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**The role of servitization success factors as firms
change towards solution providers**

A comparative case study

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ABSTRACT:

This study focuses on the servitization process of manufacturing companies and in the success factors that enable positive outcome in the servitization process. This is relevant to study as most of the servitization processes fail, even though than servitization process is seen as an ideal goal for all manufacturing companies looking to gain competitive advantage over competition and ensuring better profits through services. This combined with clear lack of study on this matter work as motivations to complete this study.

In this study we filled this gap by answering three research questions, which enabled me to shed light on success factors of servitization process. These research questions are: 1. What kind of process is servitization as a whole? 2. What is success in servitization process? 3. What factors can be identified from the servitization process and which of those are the most critical ones that result in a successful servitization process? Chosen method for this study is literature review combined with qualitative case study. In literature review I looked at the servitization processes of companies combined with different levels of servitization, barriers in these processes and we also defined what success in servitization means. After this I was able to draft success factors that I tested in empirical set. This was done through comparative case study, where two case companies were chosen based on their success in servitization into solution providers. Interviews were conducted with representatives from these companies and theory of success factors was tested. Also, annual reports were utilized especially when looking into success in services with these companies, and when illustrating the servitization process of these companies. After both companies and their servitization processes were analysed individually, a comparative analysis was made, and results were gathered through this.

As a result of this study, I was able to compile five success factors that servitizing companies should look into when embarking on servitization journey. These factors are structural change of organization, culture & people within the organization, resources, capabilities, and the markets of servitizing company. I was also able to further strengthen the visual of servitization journey as a continuum from more basic products supporting services into customers needs complying solutions.

This study contributes to the servitization literature by compiling success factors of servitization processes within one study, enabling future studies to further look into these factors. Also, the idea of servitization process as a linear continuum is further emphasized combined with the image of successful servitized company.

KEYWORDS: Servitization, Servitization process, Servitization success factors, Solutions, Servitization continuum

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1 Introduction

In this chapter I introduce you to my thesis. First, there is little bit about the research background, followed by research questions and purpose. After this I present the scope of the study and lastly there is the structure of rest of the thesis.

1.1 Research background

Competition inside traditional manufacturing markets is increasing, as a result of faster evolving technology, which has resulted in smaller profit margins on products. This drives manufacturing companies to seek competitive advantage and profit margins from elsewhere. (Huikkola, Kohtamäki & Rabetino, 2016) Servitization has been a key to these problems, as services are much harder to imitate and hold higher profit margins within. (Oliva & Kallenberg, 2003) Thus making services to also be a key to sustainable competitive advantage. (Salonen, 2011) Lastly, servitization enables companies to answer to increasingly complex customer needs for customized solutions. (Baines, Lightfoot, Beneddini, & Kay, 2009) Nowadays services generate on average one-third of revenue to manufacturers. (Martinez, Neely, Velu, Leinster-Evans & Bisessar, 2017) Services seem to be a natural answer to most of manufacturing companies' problems.

But you rarely create harder to imitate services and get to hold your higher profit margins with only add-on services. (Mathieu, 2001) Therefore, it is important to understand what kind of servitization process it is to establish your company as a solution provider, which more often creates harder to imitate services that offer competitive advantage and hold higher profit margins. (Salonen, 2011; Oliva & Kallenberg, 2003) Knowing this one might suspect that servitization process is very studied field with all the more basic areas such as success factors covered.

However, many companies do not succeed in the transition towards servitization as a strategy (Kowalkowski, Windahl, Kindström, & Gebauer, 2015) the success rate of companies going towards servitization are rather low, only 20 percent of companies dwelling into servitization were successful in their endeavours (Ulaga & Reinartz, 2011), caused by struggles in transition from product-centric to service-centric business. (Martinez et al., 2017; Baines, Bigdeli, Sousa & Schroeder, 2019) There is a clear lack of studies on what factors affect the successfulness of servitization process. (Ulaga & Reinartz, 2011; Lexutt, 2020) This is why I felt that it is important to study more on the servitization process, to see what factors are important for the successful process of servitization and which ones are the most critical to succeed in order to achieve successful servitization process. This makes this study relevant as this enables companies that are starting their servitization process to know what to focus on and guides future studies with clear success factors for servitization processes.

Most literature regarding manufacturers' moving towards services is normative by nature. (Ulaga et al., 2008) Also the studies in this field are focusing on generating generalizable frameworks by studying large amount of companies and interviewing multiple company representatives. (Reinartz & Kumar, 2003) This is why in this study I am going to focus on describing in detailed way a servitization process of two case companies without focusing on generalizing their servitization processes but rather focusing on learning from these processes common factors that enable success in their respective servitization processes.

1.2 Research questions and purpose

The purpose of this theses is to identify the most important success factors for companies and advice on the best practices to help companies to successfully consider these factors. This can be answered by answering the following three research questions. First, there is a need to find out what kind of process is servitization process to help

understand what kind of different actors influence this process, thus the first research question is as follows:

1. What kind of process is servitization as a whole?

Second research question helps answering what is considered as a success in this study, as there are multiple ways to define success in servitization perspective as well. Thus, the second research question is as follows:

2. What is success in servitization process?

Thirdly when I have identified what kind of process servitization is and what kind of actors influence this process, and I have identified on what does success in servitization look like, comes the third question which helps answering in what different actors in servitization process influence the process in such way that it results in the success defined in the second research question. Thus, the third research question is as follows:

3. What factors can be identified from the servitization process and which of those are the most critical ones that result in a successful servitization process?

To answer these questions, I need to conduct both in-depth theoretical analyse of fundamental terms and phenomena related to servitization process as well as testing the theory conducted with empirical evidence.

1.3 Scope of the study

In this thesis I am going to focus on the servitization success factors in regards of transitioning to solution provider. The interest in this study focuses on the development to solutions provider and on what it takes for the company to become successful in their solution providing. This scope brings depth to current studies, when the focus is on solution providers and on the factors that affect the change, thus I will focus on the servitizing company's perspective. This is done through case study method, as I have studied

the successful servitization process of two international companies, Konecranes and Kone.

Konecranes and Kone were selected based on their success in servitization and proven record as a solutions provider. Success was measured through the revenue on the services in annual reports and servitization process was also analysed from the annual reports. The actual success factors were obtained through interviews with personnel who have operated within services in their respective companies during the time of developing from add-on provider to solution provider. Interviews were conducted in semi-structured manner, which enabled the interviewed to offer more own visions on how the success in servitization process was acquired.

1.4 Thesis structure

This thesis is divided into five main chapters. In the first chapter I have introduction to this matter, and I raise awareness about the research topic, while introducing the research questions. Second chapter includes a literature review on different service offerings, servitization processes, and the success factors and barriers of it. In this chapter I also define servitization success and servitization failure. Then in the third chapter I will review the methodology of this thesis and review the data collection methods. After this in the fourth chapter I will compare the theoretical framework conducted during the literature review with empirical data gained from interviews and annual reports. After the comparison comes the fifth chapter in the form of the conclusions and implications for managers and suggestions for future research.

2 Servitization

In this chapter I will first look into different kinds of service offerings. There I am going to show what kind of different definitions servitization has and then present the chosen definition within this study and explain reasoning behind this. Then I am going to further look into different levels of servitization, followed by definition of servitization process, which enables further understanding crucial success factors related to servitization process. After the process I will focus on possible barriers seen in servitization. Then I will define what success in servitization means and define what success in servitization in this study means. Followed by looking at what failure in servitization looks like. After all this I will be able to consist a list of critical success factors in servitization process.

“Servitization is the innovation of an organisations capabilities and processes to shift from selling products to selling integrated products and services to deliver value in use.”

(Baines et al., 2009)

In modern world, servitization is a goal for many manufacturing companies, as it can offer more sustainable competitive advantage, compared to manufacturing, as technological superiority is far harder to achieve nowadays, (Salonen, 2011) also commoditization of the products combined with rising competition further decrease possible profits through pure production manufacturing. (Weigel & Hadwich, 2018) Servitization means shifting from pure product provider towards also service provider, which includes supporting own products to trying to fulfil customer’s need wholly through services in a way that the actual product is less relevant. (Huikkola et al., 2016) According to Oliva and Kallenberg (2003) literature regarding these manufacturers all agree that integrating services to core product offering is something that all manufacturing companies should do. It is noted that aiming for servitization is more popular on more saturated markets, where it is difficult to gain competitive advantage through products as technology and processes are similar with competitors, limiting potential profit margins. (Oliva & Kallenberg, 2003)

There are multiple reasons why servitization is a desirable goal for every manufacturing company, as servitization can produce financial, strategic, and marketing benefits when implementing services into core offering. (Oliva & Kallenberg, 2003) Motivations to servitize can be divided into competitive motivations, demand-based motivations, and economic motivations. (Raddats, Baines, Burton, Story, & Zolkiewski, 2015) Market can be so mature that services provide the possibility of differentiation. (Martinez et al., 2017) Financially services are reasonably desirable offering as there are higher profit margins in services, and they are more resistant to economic cycles. (Oliva & Kallenberg, 2003)

Servitization helps manufacturing companies to battle commoditization, slower growth, and declining profitability in core product markets. (Salonen, 2011) This enables companies to move up the value chain and to exploit higher value business activities. (Baines et al., 2009) Services are also harder to imitate as these are more labour dependent making them good source of competitive advantage. (Oliva & Kallenberg, 2003) Thus services offer positional advantage in differentiation when it comes to manufacturing companies. (Ulaga & Reinartz, 2011) However, services are not a substitute for poor products, and services build around poor products cannot help sustaining such business. (Baines & Lightfoot, 2013) Also, company needs to be ready for servitization as wider range of services has its risks and does not guarantee company's survival. (Benedettini, Swink, & Neely, 2017)

The actual process of servitization is also viewed as a difficult process, as there is lacking consensus on it in its research field. (Salonen, 2011) And according to Ulaga and Reinartz (2011) only 20 percent of attempts to deploy servitization-strategies have positive results. In the next table there are different definitions on servitization and one of these will be used during this thesis to make research more coherent.

