondary packages are removed before the shelf. At the same time the need for retailer secondary package is increasing. To fulfil all needs a great amount of customization of the secondary package is required.

There is also a potential need for a wider approach of looking at the entire packaging system or logistics flow. A comprehensive view with more extensive responsibilities towards customers would be appreciated by the customers. When the customer has a problem it would also simplify for them to have one liable party to turn to. As a suggestion the packaging system can be adapted to the need of a specific market regarding infrastructure and purchase patterns. Such a system could for example consist of custom made roll containers. In order to succeed the case company would have to be better at selling their systems; an area that is currently under development.

Other service needs identified are transport to warehouse, services that help customers getting the products on the shelf, advice on how to place products on shelf, and advice on how to work with retailers.

Offering services throughout the entire value chain would help the customer to focus on what is most important for them, which are not always logistics operations. Single source supplier service, where the case company takes all responsibilities and delivers a product to the shelf for a fixed cost, is another service need/under development.

Despite being responsible the case company could use suppliers to handle the operations for them.

Optimise customer performance – highest priority objective. If the case company cannot contribute with increased efficiency it is hard to be relevant to the customers. In the future it is important to start with the customer needs. Customers expect the case company to aid them towards decreased Total Cost of Ownership, TCO. Another way of seeing the need for services is that the customer does not need a number of services. They need solutions and guarantees regarding performance.

4.4.6.2 Value chain service need: South America

Talking about needs that will have to be satisfied in order to stay competitive the retail manager states that sustainability and environmental friendliness are needs that are becoming more and more important. The product manager continues to stress that customers and retailers need help communicating the usage of the different products to consumer. Shelf management is a way to fulfil this need for retailers.

The market company on the South American market is trying to foresee the needs of the customer and customer´s customer by analysing macro trends and using market analysis studies. The product manager states that the retail manager has contact with the retailer to foresee their needs whereas the retail manager states that there is no direct discussion with the retailer about needs. The retail manager states that needs are rather identified by observations and by incorporating a greater view of the market. The retail manager also states that this is an area of change but there is more to be done. A few specific ideas on this area were shared during the interview:

- The retail area should get stronger and should influence the company strategically.
- The involvement today is very limited and should increase.
- Retail management should be more professional in gathering more market information, getting closer with the retailers, interviews and research, localize needs and demands.
- Work closer on trade marketing with customers. With this integration needs would be identified and services could be developed.

4.4.6.3 Value chain service need: Vietnam

On the Vietnamese market the traditional trade is dominating with more than 500 000 outlets and the modern trade is very limited with less than 10% of the market. The marketing manager states that there is a need on the Vietnamese market of finding ways of distribution to reach remote geographical areas. There is also a need of a product that can be available for the lower economic class. The interviewee states that they have been working with a package that is cheap, which results in a package with lower quality, lower selling price, and contains smaller volume. But there is still a need for further improvements in this area.

4.4.6.4 Value chain service need: China

The overall need on the Chinese market is the need for cheap solutions. Another possible need in the future identified by the market company is the need for automation technologies. There is no present need for this because of the low salaries but the interviewee believes that this is changing and in the near future there will be a need for automation technologies.

4.4.7 Additional thoughts regarding services: Product manager

Additional thoughts expressed by one Product manager in the central organisation is that the case company takes care of everything; waste that occurs is taken back and new primary and secondary packages are produced – closing the loop. Taking this responsibility would put the case company above the rest. The thought is that this reform would primarily take place in Traditional trade where there is lack of existing infrastructure which allows for total customization. This would be very interesting but is remote in terms of time.

Optimization is an important word. Minimization is not ultimate in all cases. It depends on the market. It is about pointing at optimization of a customer's specific needs. This can be done with a portfolio of solutions where the case company helps the customer to decide which one to go with.

5 Analysis

5.1 Analysis of current services, needs and demands

This section of the analysis focuses on the first part of the purpose: "The purpose of this thesis is to identify existing value chain services, service needs, and service demands in the field of logistics and distribution". In order to fulfil the purpose the current service offer and demands/needs are gathered and presented in tables. The analysis also identifies gaps between current service offer and needs/demands in order to provide directions for future service development.

The concept of Value Chain Services (VCS) is currently under development in the company. Current services suggested by the central organisation are aimed to be the base in the coming VCS offer.

Through the conducted interviews, information about services within the value chain has been gathered from the case company (Empirical findings). The case company consists of a central organisation that operates globally and market companies that represent the local markets where products are sold. The authors of this thesis have decided to separate the information gathered from the case company centrally from the information gathered from market companies.

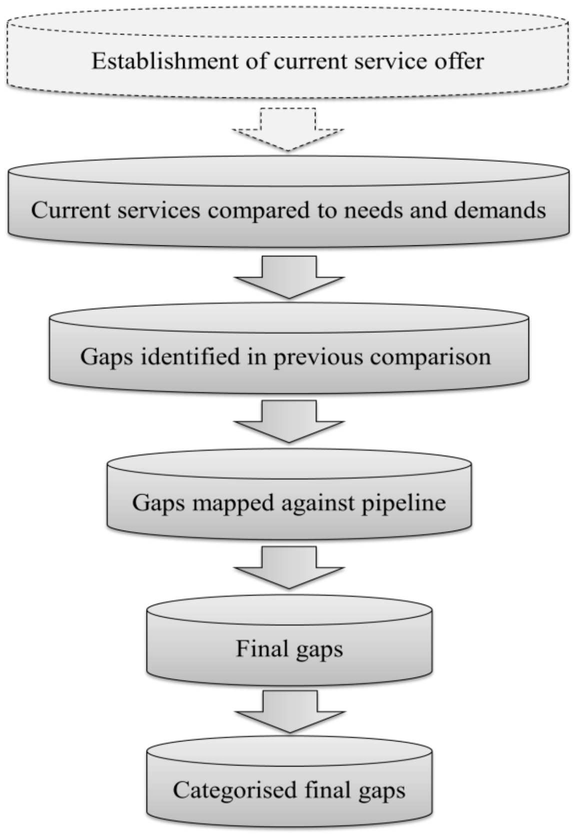

Figure 13 Analysis process

The reason for dividing the information from central organisation and market companies is that the concept of Value Chain Services (VCS) is developed centrally but the deployment will occur on the local markets. Therefore the different aspects and perceptions will be valuable to the study.

