

The MaP of Opportunities

- How to Create Value in the Older Machine Segment

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Master Thesis, Technology Management - Nr 199/2010
ISSN 1651-0100
ISRN LUTVDG/TVTM--10/5199--/SE

KFS i Lund AB
Lund 20år
Printed in Sweden

Summary

Title:	The MaP of Opportunities - How to Create Value in the Older Machine Segment
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Issue of study:	MC, Machine Corporation, although historically successful is facing challenges as the industry in which they operate is matured. They thus need to find new ways of generating revenues. The service and parts market penetration rate decreases in the Danish market as the machine ages, but the need of service and parts increase why we argue that there is a market potential not being exploited as of today. Based on the declining market penetration, we believe that MC does not create enough value for the <i>older machine customer</i> . With this as a starting point, three research questions are formulated.
Purpose:	To answer the following research questions: <ol style="list-style-type: none">1. Who is the older machine customer?2. What drives value for the older machine customer?3. How well does MC's offering address what is considered value driving?
Method:	This study is conducted iterative, abductive and influenced by an analytical approach. Segmentation and value driver theories construct the MaP-model, which has two purposes. Firstly, the model is a theoretical contribution to the academia on <i>how to identify opportunities for value creation in industrial services</i> and the second is constitute the foundation for the following process on how to answer the research questions. Due to the selected theories we have chosen to combine research question two and three in the

following chapters. From now on the second question is; what drives value for the older machine customer and how well does MC's offering address what is considered value driving?

We have used interviews as well as secondary data where the former have been of semi-structured character as well as qualitative and quantitative. The empirical findings, analysis and conclusions are presented in accordance with the MaP-model where we have applied an illustrative method. The findings are discussed in a final chapter.

Conclusion:

When mapping the structure of the Danish older machine customer we found the customer to have smaller and mixed fleets, to act local, to endure volatility in demand, to have short planning horizon, to handle insensitive goods, they often have their own workshops and one individual represent many responsibility areas.

Depending on what the customers find important and how well it is satisfied by MC, different service levels are identified. The identified value drivers are concluded under- or overserved, thereby defined as opportunities and appropriately served. Solidarity, responsiveness, image, trust (price) and flexibility in service are underserved beneficial value drivers. Product quality, technical competence and reliability are overserved while product flexibility and trust (time) are appropriately served. Among the sacrificial value drivers, price is underserved and time, effort and energy is overserved.

The identified opportunities are somewhat contradictory to MC's current differentiated strategy, why a discussion influenced by additional theories is performed. This concludes that MC has a strategic decision to make whether or not the older machine segment is suitable in the today's business.

Keywords:

Customer value, Value drivers, Service innovation, Business-to-business, Segmentation, Older Machine Customer, Competitive strategy and the MaP-model.

Abbreviations of references: See appendix 1

Preface

Writing the master thesis has been a journey that has given us unforgettable experiences and memories for life. First and foremost we would like to thank the whole Machine Corporation (MC) organization for the support and inspiration given.

We are grateful for the support we have received from the university and the tutors Göran Ahlsén and Bengt Järrehult. Our time together has always been stimulating and developing for the thesis progression. We have felt you have believed in us, which has been helpful many times. Special thanks are given to our student colleagues Tor and Oscar. Smart comments and constructive feedback is invaluable!

Finally, we want to highlight some people at MC: RF for giving us the opportunity to stay at Strategic Department; LB for the support of being our tutor; KE for the administrative support and JF for taking care of us and arranging meetings when visiting the East Region. We wonder what we would have done without you and your problem-solving attitude. Every one of you has really showed us what it means to act in a MC Way – warm, caring and professional!

Lund 2010-05-12

Paulina Nilsby & Märtha Sjögren

“What beats complexity is simplicity” (stolen with pride from Bengt Järrehult)

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1 Introduction

The following chapter is initiated by a description of the issue at hand as given by Machine Corporation (MC). We thereafter present the theoretical insights gathered to further define the problem, which leads us to the purpose and delimitations of this thesis. Finally an outline of all chapters is presented.

1.1 Issue of study

The machine industry including Machine Corporation, MC, faces the dawn of a new era as the products are becoming increasingly standardized (consultancy report, www). This is confirmed by MC, which claims that the company's offer of high-end machines is a mature market (as shown by Figure 1) increasingly being entered by more low-cost brands (Dep: SD). Consequently, brand loyalty among customers is impacted, a loyalty, which has historically been the prime key success factor in the machine business (consultancy report, www).

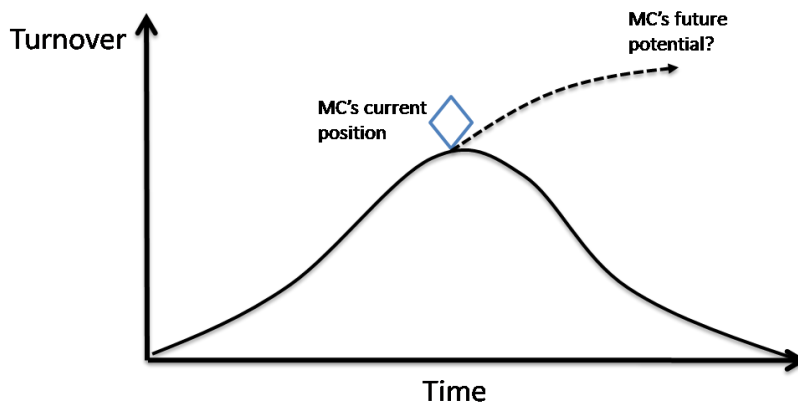


Figure 1: The mature market triggers the need for a change (Lewitt, T., 1965).

MC has realized the need for change in order to stay competitive and profitable. The company has therefore redefined themselves from being a *machine manufacturer* to a *provider of machinery solutions*. (CEO of MC) To enable the offer of solutions a new strategic focus is on the service and parts business, also referred to as the aftermarket business. Service includes the repair and maintenance of machines whereas the parts are the components used in the service. These types of products enable turnover during the whole life cycle of the machine and are thus a stable and rather predictable income in comparison to the one-time purchases of the machine itself. (Dep: SD)

There are two major sources of impact on the service and parts sales. Firstly, the installed machine base naturally influences the demand for service and parts, which is the number of new machines sold. For instance the new machine sales in the

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Danish market amounted to around 3000 machines in 2008 and decreased to approximately 1700 machines 2009. (Dep: SD) As a machine's service and parts need will endure during its whole lifetime of approximately 20 years (very much depending on the model and usage), the size of the installed machine base will naturally impact the service and parts revenue for years ahead (Dep: SD). Secondly, "the older the machine the more it malfunctions" (Dep: UM). The machine's actual need for parts is therefore increasing the older the machine becomes. However, as the machine is devaluating with age, the demand for parts could be described as a bell curve as shown in Figure 2. (Dep: AR) Service demand almost goes hand in hand with parts demand, as you always have to fit the parts you buy. (Dep: SD) The demand for service and parts is thus at its peak at around five years of age. (Dep: AR)

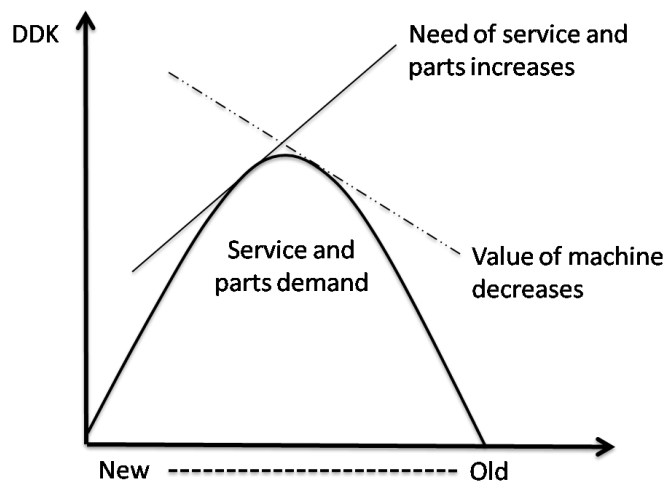


Figure 2: Direction of service and parts demand related to machine age.

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MC has a great penetration in the Danish market in service and parts when it comes to new machines as shown in Figure 3. Current service solutions are rather adapted to customers of new machines as this segment has been the company's primary target. (Dep: AR) Customers buying new MC machines often purchase service contracts and are offered warranty upon the acquisition, which creates great entry barriers to potential competitors. However, as shown in Figure 3, MC has noticed a stagnating market penetration as the machine ages in the service and parts sales related to their machines. Warranty expires after two years and as the service contracts come to an end, the competitive situation alters and new players claim market shares. The penetration of services decreases slightly faster, since many customers with older machines tend to buy parts and do the fitting elsewhere. (Dep: SD)

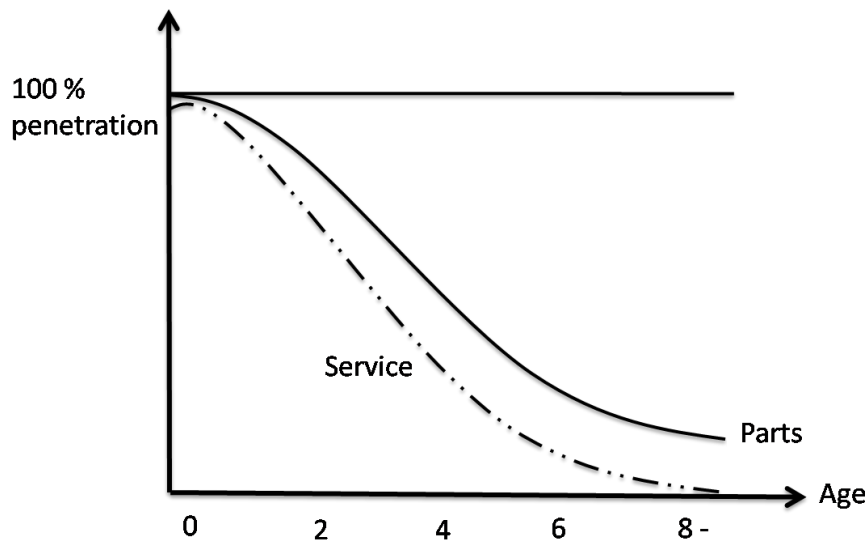


Figure 3: MC's penetration in the Danish market in the service and parts sales of MC machines.