Table 1. Servitization definitions

AUTHOR	DEFINITION OF SERVITIZATION
Vandermerwe and Rada (1988)	“Market packages or bundles of customer-focussed combinations of goods, services, support, self-service and knowledge”
Oliva & Kallenberg (2003)	“Integrating services into manufacturing companies core product offerings”
Mathieu (2001)	“Offering product services such as after-sale services and training services.”
Baines et al. (2009)	“Innovation of an organisations capabilities and processes to shift from selling products to selling integrated products and services that deliver value in use”
Brax & Visintin (2017)	“Change process whereby a manufacturing company deliberately or in an emergent fashion introduces service elements in its business model”
Kohtamäki, Einola & Rabetino (2020)	“Transition process from standardized products and add-on services to customized solutions and advanced services”

Even though there are many definitions to servitization, the common factor in all these approaches is a new service-dominant logic in companies’ operations, compared to the only physical products offering. In this thesis I am going to use Kohtamäki’s, Einola’s and Rabetino’s (2020) definition of servitization, thus focusing more on advanced services, that are more customer reliant. (Salonen, 2011) The focus is on more advanced services because these require most change from company thus possessing the most risk, making it crucial for the company to succeed in their servitization process. (Baines, Lightfoot, Smart & Fletcher, 2013) Also as add-on services nowadays rarely are able to offer

competitive advantage and merely enable companies to stay competitive within manufacturing markets. Solutions should be viewed as the logical next step for manufacturing companies in servitization continuum as these actually provide opportunities for company to generate additional sales. (Kohtamäki, Partanen, Parida, & Wincent, 2013)

2.1 Different service offerings

Services can be divided into three different categories: base, intermediate and advanced services. (Baines & Lightfoot, 2013) Servitization process is viewed to start from these easier base services and through continuum move towards advanced services. (Martinez et al., 2017) These service-offerings can also be divided into those which support the supplier's products (SSP) and those which support the customers actions (SSC). (Mathieu 2001) These SSP's and SSC's have different effects on financial and non-financial performance. (Lexutt, 2020) It is important to note that when company is offering services the company is divided into "front-office" and "back-office". "Front-office" is the part of the company that is in contact with customers, operations such as marketing and sales. "Back-office" has the people that are running the company and the people that are providing and designing products. (Baines et al., 2013)

SSPs are more traditional services thus more common. (Mathieu, 2001) SSPs are more standardized services, that does not really consider customer, but rather focuses on improving sale ability of current products. (Salonen, 2011) Some examples of these kinds of services are repair and maintenance. (Martinez et al., 2017) Salonen (2011) states that these basic services are still required to enter the market of services however, these do not provide competitive advantage in the long run. These SSPs are usually fragmented and only produced because these are necessary to sell the actual product. Therefore, these usually have lower profit margins. (Salonen 2011) However, SSPs are easier for companies to offer as these fit better with company's current resources. (Lütjen, Tietze & Shultz, 2017) There are still customers who want these kinds of intermediate services

solely and are not interested in deeper relationship with company regarding services. (Baines & Lightfoot, 2013) These are also instrumental when considering success rate of servitization, as many companies failed in servitization attempts because they tried to skip providing SSPs (Oliva & Kallenberg, 2003)

SSCs are services that nowadays are more sought after, as these present more promising opportunities and base of competitive advantage. (Mathieu, 2001) Deeper level services such as SSC's require more from company, especially in activities. (Baines & Lightfoot, 2013) SSCs require more also from the company's structure and can also involve the whole strategy of company. (Lütjen et al., 2017) These SSCs demand more on the relationship with customer and thus requires highly trained personnel in regards of relational and technical skills. (Mathieu, 2001) SSCs aim more at fully fulfilling customer's need and these include, for that reason, high levels of customization, both products and service elements (Kohtamäki et al., 2020) and increases the importance of customer. (Salonen, 2011) These SSC's can usually include many parts of SSPs to fulfil customer's needs. (Baines & Lightfoot, 2013)

Brax and Visintin (2017) divided these solution offerings to eight stages in value delivery chain: Production, Business analysis, Solution design, Supply network design, Implementation, Operation, Support, and Disposal. Inside these stages there are different processes that company can offer to customer. It should also be noted that all these stages can be handled by customer, supplier or third party however, in customized solutions or advanced services, almost all of these steps should be taken care of by supplier. (Brax & Visintin, 2017)

2.2 Servitization level

Servitization level is important to understand, and these contain different sets of services offerings. Servitization level is dependent on how advanced services and customised solution company offers to its clients. (Brax & Visintin, 2017) Lütjen et al. (2017) divided these levels to service initiation, service anchoring, and service extension. Level of servitization can be measured from value basis of activity, primary role of assets, offering type, and production strategy. (Martinez, Bastl, Kingston & Evans, 2010)

2.2.1 Service initiation stage

Companies in service initiation level still focus mainly on their core product offering. These companies also have low innovativeness level, when considering services. (Lütjen et al., 2017) These companies proposed value is still about the pure transaction of the product and the process is still focused on mass production strategy. (Martinez et al., 2010) There is only little risk in this level of servitization as these services can be provided with competences that manufacturing company already has. (Baines et al., 2013)

2.2.2 Service anchoring stage

Companies in service anchoring stage are more shifted towards services, but do still have low service innovativeness level, as they mainly use services that have already proven themselves to be operational. These companies do have separate organization for providing services. (Lütjen et al., 2017) These companies also customise their offering to match customers' needs, but still the core of offering is based on the delivery of physical product. (Martinez et al., 2010) In this level the risk is increasing as companies are more exposed to the consequences of equipment faults. (Baines et al., 2013)

2.2.3 Advanced services

As mentioned earlier I am going to focus on more advanced services in this work due to them being able to offer more harder to imitate services, with larger profit margins and competitive advantage over others. (Salonen, 2011; Oliva & Kallenberg, 2003) Thus making this stage of servitization the main focus point. In service extension stage companies are also shifted towards services, but when comparing to anchoring stage innovativeness regarding services is higher, and these companies are aiming towards higher customer satisfaction. (Lütjen et al., 2017) These companies aim to offer customer solutions and service delivered has massive impact on customer relationships compared to physical product. (Martinez et al., 2010) These kinds of solutions are usually viewed as bundles of tangible products, services, and software. (Ulaga & Reinartz, 2011) Customers are included in co-creation of these services as the needs of customers are specific and the offering should be built around those needs to turn into solution. (Raddats, Kowalkowski, Benedettini, Burton, & Gebhauer, 2019)

In advanced services especially people play important part in the success of servitization. (Mathieu, 2001) Baines et al. (2013) were able to find out six important skill sets that workers that are delivering these advanced services should possess: Flexibility, relationship building, service-centricity, authenticity, technically adept and resilience. Also, sales capability is important when it comes to success rate of more advanced services, these kinds of solutions can prove to be more profitable than other service offerings, but this requires strong sales capabilities on the company. (Worm, Bharadwaj, Ulaga, & Reinartz, 2017)

In these advanced services the risk is high as when equipment fails to perform, financial penalties are realized. (Baines et al., 2013) Company also faces other risks when embarking on the journey to offer solutions. There could be problems with resource shortages,

companies need to still focus on product activities, and there is a chance for company to struggle in coordinating various service/products offerings. (Benedettini et al., 2017)

2.3 Servitization process

Even though servitization is seen as a positive change in the manufacturing companies, the actual process of servitization is difficult to complete as there are many different things to note. Companies need to reconfigure their products, technologies, operations and supply chains to be suitable with future service offering. (Baines et al., 2009)

There are multiple servitization processes as there are multiple different kinds of services to be offered. (Salonen, 2011) Servitization process can be seen as a linear transition through product-service continuum, starting from smaller amounts of more basic services, more SSPs, and further the continuum company moves, more services are introduced and SSCs increase exponentially. (Lütjen et al., 2017; Martinez et al., 2017) So this servitization process starts with basic, product-orientated services and advances through more customized process-orientated services until they lead into solutions. (Kowalkowski et al., 2015)

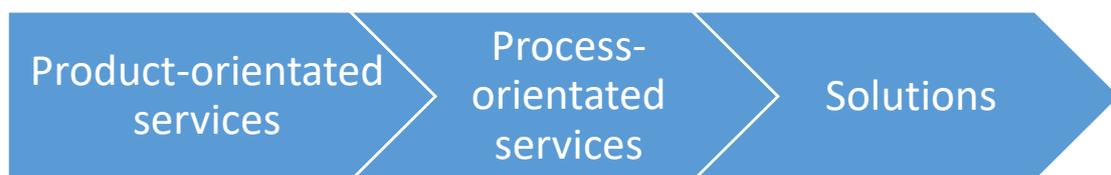


Figure 1. Servitization continuum

According to Kanninen, Penttinen, Tinnilä and Kaario (2017) servitization process can be divided into six steps. These steps are setting the scene, identifying current set and understanding customer needs, defining service strategy, creating new business models

and pricing logics, developing organizational capabilities, and organizing the management of the services. It is still important to consider that servitization processes are hard to unify, as for example companies size has major impact on how the servitization process can be completed. (Brax & Visintin, 2017) One should also note that the desired services to be added to company's offering can require different kinds of processes (Brax & Visintin, 2017), but as in this work I will be only focusing on advanced services and customized solutions.

Companies are also able to provide services through service networks, meaning that companies join operations with service companies to be able to offer services to their customers. (Weigel & Hadwich, 2018) According to Huikkola and Kohtamäki (2017) many servitizing companies used mergers and acquisitions to grow more aggressively with servitization. This is because this kind of radical shift to services requires more formal relationships with other companies. (Raddats et al., 2019)

2.3.1 Setting the scene

Setting the scene for services means that when deciding on implementing services to core offerings, companies should aim to include whole company into process and improve company culture in a way that suites service businesses. The company culture was perceived as the most important capability in this phase of servitization process. (Kanninen et al., 2017) This first step comes from company's desire to sell more products and to improve the potential service performance. (Oliva & Kallenberg, 2003) In this stage it is also important to be able to understand what guides customers' decision making and how different statistics enable offering services. (Huikkola et al., 2016) Customers can value differently different kinds of services, so it is important to understand what kinds of services are important for company's own customers. (Baines & Lightfoot, 2013)

2.3.2 Identifying current set of services and customer needs

When it comes to identifying the current set of services and understanding customer needs, it is important to firstly make note of what kinds of services are already available to offered products. (Kanninen et al., 2017) Customer's readiness to adopt new services must be found out in this stage to see if there is any room for different services, or at least company needs to understand how to show the value of new services to customers. (Vattinen & Martinsuo, 2019) It is obviously important also to involve customer in this phase of servitization process, as these services are made to match customer needs. (Kanninen et al., 2017) Most value can be gained when company focuses on customer's needs, as in SSCs, instead of focusing on adding on own product. (Salonen, 2011) These SSCs can potentially lead company into preferable situation where it takes part of client's process and manages it fully. (Kanninen et al., 2017) This step of managing client's certain part of operation should not be taken before service organization has fully established itself in the maintenance and professional services market. (Oliva & Kallenberg, 2003)