Analysing the current/future offer and demand of services in steps eventually leads to gaps of opportunities. The gaps represent the area of customer needs in the Figure 5 Circles to create strategic advantage (Gustafsson & Johnson 2003). The steps can be seen as a funnel process where a lot of information (current offer and needs/demands) is successively narrowed down to the final gaps, see Figure 13 Analysis process. First, the current service offer is established, local and central service offer is compared. Second, needs and demands identified both centrally and on the different markets are mapped and compared to the current service offer in order to identify gaps. Third, the needs and demands identified as gaps are divided into SSC or SSP Distinction of services (SSP and SSC). Services that the case company has in pipeline are also considered before the actual final gaps are presented in the last step. The final gaps are broken down into more explicit needs and demands.

5.1.1 Current service offer

The current Value Chain Services identified through the interviews with the case company centrally (central organisation) and the market companies are presented in two tables (Table 1 Current service offer central organisation and Table 2 Current service offer market companies).

Table 1 Current service offer central organisation

Current service offer
Transport tests
Distribution Chain Audit
Test filling
Merchandising solutions
Package Performance Data Collection
Secondary Package Recommendations
Packaging Training & Handling Guides
Quality Process for Secondary Package

Table 2 Current service offer market companies

Current service offer	**Market**	**Central service offer category (if applicable)**
Status of customer warehouse	China	Distribution Chain Audit
Education in effects of improvement investments	China	
Distribution Chain Audit	China	Distribution Chain Audit
Analysis of typical distribution	China	Transport tests
Pallet pattern recommendations	China	Secondary Package Recommendations

Secondary Package Recommendations	China	Secondary Package Recommendations
Mapping of quality issues*	South America	Distribution Chain Audit
Analysis of filling machine usage*	South America	
Analysis of pallet usage*	South America	
Transport tests*	South America	Transport tests
Shelf management	South America	Merchandising solutions
Product exposure	South America	Merchandising solutions
Promoters of products	South America	Merchandising solutions
Identification of package appearance problems	South America	Package Performance Data Collection
Zero Waste Program	South America	Packaging Training & Handling Guides
Multipack solutions	South America	Merchandising solutions
Shelf ready solutions	South America	Merchandising solutions
Customisation secondary package*	South America	Secondary Package Recommendations
Strategic support	Vietnam	
Market intelligence	Vietnam	
Retailer selection	Vietnam	
Selections of geographical area to focus sales on	Vietnam	
Merchandising solutions	Vietnam	Merchandising solutions
Category management	Vietnam	Merchandising solutions
Recommendations and guidelines for handling secondary packages	Vietnam	Packaging Training & Handling Guides
Secondary Package Recommendations	Vietnam	Secondary Package Recommendations
* = Part of World Class Manufacturing service		

Dividing the current services into the different markets, where they are performed, and central organisations where they are created, allowed for comparison. Since the services were not denoted correspondingly in market companies and centrally the authors categorised the market companies' service offer. The categorisation followed the denotations of services used in the central organisation since they were more unanimous than the ones on the markets that were descriptive and specific (column "Central service offer category (if applicable)"). When comparing the two tables the authors identified that the service offer, in general, corresponds well between the central organisation and the markets. This is in line with what was expected in advance since the company has a strong central development and communication of services in the comparable area of current service department (chapter Development and offering of new services), the service department provides maintenance services supporting the products. The authors argue that the case company is working in the right direction with their VCS since they are developed centrally and, to large extent, reach out and are exploited by customers.

There are also services that do not correspond between the central organisation and the market companies. Services that are offered locally but cannot be categorised into the central offer are:

- Education on effects of improvement investments
- Analysis of filling machine usage
- Analysis of pallet usage
- Strategic support
- Market intelligence
- Retailer selection
- Selection of geographical area to focus sales on

In contrast there are also services/categories of services described centrally that have no match in the market companies. These are:

- Test filling
- Quality Process for Secondary Package

The reasons for these services not being represented on the local markets can be several. First it is dependent on how the authors have categorised the local services. Second, the three markets investigated might not be representative for all other markets.

5.1.2 Analysis of customer needs and demands

The customer needs and demands identified by market companies and case company centrally are compiled (Table 3 List of needs and gaps and Table 4 List of demands gaps). The interviewees were asked (see Appendix) what the customers need and what they explicitly ask for. This exhaustive list (separated into two) contains both needs and demands covered by existing services and those that are not satisfied. To locate gaps, i.e. needs and demands that are not satisfied, the list has to be compared to the current service offer. The needs and demands are matched with current services from the central organisation as a step in finding the gaps between the two. The needs and demands that already are addressed are not important when considering development of services. This comparison resulted in the column "Central service offer category (if applicable)" where the category of service that fulfils the need or demand is stated. Needs and demands without category are therefore gaps.