1.2 Theoretical insight

The competitive situation is constantly changing in many markets. As the products are increasingly perceived as equivalent, competition drives companies to discover new ways of creating added value. A natural step is thus to focus on services. (Vargo & Lusch, 2004) Consequently, many manufacturing companies have increasingly started to build services around the core platform consisting of physical products, machines and process equipment and as a result international companies such as IBM and General Electric have reached over 50 % of profits from services. (Slater, 2001) These commonly product-oriented companies have realized the great potential in profit generation not only from the products but also throughout the lifecycle of the offering (Ulaga & Eggert, 2006).

Oliva & Kallenberg (2003) take the concept of services one step further by claiming that an increasing part of manufacturing companies are transforming into considering service as the base of business and value creation for the customer, rather than simply a product add-on.

Research shows however that between 35- 44 % of all introductions of new services on the market fail. The primary reason is that companies do not manage to develop services, which fulfill customer needs or expectations (Cooper, 1993) i.e. services which create customer value. Firms must rethink the logic of value creation from goods to services (Normann, 2001). Manufacturing companies must therefore understand the concept and drivers of customer value in services (Ulaga & Eggert, 2006).

Customer value can be described as the total benefits (of resources, goods and services) in comparison to the total burdens or sacrifices (money and other resources spent) (Witell et al., 2009). Additionally, companies must not only offer customer value, but also products and services which create greater value to the customers than those of the competitors' (Ravald & Grönroos, 1996).

Services differ to products in the sense that services include long-term relationship to the customer (Witell et al., 2009). The tangible product is an initiation of this relationship and is therefore rather a trigger for a value creation possibility in the service. (Oliva & Kallenberg, 2003) One must therefore adopt a dynamic perspective when understanding value creation i.e. that perceived value varies over time and relationships (Witell et al., 2009). Thus, the meaning of benefits and sacrifices and how to maximize or minimize these differ during the lifecycle of the offering (Ravald & Grönroos, 1996).

1.3 Starting point

What drives customer value in services is greatly dynamic as services entail long-term relationships. Thus, manufacturing companies, such as MC, face complexity when introducing service products, as they have to take into consideration the differing value drivers over the lifecycle of the offering.

We think that the stagnating penetration on the Danish market in service and parts during the lifecycle of the machine is closely related to the lack of differentiated offerings along this timeline. The company's focus historical focus has been to deliver service and parts solutions to the *new machine customer*, while the *older machine customer* has been in the shadow. MC has therefore limited knowledge about the latter, why no differentiated offering has naturally been developed.

The market potential of service and parts is at its peak around five years into the lifecycle of the machine and the service and parts products have significant margins.

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Taking this into consideration, we draw the conclusion that there is a market potential in the older machine segment, which is not being exploited today (as shown in Figure 4).

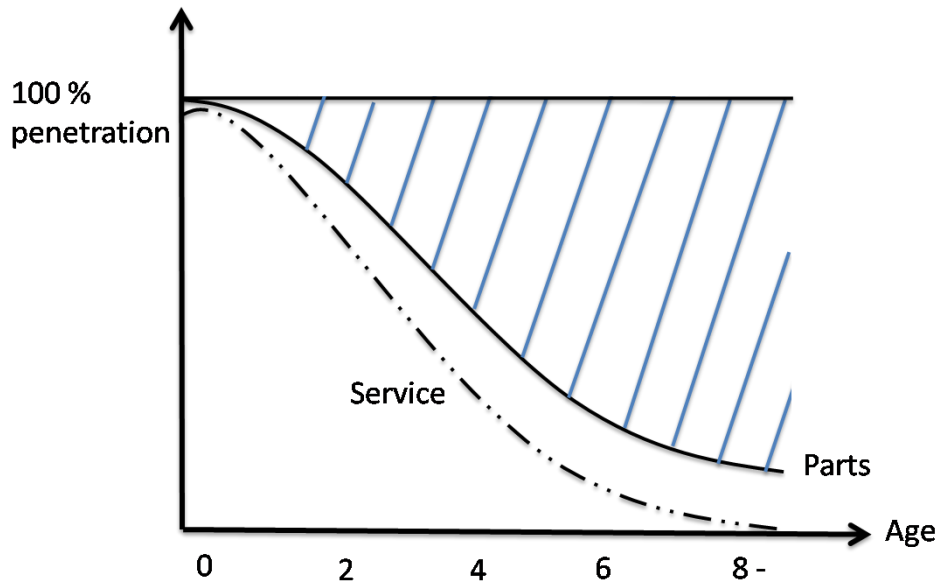


Figure 4: The unexploited market potential in the older machine segment.

In order to increase the market penetration, we believe MC must adopt the dynamic perspective on value creation in service. This is based on the hypothesis that the drivers of customer value changes as the machine ages. Differently expressed, what the *new machine customer* consider valuable is different from the *older machine customer*. MC must therefore understand who the *older machine customer* is and what drives value in this segment when obtaining service and parts. To clarify what we mean by the term *older machine customer* we hereby define him as:

- A customer who stops utilizing MC's service and parts offering after the expiration of the warranty time.
- A customer who stops utilizing MC's service and parts offering after the expiration of the service contract time.
- A used MC machine customer, i.e. a customer who has bought a second hand MC machine.

Thereby, the thesis aims to help MC to improve the market penetration rate of service and parts as the machine ages. We have therefore formulated the following purpose.

1.4 Purpose

To answer the following research questions:

- 1) Who is the older machine customer?
- 2) What drives value for the older machine customer?
- 3) How well does MC's offering address what is considered value driving?

1.5 Delimitations

The results of this thesis are not intended to be applicable on any other industry or company.

The thesis aim at understanding, explaining and clarifying the chosen subject, as MC currently has little insight in the area. We will further exemplify theoretical rather than practical solutions on how MC ought to address our findings. We thus strive to give an overall picture of the situation at hand rather than pursuing an in-depth research.

We are aware that the facilitating generalization of two discrete segments of new and old machine customers is a simplification of reality. We do believe that there is a continuous change as the machine ages.

The market delimitation of this thesis is the Danish market, which is defined as all professional MC machines currently running (excluding exported machines).

The closely correlated service and parts businesses (sales of parts often generate service hours and vice versa) will not be investigated. We conclude that an increase in value creation in one (e.g. service) has a positive impact on the other (e.g. parts).

1.6 Outline

Theory

This chapter presents the theories used in the study. The main focus of this chapter is on the concept and drivers of customer value. Segmentation theories will provide knowledge of how to identify the target customer. The theories are a foundation for our methodology and theoretical development.

Methodology

Our methodology emerged after studying theories. The structure of this chapter is firstly to present the research methodology used, our three-phase process and the theoretical development. The *MaP-model* is a result of the initial study and is the overall structure for answering the research questions. Thereafter, we present how

to collect the information needed in the data collection chapter. Reliability and validity of the data is then presented and finally criticism of resources is discussed.

Machine Corporation

This chapter aims to give the reader a brief understanding for the organization studied. The Danish market and the areas interesting for this study will be highlighted.

Identifying opportunities in the older machine segment

The research questions will be answered by applying the MaP-model: Who is the older machine customer? What drives value for the older machine customer and how well does MC's offering address what is considered value driving?

How to use the map of opportunity to change the landscape

The results from the MaP-model will be shortly described and results in a process for how to achieve customer value in industrial services applied in the case of MC.

Strategic choice

The implication of the result from the above chapter will be discussed on a strategic level. We will therefore add additional theories and inputs if necessary.

Concluding words

We will briefly sum up the issue, purpose and conclusions of this thesis.

2 Theory

After defining the research questions of this thesis, we initiated a thorough theoretical research to find an appropriate foundation to answer the questions. The following chapter is structured accordingly and aims at giving the reader the overall theoretical knowledge base chosen and applied in this thesis.

To answer the first research question we searched for theories to map the structure of the older machine customer and found segmentation theories highly relevant and applicable. The second and third research question is combined to one question as the theories found answered both questions. The second research question is now formulated as follows: What drives value to the older machine customer and how well does MC's offering address what is considered value driving?

Theorists claim that drivers of customer value concerns innovation, why we have studied this subject as a way to create customer value. Lastly, we have searched for theories which aim at explaining how to prioritize among identified value drivers. The theories have been of both generic and situational-adapted character. As MC's service and parts customers in general are companies (Dep: SD), theories concerning business-to-business or industrial services have been of relevance. This has influenced our choice of segmentation model as well as theory on value drivers.

2.1 Who is the older machine customer?

In order to create customer value, a prerequisite is to identify whom the customer is that you wish to create value for (Ulwick, 2002). As concluded, there is a market opportunity to increase the service and parts business in the older machine segment. With relevance for this thesis, business-to-business segmentation has been the primary focus to characterize the older machine customer.