2.3.3 Defining service strategy

Then comes the time for defining service strategy. In this phase it is important to integrate the front and back offices, so the service-offering can be successful and resource allocation can be managed effectively. (Kanninen et al., 2017) The service strategy should be drafted in a way that it is able to answer to customer needs. There should not be any rush into implementation of the strategy as this kind of strategy should be slowly implemented. (Huikkola et al., 2016)

2.3.4 New business models and pricing logics

After servitization strategy comes creating new business models and pricing logics. Kanninen et al. (2017) note that manufacturing companies should not aim at fully service-orientated business model, rather they should try to find a balance between service-oriented and product-oriented business models. It is still possible that larger companies outsource part of their production, for example spare parts, to focus more on the advanced services. (Brax & Visintin, 2017) It is also important to note that different customer segments should be offered different kinds of services based on their needs, therefore it is important to involve these key customers also in this part of the servitization process. (Kanninen et al., 2017) There could be consideration about different alliances and joint ventures with other companies in effort to make servitization business model easier or even possible to smaller manufacturing companies. (Huikkola et al., 2016)

2.3.5 Organizing the management of the services

Lastly comes organizing the management of the services. It is noted that there could be problems when manufacturing and services have management within the same organization. (Oliva & Kallenberg, 2003) This is why it is important in this stage to come up with proper incentives and goals that can help with service sales. (Kanninen et al., 2017) It should be noted that this is also beneficial as separating manufacturing management from service management helps shift company culture away from the minds within service management, as formerly only product focused management could have problems with focusing on services, thus leading to erosion of service quality. (Oliva & Kallenberg, 2003) This decentralization is important to service managers to enable them in making better decisions to form successful services. (Lexutt, 2020) There should however be continuous communication between these two departments to ensure best possible

service providing. (Kanninen et al., 2017) These departments should also be run as an own entity, to see the results of service-offering. (Oliva & Kallenberg, 2003) This separate unit also helps to realize how successful these services are, when they operate individually and offers agility with its smaller size compared to whole company. (Huikkola et al., 2016) However when services are provided within own organization financial and non-financial results differ from the possible single organization. (Lexutt, 2020) There is also a potential through service's required closer relationships with customers, which could result in providing valuable information to company, which could benefit the manufacturing side. (Salonen, 2011)

2.4 Barriers in servitization

There are also some barriers that prevent manufacturing companies to move towards servitization strategies. These barriers are related to company's competencies and capabilities, as services require different kinds of skillsets compared to manufacturing. (Oliva & Kallenberg, 2003) Higher the servitization level is the more challenges, both internal and external, company faces. (Martinez et al., 2010) This also can be seen from the fact that only 20 percent of servitization attempts are successful. (Ulaga & Reinartz, 2011) Lütjen et al. (2017) divide barriers that organization face when servitizing into three: strategy-related barriers, implementation-related barriers, and market-related barriers.

2.4.1 Strategy-related barriers

Oliva and Kallenberg (2003) mention problems with required cultural change within organization, as manufacturing organizations transition towards service offering can be rather difficult because of different kinds of pricing models and the fact that services can

be viewed as something extra, not as an independent product. This barrier also presents a paradox where the required customer orientation is based against keeping the engineering mindset, as it is important to the company to be still able to develop products and manufacturing. (Kohtamäki et al., 2020) Also, there are large requirements to both intra- and inter-networks as new connections are required because of service addition. (Oliva & Kallenberg, 2003) Cultural legacy of company needs to be noted, as when shifting towards more service-orientated mindset more thought towards end customer needs to be made. (Martinez et al., 2010)

There are also some requirements in servitization, that come from customer relationships. (Martinez et al., 2010) As with services the actual goal is to answer to customer's need, compared to product where it is usually part of the solution, new kinds of relationships are required. The role of communication becomes much more important much earlier and it stays more important through the whole process. (Kanninen et al., 2017) When value is created from relationships, more employees are in contact with customers and need to remain consistent with each other. (Martinez et al., 2010)

New services can also cannibalise companies' core offering of products. (Lütjen et al., 2017) Good example of this is streaming platforms, such as Netflix, that offer movies and series more as a service compared to traditional physical copies selling or renting places. Delivery of these new solutions is also a barrier for manufacturing companies, as there are more customer touchpoints, potential misunderstandings related to new offerings and lack of knowledge on the synergies between different parts of the offerings. (Martinez et al., 2010) Internal processes and capabilities is also strategy-related barrier as new strategy requires new capabilities that enable operating service offerings, new metrics to measure performance and processes. (Martinez et al., 2010)

2.4.2 Implementation-related barriers

It is also highly likely that there are some new requirements to personnel, which are more capable with service processes and with different sales compared to product sales. This can happen through recruitments, but there is also high possibility of mergers and acquisitions. (Huikkola et al., 2016)

There are also some barriers regarding the finance, as transition to services needs to increase service knowledge inside company. Whichever way company decides to go with, it does not come without massive financial requirements. Also, these new employees usually come with higher salaries compared to manufacturing workers, due to increased requirements. (Confente, Buratti & Russo, 2015) During the early stages company can struggle with weak performances in services as these new offerings require such new resources, capabilities, and structural changes to organization. (Benedettini, Neely, & Swink, 2015)

2.4.3 Market-related barriers

Confente et al. (2015) also mention competitors as an entry barrier for servitization. As one could guess, when company decides to start offering services, there are potential competitors, doing those services already. These competitors also have the needed knowledge already on offering services, as these usually are professional service businesses. (Salonen, 2011) As already mentioned new kinds of customer relationships are needed to support the services provided by manufacturing company, but also it is important to be able to find out the readiness of customers to adopt services, customers need to be open to adopt new services or the servitization process is in vain. (Vattinen & Martinsuo, 2019)

2.5 Servitization success

Servitization success can be defined in multiple ways. Servitization success can be measured in the whole company revenue or profitability, only service-related revenue, or profitability, or in some form of non-financial measures, for example, customer satisfaction or the overall quality of customer relationship. (Lexutt, 2020) In this thesis I am going to focus on the service-related revenue and profitability, as this is consistent to measure, and it focuses more on the profitability of services rather than whole company. Of course, services could have effect on the revenue and profitability of the whole company's other operations as well, but this is too complex to measure from the annual reports. Based on Fang, Palmatier, and Steenkamp (2008) this is a good measure, as companies need to achieve net sales of services over 20%-30% to gain positive effects from service transition. This line is relatively close to the average success of service sales with manufacturing companies, where services account for one third of net sales. (Martinez et al., 2017)

2.6 Servitization failure and deservitization

Servitization failure is often caused by financial reasons, as services are more expensive to develop and offer, and these services could be unable to provide enough profits to make them worthwhile to offer. (Lütjen et al., 2017) Other reasons for a failed servitization process are operational and strategic reasons. (Nordin, Kindström, Kowalkowski, & Rehme, 2011) Companies that are manufacturing focused can find themselves failing at servitization process as more compound and varied needs of customers are not easy to navigate and this can result in a failure to develop essential capabilities and solutions esteemed by customers. (Raddats et al., 2019)

Deservitization is the term used for process where companies are withdrawing from their service offerings rather than moving forward through that product-service continuum. As a result of growing competition and customers own processes of internalising some services formerly provided causes deservitization. (Lütjen et al., 2017) Also stress can be a great reason for deservitization (Martinez et al., 2010)

2.7 Critical success factors in servitization process

When it comes to critical success factors in servitization process, there are some strategic factors that cannot be ignored or the servitization process is most likely going to fail. Servitization process should be carefully planned to ensure higher success rate. (Lütjen et al., 2017) Especially more advanced services require changes from the organization to be successful in servitization process. (Mathieu, 2001) Following factors should be noted in company's strategy when embarking on servitization journey: structural change, culture & people, resources, capabilities, and markets. Next, I am going to show why these five factors were chosen.

Structural change refers to organizations reconfiguring, often in a way that services and manufacturing are separated. (Lütjen et al., 2017) When companies decide to embark in servitization process of transitioning from add-on service provider into solutions provider, there needs to be a structural change to ensure the successfulness of the process. (Lütjen et al., 2017) To complete this structural change there needs to be a strategy in place to enable the process to be controlled and rational. (Kanninen et al., 2017) Servitization requires more from companies inter- and intra-networks. (Oliva & Kallenberg, 2003) Company's structure and systems are important in the deployment of the resources as these can either facilitate or hinder the deployment within the company. (Huikkola & Kohtamäki, 2017)

Newly found services should be managed in a way that they operate as an individual entity separated from the manufacturing to ensure the highest possible success rate of the service. (Oliva & Kallenberg, 2003) This way the successfulness of the services can be reviewed more easily as this organization is separated from the influence of manufacturing organization. (Huikkola et al., 2016) This also enables this new unit to focus on the matters that are most important to the new services. As servitization process should be started with more basic services and moving towards advanced services should happen through continuum, so should the company's structure change with it. (Oliva & Kallenberg, 2003) However, Raddats et al. (2019) argue that this kind of organization change can also be harmful through the fact that solutions, as bundles of tangible goods, services, and software, require close cooperation between these units. There is no simple solution to this as co-existence with product and service orientations would be even harder for company if these offerings were operated in same place. This is because product-oriented business would focus on efficiency and standardization which would contradict the need for flexibility in heterogeneous service markets. (Lenka, Parida, Sjödin, & Wincent, 2017)

In order to be successful in servitization process, organizations need to go through changes in their way of working and culture. Martinez et al. (2017) place establishing service culture as a second most important step in servitization process. Service culture plays a crucial part especially in the early stages of servitization process. (Kanninen et al., 2017) It is important that organizational culture shifts towards services orientation to ensure successful servitization process, as this service orientation is interconnected with service strategy and structure. (Lexutt, 2020) Organization's service orientation is especially important when it comes to advanced services. (Salonen, 2011) Company's culture also plays a part in the deployment of resources within the firm. (Huikkola & Kohtamäki, 2017)

Manufacturing managers must begin to see people as the main asset to successfully transition from manufacturing business to service business. (Mathieu, 2001) People are

one of the most crucial success factors when it comes to the advanced services, as delivering these require deeper relationships with customers and the value of these services need to be presented to the customer in a way that they realise the benefit. (Mathieu, 2001) Baines et al. (2012) highlight the importance of good front-office staff, meaning that they are humanistic, flexibly skilled, good at building relationships, focus on services and are working firstly to serve customer. Experienced sales force and good distribution network are also essential when it comes to servitization and established companies usually do have these networks, especially in B2B, but it is also important to be able to fully take advantage of this network to improve service sales as well. (Ulaga & Reinartz, 2011) Management's commitment to servitization is also viewed as an important factor when it comes to servitization, service management should also be decentralized as presented in organizational change. (Lexutt, 2020)

Companies that are embarking on the servitization process need to create new resources while continuing to leverage existing resources. (Huikkola & Kohtamäki, 2017) Huikkola and Kohtamäki (2017) Identified six different resources categories that servitizing companies have over purely service companies or some have in some different way: Installed base of products and service contracts, physical and technological assets, intellectual capital, human capital, financial assets, and external assets. Manufacturers do have some resources that put themselves in front of pure service providers and these resources should be taken advantage of to best succeed in servitization process. (Ulaga & Reinartz, 2011) These resources are also harder to imitate thus creating competitive advantage. (Teece, Pisano, & Shuen, 1997) The installed base of goods is a great resource for manufacturing companies, especially the process data gathered from it. (Huikkola & Kohtamäki, 2017) Through this process data it is possible to gather information about customers usage of product unlike any competitor, offering a clear competitive edge when used correctly, for example in maintenance services. (Ulaga & Reinartz, 2011) Also product development can present unique routes for manufacturing companies to offer different kinds of services to customer. For example, if company can create something that customer can get more value out of with companies' careful procedure over the

product, it is possible to achieve competitive advantage through this as well. (Ulaga & Reinartz, 2011) Therefore offering solutions, bundles of products, services, and software, seems to be an offering that is much easier for manufacturing companies as there is actual products that are more easily modified to customers' needs.