Table 3 List of needs and gaps

Need (and personal thoughts)	**Market/Centrally**	**Central service offer category (if applicable)**
Customisation (of e.g. secondary packages)	Centrally	Secondary Package Recommendations
Retailer ready Packaging	Centrally	Merchandising solutions
Sustainability	Centrally	
Greater efficiency (handling and distribution)	Centrally	
Shopability	Centrally	Merchandising solutions
Own distribution system	Centrally	
Wider approach looking at the entire system	Centrally	
Adapted infrastructural system	Centrally	
Secondary Package Design	Centrally	
Transport to warehouse	Centrally	
Help getting products on shelf	Centrally	Merchandising solutions
How to work with retailers	Centrally	
Single responsible supplier	Centrally	
Optimise customer performance	Centrally	
Barcodes on secondary package	South America	
Sustainability and environmental friendliness	South America	
Communication of product usage to consumers	South America	
Closer work on trade marketing with customers	South America	Merchandising solutions
Distribution solutions for remote locations	Vietnam	
Products available for the lower economic class	Vietnam	
Cheap solutions	China	
Automation technologies	China	

Table 4 List of demands gaps

Demand	Market/Centrally	
Transportability (less developed markets)	Centrally	Secondary Package Recommendations
Ready to display (more developed markets)	Centrally	Merchandising solutions
Meeting rising retailer quality demands	South America	Secondary Package Recommendations
Multipacks	South America	Merchandising solutions
Mega trays	South America	Merchandising solutions
Easy to carry and distribute packages	South America	Secondary Package Recommendations
New ways of distribution	South America	
More flexible distribution equipment	South America	
Fractional load	South America	
Discounts	South America	
Eye-catching secondary packages	Vietnam	
Smaller secondary packages	Vietnam	Secondary Package Recommendations
More robust secondary packages	Vietnam	Secondary Package Recommendations
Higher packaging material quality	China	Secondary Package Recommendations

The identified needs (including personal thoughts of interviewees) resulted in more extensive list than the demands. Looking at the needs, the major part was identified by people in the central organisation whereas demands were mainly identified by the market companies. The latter probably has its explanation in that the market companies have a closer collaboration with the customers and therefore are more likely to be faced to customer demands. Most of the demands were also already satisfied and only a few demands, especially in South America, were not. The opposite relation is valid for the needs; most of them are not satisfied today. The explanation is considered to be related to the characteristics of needs and demands. Demands are explicit and therefore easier to detect and satisfy while needs are implicit and requires deeper understanding of the customer. The Theoretical frame of reference supports this. Both the service development model (NSD) (Cooper & Edget 1996; Kelly & Storey 2000) and the product development model (Ulrich & Eppinger 2008) are initially identifying customer needs. This can be interpreted as needs are the least unrefined form of potential customer satisfaction and thus the most complex.

The gaps located in the previous section (Table 3 List of needs and gaps and Table 4 List of demands gaps) are considered to be the most important areas to further investigate. The reason is that it is in identified but not fulfilled needs where potential is. To further refine the gaps they are categorised into SSP and SSC (Mathieu 2001) and mapped against services in pipeline, see Table 5 Needs in relation to services in pipeline.

Table 5 Needs in relation to services in pipeline

Need (and personal thoughts)	Type of service	Market/Centrally	Pipeline
Sustainability	SSC	Centrally	
Greater efficiency (handling and distribution)	SSC	Centrally	
Wider approach looking at the entire system	SSC	Centrally	Value Chain Cost
Adapted infrastructural system	SSC	Centrally	Distribution solutions
Transport to warehouse	SSC	Centrally	Distribution solutions
How to work with retailers	SSC	Centrally	
Single responsible supplier	SSC	Centrally	Managed service
Optimise customer performance	SSC	Centrally	Value Chain Cost
Barcodes on secondary package	SSC	South America	
Sustainability and environmental friendliness	SSC	South America	
Communication of product usage to consumers	SSP*	South America	Secondary Package Design
Distribution solutions for remote locations	SSC	Vietnam	Distribution solutions
Products available for the lower economic class	SSP	Vietnam	
Cheap solutions	SSP	China	
Automation technologies	SSC	China	

Table 6 Demands in relation to services in pipeline

Demand	Type of service	Market/Centrally	Pipeline
New ways of distribution	SSC	South America	Distribution solutions
More flexible distribution equipment	SSC	South America	
Fractional load	SSC	South America	Distribution solutions
Discounts	SSP	South America	Value chain costs
Eye-catching secondary packages	SSC	Vietnam	Secondary Package Design

Categorising the services by type (SSP and SSC suggested by Mathieu (2001)) facilitates focus on the most important areas of improvement, see Discussion: SSP and SSC. SSC's are argued to be opportunities (Distinction of services (SSP and SSC)) and are therefore more interesting striving for competitive advantage. None of the needs and demands in Table 3 List of needs and gaps and Table 4 List of demands gaps are considered to be covered by the current services offer. However, during the interviews services in pipeline (service under development) were discussed. The needs and demands addressed by the pipeline services are consequently going to be covered in the future. Taking the services in pipeline into account reduces the number of gaps.

In Table 7 Need gaps and Table 8 Demand gaps the further reduced list of the final gaps is presented. In addition to dividing needs and demands into SSP and SSC an additional categorisation is applied. The needs and demands are broken down to five more explicit categories suggested by the case company:

- Protection
- In-store functionality
- Appeal
- Cost
- Environment

In addition to the five categories the authors suggest one more; Awareness. The reason for adding another category is that the authors thought that the five categories did not cover all needs and demands satisfactory. The added category aims to capture needs and demands addressing understanding of the value chain.

If a need is fulfilled on a local market this is declared in the last column, "Fulfilled on market (if applicable)".

Table 7 Need gaps

Need (and personal thoughts)	Type of service	Market/Centrally	Category	Fulfilled on market (if applicable)
Sustainability	SSC	Centrally	Environment	
How to work with retailers	SSC	Centrally	Awareness	Vietnam
Greater efficiency (handling and distribution)	SSC	Centrally	Cost	South America
Barcodes on secondary package	SSC	South America	In-store functionality	
Sustainability and environmental friendliness	SSC	South America	Environment	
Products available for the lower economic class	SSP	Vietnam	Cost	
Cheap solutions	SSP	China	Cost	
Automation technologies	SSC	China	Cost	

Table 8 Demand gaps

Demand	Type of service	Market	Category	Fulfilled on market (if applicable)
More flexible distribution equipment	SSC	South America	Cost	

The break down categorisation provides a clearer picture of what types of gaps there are between needs/demands and offer. The categories of "cost" and "environment" are the two most frequent ones among the gaps but there are also gaps in "in-store functionality" and "awareness". The major part of the final gaps is SSC's which implies a certain level of potential. Almost all of the final gaps are needs, only one is an explicit demand. Two of the needs identified centrally are addressed by services locally.