2.1.1 Segmentation

"The goal of segmentation is to divide large markets into smaller components that are homogenous with respect to their response to a marketing mix" (Griffith & Pol, 1994). The primary focus for differences among buyers is thereby the way they respond to the offerings that companies provide (Mitchell & Wilson, 1998). Segmentation is a compromise between on one hand treating each customer as unique and on the other hand assumes all customers are alike (Lehmann & Winer, 2005).

Business-to-business segmentation is not studied in the same extension as business-to-consumer segmentation (Lehmann & Winer, 2005). It is generally more complex to segment industrial markets as opposed to consumer markets since industrial products often have different application areas and organizational customers are

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often divers. It is furthermore difficult to determine which differences important to focus on. (Mitchell & Wilson, 1998) The greatest challenge in business-to-business segmentation, also called industrial segmentation, is to find the best segmentation variables (Bonoma & Shapiro, 1984).

Many theories on industrial segmentation take their starting point in objective, general and easy segmentation bases which is followed by more company specific, subjective and personal variables. An example of such a method is the macro- and micro approach where macro variables are related to the purchaser's organization and situation whereas the micro variables further breaks down and gradates the macro segments. (Elliot & Ang, 2000) Typical macro- and micro variables are described in Table 1.

Table 1: Typical macro and micro variables (Elliot & Ang, 2000).

Macro - Industry - Organizational characteristics (size, facilities, location, financial aspects, competitors, procurement aspects) - The end customer market - How the products are used
Micro -Organizational variables (purchasing level, experience level, interaction needs, organizational capabilities) -Procurement rituals (inventory requirements, procurement value, -policy, - criteria, - structure) -Individual variables (personal characteristics, power structure)

Both theorists and practitioners however find that market segmentation is best understood by applying descriptor variables or traditional macro variables such as industry type, geographical location and organizational size. These quite disregard driver needs or purchase requirements (Griffith & Pol, 1994). However they are convenient, easy to implement and result in boundaries that are quite stable over time (Curran & Goodfellow, 1990).

Many authors emphasize that segmentation models are much generalized and must therefore be adapted to company specific situations and circumstances (Bonoma & Shapiro, 1984). The implementation of segmentation theories often fails, as the general theories are inapplicable in the unique environments, which every company represents. Segmentation should instead take its starting point in a company's specific situation where management obtains company knowledge based on experience and can therefore evaluate the benefit versus the effort required to do the implementation. Companies therefore ought to use such knowledge and intuition when implementing segmentation. (Palmer & Miller, 2004)

2.2 What drives value to the older machine customer and how well does MC's offering address what is considered value driving?

This question demanded theoretical understanding of the term customer value and how it is created. Due to the character of our thesis, we wished to know more about customer value in services and will thereafter further narrow it down to customer value in industrial services.

2.2.1 Customer value

A customer value proposition explains why customers purchase from a given firm. It defines the value the firm gives to its customers. (Davidson, 2010) Today's value conscious customers are neither impressed by the best product nor persuaded by the lowest price alone. Instead, customer purchase decisions are often guided by a careful assessment of what benefits they obtain in exchange for the costs they incur to acquire and consume the product. (Mazumdar, 1993) Hence customer value is calculated by the customer consciously or subconsciously in order to evaluate the value of a customer offering. The customer is performing a cost-benefit analysis when approaching a transaction and the customer's goal is to maximize the positive result of the cost-benefit calculation. (McGraw-Hill, www) A cost-benefit analysis is an appraisal of and comparison between costs and benefits which often constitute the basis for decision makers (Mattsson, 2006). Such an analysis is often used to approve or disapprove larger community related projects. "During a cost-benefit analysis, special attention should be given to all costs and benefits, including opportunity costs and social benefits that are often imprecise to measure and difficult to quantify in monetary terms" (Chen et al., 2009). Companies that create the greatest experienced value will in turn grow at the expense of competitors why highest value must be delivered in order to stay competitive. In line with McGraw & Hill's cost-benefit ratio defining customer value, Lindstedt & Burenus (2003) claim there are two main strategies at hand; reduce total costs or increase experienced benefits.

"Customer value is a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate achieving the customer's goals and purposes in use situations" (Woodruff, 1997). This is a detailed definition of customer value that integrates both desired and received value. Of all possible definitions of what customer value is it could be shortly described as the "difference between what customers gets from a product, and what he or she has to give in order to get it" (Business dictionary, www). However, this thesis uses the definition formulated by Lapierre (2000):

"Customer value is the difference between get (benefit) and give (sacrifice) components" (Lapierre, 2000)

2.2.2 Innovation - Creating customer value

In a competitive environment, sources of product-based and process-based competitive advantages are quickly imitated by competitors (Jacobson, 1992). By understanding customer value and acting customer-centric makes it harder for competitors to figure out your game. Firms that obtain to offer tempting value propositions avoid the situation of having to compete on price. (Selden & MacMillan, 2006) It is therefore crucial for companies to commit to customer-value innovation to sustain a competitive advantage (Lapierre, 2000).

The definition of innovation used in this thesis is:

“Innovation is the process for creating products and services that delivers new value to customers” (Ulwick, 2005)

Innovation is also opportunity-driven. An opportunity is a value creating link between (potential) customer needs and (emerging) business and technological capabilities (Verloop, 2004). Customer value can therefore be created through innovation. However, in order to be innovative as a company, it is not sufficient to be creative, or research intensive or entrepreneurial. Innovation effectiveness is only achieved when the process from ideas to implementation in the market place is managed properly and structured with subsequent stages. Innovation management is thus managing the innovation supply chain. (Ulwick & Bettencourt, 2008)

There are several perceptions of what constitute an innovation process. Verloop defines a law of innovation as the business process for creating new and insightful ideas and bringing them successfully to the market (Verloop, 2004). The method of Outcome-driven innovation (ODI) defines the innovation supply chain as a process which begins with identifying who the customer is that you wish to create value for. This includes the identification and prioritization of opportunities and ends with the creation of an innovative product and service concept that delivers a new and significant value. (Strategyn, www) This could be argued becoming crucial for companies or industries the more mature they are in their lifecycle (Verloop, 2004).

2.2.3 Customer value in service

Grönroos (2008) describes the difference between goods and services by saying that a good represents potential value (or utility) for the customer. The customer purchases the good and subsequently has to initiate and implement the activities required to transform this potential value into real value for him. A service, on the other hand, is in itself an activity with in-built ability to transform the potential value (or utility) for the consumer into real value for him. A service has thus a *use value* whereas a good has *exchange value* for the consumer.

Thus, a good has to be put into an activity of consumption handled and managed by the customer, while in the case of services the provider offers the context of this activity, or at least part of it. However, in the perspective of value creation there may be no fundamental difference between goods and services. (Grönroos, 2008) This was highlighted by Gummesson (1995), which stated that customers buy offerings (including goods and service) that create value. Taking this into consideration, one may draw the conclusion that people buy goods and services for the same purposes, which is to assist them with a service that should create value for them (Grönroos, 2008).

Ulwick give a similar perspective on how customer value is created by coining a new term *job*. Jobs, such as cutting the lawn, arise regularly and when they do, customers start searching for products or services which help them get it done, such as a mower. Companies are able to create value to the customer if they focus on the job, not the customer. They should thus help the customer get the job done faster, more conveniently and the less expensive. (Ulwick & Bettencourt, 2008)

Witell et al. (2009) however claim that goods and services do differ as services often include long-term relationships. One must therefore adopt a dynamic perspective when understanding value creation i.e. that perceived value varies over time and relationships. Vargo & Lusch (2004) agrees claiming that the value creation from the service process is an ongoing process as the consumption, usage, marketing and delivery process is continuing. Thus, the meaning of benefits and sacrifices and how to maximize or minimize these differ during the lifecycle of the offering. (Ravald & Grönroos, 1996)

2.2.4 Customer value in industrial services

Many industrial companies provide services in addition to goods and strive to become more customer-oriented (Vargo & Lusch, 2004). Their transition towards a service business paradigm increases the importance of understanding value creation and realization from the customer's point of view. Previous studies regarding this subject focus on promised value to the customer, however, take on a seller-based concept rather than a customer-based view. This goes for many industrial companies as well which focuses on improving their own processes rather than understanding different customer situations and value configurations. Therefore, in order to develop successful industrial service one must conceptualize industrial service from the perspective of the customer and realized value. This can be achieved by obtaining genuine customer understanding and customer orientation. (Strandvik et al., 2008) The crucial point is thus to understand what creates and destroys the customer's perceived value when developing competitive new services. Companies need to base their actions and development of new services on what truly creates value for the customer. (Edvardsson et al., 2010)

2.2.5 Drivers of customer value in industrial service

Despite the vast research on customer value in industrial service, remarkably few firms have the knowledge and capability to assess value and gain an equitable return for the value they deliver to customers (Andersson & Narus, 1999). Knowledge of value is however considered critical and can be thought of as the cornerstone of business market management (Anderson et al, 1993). It is therefore crucial for companies to understand their offerings and learn how they can be enhanced to provide value to their industrial customers. It is thus of utter importance for organizations to understand the drivers of value creation for customers in order to build a competitive advantage. (Lichtenhal et al., 1997) We use the definition of a value driver as:

“an activity or organizational focus which enhances the perceived value of a product or service in the perception of the consumer and which therefore creates value for the producer” (Bnet, www)

The business service sector continues to grow in the industrial marketing field, however in year 2000 there was a lack of proper customer value measures. On the basis of this, Lapierre (2000) developed a model of what creates customer value in services and in business-to-business relations within the IT sector. The framework consists of 13 value drivers, which originate from the customer value concept, defined as the difference between benefit and sacrifice components in the customer offer. The value drivers are divided into 10 benefits and 3 sacrifices as shown in Table 2 (see appendix 2 for a more detailed description of the value drivers).