Capabilities is seen as a crucial success factor for the servitization process as failing to develop capabilities to support services results in a failed servitization process. (Huikkola & Kohtamäki, 2017) Capabilities developed for offering solutions usually possess source for competitive advantage through being harder to imitate. (Teece et al., 1997) When offering basic services companies' capabilities are usually up to par with the requirements for offering these basic services, but when moving towards advanced services companies' capabilities should develop. (Oliva & Kallenberg, 2003) In resources there was a mention about installed base of goods and the process data gathered, such as customer's key processes, customer's profitability, and product usage. (Huikkola & Kohtamäki, 2017) It is important to company to be able to create capabilities to create services based on these resources. (Ulaga & Reinartz, 2011) Value co-creation capability also plays a large role when it comes to working with customers as servitizing company benefits greatly from the ability to co-produce offerings to co-create value. (Huikkola & Kohtamäki, 2017) This kind of capability needs to be on the customers side as well, as value co-creation is not possible if only solutions offering company has this capability. (Raddats et al., 2019)

Ulaga and Reinartz (2011) also add that execution risk assessment and mitigation capability is important capability for servitization, as companies should be able to assess these risks that they face when providing services and how to mitigate these risks so the services can be successful. Design-to-service is viewed as one of the most important capabilities, meaning that when designing new offerings managers should think how services could benefit the most from the products. (Ulaga & Reinartz, 2011) Successfulness in this can lead to differentiation or cost reduction advantages over pure service providers. (Ulaga & Reinartz, 2011) Manufacturing firms have challenges with identifying,

quantifying, and addressing customers' value drivers (Huikkola & Kohtamäki, 2017) so it is important that these servitizing companies also possess the capability to sell (Vaittinen & Martinsuo, 2019) and deploy these new hybrid offerings to customers. (Ulaga & Reinartz, 2011) These capabilities should be developed throughout the servitization process as they need to be aligned with the evolving business model that should focus on customer's demand. (Kamal, Sivarajah, Bigdeli, Missi, & Koliouisis, 2020)

One of the most crucial parts of servitization is to find out about markets needs and barriers to enter this market. When it comes to advanced services customers' needs and readiness to adapt into using new services present a large factor to be considered when developing these services. (Salonen, 2011) Customers should be remembered during the whole servitization process as these services are made for them and need customers to need these. (Kanninen et al., 2017) In advanced services close relationships with customers are also required as these offerings turn from products to customized solutions, which obviously requires good communication between the customer and the manufacturing company to find out customer's needs and how to best answer to them. (Martinez et al., 2010) This requires highly trained personnel in regards of relational and technical skills. (Mathieu, 2001)

It is important to learn about customers readiness before starting the servitization process as any offering without customer's is pointless. (Vaittinen & Martinsuo, 2019) Some customers could be complacent with basic services (Oliva & Kallenberg, 2003), however being complacent with basic services does not mean that customers could not adopt new services, if the company has capabilities required to sell these services. (Vaittinen & Martinsuo, 2019) Customer needs to be remembered when designing these services as customers also have different kinds of preferences when it comes to services. (Vaittinen & Martinsuo, 2019) These kind of service offerings also require customers to have capabilities that enable co-creating innovation and requires them to have processes that enable service outsourcing. (Story, Raddats, Burton, Zolkiewski, & Baines, 2017)

Competitors should also be looked at when starting servitization process as offering services opens a line of new competitors in service segment of markets. (Confente et al., 2015)



Figure 2. Critical success factors for servitization process

In conclusion, as we can see in the above figure, I have compiled all the success factors for a successful servitization process from an add-on service provider into solutions provider. First, we have structural change which means that when companies are engaging on servitization process, they should separate services from manufacturing, to ensure maximum focus on services and to better understand the profitability and success of these new services. When it comes to culture & people, company's culture and way of working should be shifted in a way that it is more open towards services, thus enabling these services to be more easily provided, when there is no internal friction. After this we have resources. Resources enable companies to offer new kinds of services, and as these services are more complicated than before, companies should develop or obtain resources that support the providing of these services. Same thing applies for capabilities, as companies are also required to develop new capabilities to offer these kinds of advanced services and also to take advantage of these new resources. Lastly there is markets and especially understanding these markets. As these new advanced services are made to suit customer's needs, there needs to be a need to begin with. Also, it is important for companies to include customers when making these new offerings, as these are more customized than basic add-on services.

3 Data and methodology

In this chapter I look at the methodological tools chosen for this study and explain why these tools were chosen, main limitations are also briefly covered, with reliability and validity discussed as well.

3.1 Research method

Case studies are seen as most appropriate means in the early phases of a new management theory when crucial variables and their relationships are being explored. (Gibbert, Ruigrok, & Wicki, 2008) This makes case study to be the best possible method in this study, as I research crucial variables and their relationships regarding the servitization process to solution provider. This study is conducted as a qualitative multiple case study, looking at the servitization process of two case companies. This is because, according to Gephart (2004) methodologies need to be used that are consistent with the assumptions and aims of the theoretical view being expressed. In the research strategy of building theory from case studies, you need one or more cases to create theoretical constructs, propositions and/or midrange theory from case-based, empirical evidence. (Eisenhardt & Graebner, 2007) One of the best ways of bridging the rich qualitative evidence to mainstream deductive research is case studies. (Eisenhardt & Graebner, 2007)

Even though Yin (2003) argues that case studies is especially beneficial when assessing contemporary events, Dubois and Araujo (2004) argue that distinction between historical and contemporary events is impossible to maintain as *"history is always encoded in the structures that shape current choices."* These two case companies are looked at historical perspective when looking through the servitization process up to date and in a contemporary way when looking at the current situation with the servitization process of these companies.

Yin (1994) proposes three different modes of analysis in case study research. In this work I am going to use the Pattern-Matching analysis mode, so I am going to compare an empirically based pattern with a predicted one. I am going to look at how impactful the five servitization process success factors are in practice.

3.2 Case selection

Case companies are Finnish manufacturing companies, that are publicly listed (Nasdaq OMX Nordic) These case companies were chosen based on the requirements of being manufacturing company, that has implemented services into its offerings, also as in this study I focus on the more advanced services these companies needed to have advanced services. There was need for proof of successful service offering, so this limited the newer companies from the possibility. This left me with very few Finnish companies and out of those in Kone and Konecranes there were suitable personnel to answer with experience on the matter of this study.

These cases are especially interesting as they were the same company until year 1994. After the separating of these companies continued in their respective markets and started their servitization process of transforming from add-on services to solution providers. It is interesting to see, how these two companies that started from quite similar positions succeeded in their servitization processes and what kind of differences were there between these two servitization processes.

3.3 Data collection and analysis process

For the data gathering of this study, interviews were conducted and from both companies the annual reports were studied, and relevant data was gathered. When it comes to interviews, semi-structured interviews were conducted. In this study the interviews are based on the earlier discoveries during this thesis. The interview frame consisted of both closed and more open questions. All the interviews were conducted online due to Covid-19. These interviews were taped and archived. From both companies only one person was found that was able to provide meaningful answers to these questions, as the requirement of very long work history with services for the whole time was extremely hard to fulfil.

In this type of interview, the actual data collection system is systematic, but it enables the discussion to be more conversational and casual. (Eriksson & Kovalainen, 2008) In this type of interviews there are not any strict questions, but rather more free type of interview frame which is based on the predetermined themes. (Hirsjärvi, Remes, Sajavaara & Sinivuori, 2009) When conducted this way, more comprehensive picture of the studied phenomenon can be brought out and this also allows pursuing additional themes during the interview. (Eriksson & Kovalainen, 2008) Then from these interviews I got the data for analysing and interpreting. In these types of qualitative interviews small sample size is regular, which causes focusing more on the thorough analysing of the data, instead of the quantity. Also, the interviewed are chosen carefully so the quality of answers is high. (Hirsjärvi et al., 2009)

Also, the annual reports were studied for the duration of the study 2000-2020. From these reports, data from services were obtained and analysed. These annual reports were used to analyse servitization process of these companies and the success of these companies in servitization. Different service offerings were gathered from the annual reports and based on the timeline. This then draw a picture of how servitization process of these companies in the larger picture had progressed as interviews were more

focused on the more detailed information. Servitization success was studied based on the net sales of services compared to all net sales of case companies. These percentages were then compared with set line of average based on Martinez et al. (2017) which is one third and compared to the amount of 20%-30% critical mass of which after companies are able to provide positive effects based on Fang et al. (2008)

When it comes to interview data, I used the Pattern-Matching analysis. In this analysis mode an empirically based pattern is compared with a predicted one. (Yin, 1994) I compared the theoretical framework that was concluded within literature review with the interviews to find matching patterns.

3.4 Validity and reliability

Internal validity of this study is confirmed as research frameworks were taken from numerous earlier studies and empirically discovered patterns were combined with frameworks established utilizing present theory. Internal validity is further increased due to the use of multiple companies as thorough analytical comparison has been conducted between the two cases. Internal validity strengthened also as the patterns that were found in literature review coincide with empirical data. (Yin, 1994) External validity of this study is confirmed due to the case companies being chosen by the following logic of being manufacturing companies, that have transitioned from add-on services into a successful solutions provider with proof of success. To guarantee analytical generalizability (Gibbert et al., 2008) two companies were chosen so the results are more generalizable due to being proven in multiple companies.