In conclusion:

- Gaps categorised like "cost" and "environment" are not covered by today's service offer and are therefore areas of opportunity for competitive advantage (Gustafsson & Johnson 2003)
- Most of the needs and demands that are not fulfilled are categorised as SSC suggested by Mathieu (2001)
- There are gaps identified centrally that are fulfilled by current services on local markets which is not in line with Normann's (2001) pointers for reproduction formulas. Here Normann (2001) stresses central control, guidelines, reporting systems and centrally gained economies of scale

There is a difference between what people centrally in the organisation consider to be the future Value Chain Service offer and what the market companies actually provide their customers. One of the reasons for this is that the market companies and the central organisation in some cases refer to one service using different terms. Actually, in most cases the central organisation uses a term whereas the market companies often use a description. This is neither in accordance with theory (Mathieu 2001) nor the empirics, chapter Development and offering of new services, where one interviewee states that all services that are products are well represented on the homepage and known to all market companies. In chapter Current service offer: Central organisation, it is declared that Value Chain Services is not yet a brand and therefore no such services are offered. Since services, that in the future will be considered Value Chain Services, are offered to customers today we consider them to be products. Another reason for the difference in perceived and actual offer is that the market companies are relatively free to customise service solutions as described in Case company description. Since markets differ, the service needs on the various markets will also differ. The important thing here is not let the local development and customisation be too extensive. The theory (Normann 2001) declares this as pointers for creating a reproduction formula. It is for example said central control over the service system should be retained and that central guidelines and success formulas should be communicated. In order for the central organisation to communicate success formulas forth, information from the local markets has to be communicated in the opposite direction. If the different parts of the organisation (market companies – central organisation) are not using the same terms this becomes impossible. Furthermore, using none corresponding or different terms obstruct communication of local success and therefore limits the economies of scale that a large company other ways would achieve from presence on multiple markets.

5.1.3 Discussion: SSP and SSC

According to theory of SSP and SSC (Mathieu 2001) there are several differences between the two. However, when classifying demands and needs according to this theory the authors have identified two key differences:

- SSP aim is functionality of the product and access to it – SSC aim to support specific client initiatives and enhance the customer organisation
- The recipient for SSP is the product itself – for SSC it is the customer

The thought is that these parameters will be sufficient when categorising. The two key differences both talk about the product. The case company's products are filling machines and packaging material. The interpretation of "product" therefore becomes vital for the categorisation. It can be argued that only services that helps functionality and aims at the filling machines and packaging material should be considered SSP. The result of this is that all services studied in this thesis would be categorised as SSC according to the Value Chain concept, see Definition of terminology (CSCMP 2010), and scope of the thesis, Introduction. Categorising in this way would diminish the usage of the categorisation all together. To cope with this the authors have selected to interpret the concept a little different. Instead of getting too focused on the product the authors have focused on fulfilment of increasing expectations, design of corresponding solutions and support of the client in relation to the product (i.e. the primary package that is produced by the case company's actual product). The effect is, based on the discussed prerequisites, that the categorisation becomes a valuable tool for determination of identifying opportunities which is supported by Mathieu's (2001) , Distinction of services (SSP and SSC).

5.2 Analysis of prerequisites for service development

5.2.1 Prerequisites for development of service in the packaging industry

This section of the analysis focuses on the second part of the thesis purpose: “The purpose is also to propose relevant prerequisites and factors for an actor in the packaging industry aiming to develop services within the packaging industry”. In order to fulfil this purpose a prerequisites framework is created. The framework has to propose relevant prerequisites for development of services and be applicable to the packaging industry. After browsing the literature no suitable framework was found. Instead the authors decided to develop a framework of their own. The first stage of developing a framework is to analyse, existing frameworks with similar characteristics to get a general idea about what they look like but also to understand more in-depth why they are not suitable. The second stage is to merge the useful parts of the existing frameworks, in combination with other stand-alone theories, to create a framework that fulfils the desired needs.

The existing frameworks used are Product Design and Development Process (Ulrich & Eppinger 2008), chapter Product development and New Service Development process, described in chapter Service development (Jiang 2008). The reasons for using the product development model are that it describes a generic process and it is a commonly used model in textbooks for engineering students which makes it a good reference. The NSD model (partially) addresses the same needs as targeted in the thesis.

5.2.2 Discussion: Product Design and Development Process versus NSD Process model

The New Service Development (NSD) process, described in chapter Service development (Jiang 2008), is a process that systematically describes the development of a service in several steps. The layout of the NSD process is reminding of the one for Product Design and Development Process but the contents are rather different. The NSD process is less clear than its product development counterpart, the steps are less descriptive and implementing the process requires more interpretation. A reason for the difference between the models is the diverse characteristics between goods and services. In addition the NSD process is solely focused on the experience part of the development and not the process in its whole. Also discussed is the service’s need for a development process with a wider perspective. One way of widening the development process is being vague and allowing for interpretation, like in the NSD process. The authors of this thesis think the NSD process can be complemented with more specific steps/phases in order to simplify and make service development more comprehendible.

A new framework is elaborated combining the advantages of the clear steps of Product Design and Development Process with a strong aim at services from NSD.

5.2.3 Prerequisites Framework

Prerequisites for development of services can be divided into different stages just like the processes of Product development and New Service Development previously described and discussed. The division and steps suggested in this master thesis are chronologically following the service development process presented in Figure 14 Prerequisites Framework. By including empirical knowledge gained through the case study the prerequisites are especially aimed at the packaging industry but are presumably applicable to other businesses as well.

The purpose of this master thesis limits the case study to only perform the two first steps, Identify/Understand and Categorise, in relation to the case company. The following steps should be seen as the logical way to continue the service development process. Though these steps are not carried out, implications from the empirics (interviews) are applied. Each step in the framework is based on existing theories in the field of service development and insights provided by the interviewees. The theory and empirics are described in the previous chapters “Theoretical frame of reference” and “Empirical findings” but will be discussed further in relation to the steps of the framework in the coming sections.