Table 2: 13 value drivers in industrial services.

	Product	Service	Relationship
Benefits	-Alternative solutions -Product quality -Product flexibility	-Responsiveness -Flexibility -Reliability -Technical competence	-Image -Trust -Solidarity
Sacrifices		Price	Time/effort/energy Conflict

The uniqueness in Lapierre’s theoretical contribution is his identification of customer perceived value drivers in an industrial service context. He further takes into consideration product-, relational- and service-related drivers when conceiving of innovation in relation to customer value. This idea originates from Ravald & Grönroos (1996) who argue that value may be relationship related. Measuring the value of customer relationships and how customers perceive the total value

proposition (e.g. products, services, channels, ideas) have been identified as two of the highest priorities by The Marketing Science Institute (Lapierre, 2000).

2.2.6 Prioritize value drivers

Prioritizing is a crucial capability to manage a business effectively. Prioritizing upon identified opportunities will sharpen the competitive edge and sustain growth. (Wong et. al, 2010) Decision models (prioritization matrices) enable identification of opportunities facing the business. In addition, intelligent investment on target factors can improve the firm's productivity. (Sharma & Yu, 2010) Within product development there are several models on how to prioritize to obtain customer satisfaction. Shen et al. (2000) presents an integrated approach to innovative product development using the Kano model (Kano et al., 1984) and Quality Function Deployment. They define product attributes as must-be, attractive or one-dimensional. This helps decision makers to understand how an attribute influences customer satisfaction. (Shen et. al., 2000) The strategic implications are to fulfill all must-be requirements, be competitive with regard to one-dimensional requirement and to stand out from the competition with regards to the attractive requirements (Sauerwein et al., 1996).

Another prioritizing model is the Opportunity Landscape within the already mentioned ODI-framework. The founders of ODI claim that when gathering customer inputs, companies must identify opportunities for growth. Depending on what the customer considers important and how well the firm satisfies it, defines the opportunities posed to the company. These can to either be over-, under- or appropriately served. According to ODI an opportunity is an underserved outcome, i.e. something customers want but are unable to achieve satisfactorily, given the tools currently available to them. These can be interpreted as areas where the customer wants to see improvements made and where they would recognize the delivery of additional value. Solutions that transfer underserved outcomes to become appropriately served will therefore create customer value. Furthermore, outcomes that are regarded as overserved must also be acted upon as the company may waste resources without adding customer value (Ulwick, 2002). The relation between the importance and satisfaction determines the service level which is described in Figure 5.

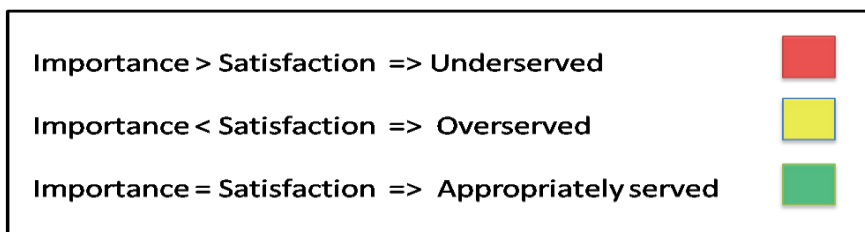


Figure 5: The relationship between importance and satisfaction and the resulting service levels.

3 Methodology

In the following chapter we will initiate by explaining the research methodology employed in this thesis. We will thereafter describe the working process undertaken where the first phase contains activities we have gone through so far. Phase two and three are what we aim to achieve during the remaining time of the thesis. Lastly, we will develop the theoretical framework and present the data collection planned to answer our research questions.

3.1 Research methodology

This thesis has an analytical approach based on a *factive* reality where both subjective and objective facts are true. Our ambitions are to visualize pictures of this reality and create representative models. As we started with a limited understanding of the business, we will derive explanations from a general point of departure, which we believe is an interesting and contributive perspective for MC. (Arbnor & Bjerke, 2009)

The main approach of this study has been of qualitative character to derive pictures and models. Quantitative information has although been collected to obtain a holistic picture. Such data also enriches the analytical and logical assumptions when analyzing. (Tashakkori et al., 1999) The research methodology is constructed as a combination of deduction (theories to facts) and induction (facts to theories). This is called abduction and describes our way of generate knowledge. We started off by collecting and understanding theories to gather facts and to verify the results by looking back at the facts in a theoretical perspective. (Mason, 2002)

3.2 Working process

When starting off working with this thesis we had an open mind-set in what to study as we wished to give MC a relevant contribution along with an academic significance. As shown in Figure 6, the information research was initially broad and eventually narrowed down to a descriptive purpose. This sequence of being broad and narrow in periods reflects the structure of the thesis' procedure.

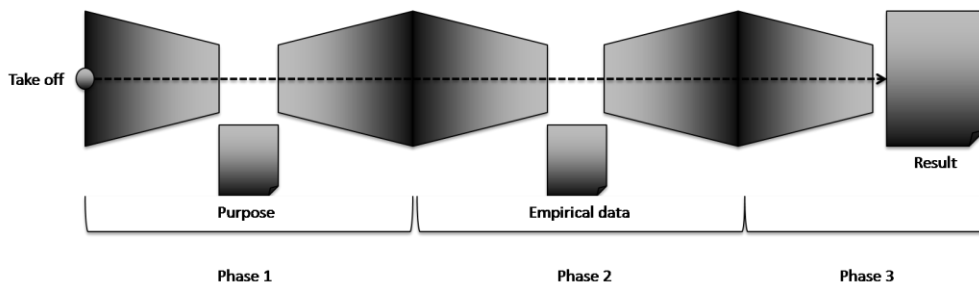


Figure 6: The working process of the thesis.

We have used the methodological guidelines from an analytical view. This builds up the foundation for the working process of the thesis starting with an initial study followed by resource gathering and at last evaluates the gathered subjective and objective data. (Arbnor & Bjerke, 2009)

3.2.1 Phase 1

The process of this master thesis has iterative character due to the complexity and size of the thesis. Neither the purpose nor the actual problem was confirmed when taking off in January. The objective of the initial study was therefore to define the situation, complication and problem to address. This process was conducted in close cooperation with the executive board at the Strategic Department (SD) at MC as well as with the tutor and other key personnel on the subject at the company to ensure the relevance of the contribution. Furthermore, university tutors were consulted to further specify the purpose and to gain approval of the academic relevance.

After defining the purpose, a vast theoretical research was undertaken where theoretical areas and methods that could contribute to answer the research question were reviewed. Generating many possible theoretical implications and evaluate them upon the given purpose leads to the next phase where theoretical delimitations and development were done.

3.2.2 Phase 2

The following phase is *deductive* as we plan to form a theoretical model prior to the empirical gathering. We found that a theoretical development was necessary as the theories investigated were inadequate to answer all the research questions formulated. We will therefore combine different theories in order to create a more complete framework. We have discovered a powerful combination between two theories, which thereby give solid foundation to the combined research question two and three, as the reader will discover subsequently. We do wish to highlight that we have only combined the questions, not changed the essence of them.

The theoretical development has two purposes, both to constitute the foundation of our research material and to set the structure when answering the research questions. We will describe the process and the model in detail in the chapter Theoretical development. After finishing our framework, we aim at gathering the information necessary to answer our research questions. Depending on the developed framework, we will choose data collection method as further described in the chapter Data Collection.

3.2.3 Phase 3

When having all information needed to answer the research questions of the thesis we plan to conclude the empirical findings and answer the research questions by

using the structure of our developed model. We believe that this presentation could be greatly explanatory and reasonable. The logic used to analyze the collected data is to argue illustrative (Mason, 2002). We will therefore use visualizations to clarify our reasoning. The conclusions drawn will be further discussed in a final chapter, where we will if necessary gather additional theoretical substance as well as empirics to support our arguments. This indicates the *inductive* approach in this phase, giving the overall study an *abductive* approach. The final conclusions will be of a strategic logic.

3.3 Theoretical development

Based on the theories collected, we will in this chapter develop a theoretical framework which will help us to develop the research material needed and to answer our research questions.

3.3.1 Who is the older machine customer?

On the basis of the segmentation theories presented, the following conclusions can be drawn:

- The greatest challenge in business to business segmentation is to find the best segmentation variables
- Management should weigh benefits and efforts when choosing means of segmentation
- Market segmentation is best understood by using descriptor variables (industry type, geographical location and organizational size)
- Upon choosing variables, intuition and experienced based knowledge ought to be used

Due to the chosen characteristic of this thesis, the segment, which we wish to investigate, is already defined as the *older machine segment*. We have however used segmentation theory to find inspiration on the variables we wish to use when mapping the defined the defined segment. We have, as recommended by theorists, used our intuition and knowledge based on experience to adapt theory to the situation at hand. We have foremost been inspired by traditional or macro variables, as these are considered easily applicable and beneficial in relation to the effort required.

As shown in Table 3 we have, together with our MC tutors, defined three categories of variables. The segmentation model with the variables and their different attributes is presented in appendix 3. This tool constitutes the starting point of our study, where we aim at identifying the attributes characterizing the chosen segment.

Table 3: The variables of the segmentation model.

Type of usage	Type of service	Type of customer
-Goods	-Workshop status	-Fleet size
-Volatility demand	-Level of service	-Brand composition
-Planning horizon		-Responsible

3.3.2 What drives value to the older machine customer and how well does MC's offering address what is considered value driving?