Reliability of this study is confirmed with systematic and transparent procedures. Two key words in reliability are transparency and replication. Transparency can be show with report that stipulates how the whole case study has been conducted. (Gibbert et al., 2008) Thus here is how the entire case study was conducted. The interview frame and

empirical data are well-documented, also the interviews are all recorded, and transcribed shortly after the interview. All the interviews were done through online application that enabled a call over the internet. All the interviews were conducted in native language of both interviewer and interviewees. All the interviewees were contacted over the phone and they were picked through multiple people in organization as persons who are experienced enough to answer this case study. When it comes to replication, all the case study notes, documents and narratives that have been collected are stored in a way that they remain retrievable.

4 Results

This chapter focuses on describing results. First, I will focus on the servitization process success factories of both Kone and Konecranes individually. After this I will compare the servitization process success factories of these companies with each other. The comparing of these servitization processes start from the year 2000, as this period includes both of these companies transition from the add-on service provider into solutions providers. I will also briefly visit the history of both companies from the origins of service providing. Next, I am going to find what kind of development was made during the reviewed period.

4.1 Kone

Kone is a Finland-based international company that operates in elevator and escalator industry. Kone has been founded in 1910, thus having deep roots in their industries. (Kone, 2020)

“Kone has offered services almost as long as Kone has been a company” (Interviewee 1.)

As this quote states, Kone has been a service provider for a long time. The successfulness in this field can be seen in annual reports and for example in the year 2020 Kone’s sales in services were 4,598.4 million euros out of total sales of 9,938.5 million euros meaning that service sales covered 46,3 percent of all sales. When looking at the below figure of Kone’s service percentage of net sales it is shown that Kone has had impressive part of their sales come from services during the whole time they have been reviewed in this study. This is higher than the one-third of revenue services generate to manufacturing companies on average (Martinez et al., 2017) and clearly surpasses the critical mass of 20%-30%, which enables positive effects on company. (Fang et al., 2008) Thus it can be

agreed that Kone is very successful with their servitization process compared to average company on this indicator. Therefore, I should examine the servitization process of these services. In the next chapter I am going to look at the servitization process of Kone and then I am going to delve deeper into the factors that enabled success in this servitization process.

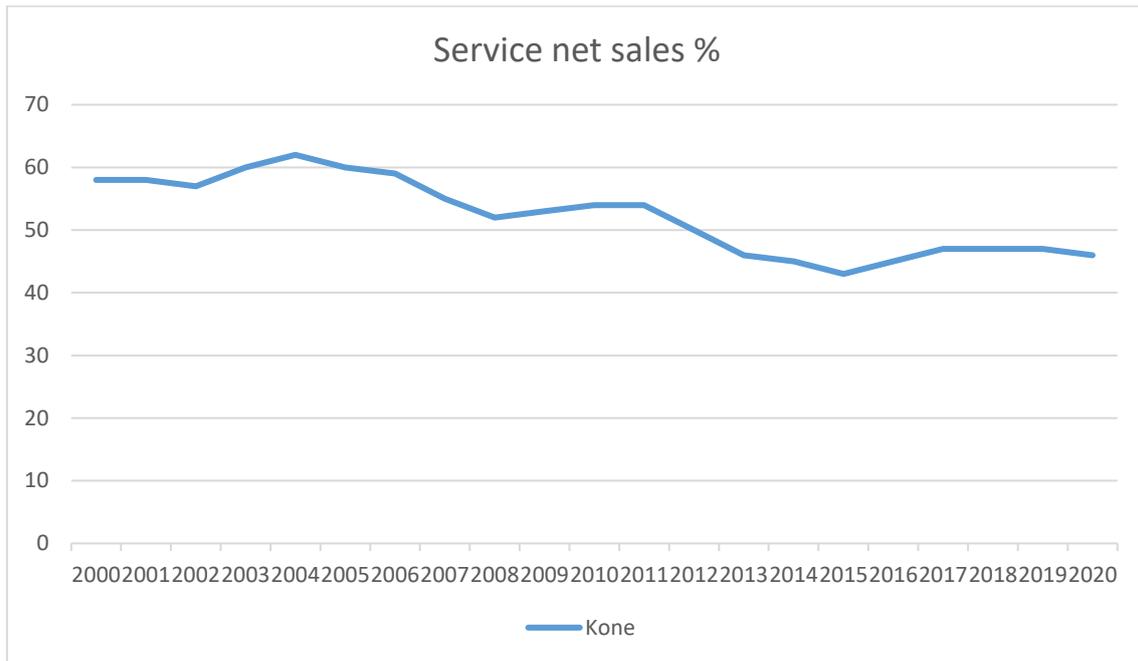


Figure 3. Kone's service net sales percentage of total net sales

4.1.1 Servitization process

When looking at the annual report of 1995, we can see that Kone already offered maintenance and modernization services. The add-on services that Kone has offered for a long time has been a natural continuum in the business, as according to the following:

“Elevator has required maintenance for a long time in this field, as if it is in the use it is legally required to be maintained.” (Interviewee 1.)

As it is shown Kone has offered basic add-on services for a long time. This motivation for servitization into service provider could be argued to be demand based. But in this work, I am going to focus on the offering of more advanced services. Kone has offered add-on services for a long time and more advanced services are emerging as technology evolves and the focus shifts on to the end users which is illustrated by the following quote:

“Kone has offered maintenance services for decades, but now our service offering is expanding to a larger and more versatile through Internet Of Things based services, which don’t only focus on the elevator maintenance, but also on the elevator use and user experience and managing of the customer flow.” (Interviewee 1.)

Based on the Kone annual reports (2000-2020) Kone started to shift from the traditional add-on service provider into more solutions-based supplier in the year 2000, through the launching of Kone Optimum, a service concept which offered more reliable maintenance to elevators, through monitoring on the usage and performance on elevators. This is in line with the view that servitization process is a linear transition through product-service continuum (Lütjen et al., 2017; Martinez et al., 2017), where in this case Kone started also with more basic services that supported their product and advanced towards more services where the services transitioned into solutions to customers problems. Motivation for this kind of advancement in servitization continuum could be more competitive based on wording of it in the annual report.

In year 2007 Kone redefined its strategy to start focusing on effective people flow experience, even more solutions-based service, where they focus on enabling people to move smoothly, safely, comfortably and without waiting from one place to another. (Kone, 2007) As Salonen (2011) states, most value can be gained when company focuses on customer’s needs, instead of focusing on adding on own product. This mindset has also been adopted by Kone, which can be seen from the People Flow concept, as Kone states in multiple annual reports, they are trying to focus on the best possible user experience with People Flow concept. (Kone, 2009, 2010) This new focus on the strategy still shows today which can be seen from the following quotes:

“Nowadays these services focus more on the end users, the actual elevator users. For example, you can order the elevator to your floor with your mobile phone, so the benefit comes more to the elevator user and not just property owners. This requires from us new kind of thinking and also service shaping” (Interviewee 1.)

“Competition is fairly strong in the regular maintenance services and this causes the price competition to be tough and we can see that there is price erosion in the market. This naturally creates a question of how to stand out in this market and how to find service concepts that are not that commoditized, so we can offer something that our competitors don’t offer and through this create customer value, which in turn presents itself as a positive impact on the price.” (Interviewee 1.)

After this Kone has created more new service concepts, for example in 2017 Kone introduced Kone Care services, which bring elevators and escalators to the smart services. This innovation uses Internet of Things, which helps Kone to offer more better customer experience.

It is apparent that this requires Kone to keep on evolving on the services, in order to keep on getting the profit through services as well. It also looks like the increasing competition in the service field starts to create similar problems to the manufacturing markets as this increasing competition starts to decrease the profits even on the more basic services. However continuous service development process is not easy to sustain and there are some barriers that have been noted within Kone as well:

“As we are pursuing on innovating and renewing our field, some of these concepts are also new to our customers, so it demands patience and time to move forward with these concepts. And of course it requires learning from our employees as well” (Interviewee 1.)

Kone does not rely on service networks when providing services, but rather produces all their services on their own. However, Kone has grown itself through many aggressive acquisitions, which has had its impact on service as well, this is illustrated in the following quote:

“Kone has grown through many acquisitions, some companies acquired were actually larger than Kone at the time. This has had impact on Kone’s business activity as we have grown to be more international company through these acquisitions, and this has had its effects on services as well.” (Interviewee 1.)

When looking at the Kone’s focus areas on their annual report of 2020, it is mentioned that Kone wants to focus on core products and services and new solutions for customer value. This shows that Kone is still very much invested in the services as the best way for profitable growth and differentiation. In the future development of new technologies have a massive impact on the development of new services with Kone. This is illustrated by this quote:

“These kinds of Internet of Things solutions, remote monitoring and even remote maintenance are the next large developments to the current service business.” (Interviewee 1.)

Shortly put, Kone has started its servitization process very early on with add-on services and from these evolved to a solutions offering company in the switch of the century. This continuous improvement requires innovation and learning from the whole Kone organization and so far, it has been successful. In the next chapter I am going to investigate the reasons behind this success.

4.1.2 Servitization success factors

During the literature review it was noted that there are five factors that are crucial in the servitization process: Structural change, culture & people, resources, capabilities, and markets. Next, I am going to look at how these different factors have shown themselves during the servitization process of Kone.

When it comes to structural change it was mentioned that especially in the advanced services there needs to be a separation between the manufacturing and services. (Lütjen

et al., 2017) And it is apparent that Kone has impacted its servitization success by separating services from the manufacturing side. These units are responsible for the results and thus operate as their own entities with a common goal on the mind. It also helps to focus on the matters that are important to the own unit. (Interviewee 1.)

Culture plays a big part in successful servitization process as both shifting to the service mindset during early stages (Kanninen et al., 2017) and having a strong service culture orientation when offering advanced services. (Salonen, 2011) It becomes obvious that Kone's culture has always supported services as well, as Kone has traditionally focused a lot into the services. Yet it has simultaneously increased with servitization process as services have become more important when looking at the profit and growth. This can also be seen from this quote:

"The focus on the service business has increased within last five years and more has been invested into it and also more innovations are coming from it. This increased focus on services shows in culture as well, we like to talk about soft doing and service attitude." (Interviewee 1.)