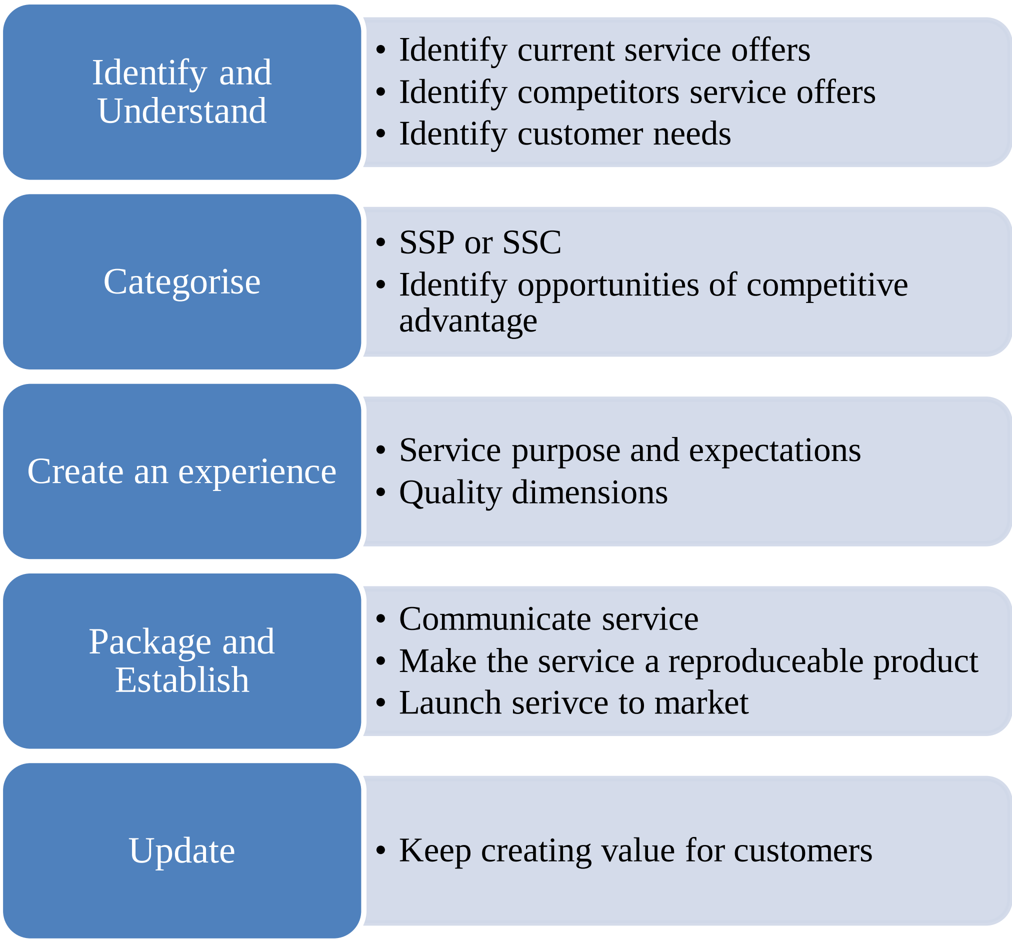

Figure 14 Prerequisites Framework

5.2.3.1 Identify and Understand

In this first step of the service development the goal is to be aware of what service offers, needs, and demands that exist today. The services offered both by your organisation and by your competitors are of interest. The idea of this is not to recreate something that already exists and not to copy your competitors, but to create an understanding of the current situation regarding current service offers. Creating an understanding is also a first step in the product development process. The understanding process is also supported in the theory for creating competitive advantage, chapter Creating service competitive advantage. The point of a service is to satisfy a need of the customer. Therefore it is also important to identify the customer needs and demands. It is from the needs and demands that new services will arise. As stated in the theory chapter Development of products and services theory, it is important to bear in mind that the customers do not always know what is best for them, therefore it is important to critically use the information of customer needs and demands when creating services. In "Circles to create service advantage" Gustafsson & Johnson (2003) shows the relation between the three components necessary to identify: Company's offer, Competitor's offer, and Customer's needs.

In this study this step was performed by conducting interviews with people within the case company. This approach was chosen due to the size of the company and the large geographic spread of its business. The interviewees were asked questions (for list of questions see Appendix) on current offers and on what the competitors were offering. One can argue that another approach would have been appropriate when identifying competitors service offerings, like interviewing the competitors, but when deciding on research approach of the thesis the authors were expected to only use the in-house knowledge of the case company. The case company is a large player in their business area and have few large competitors. Therefore it is not very hard for the case company to keep track of its competitors and today the competitors' offer within the area is limited.

An issue that was presented during an interview was that there is a lack of knowledge internally on the most important parts of the distribution chain and how the current solutions correspond with needs. This knowledge is also what the authors are suggesting in this framework with "indentify" and "understand". According to the empirics it is important to build and understand the different types of trade scenarios (see Trade types). It is argued that this insight has to be reached before there is any use in trying to develop services. An example in this study is the knowledge of the different trade archetypes, and the identification and understanding of current services, needs and demands.

In the interviews questions were also asked on customer needs and demands. These needs and demands are to be the foundations on which to build new services on. According to the theory in chapter Creating service competitive advantage, the way of creating a competitive advantage is to do something that others are not doing or to do it better. In this step a focus has also been given to the theory of customer orientation by Normann (2001) presented in chapter Customer orientation. This means that needs and demands were not only examined from a customer point of view, but also the customer´s customers´ needs and demands were considered.

The answers were varying with respect to the interviewee´s position within the case company and market. According to the theory of customer orientation, chapter Customer orientation, the interviews with the market companies were expected to give the best answers to the question of needs and demands, due to their close connection to customer and the customer's customer. The answers to these questions were not as extensive as the answers on current offers. Some interviewees explained this with that the customer and customer's customer did not know that they could offer those kinds of value chain services and therefore would not come to them expressing demands and needs on services regarding the value chain. An interviewee at a market company mentioned that the company was changing towards more customer orientation but that there still was more to be done.