On the basis of the theories presented on customer value, the following conclusions can be drawn:

- Companies need to base their actions and development of new services on what truly creates value for the customer
- Customer value could be defined as the difference between get (benefits) and give (sacrifices or costs)
- One must adopt a dynamic perspective when understanding value creation in services as these often include long-term relationships and the concept of value thereby varies over time and relationships
- The meaning of benefits and sacrifices and how to maximize or minimize these differ during the lifecycle of the offering
- Companies must be capable of prioritizing among identified opportunities to sharpen the competitive edge

There are several perspectives on evaluating customer value, however the cost-benefit or sacrifice-benefit relation is a common theoretical view. We have in the thesis chosen Lapierre's (2000) model. This is due to the fact that the model concerns measuring customer value in industrial services, why we believe it can be helpful to identify what drives value in MC's service and parts business. It includes the sacrifice-benefit terms, not the cost-benefit. These could however be regarded as equivalent even though the cost-benefit analysis approach is more commonly used in larger projects and our perception is that it is of more quantitative character. As Lapierre has adopted the sacrifice-benefit terminology on customer value, so will we. His model has been an inspiration and interpreted to fit the situation at hand,

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rather than a detailed used tool. After the thorough discussion between us as well as with key individuals at MC such as our tutor, we adapted Lapierre’s model to suit the thesis. The developed model is presented in Table 4. We concluded that the value drivers of *alternative solutions* and *product customization* could be bundled due to their similarity and are instead called *product flexibility*. The value driver *conflict* was eliminated as it is highly rare that it occurs and therefore seemed irrelevant. The result is eleven value drivers of which nine are benefits and two are sacrifices.

Table 4: The developed model of value drivers.

	Product	Service	Relationship
Benefits	-Product quality -Product flexibility	-Responsiveness -Flexibility -Reliability -Technical competence	-Image -Trust -Solidarity
Sacrifices		Price	Time/effort/energy

As presented in the theoretical chapter, there are several ways of prioritizing among opportunities. However, we choose to apply the ODI’s *Opportunity Landscape* as it, as opposed to other prioritization models, combines the perspective of the customer together with the company’s. With the modified structure of Lapierre’s value drivers, we therefore wish to identify which value drivers that are overserved, underserved and appropriately served. We therefore first aim at investigating if the *importance* of the value drivers’ change as the machine ages. Thus, what drives value to older machine customers differ from new machine customers. We therefore coined the terms *dynamic* and *static* value drivers, where the former are value drivers that differ along the lifecycle and the latter are drivers independent of the age. Additionally, we will study how well MC’s current offering fulfils each value driver, which we name *satisfaction*.

Our developed model aims at identifying underserved, overserved and appropriately served value drivers on the basis of what is considered important to customers and fulfilled by MC. Due to time limitation, we do not plan to gather quantitative data and calculate our results, according to ODI’s opportunity algorithm. We will however use it for an analysis based on the qualitative data collected. This is in line with the intention of giving an overall picture of the situation at hand rather than in-depth research as mentioned in the chapter on Delimitations.

Figure 7 exemplifies the three possible scenarios. If the arrow representing importance is increasing or decreasing, it indicates that older machine customers have differing opinions on the importance of that value driver in comparison to new

machine customers, why that value driver is defined as dynamic. If the arrow on the other hand is horizontal the value driver is static.

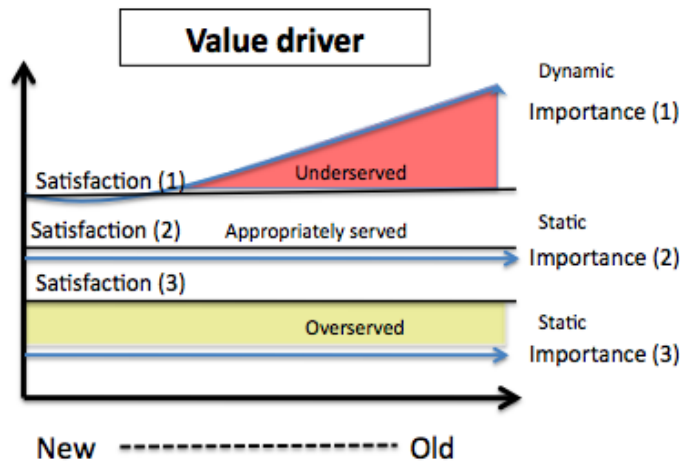


Figure 7: Under-, over- and appropriately served value drivers exemplified.

Offering 1 is an example where the importance level is the aligned to what is offered for the new machine. When the machine ages, the importance is increasing and the value driver is therefore dynamic. However as MC's offering remains, the value driver is consequently underserved (red). According to the ODI model, this can be interpreted as an area where there is an opportunity to create customer value by making the underserved value driver appropriately served. If the importance level on the other hand had decreased; the value driver would still have been dynamic, but overserved (yellow). This indicates that the older machine customer do not ask for what is in the offering today and MC may in this situation waste resources on non-value creating activities, according to ODI. Offering 2 on the other hand, is an example where MC is serving the customer appropriately and MC therefore ought to proceed with the current offering.

The relative importance between the value drivers is not studied as the focus of this thesis have been to compare the importance and satisfaction between new machine customers and old machine customers.

3.3.3 The MaP-model

By combining presented theories and models, we have developed a theoretical framework MaP (Martha and Paulina), presented as Figure 8, which we aim to apply on the case of MC. The theoretical framework aims at identifying the opportunities of value creation in the older machine segment. It will thus help us answer the

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research questions formulated in this thesis. For the underlying tools under each sequential step see appendix 4 for more information.

To clarify the model, we believe in accordance with theory that customer value creation must begin with identifying who the customer is. We have therefore developed a segmentation model with three primary variable categories of type of usage, service and customer. We have thereafter combined the theories of Lapierre and ODI to enable an identification of opportunities of value creation. Adding to this are our two coined terms of *dynamic* and *static* value drivers to incorporate the fact that what constitutes customer value in services differs over time due to the characteristic of such a product.

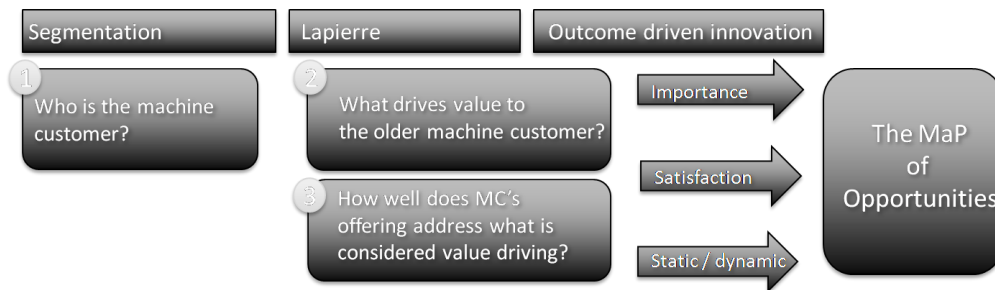


Figure 8: How to identify opportunities for value creation in industrial services

As the model is developed on existing theory, it is applicable on companies which may find themselves in a similar situation as MC. The applicability of the theoretical contribution on *How to identify opportunities for value creation in industrial services* will be described in chapter 8.1.

However, as previously stated the purpose of developing the model was to enable a contribution to MC. We therefore believe that by applying our theoretical framework on the case of MC, the thesis can be an essential part if the company strives towards improving the service and parts penetration on the Danish market.

3.1 Data Collection

The research questions will permeate the data collection methods chosen. By developing a solid theoretical model, we could identify the information needed, the appropriate sources and modes for collecting the data. As mentioned in the chapter on Delimitations we intend to understand, explain and clarify the chosen subject of the thesis as is currently little knowledge within the area. This influenced our choice of data collection method why we plan to generate data from a wide spread of sources. By doing so, we believe we can generate a nuanced and multifaceted picture of the situation at hand. We will therefore generate data from both the externally among customers and competitors as well as the internal MC

organization. (See appendix 5 for the overall structure of the people interviewed as well as appendix 1 for the abbreviations used when referring in the following text)

3.1.1 External data

As mentioned the developed framework has laid the foundation of the data collection. The segmentation model had a methodology purpose as it helped us identify whom we wished to speak to in the older machine segment. As we aim to obtain such a versatile and nuanced description of the older machine segment as possible, we intend to gather information from a wide spread of customers. Resulting, we will interview seven customers, which are characterized by several of the segmentation attributes identified. (See appendix 5 for a list of interviewees and appendix 6 for the interview guide) Additionally, we will interview competitors such as third party workshops, as they are frequent service providers of older machine customers and therefore ought to have valuable data.

3.1.2 Interview form

The interviews have been permeated by our theoretical framework where we have used the segmentation variables and value drivers identified. Each interview was written down in a questionnaire form in an excel file to later be able to easily visualize the similarities and differences.

To be able to draw conclusions on the basis of the theoretical framework, we want to ensure a proper and sufficient data collection from the questioned individuals. However, we aim at having an open conversation and posed additional questions when suitable. We therefore choose to conduct semi-structured interviews. The interviews will foremost be of qualitative character, although also quantitative as we have certain numerical questions such as size of fleet to exemplify.

3.1.3 Validity and reliability

In order to obtain a high level of reliability, both authors will participate in the interviews and personal face-to-face interviews will be conducted to minimize the risk of misunderstandings. Telephone interviews will also be done, if some interviewees do not manage find time for a personal interview. Furthermore, complementing questions will be sent to the interviewed people as well as a summarization of the interview. Literature will be thoroughly discussed between us to gain a greater comprehension of the literature and its suitability to the thesis.