And when looking at the people behind the services, the dedication to service business shows. People are viewed as an incredibly important asset to Kone, especially when it comes to services. This compliments the idea that people are most important part to servitizing companies, as delivering solutions requires much more from customer relationships, where people oversee these relationships, and requires the ability to sell these solutions in a way that customers understand the added value, where people are central once again. (Mathieu, 2001) Kone likes to keep the service business within the house and thus uses only little bit of outside connections with services. These connections usually relate to studies and development. This is illustrated in the following quote:

"Service business is very important part of our business, so we focus a lot on developing it. We invest and try to improve in our employees and organization. We also cooperate little bit with universities and other academies." (Interviewee 1.)

Resources are also an important factor to the development of services, as often with new services also new resources are needed and leveraging of the current resources should continue. (Huikkola & Kohtamäki, 2017) Kone has developed many kinds of resources, for example, in form of installed base of products:

“It is beneficial that Kone has large installed base of products and with every new elevator the standard is that the machine is under maintenance contract for the two years that the guarantee usually lasts.” (Interviewee 1.)

These kind of installed base of products are resources that set them apart when comparing to pure service providers, (Ulaga & Reinartz, 2011) thus making these incredibly important factor in their servitization process. Also, human capital is an important strategic resource to Kone also in the regards of the services and the importance of every employee and the aim of employee development shines through the answers, for example:

“It shows from the development discussions and human development and little bit from the fact that we are in service business and everyone’s role should be to produce services and with great service attitude”. (Interviewee 1.)

Lastly physical and technological assets are mentioned as the following quotes illustrate:

“Service providing on the field has been our capabilities for a long time. We have all kinds of things to support these for example customized SAP programs to suit our needs and other very developed solutions.” (Interviewee 1.)

“ Technologies and processes must support the services” (Interviewee 1.)

As stated before, failure to develop new capabilities to support new service offerings results in a failure. (Huikkola & Kohtamäki, 2017) And when it comes to capabilities there are few important capabilities for Kone in service business that ensure their success, which are developing service concepts, how to commercialize these service concepts and understanding the customer value. (Interviewee 1.)

When embarking on the servitization continuum, one of the most important factors to notify during this process is markets. As mentioned, before it is crucial to understand the markets to be able to successfully offer correct kinds of services to customers. (Kanninen et al., 2017) Also all kinds of barriers of the new markets need to be notified when servitizing. (Salonen, 2011) With Kone here is no exception, as it is shown in the following quote understanding the customers' needs and developing these needs is something Kone is very good with:

“In these markets the competition is very tense and it especially shows when talking about maintenance where price competition is hard and we can see erosion on the prices. Naturally you should try to stand out in these markets and you do that by developing new service concepts, which are not that common so you can offer something that your competitors can't and through this create customer value which in turn shows as a profit to us” (Interviewee 1.)

As seen Kone has adapted greatly to every challenge in servitization process by performing greatly with every success factor. Kone has focused most on the people part of the success factors which can be found both in culture and resources. This fact is also present in the Annual report of 2020, where listed as a first way to win to “achieve sustainable success with customers” is empowered people. Kone seems to also focus on innovating and staying ahead of competitors seems to be an important factor for Kone as well. All in all, it could be said that Kone is performing greatly in servitization continuum with its deep focus on different success factors in servitization. It is also shown that Kone's service providing is more dependent on the evolving of technology, as new technologies have enabled better solutions to be provided by Kone.

4.2 Konecranes

Konecranes is a Finland-based multinational manufacturer and service provider of cranes and lifting equipment. Konecranes was founded as an independent company in the year 1994, when it was separated from the company Kone. (Konecranes, 2020) When

looking at the annual report of 2020, it is shown that with Konecranes the largest net sales come from services. Out of total sales of 3,178.9 million euros services covered 1,190.0 million euros resulting as 37,4 percent out of all sales were from services. This is higher than the one-third companies generate revenue on average (Martinez et al., 2017), and also the critical mass of 20%-30% which is required for positive effects. (Fang et al., 2008) And this trend has been accurate during the whole reviewed period of Konecranes as seen from the figure below. Thus, I can say that Konecranes has performed a successful servitization process. Next, I am going to look into what does the servitization process of Konecranes look like. After this I will look at the success factors in this servitization process.

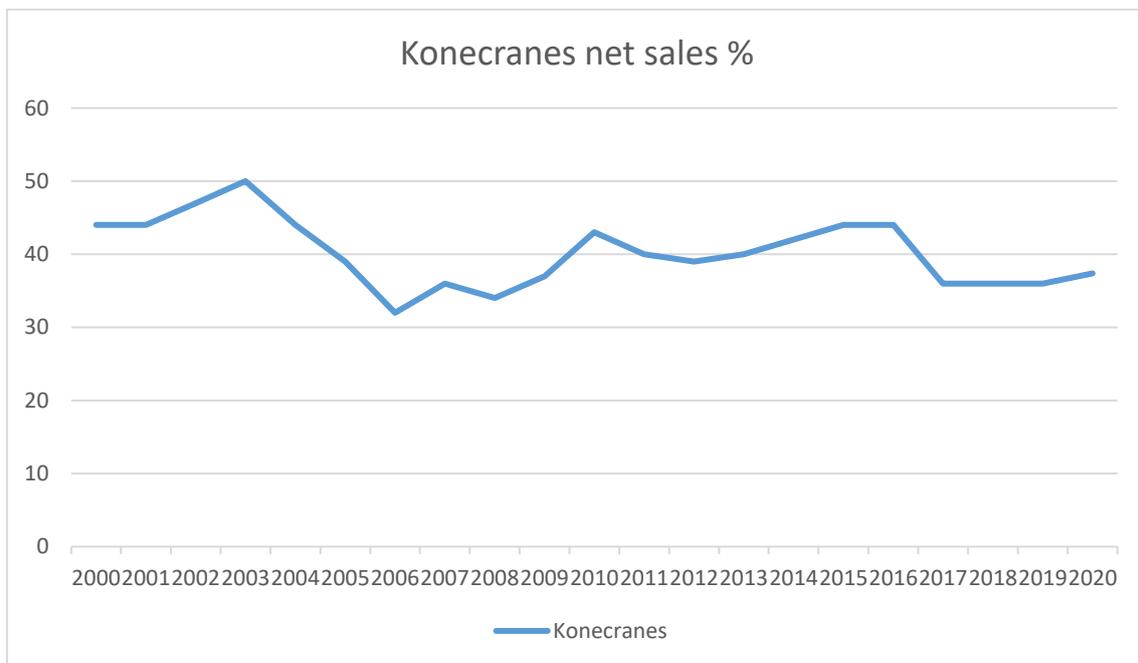


Figure 4. Konecranes net sales percentage of total net sales

4.2.1 Servitization process

Konecranes has started to offer services already in the 1960s. The demand for these services came from the legislation, as in almost every country there is a legal

requirement to either maintenance or check lifting machines regularly. During these checks, the need for maintenance became apparent and then maintenance was done to fix the problems spotted during the check. (Interviewee 2.) When it comes to motivation for servitization it can be concluded that with legislation and later with demands from customers, the main motivation for Konecranes was demand based.

After the parting with Kone, Konecranes seemed to start focus more intensively on the professional providing of maintenance services. As in the annual report of 1996 they stated that professional maintenance business on cranes and lifting equipment was a new business area that they are trying to expand into. These add-on type of maintenance services were Konecranes' main offering until year 2005. (Konecranes, 2005) This kind of offering of SSPs is perfectly in line with commonly agreed theory that these kinds of services, like maintenance, are required to sell the actual product. (Salonen, 2011) Also these kinds of services do not really require much transformation in company's resources (Lütjen et al., 2017), thus making the next step to solutions riskier.

In the year 2006 Konecranes' services shifted towards more solutions-based offering with slogan Lifting Business TM, which emphasized productivity enhancing lifting solutions and services, through offerings of maintaining the whole lifting equipment and taking care of the processes related to that. More wider service contracts were made to cover all the needs a lifting equipment requires. Also promises that these solutions increase customers' productivity and profitability were made. During this year Konecranes also talks about customers' increasing needs to outsource crane services to become more competitive and keep costs in control. (Konecranes, 2006) This proves that Konecranes have identified customers' needs before starting to offer more advanced services. This is in line with the fact that taking care part of customers process is preferable situation to company. (Kanninen et al., 2017) As seen from the Konecranes annual net sales of services percentage (Figure 2.) this advancement has had a positive impact on the service sales of Konecranes and the trend it set continued for a long time. The

drop before 2006 also helps me argue that customers' needs were changing, and this kind of adapting was right in time to fix the course of service success.

In 2011 Konecranes launched TRUCONNECT, which enables them to offer remote services to customers. This enabled them to offer better services with improved safety and higher efficiency, through the possibility of better planned maintenance according to the actual usage and condition. (Konecranes, 2011) In 2013 Agilon was launched, this new service offered automated material management. (Konecranes, 2013) These kinds of solutions, as per earlier, have to be solutions to customers problems. Also, with Agilon automated material management looks like Konecranes takes another part of customers' processes to their own control. Also as seen from the annual net sales of services with Konecranes (Figure 2.) these service offerings have had a positive impact on servitization process success. This kind of increasing in offering SSCs implicates that servitization process should indeed be viewed as a continuum, that Lütjen et al. (2017) suggested.

The future seems to be little uncertain with Konecranes as they are merging with Cargotec in the near future. There are still some strategic goals in the annual review of 2020 regarding services. Service revenue and profitability growth is seen as a key strategic initiative. Also, the aim of profitable growth can be acquired with customer satisfaction, employee engagement and innovative offering, all of these are also seen as important parts of servitization continuum. (Konecranes, 2020)

In short, Konecranes has also been a service provider for a long time and has for a long time only offered add-on type of services through maintenance, services that are more natural for them to offer and require only little transformation for the company. It becomes apparent that in the early parts of the century Konecranes started to shift more towards solutions offering service provider. Later on, they also added solutions that further positioned them as solutions provider. This trend shows that Konecranes views as taking care of part of customers process as a positive outcome. These advancements in servitization continuum have required more drastic changes to the company and in the

next chapter I am going to delve deeper into the success factors that enabled this change process.

4.2.2 Servitization success factors

In this chapter I am going to investigate the success factors behind the successful servitization process of Konecranes. As stated before, in the literature review I noted that the five most important servitization success factors are structural change, culture & people, resources, capabilities, and markets. Now it is shown how Konecranes has taken these factors into account when advancing in the servitization continuum.

In Konecranes structure has changed in a way that it supports offering services as an independent unit, this can however present challenges to upper management, as people in different organizations are looking to do what is best within own organization instead of whole company. This is illustrated by the following quote:

“Over my time in Konecranes we have always had our own organizations, management and performance targets. There is co-operation among the different units, but people are easily looking into their own units benefit.” (Interviewee 2.)