An interviewee from the Chinese market stressed the imbalance in the power structure between the actors in the value chain, where the case company's customers were large with great power and the other actors were not able to raise their own demands on the agenda. This imbalance, in the value chain, also led to that the big actors, in this case the customers, only exercise a cost focus strategy. The Product Manager states that in traditional trade the Customer System Cost perspective – a wider cost perspective – is not popular; the focus is around the initial cost of machinery. This is linked to the level of development; a new way of thinking is required. There are also some markets that have a problem with the distribution of cost and gains. For example, shelf-ready packaging; the customer takes the cost and the retailer takes the gain. This makes it hard to motivate the customer to invest. VCS can hopefully lead to more collaboration between the parties. Another interesting aspect of this power distribution is the influence of Walmart on the American market. Walmart is a retailer with great power over its suppliers and dictates demands and requirements upstream. As a result of this the needs and demands from customer are hugely dependent on the market environment and the development of the market and an understanding of the underlying structure of the market is therefore an important prerequisite of developing a successful service.

In the empirics it can also be identified that the maturity of the market has impact on the development process of services. Different markets are at different maturity stages and have therefore different needs and demands. By being a global company, like the case company, trends can be identified in one market and solutions can be applied in another. This, however, requires good knowledge of relative maturity stages between the markets.

Another aspect to bear in mind stated in the empirics is to consider the customers threshold demands. If these are not fulfilled it does not matter what services are added to the offer, the will not add any value. In the context of packaging one such threshold is protection of the package. It has to be whole throughout the distribution.

The case company desires to work more proactively with services than what is done today. The key to this is to focus on satisfying customer needs. The needs are unexpressed in contrast to demands that are expressed. Satisfying the demands will therefore be a reactive process. However, the explicit demands have to be satisfied before focus is turned completely towards needs. If not customers will have a hard time appreciating services that they have not asked for.

Merging the information on current service offer, customer needs and demands, gaps between these can be identified, see tables in Analysis of current services, needs and demands. It is these gaps that can become service opportunities and are of interest in the next stage of the development framework.

5.2.3.2 Categorise

When the gaps between current service offer, needs, and demands have been identified the next step is to categorise the potential service as a SSP, Service Supporting product, or SSC, Service Supporting Customer. The concept of SSP and SSC is presented in the theory chapter Distinction of services (SSP and SSC). The point of the categorisation is related to the efforts of creating respective service, where SSC is argued to be the type of services that have the opportunities of creating a competitive advantage (Mathieu 2001). The authors have tried to illustrate the relation of core product, SSP, and SSC in Figure 15 SSC and SSP in relation to core product where the core product is in the middle surrounded by services supporting the product, SSP; this is then surrounded by services supporting the customer, SSC.

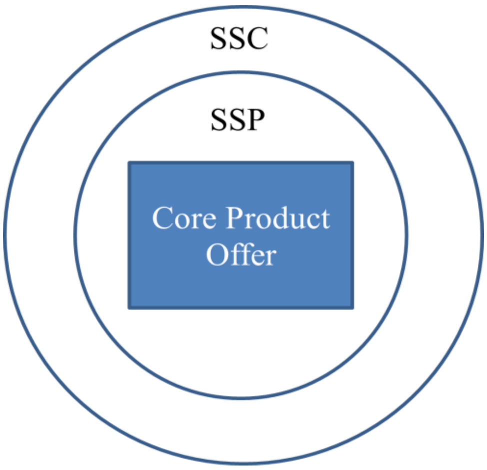

Figure 15 SSC and SSP in relation to core product

When the gaps have been categorised it is time to decide what kind of services to continue with into the creation step. The categorisation is not only an aid for deciding what competences to use in the development stage it is also a strategic help for deciding which service to develop. According to Mathieu (2001) SSC is the type of service that has the highest opportunities of creating a competitive advantage for the company. The categorisation was applied in the case study, see Analysis of current services, needs and demands.

A quick way of categorising the current service offers of the case company is to say that maintenance services offered today are typical SSP and the investigated services that aim at the value chain are more of a SSC type. But this would be taking the easy way out. The categorisation is an important part in finding the services that provide competitive advantage. An example from the case company is that one customer decided to change supplier but after a short time regretted the decision based on the complementary services that where offered by the case company and not by its competitors. This does not only emphasise the potential of these services but also emphasise the need for establishing and packaging these services into existing service offers instead of an ad hoc development of services when need is recognized - reactivity. The establishing and packaging of services will be discussed in the corresponding steps in the framework.

During this study the authors have seen that there is also a need of another categorisation besides SSC and SSP. In this study the case company suggest to categorise demands and needs after the following categories: Protection, In-store functionality, Appeal, Cost, and Environment. The authors have through their studies identified an additional category to the existing ones, Awareness, see Analysis of current services, needs and demands. This categorisation is a way of ranking in what areas that the gaps are and can therefore be a help in deciding where the greatest opportunities lie. The categories used by the case company and in this study are somewhat generic but can be changed to better suit the development team goals.

5.2.3.3 Create an experience

When the needs are identified, categorised and corresponding resources are allocated to the development process it is time to create or define the service that will meet the customer need. There are different factors when creating a service that has to be considered. Such factors are: the customer experience, defining quality dimensions for the service, and last but not least testing and correction of the service before launching the final offer.

- The service experience is unique to every individual customer and situation. The customer experience is a central point in the service development model presented in chapter Service development, a successful service has to successfully manage the contexts embedded in customer experience.
- In Measurement of Supplier Service Quality in Supply Chain (SSQSC), seven Service Quality Dimensions are presented. These factors are good to measure when identifying service quality and therefore also good to use when developing new services. The quality dimensions are:
    - Service reliability
    - Credibility
    - Service competence
    - Intra-organisational communication
    - Service flexibility
    - Financial trust
    - Pleasant environment
- The creation step of a service development process should also include a testing activity. In the chapter Service development, Experience testing, the theory of this is presented.