There are certain drawbacks that come with choosing a qualitative method which are worth attention. Due to the limited amount of individuals studied, it is difficult to determine general conclusions that later can be applied on similar study objects. Furthermore, the researchers own perceptions and beliefs may impact the results and conclusions can be somewhat simplistic (Denscombe, 2002). As mentioned in

Theoretical development, the framework developed may be applicable when wishing to identify opportunities of value creation in industrial services. However, we highlight that the contribution of this study is to generate a knowledge base within the chosen area rather than developing a theory applicable on other areas or similar study objects. This motivates a qualitative approach of the research. We are well aware of the risk of subjectivity. We have based the interview guide (see appendix 6) on the developed theoretical framework (see appendix 4), which in turn is derived from well-recognized theories and methods. We thereby claim that objectivity in the questions has been achieved, which will bring impartial answers from the enquired.

3.1.4 Criticism of resources

The literature is selected with support from the university tutors and in alignment with the thesis purpose. The customers we plan to interview are chosen on recommendations by the retail network, as we want to ensure that we did not disturb the existing customer relationships.

During the working process at the MC headquarters we understand that our conclusions drawn can be influenced subjectively. The awareness of this makes us continuously question our reasoning, why we argue to have rather unbiased conclusions. The internal organization is discussing their way of doing business with an open mind, trying to give us an objective picture of the reality.

Before starting off on presenting the empirical findings, analysis and conclusions we hereby wish to give the reader a relevant and solid knowledge base of the company MC and the Danish market.

4 Machine Corporation

The following chapter gives a brief portrayal of the company studied where the strategy, the service and parts offering and the organizational structure is described.

4.1 Strategy

The company's business concept is to be a provider of machinery solutions where the machines are the core products in the total offer, which also includes aftermarket, service, and extended offers. The strategic direction is to position MC as the leading premium brand. This will be achieved by aiming at providing a total business solution to customers with a focus on lifecycle earnings. By doing so, they aim at creating the best customer productivity in the machine related industry. (Int. doc, MC)

4.2 The service and parts offering

Service and parts enables turnover during the whole life cycle of the machine and are thus a stable and rather predictable income. The machinery sales are on the other hand sensitive to economic fluctuations and the margins are competitively challenged. (Dep: SD)

4.2.1 Service

The service and parts business constitute a large part of business. MC aims at becoming a first class provider of services. This business cycle comprises the relationship between the initial machine acquisition and the following need of service and parts. By maintaining good relationships with the customers, MC believes that these two product categories can benefit each other.

Upon purchasing a new machine, MC offers a two-year repair warranty. Additionally, many customers choose to buy one of the company's three service contracts (Int.doc, MC):

- The **heavy** contract: Covers all preplanned maintenance and repair necessary for the machine such as control of the machine's functionality.
- The **light** contract: Includes maintenance, not repair.

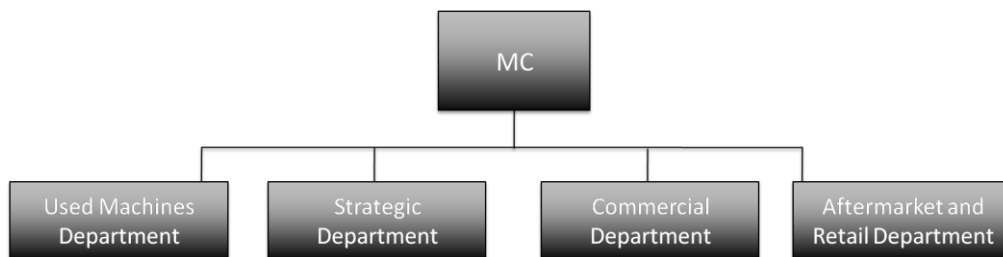
4.2.2 Parts

A MC machine is built from "MC Parts" (MCP), which is a quality assurance of the parts and thereby a part of the high standard MC brand. MC workshops use more or less exclusively such MC parts in repairs and that is also why MCP are an integrated part of the contracts for preventive maintenance and repairs.

Some markets do have a supply of used parts such as the Danish market. This organization is however developed locally and the products are only used on rare occasions to enable a cheaper parts price. Older machines are bought in and dismantled. The potentially valuable parts are remanufactured to a qualitative level and thereafter supplied to the workshops. (Int. doc, MC)

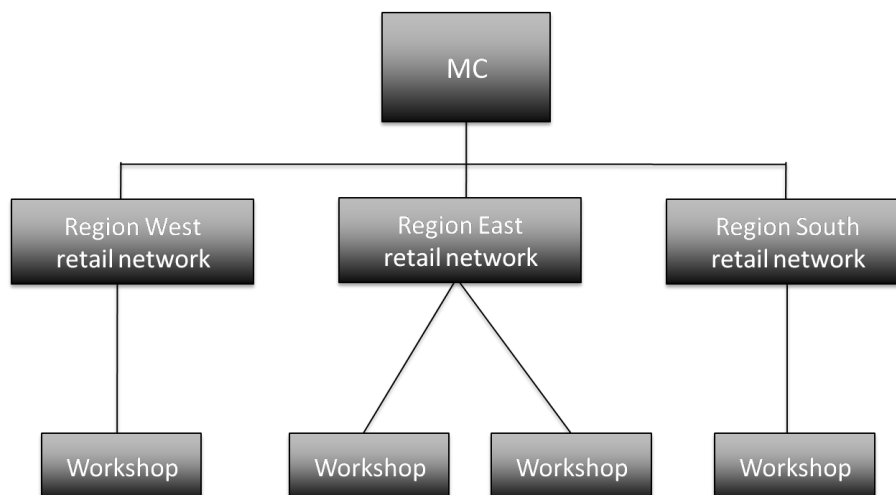
4.3 Organizational structure

As shown in Organization chart 2, MC is divided into four business areas; Strategic Department (SD), Commercial department (CD) and Aftermarket & Retail department (AR) and Used Machine Department (UM). (Int. doc, MC)



Organization chart 1: The MC Organization

As shown in Organization chart 2, the market is divided into three regions east, west and south. These constitute the report channel between the retail network and Nordic region.



Organization chart 2: The Danish organization and retail network.

4.4 Retail Network

The retail organization thus constitutes a major part in the MC organization. MC has realized the great impact the retail network obtains on customer relationships. (Dep: AR)

To gain customer information on a central level, a customer research is conducted each year called MCCD (MC Customer Development). It covers customer satisfaction on existing offerings with regards to machine, service and parts sales. The commercial department of at MC owns the research and is responsible for follow-up actions. The retailers' are in turn accounted for improving the potential unsatisfactory areas by formulating and following up future objectives. The result will impact the retailers' bonuses (Dep: AR)

The MCCD research takes its starting point in the five customer commitments. These commitments are directives on how retail network ought to operate in accordance with the strategic objectives of MC. The commitments cover quality, helpfulness, transparency etc. (Dep: AR)

4.4.1 The workshops' competitors

The MC structure of workshops is visualized above in organization chart 2. Three competitors are identified for MC's dealer network. Firstly, there are the other *machine brands' authorized workshops*. They are not major competitors of MC as there are loyalty factors such as service contracts and warranty that prevent customers from using a competitor (Dep: AR). Though there are non-authorized workshops, called *third party workshops (3PW)* that compete mainly on price and a high degree of flexibility. They usually do not have access to the latest technology for example diagnostic tools as these are connected with high investment costs. Another major competitor is the customer himself who performs minor repairs and maintenance works to keep costs down in the business. (Dep: CD)

5 Identifying opportunities in the older machine segment

On the basis of our developed MaP-model we have conducted sufficient research as explained in the Data collection chapter. The model will also constitute the structure of the following chapter comprising empirical findings, analysis and conclusion under each of the two research questions (as we have bundled research question two and three due to theoretical combination). We will initiate by using the segmentation model (see appendix 3) developed to map the structure of the older machine customer.

5.1 Who is the older machine customer?

Older machines are often used for different purposes than newer machines. Older machines are used for a broad range of goods. However, due to its risky character, older machines are used for handling *non-sensitive goods* in the sense that they can endure some standstills. (MC Retailer) It is also argued that older machines are less sensitive to standstills due to its significantly lower market value. Thus, if an older machine endures long standstills such as deregistration (WF) this has less impact on losses than new machines (HB). A new machine on the other hand is a large investment, which requires a high utilization rate in order for it to be profitable (GS). Older machines are therefore less sensitive to *volatility in the demand* as they can be deregistered if order inflows are low (GS). Moreover, as they are not as risky regarding capital efficiency as new machines, older machines are more suitable when the *planning horizon* of the contractor is short (CS).

Due to the price-sensitiveness of customers owning older machines, using an own *workshop* or a third party workshop is a common scenario, primarily for maintenance purposes. With large repairs, the customers technical competence is in some cases inadequate why often choose to use a third party workshop or authorized workshop for such errands. (WF, VV) The local orientation of older machines' limits the area for service demand of these machines. Having an own local workshop is thus sufficient, why the benefit of using larger network workshops diminishes. (VV) Therefore, a common scenario among customers of older machines is to only handle local orders with an owned workshop nearby (WF). It is therefore rare that older machines are covered by a *service contract*, as the fixed fee they entail is considered more expensive than buying service only when the machine is in actual need of it (Dep: CD).