With Konecranes, the importance of this kind of cooperation with different units is noted, as per Salonen (2011) stated that closer relationships with customers in service side could provide valuable information to the manufacturing side. This is shown in the following quote:

“Our people on the field are extremely important, they don’t only provide the services, but also provide our salespeople with often our largest leads in modernization and new products.” (Interviewee 2.)

Culture towards services within Konecranes has improved as they have advanced through the servitization continuum. More surprisingly service culture has not been that strong for a long time, which can be seen from the following quote:

“Earlier in my time manufacturing was seen as the main production and services were viewed as a secondary production on the side. Nowadays if you look at the annual reports, you can see that services actually bring the most profit. Also in the inside respect towards services has increased significantly. Also the fact that we operate more with customers is important for the company’s manufacturing side as we get leads for them to follow.” (Interviewee 2.)

People are also viewed as crucial part of Konecranes service operations, which is illustrated in the following quote:

“Without good employees there are no customers. When you look at the customer relationships these are usually more intense between our employee and the customer organizations management, instead of the relationship between managements, as they operate more with our employees, they tend to grow deeper relationships.” (Interviewee 2.)

When it comes to resources human capital is viewed as most important resource in Konecranes, per quote above. Also, service contracts are viewed important in Konecranes. Installed base is viewed as an important resource, but not as important as human capital. Especially in Finland where Konecranes has operated in a large scale for long time, installed base offers large amounts of opportunities for services as well. (Interviewee 2.)

The TRUCONNECT that Konecranes launched represents a great example of new capabilities as Konecranes used the crane usage and sensory data of installed products into offering more refined services. (Konecranes, 2011) Konecranes also possesses capability to sell their services and have the capability for example in maintenance business to sell their services to other companies lifts as well. (Interviewee 2.) Konecranes also has the capability to follow the development in global markets and their newest steps have been in digitalization and focusing on the Internet of Things. (Konecranes, 2019)

When it comes to markets, Konecranes has quite unique position in their markets as most of their competitors focus on the maintenance solely as a service company, especially in Finland. Konecranes are also among market leaders in all business areas they operate in. (Konecranes, 2019) During the early times there was not much of competition, but nowadays there is competition in service business. This has also caused the fact that selling these services has shifted from need based buying of services from the customer more towards selling these services to customers without waiting for their need. (Interviewee 2.)

When it comes to different success factors in servitization with Konecranes, the largest emphasis seems to be on the people. Also, other parts of structural change, culture, resources and capabilities seem to be figured out in Konecranes. Perhaps this has enabled them to keep their position in the market so far. Konecranes seems to focus on innovating also and coming up with new kinds of solutions to help customers complete their needs.

4.3 Cross-case analysis

As stated earlier both of these companies were successful in their servitization processes and performed better than on average compared to the standard revenue produced by services to average manufacturers. Kone was able to produce 46,3 percent of their revenue through services and Konecranes was able to produce 37,4 percent of their revenue through services in year 2020. As stated earlier also these are considerably higher amount than the average company's one-third of revenue through services, (Martinez et al., 2017) and the critical mass of 20%-30% required for positive effects. (Fang et al., 2008) As seen from the figure below, both of these companies managed to stay on the better side of this average throughout the reviewed period. Therefore, I can strongly argue that both of these companies have been incredibly successful in their endeavours

in servitization process. Next, I am going to compare servitization processes of these companies and success factors within that could highlight how these companies have been able to perform so greatly with their respective servitization processes.

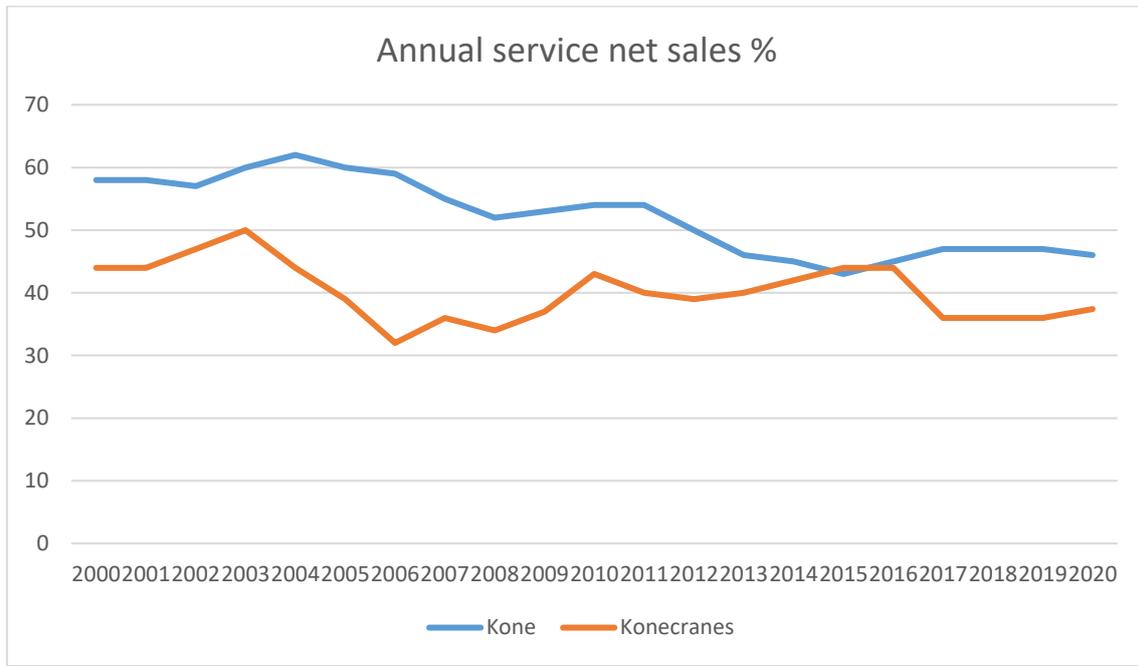


Figure 5. Comparing annual net service sales out of total sales

4.3.1 Servitization processes

In this chapter I am going to investigate what the servitization processes these two companies had and what kind of similarities and differences they had in their own processes. In the table below it is shown how these two companies have enhanced their service offerings through the reviewed period. In the table I have included what kind of services both of these companies offered and included different kinds of service offerings that have affected this transition to certain service provider type. After the table I am going to compare these processes more in depth and compare similarities and differences in these servitization processes.

Table 2: Servitization process comparison of case companies.

Year	Kone	Konecranes
1994-2000	Add-on services <ul style="list-style-type: none"> • Maintenance • Modernization 	Add-on services <ul style="list-style-type: none"> • Maintenance
2000-2010	Solutions <ul style="list-style-type: none"> • 2000 Kone Optimum • 2007 People flow 	Shift from add-ons to solutions <ul style="list-style-type: none"> • 2006 Lifting Business
2010-2020	Improving offering <ul style="list-style-type: none"> • 2017 Kone care services 	Improving offering <ul style="list-style-type: none"> • 2011 TRUCONNECT • 2013 Agilon
2020->	Services as a way to profitable growth <ul style="list-style-type: none"> • Internet of Things • Remote monitoring • Remote maintenance 	Services as a way to profitable growth <ul style="list-style-type: none"> • Customer satisfaction • Employee engagement • Innovative offering

When looked at the start of review period there are small differences with Konecranes' and Kone's services. Both of these companies provided only add-on services that supported their main product and were mainly a natural part of servitization continuum as legislation required maintenance to the equipment both of these companies sold. In this phase however, only Kone provided modernization services, which is something Konecranes picked up on later. It is crucial for companies to offer add-on services before moving on to solutions as more often companies that tried to skip these more basic services ended up with a failed servitization process. (Oliva & Kallenberg, 2003) Based on motivations, both companies seemed to start offering services due to demand-based motivations and decided to transition into solutions due to competitiveness and demand-based, at least in Konecranes case.

In the switch of the century, it is shown that Kone started as a solutions provider with Kone Optimum, which offered more reliable maintenance to elevators, and later in the decade also Konecranes made the switch to a solutions provider, with their renewed slogan Lifting Business, which emphasized productivity enhancing lifting solutions and services, taking more of the lifting process under Konecranes control from the customer company. With Kone's People flow concept it becomes quite apparent that during this time customers' needs were developing. This means that customers were looking to simplify their process through enabling these companies to take care more of the processes related to their product. Customers were more open to this kind of solutions that were more than a service. This seems to be the time in these industries that shifted companies from service providers into solution providers. This change in the mindset can be seen from this quote:

"Pretty often nowadays customers have a need for some kind of lift and we decide what is needed and then provide this to the customer." (Interviewee 2.)

During the 2010s both of these companies developed more solutions offerings to the markets. Kone introduced their Care services, this introduced smart services with Internet of Things to elevators and escalators. Konecranes came up with TRUCONNECT during this time which enabled them to offer remote services to customers. Also, Agilon was launched which offered automated material management. During this decade there is signs that development of technology had massive impact on the services these companies offered. It becomes obvious that as both of these companies are positioned strongly in their respective markets, the limitations from what kind of services they provide come from customer needs and development of technology. These kind of advancements in services suggest that theory of viewing servitization process as a continuum where first more SSPs are offered and after this SSCs are included more until SSCs become the dominant services thus making companies solution providers. (Lütjen et al., 2017; Martinez et al., 2017)

When looking at the future with these companies, the common consensus is that services are the way to a profitable growth. With Kone the eyes are on the technological advancements as Internet of Things, remote monitoring and remote maintenance with suitable services are seen as a way in the future to achieve profitable growth. With Konecranes the future is little bit more uncertain as the company is preparing for the merger and this event in the near future is attracting the attention at this moment. However, Konecranes highlights such values as customer satisfaction, employee engagement and innovative offering as a way for profitable growth and these things can certainly be attained with new kinds of services. As shown technology has been a driving factor in both of these companies servitization processes, as it has enabled them to offer different kind of solutions to customers problems, thus I can conclude that technology should be viewed as other limiting factor in solution providing, combined with customers' needs and the success factors I am going to show next.

4.3.2 Servitization success factors

In this chapter I am going to examine what kinds of success factors both of these companies had during their servitization processes. We are going to look at every factor presented in the literature review and see how much emphasis each of these factors have. The five factors were: structural change, culture & people, resources, capabilities, and markets.