When changing the focus from product-related services to SSC Gebauer (2007) points out the importance of balance between external environment, business strategy, and organisational design. In addition creation of SSC requires managerial recognition, service orientation, and human resource management. These are factors that should be considered in the creation step in the service development process.

The case company underlines the service value in the creation stage. It is important that the created service can be given a value, both to the customer and internally.

5.2.3.4 Package and Establish

This step includes the necessary steps to establish the service into an actual service product; this can be called packaging the service into a service product. A central aspect of the package and establish step in the prerequisites framework is the communication of services. The purpose of this step is to ease the communication both internally within the company and externally to the customers. The packaging of the service is a prerequisite for reproducing the service. In chapter “Creation and reproduction of services”, several points for creating a reproduction formula are presented. These are:

- A description of the service and level of quality that has to be reached
- Retaining of central control components that does not have to be locally adapted but are necessary for the service system
- Create and communicate central guidelines and success formulas. These can be done through instructions and central control of hiring processes, image etc.
- Develop information and reporting systems that aims to representing the “simple logic” of the management system or the success factors in order to direct attention
- Create central competences in areas where the knowledge can create economies of scale

The difficulties of launching and establishing a service offer is recognised by the case company, an interviewee states that getting from idea to deployment is a great challenge. That it is one thing to understand needs, define and develop a service and it is one thing to successfully launch it on the market.

Further in the interview, the interviewee states that even though the case company is increasing its service orientation, the Key Account Managers (KAM) still have a limited knowledge about services. This is a problem since the KAM’s are the representatives from the case company that meets the customers and should be responsible for communicating the service portfolio. Further the problem is that the KAM´s do not take responsibility of the services, this because of the nature of the services are mostly about making savings and not increasing sales for the customers, and therefore the KAM´s experience a difficulty of offering services to customers. A way of solving this could be to provide a product that consists of both an intangible and a tangible component, this is discussed in *Development of SSC* (Gremyr *et al.* 2010). This theory is recognised by an interviewee who in his own words said that services need to be visible, tangible, and measureable.

Since the case company is a global company with customer touch-points all over the world, the packaging step is important. A completed service package will ease the work of the KAM´s when meeting with customers and solve the problem mentioned earlier, that the KAM´s do not have knowledge about services. The authors believe that the theory, in chapter Creation and reproduction of services, is appropriate in this step. The three requirements that have to be fulfilled to get business breakthrough when expanding a service internationally are:

- The company possess an advantage of a successful service system on the domestic market[5]
- There are strong personal ambitions among people high in the organisation to internationalise
- Willingness to invest resources and time required to reach breakthrough

Furthermore it is difficult to sell services that "reduce damage" or similar. The customer does not want damages at all and therefore such an offer is not very attractive. Instead the description should be "quality increasing". This is fundamental key to packaging and establishes services in an effective manner.

In the literature (Gremyr *et al.* 2010) it is stressed that it is hard to deliver services successfully over a longer period of time. The factors for success, and therefore prerequisites, are: service orientation and customer relationships.

5.2.3.5 Update

As stated by Heskett *et al.* (1997), completely satisfied customers are more likely to be loyal than only satisfied customers. In order to achieve this, services need updating to not only match customer expectations but also magnify the experience to

[5] The authors argue, due to the global nature of the case company, that the first point above, *"*The company possess an advantage of a successful service system on the domestic market*",* one can interpret the meaning of domestic market as centrally in the organisation.

completely satisfy the customers. A feedback loop with information from customers is crucial for the success of updating a service.

Just as the SSQSC quality dimensions were used in the creation of services it can be used to measure the quality of the service delivered and therefore indicate where improvement is necessary. The manager's role in this step, presented in chapter Service development, is described as a link and coordinator between market reaction, employee training, and service process (Jiang 2008).

In the case company best practices are shared. The size of the case company allows for a global network that lets local experiences be posted on the home page. This is one important advantage of being a global player but could also be an advantage in smaller scale.

The challenge of being big is primarily linked to organisation transparency and communication. Advantages such as sharing of best practices and global knowledge are limited or non-existent when communication fails. In the case study this becomes evident and instead of taking advantage of being present at several markets the company performs double work.

5.2.4 Discussion

As mentioned earlier this prerequisites framework is not a complete model for developing services but a framework with prerequisites that the authors have found important when developing services. The framework is based on both experiences learned from the case study and from theoretical studies. The case company´s service development today is based on their great experience in the packaging industry but also on customer requirements and customer satisfaction studies. The authors believe that the framework can contribute to the case company by highlighting certain steps in the development process and by giving new input on service development theories applicable to the steps. Service theories such as SSC and SSP by Mathieu (2001) and "Circles to create service advantage" by Gustafsson & Johnson (2003) are not used by the case company and can act as a complement to the case company in their service development process.

6 Conclusion

The first section of the analysis, *Analysis of current services*, is linked to the first part of the purpose: the identification of current service offers, customer needs, and demands. Together with this result, the theoretical frame of reference, and empirical studies of service development the second part of the purpose is satisfied through the second section of the analysis, *Analysis of prerequisites for service development.*

In order to fulfil the first part of the purpose the authors have identified opportunities for service development by studying the current service offer, customer needs and demands, which result in areas of service which currently does not satisfy the customers and therefore offer potential opportunities of service development. The second part of the purpose has a focus on factors that affects the process of services development. To fulfil this part the authors have set up a prerequisite framework for the development process of services. The framework aims to highlight the different prerequisites and factors for developing services that provide a competitive advantage in the packaging industry.