The average fleet size is smaller the higher the average fleet age. Customers which buy older machines are often capital weak as they cannot afford the purchase of a new machine. It is a common scenario that smaller start-up companies buy older machines and the better the business goes, the larger the fleet and the more

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affordable newer machines become. Larger machinery companies therefore usually have rather new machines in their fleet as they have adequate financial capacity to make long-term investments. Thus, customers buying older machines usually have smaller *fleet sizes*. (GS)

The size of the fleet size goes hand in hand with who is *responsible*. Customers with smaller fleets usually have most responsibilities concerning the machine such as purchaser of the machine, fleet and machinery manager, finance responsible etc. (WF) The customer is often the CEO of the company and sometimes finance responsible as well. It is not rare that this person is the driver of the machine as well. (CS) Larger customers on the other hand, often have different persons responsible for the machine and its operations. There is usually a machinery manager responsible for the planning and for customer relations. The fleet manager, responsible for the quality of the fleet may be someone else. Drivers are usually employed either fully or on a rental contract. The larger the customer, the more persons responsible is involved. (D)

When purchasing older machines as opposed to new machines, the brand decreases in importance. Older machines acquisitions are based on availability of the demanded type of machine, why the purchaser cannot be picky about the brand. Customers with older machines therefore usually have a great mix of brands in their fleet. (MC Retailer)

5.1.1 Conclusion

The customers that we interviewed appeared to have attributes in common. Older machines are used for different purposes than new machines. Due to its risky character, they tend to be used for suitable for and operate order incomes which are volatile in demand and that have short planning horizon as the capital efficiency requirements are relatively low.

Older machines use certain types of services. Customers with older machines often use their own workshop or a third party workshop as these are considered cheaper solutions than using an authorized workshop such as MC's. For the same reason, older machines are seldom covered by a service contract. Having an own workshop is not only motivated by economical advantages. As older machines mostly perform local orders within a certain area, a workshop network such as MC's is unnecessary whereas an own workshop is adequate. Some customers with older machines perform more or less all maintenance and repair themselves while some do merely the maintenance jobs in-house.

Customers with older machines have some common features. Fleets with older machines tend to have a greater mix of brands as availability of the type of machine rather than the brand is crucial when purchasing old machines. Older machines are

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also generally part of a smaller fleet as such minor operators often have little capital to invest in newer machines. The size of the operator reflects the customer type where smaller customers tend to have a total responsibility for the machine and its operations. The responsibility at larger fleet customers on the other hand, is usually separated to different individuals. Taking this into consideration as well as the fleet size relation to the age of the fleet, the conclusion can be drawn that customers with older machines usually tend to comprise many of the mentioned customer types.

With all this in mind it is possible to map the structure of the general older machine customer as presented in Figure 9. It illustrates the continuous change of the characteristics from the new to the old machine customer, as the differences between the two segments are in no way discrete. The mapped structure can help MC to understand who the older customer is that they want to provide value for.

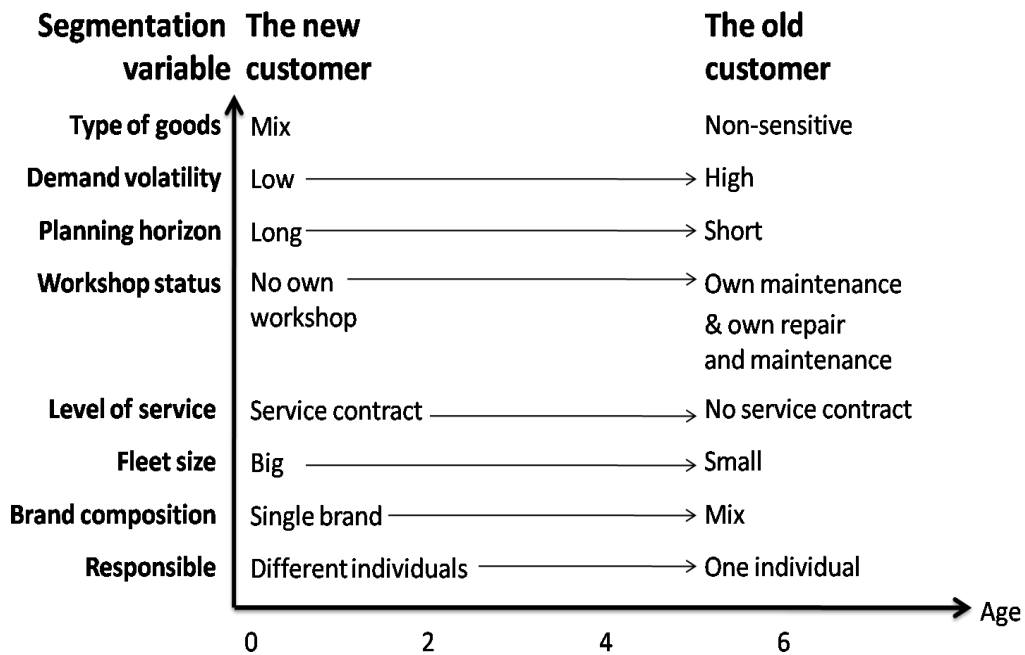


Figure 9: The segmentation results: A description of who the older customer is on the basis of segmentation variables.

5.1 What drives value for the older machine customer and how well does MC's offering address what is considered value driving?

After having identified the older machine customer on the Danish market, the next step is to identify what creates value to this customer and on the basis of this investigate how much MC's offering manages to address the segment. Each value

driver will be described in terms of what is perceived as important by the customer and how well it is satisfied by MC's offering. Both external (customers and competitors) and internal (Machine Corporation departments and retailers) perspectives on what is perceived important and how well it is satisfied will be taken into consideration. Further the value drivers are defined as static or dynamic in the machine's lifecycle. On the basis of this we will conclude whether the value driver is overserved, underserved or appropriately served. This result is concluded and visualized by the end of the chapter in Table 5.

5.1.1 Product quality

Product quality refers to factors such as durability, reliability and performance of the products you buy. As Lapierre relates this value driver to products, we hereby use it as a way to define the quality of parts.

5.1.1.1 Importance

The quality of parts is naturally always important as it impacts the machine's uptime. In case the quality is inadequate, this will be both expensive, time demanding and frustrating, why quality is considered one of the most crucial value drivers according to questioned machine customers. (GS) However, the residual value impacts the willingness to pay for parts. Therefore, the less valuable the machine, the cheaper parts price is demanded. If there is a linear relationship between the age of the machine and its residual value, this implies that the older the machine, the lower the price must be for the parts. This is the reason why older machine customers often asks for used parts which usually have lower quality than new parts. (Dep: UM)

5.1.1.2 Satisfaction

MC offers parts, which are suppose to guarantee qualitative, available and quickly fitted parts. In their service contract, they ensure that only MC Parts are being used in repairs (MC, www). Older machine customers on the other hand find these parts unjustifiably expensive, due to the low residual value of the machine (CS).

5.1.1.3 Conclusion

Product quality is related to the sacrifices of price as well as time, energy and effort. New machine customers is mostly bothered with up-time and therefore wishes to receive product quality and consequently to minimize time, energy and effort. Older machine customers on the other hand often buy used parts with lower quality to receive a lower price. This is highly dependent on the value of the machine where the lower residual value, the less motivating it is to buy the more expensive new parts. Parts quality is thus declining in importance and defined as dynamic. MC's delivers a high parts quality which reflects the prices of the parts. As this is not corresponding to what is considered as important to the older machine segment, this driver is defined as overserved.

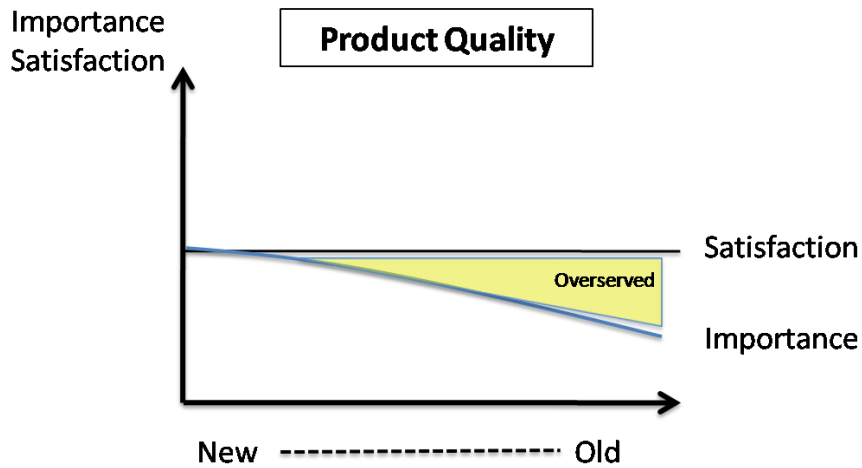


Figure 10: Product quality of parts is overserved as the old machine segment does not require the level of satisfaction which MC offers.

5.1.2 Product flexibility

Product flexibility (alternative solutions and product customization) regards the supplier's ability to offer a range of alternatives and custom-built products, to meet unique specifications etc. This is yet another product related value driver, why we apply it to the flexibility of parts.

5.1.2.1 Importance

The ability to meet unique parts need is important along the whole lifecycle of the machine. Availability of parts is crucial when choosing which brand to buy, new or old machine (WF) and the customer can be greatly dissatisfied if there is a lack of parts according to a workshop manager (MC Retailer). New machine customers require product flexibility and tailor-made solutions. Older machine customers also need custom built offerings due to the nature of the machine. Older machines sometimes require different tools and the need of certain parts demands more effort by the mechanics when handling older machines. (MC Retailer)

5.1.2.2 Satisfaction

MC is prominent in delivering a broad range of parts. To the machine models released, a vast amount of parts are developed and launched to fit the model. (Dep: SD) They can therefore ensure a great range of parts customized to the machine. MC's original parts range is very wide and the parts organisation and distribution is well developed and spread (Dep: CD). Due to the well-developed parts organisation, MC has the muscles to supply any type of machine with needed parts. In comparison to many competitors, the company cannot only offer a great assortment in new parts but also in older parts. They can therefore deliver more rare parts to the older machine customers. (MC Retailer)

5.1.2.3 Conclusion

Product flexibility is important no matter what age of the machine. It is thus considered static. The new machine customer appreciates the broad assortment offered with each machine. The older machine customer values however MC's ability to meet the unique part needs characterizing the older machine. Thus, satisfaction is also regarded as static and both segments are thereby appropriately served. The arrows are thus aligned as MC manages to satisfy the importance level of both segments.