When looking at structural change in both of the case companies, it is shown that services have been separated from the manufacturing side. Both of these units have their own responsibilities for results and are able to focus on the matters that are important to their own unit. However, this dividing has also caused more need for upper management to make sure that these units cooperate with each other. Despite this barrier I can conclude that structural change in form of dividing services away from manufacturing should have a positive impact on servitization process and on the service offering of the

company. However, it must be stated that as solutions are bundles of products, services, and software offering these requires even more closer cooperation with manufacturing and service sides, this separation can be seen as an element that makes this more challenging.

Culture and people are viewed in both case companies as a success factor that leaves most questions. People are viewed as a key to success with services, but the stance on culture is rather peculiar. Service culture has increased in both case companies, through the success of services and simultaneously with servitization process. Service culture has helped in both companies to offer better and more customer focused services. However, it is unclear whether the service culture has helped with servitization process or the servitization process has helped service culture. I can still conclude that open culture towards services should have a positive impact on the servitization process. As stated, before people are the most crucial success factors. People are the ones who work with the customer, make customer relationships, deliver the service and have massive impact on how company is perceived from the customers standpoint. Thus, I can conclude that correct kind of people have the most impact on successful servitization process. Without right kind of people, servitization process is doomed to fail.

Resources are viewed as an important success factor in both companies as new resources to service help them within their servitization process. Also, without some resources offering services wouldn't even be possible. The most important resources are in human capital, but also service contracts and installed base of products are perceived as important resources in these companies. Through the need of new resources to be able to offer services and the fact that old resources should be leveraged to ensure maximum advantage on competitors I can conclude that resources are also an important success factor for a successful servitization process.

New capabilities are as important for the successful servitization process as are new resources. Capabilities to leverage these new resources in service offering are especially

important for companies, when offering services. Also, the capability to sell these services by showing the value in new services to customers are perceived as incredibly important for the success of new services. Thus, I can conclude that capabilities are also crucial success factors for a successful servitization process.

Markets were viewed as an important success factor for a successful servitization process. This is because in both case companies there was a shared mindset that you need to understand your customer to be able to offer services that will be purchased, and you might be required to show for your customers where the value comes from. In this case you would also need to understand your customers so you can understand even if they want this kind of value. You should also try to understand in what kinds of markets you are and try to offer differentiated services to stand out. This is a mindset that is especially true in Kone. Therefore, markets are perceived as one of the most important success factors in servitization process, as without understanding your markets, you do not know what to offer.

Thus, I can conclude that all success factors found in literature review were also perceived as important factors in practice. Especially people and markets were considered as the two most important factors to notify during the servitization process. Also, resources and capabilities were viewed as factors without of services could not be provided. Structural change was only viewed as a factor that should help with servitization process, but it is not as important success factor based on the reasoning of other factors.

5 Summary & discussion

In this chapter I will firstly look at the theoretical implications of this study. Then I will move on to the managerial implications followed by the limitation this study possesses. Lastly, I have suggestions for future research.

5.1 Theoretical implications

The purpose of this thesis was to find out what factors are important for the success of servitization process. This is because as perceived before only 20 percent of companies trying to embark on servitization journey are successful in their endeavours. (Ulaga & Reinartz, 2011) There has also been a clear lack of studies in factors that lead into successful servitization process. (Ulaga & Reinartz, 2011; Lexutt ,2020) This is why I decided to study more on the factors that lead into successful servitization process. This study was conducted by answering three research questions: 1. “What kind of process is servitization as a whole?”, 2. “What is success in servitization process?”, and “3. What factors can be identified from the servitization process and which of those are the most critical ones that result in a successful servitization process?” First in this thesis I conducted a literature review to find out answers to above research questions. Then I inspected empirical cases in the theoretical framework conducted from the literature review.

First research question was “What kind of process is servitization as a whole?”. During this study I was able to come into conclusion that servitization process is heterogeneous process. These processes differ from each other greatly. However, with case companies included in this thesis, the servitization processes have some similarities. Both processes started with customer demand and included basic add-on services. Then with increasing customer needs, both case companies started to expand their service offering with more

services that aim at fulfilling customers' needs. This process is viewed to be a continuum that starts from manufacturer, goes through add-on services and ends up as a solutions provider.

Second research question was "What is success in servitization process?". Success in servitization process, in this thesis, is defined with service-related revenue and profitability. The critical mass of 20%-30% service net sales, which is the minimum to gain positive effects from servitization, (Fang et al., 2008) and the one third of average net service sales with servitized companies (Martinez et al., 2017) were set as a line to beat to be defined as successful. Thus, the success in servitization process is when company is able to achieve over one third of net sales with services, when servitization process is completed.

Third research question was "What factors can be identified from the servitization process and which of those are the most critical ones that result in a successful servitization process?" Five factors were found that were critical for the success of servitization process. These five factors are: structural change, culture & people, resources, capabilities, and markets. Structural change is important, because it allows company's service providing unit to focus on providing services and enables more easier tracking of success in services. Culture & people are also important as they enable company to provide services without internal friction, thus making the change towards more service orientated culture important. Resources, and especially new resources are important for the successful offering of new services as more often companies that are trying to offer advanced services need to develop or obtain new resources. Capabilities are also important as these new services also require new capabilities that enable usage of new resources. Also, other kinds of capabilities need to be developed as companies are working more closely with customers, this also requires customers to possess capabilities to co-create value. Lastly markets are perceived as an important factor, as all these new solutions are provided to match customers' needs, so companies need to understand what these customers' needs are and if there is demand for the services that are about to be developed.

In this thesis I was able to identify critical success factors for servitization process and this was supported by the case evidence. The success factors found out during the literature review were structural change, culture & people, resources, capabilities, and markets. After this I investigated how these factors present themselves in practice, as I interviewed two large Finnish manufacturing companies about their servitization process. I was able to find out that culture & especially people and understanding the markets were the two most crucial success factors in servitization process. Also, resources and capabilities were something that should be created when moving into advanced services, thus making them important for the servitization process as well. Lastly structural change was identified as a factor that should help companies in their servitization process through making part of company able to focus more better on the providing of services. However no clear evidence was presented during the interviews to state this as a critical factor.

This work contributes towards prior research in multiple ways. Firstly, the structure of servitization processes was confirmed to be heterogeneous, but in successful processes this process reminds of continuum, where companies start with add-on services and transition over time into solutions providers. Secondly in this study I was able to confirm that achieving over one third of net sales with services is a definition of servitization success as both case companies have surpassed this number in all of their years of offering solutions and being confirmed as successful in it. Thirdly this study supports the claims that markets, culture & people, resources, and capabilities are important factors for companies to notify during their servitization process. However, against the prior research this work didn't find structural change to be a crucial factor for a successful servitization process, as there is no evidence where this change wouldn't have happened the servitization process would have failed. However, there was also no evidence that this wasn't crucial. This remains as something that should be researched more.

In conclusion this work was able to answer the research questions set and while doing so combine critical success factors for servitization process into one place and test these factors in theory. This work should help in future research as details about servitization success factors were earlier scattered and these are now compiled within one work.

5.2 Managerial implications

The managerial implications in this thesis are quite straightforward. When company is looking into embarking on servitization journey, here are the five things that managers should focus on perfecting: structural change, culture & people, resources, capabilities, and markets. Managers should focus mostly on the hiring of correct type of people, people that are good enough to represent the company and possess the skills to provide that quality of service that company wishes to provide. This is the first thing managers should focus on after they have looked into markets. It is exceedingly important for a company trying to succeed in service business to understand their markets, what kind of services customers want, what kind of services could customers use of which they do not know they need, who are the competitors, how to stand out among these competitors. These are some questions managers should try to answer and understand when creating new service offerings.

After the initial research on markets is done and correct people are hired, managers should investigate what kinds of resources and capabilities they should obtain or develop to be able to provide these new service offerings. Among all this time the structural change could help managers to focus more on services when manufacturing matters are in no need to be focused in.

If every step of these factors is acknowledged, developed and performed, the success rate of servitization process should be immensely higher than the original 20 percent.

Managers are only required to understand the market correctly and understand how these different kinds of services are best offered.

5.3 Limitations

This thesis has its limitations. More basic limitations are small number of cases, there were only two large manufacturing companies researched, which do operate in somewhat similar field. Secondly even though both of these companies are multinational companies, there is still some cultural limitations, as both of these companies have their headquarters in Finland.

This study is limited also because this kind of research on processes that in some ways are never ending and have started many decades ago, should not be studied with one set of interviews but rather with studies during the course of this process. More suitable way to study this phenomenon would be to follow along company's journey from the start to the point they are trying to achieve at the beginning. Secondly as the timespan in this study was very large, it was hard to find persons to interview about this process, as they would have needed to work in the same company with these matters for most of the duration of the process.

It should be argued however that even though this study of long timespan phenomenon was conducted in this style. The results should not be dismissed as the main critical success factors are present during the whole servitization process and are such occurrences that they shouldn't be missed. However, any research that looks more deeply into these matters, should be conducted alongside the company's servitization process.

5.4 Suggestions for future research

In the future research researchers should investigate the process alongside the company's servitization process. These success factors should be looked more deeply into and trying to see how in different phases these factors impact the servitization process. Also, research on the importance of structural change should be conducted with companies that have not divided services and manufacturing and their success with servitization process.

Secondly technology's development's effects on services provided and thus servitization processes should be investigated also. It would appear that with new technologies new kinds of services are provided, and this raises the question of is it any more realistic for companies to follow such paths of servitization as Kone and Konecranes have created? Does the technology offer new kinds of more effective servitization paths for current sole manufacturing companies? Also, what kind of possibilities come from these new technologies.

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Appendices

Appendix 1. The interview questionnaire

1. Work background

- a. In which position do you work at the moment?
- b. How many years have you worked in this company?
- c. How long have you worked with services in your company?

2. Current state of services

- a. What kind of services does your company provide and how advanced would you consider these services to be?

3. Servitization process

- a. How has servitization process advanced in your company? I wish that this would be told as a story which includes where it all started and how things evolved, while including points of view in following questions
 - i. What kind of customer needs and changes in those did you detect?
 - ii. How did your company's service business related resources and capabilities form and how did those develop?
 - iii. How did the competition change with servitization and what it was like before in this industry?
 - iv. How did service businesses increased volume affect its profitability?
 - v. How did service business affect to your company's organization?
 - vi. What kind of networks support your service business?
 - vii. What kind of challenges were faced during the servitization process?
 - viii. How did your company's culture improve during the servitization process?

- b. What kinds of factors do you consider as instrumental when transitioning into service business and while in service business?
- c. What parts about your development story have in your opinion been crucial for the success of servitization process?

Appendix 2. Annual reports

	Kone	Konecranes
Annual reports used:	2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2017, 2018, 2019, 2020	2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2017, 2018, 2019, 2020