The first part of the purpose is addressed in chapter Analysis of current services, needs and demands where service offer, needs, and demands are presented. These are mapped against current offer to locate areas of opportunity, *gaps.* In conclusion it can be stated that:

- Central service offer matches service offer on the different markets in most areas
- Denotations for services differ between central organisation and market companies
- Market companies provide services that are not represented in the company's central offer
- Categories that are not completely fulfilled by today's service offer are: Cost, Environment, Awareness, and In-store functionality

Regarding the second part of the purpose the prerequisites are compiled in a Prerequisite Framework for development of services. The complete framework is found in chapter Analysis of prerequisites for service development and can be summarised in to the following steps:

- Identify and Understand
- Categorise
- Create an experience
- Package and Establish
- Update

Each step contains implications inspired by both the case study and theory regarding the subject. The prerequisites can be utilised in the framework as a whole or separately. The authors intention is not that the Framework developed should replace the existing service development process at the case company but act as a complement.

By developing services in the areas of opportunities identified and by using the prerequisites put into the framework, the authors hope that the case company will benefit from the study and be able to continue its development within Value chain services.

6.1 Application of results

In the case company's point of view this study should be considered an early step in the process of becoming more Value Chain Service oriented. The first part of the purpose provides the reader with a current situation analysis. This is a compiled list of "common" knowledge and adds most value in its whole, where it can be considered rather comprehensive. Comparing current offer with needs and demands provides a further valuable insight: gaps. These gaps indicate in what direction service development should head to further satisfy customer needs. The final categorisation of non-satisfied needs and demands provides the insight of what areas that offer and needs differ most. This is useful when a more general reform is to take place and new areas of focus should be investigated.

The second part of the purpose results in a more general framework of prerequisites for service development. Since many of the prerequisites are identified within the case company that limits the general applicability. Some of the identified prerequisites might only be applicable to certain packaging companies whereas others are applicable to any industry. The conclusion is that the framework is most valuable for the case company but can be of value to others as well. As stated before the different prerequisites can be utilised individually which widens the area of usage since irrelevant prerequisites can be disregarded. The prerequisites are structured in chronological order in which a service is developed; this further simplifies utilisation of segments of the framework and ease search for specific types of prerequisites.

6.2 Limitations

The study only includes one case. It is a delicate matter to draw general conclusions from this but it is linked to the scope of the thesis which limits the thesis to an in-house study. The case company is also thought to have a rather unique position in the market and therefore the use of information from other companies is relatively small.

The research in this thesis has only been based on information from three market companies and with the global nature of the case company a wider search could be performed to ensure greater accuracy and better results. In the respective markets only a few people have been interviewed. In interviewing for information there is always a risk that everything is not communicated. This in turn can have several explanations. First of all what the interviewee says has to be interpreted by the interviewer. This risk of miscommunication increases when different cultures and languages are involved, as in this case study. Second, there is no guarantee that the interviewees have been providing all information there is. In most cases this is simply due to personal focus or current recall ability of the interviewee but could also be due to a hidden agenda, that the interviewee wants the result to be in a certain way.

6.3 Future recommendations

This study is the foundation in service development within the value chain in the case company. As discussed in *Limitations* the coverage of the interviews is not complete and further gathering of information could be performed.

As a next step in the service focus process the found gaps and competitor's offers can be investigated more thoroughly. Furthermore, other industries with similar value chains could be interesting to study in order to get ideas.

Regarding the framework it could be considered as a living document or a "wiki". This means that the contents should be dynamic and always up to date. Best practices and experiences can be added continuously.

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8 Appendix

8.1 Appendix A - Interview guide market companies

Intro

- Name
- Position/Responsibilities
- History in the company

1. What is your relation to Value Chain Services?

Market Company

2. Could you explain the position of your Market Company?
    a. What is the flow of information between the central org. and MC? Regarding demand, new offer/development?
3. Who are your primary customers?
4. Who are your customers' customers?

Current Service offer

5. What are the current service offerings within logistics, distribution, and packaging from filling to retailer?
    a. Are the services exploited by customers?
    b. Appreciated by customers?
6. Do your competitors offer services that you do not offer?
    a. Appreciated by customers?

Demands

7. How do you find out about your customers and customers customers demand?
8. What are your customers' demands?
9. What are your customers customers demands?

Needs

10. How do you find out about your customers and customers customers needs?
11. What are your customers' needs?
12. What are your customers customers needs?

Development of new services

13. Who is responsible for developing services?
    a. Which actors are participating in the development? Internal and External?

    b. What are the criteria for developing new services? And to implement it?

14. How does your knowledge about customers and customers customers needs impact the product/service development?
15. What is the basis for introduction of a new service?
    a. Customer pull or company push
16. What services do you have in pipeline?
    a. What are the demands behind these services/ reasons to develop them?

17. Personal thoughts regarding services; any ideas for new services?
    a. New ways of developing services?
    b. How to locate demand?

Additional Points

18. Is there anything you would like to add to this interview? Something that you would like to highlight?
19. Who else should we interview about this?

8.2 Appendix B - Interview guide central organisation

- Name
- Position/Responsibilities
- History in the company

20. What is your relation to Value Chain Services (if any)?

Development of new services

21. Who is responsible for developing services?
    a. Which actors are participating in the development? Internal and External?
    b. What are the criteria for developing new services? And to implement it?
22. How does your knowledge about customers and customer's customers needs impact the product/service development?
23. What is the basis for introduction of a new service?
    a. Customer pull or company push
24. What services do you have in pipeline?
    a. What are the demands behind these services/ reasons to develop them?

25. Personal thoughts regarding services; any ideas for new services?
    a. New ways of developing services?
    b. How to locate demand?

Current Service offer

26. What are the current service offerings?
    a. Are the services exploited by customers?
    b. Appreciated by customers?
27. Do your competitors offer services that you do not offer?
    a. Appreciated by customers?

Demands

28. How do you find out about your customers (and customer's customers) demand?
29. What are your customers' demands?
30. (What are your customer's customers demands?)

Needs

31. How do you find out about your customers (and customer's customers) needs?
32. What are your customers' needs?
33. (What are your customer's customers needs?)

Additional Points

34. Is there anything you would like to add to this interview? Something that you would like to highlight?
35. Who else should we interview about this subject?