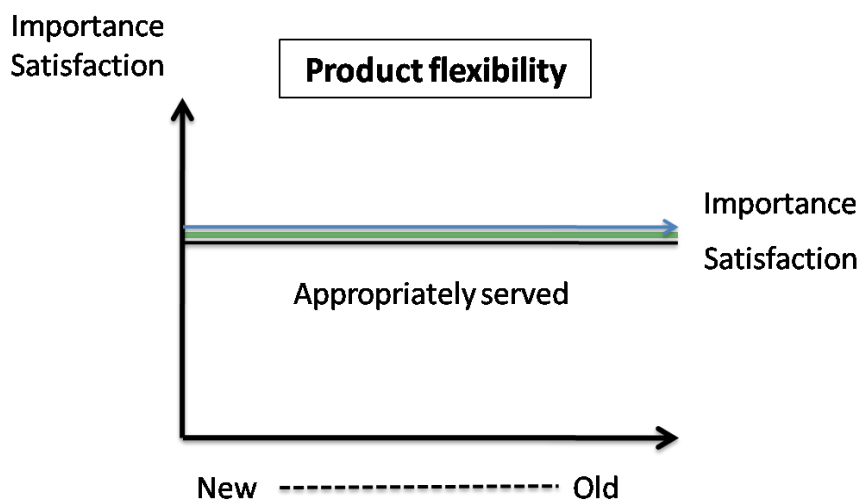


Figure 11: Product flexibility is appropriately served as MC can satisfy the demand for parts flexibility in both the old and new machine segment.

5.1.3 Responsiveness

Responsiveness refers to the supplier's ability to understand the customer's business and problems by visiting the customer's locations. By doing so, the supplier ought to enable an increase in the value of the service provided.

5.1.3.1 Important

It is greatly important to have insight in the customer's business to be able to offer qualitative and suitable service (MC Retailer). It is also crucial to understand the customer's customer as this very much determines the service need of the customer (Dep: SD). However, if the customer has old or new machines in the fleet is irrelevant, as a service provider must gain understanding in the customer's business regardless of the fleet age (MC Retailer).

5.1.3.2 Satisfaction

MC workshops have realized the great need for having insight in their customers' businesses. The workshop managers keep frequent contact with their customer base by phone or by visits. (MC Retailer) To exemplify, one workshop manager aimed at visiting all the customers once a year (MC Retailer). This is however not a requirement from the retail management organization, rather a local initiative. The incentive to do so exist anyway as the workshop managers have recognized the great value in gaining customer insight themselves. (Dep: AR)

MC has realized that a key success factor in attracting the older machine segment is to visit these customers to understand their businesses. The older machine customer will not do unnecessary repairs, why a proactive selling is essential to attract these customers. However, no attempt of gaining greater insight or selling actively in this segment is done today. (MC Retailer) All customers entering the workshop are handled but the workshops do not actively search for the older machine customer (MC Retailer). This is confirmed by an older machine customer stating that MC have never contacted them, instead they must get in touch with the workshops (WF).

Conclusion

Responsiveness in the sense of understanding the customer’s business is greatly important regardless of the age of the machine, why this is considered a static value driver. MC is active in gaining insight in the new machine segment but little has been done in the older machine segment. This value driver is therefore considered underserved.

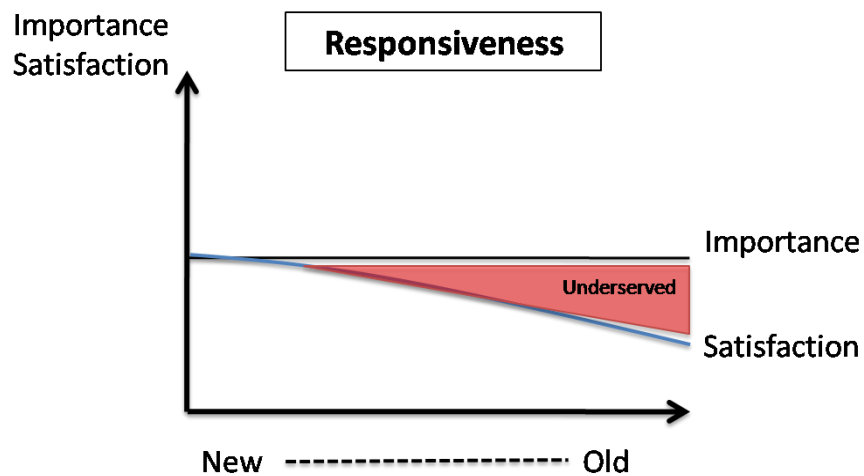


Figure 12: Responsiveness is regarded as underserved due to MC’s little knowledge and insight in the older machine segment.

5.1.4 Flexibility

Flexibility is about the company’s ability to adjust the services to the customer’s requests, unforeseen needs and the way they handle change. As Lapierre relates this driver to services, we define it as flexibility in the services offered.

5.1.4.1 Importance

Adaptation of the service offering is important regardless of age (Dep: UM). The service-orientation of the treatment determines the choice of service provider. Customers seek attention and tailored solutions. (VV) For instance, larger customers often require direct contact with a mechanic rather than having a sales person as interface (MC Retailer).

5.1.4.2 Satisfaction

The MC workshops are centrally managed by recommended prices, products and processes, which face the customer. They are furthermore measured on certain profitability indexes. However, the level of supervision is set to ensure the MC standards but at the same time provide local flexibility and freedom in the retail network. (Dep: AR) The MC workshops thereby strive to tailor-make the offering to the customers. However this is mainly done towards the new machine customer, as

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this is where the business focus historically has been. (MC Retailer) To the older machine customer a few attempts have been made centrally to develop customized offerings but these have proved unsuccessful (CS). A few asked workshops have tried to locally form propositions such as discounts, bonuses, used parts etc that has been accepted by the market. However, these have only been slight modifications of existing offerings. The workshops do not have the capacity to further adapt the offering. There is a lack of comprehension and motivation toward the older segment in the sales organization of the workshops. (MC Retailer) A greater strategic effort is therefore required which is initiated centrally and further implemented down in the organization (MC Retailer).

5.1.4.3 Conclusion

Importance is static as flexibility in the offerings is important no matter the age of the machine. As MC's historical and current focus is on the new machine customer, little flexibility is proposed to the older machine customer. Thus, satisfaction is considered a dynamic value driver and flexibility is thereby considered underserved.

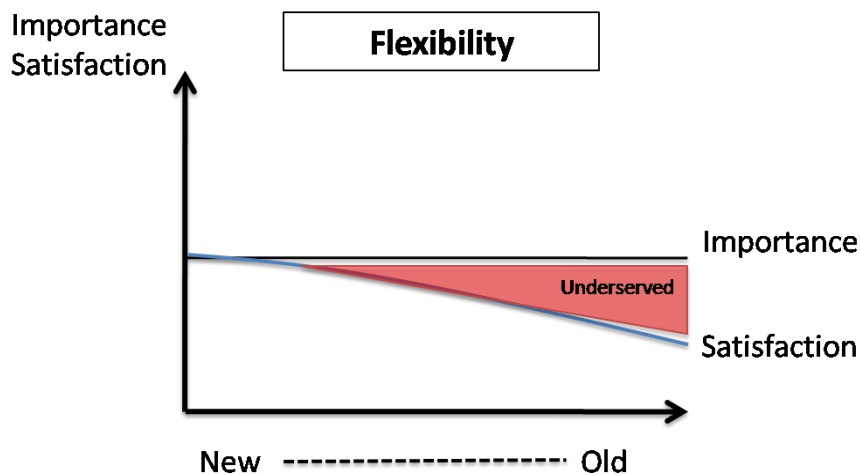


Figure 13: Flexibility is underserved as no offering has been developed and adapted to the old machine segment even though this is perceived as important.

5.1.5 Reliability

Reliability refers to the ability to do things right the first time and the competence of the staff. As it is related to the service provided, we define it as the quality of service.

5.1.5.1 Importance

For newer machines, service quality is crucial. The primary wish for this customer is to maximise uptime, which is the time the machine not is standing still. (VV) It is greatly bothersome and expensive in case the service or repair is inadequate or

flawed, as the customer consequently must return to the workshop to have the job redone (GS). Thus, insufficient service quality results in greater costs, unproductive time and aggravation (Dep: AR). Older machine customers do however often use third party workshops, which do not offer the same service quality as MC's workshops (Dep: CD, MC Retailer). For the same reason as parts quality, the quality of the service is related to the costs for the service. Due to the lower residual value of older machines, these customers have greater tendencies to trade quality for price. (MC Retailer)

5.1.5.2 Satisfaction

We sell *MC quality* (MC Retailer). MC strives towards a service quality image through the MC Service concept, where the company claim to offer top qualitative service (Int.doc, MC). The customers perceive MC as qualitative, comparatively to the third part workshops available (D, WF). *MC Quality* is one of the five customer commitments, which are centrally developed directives to the retail network (see chapter on Machine Corporation). It includes doing right service and repair work the first time, the workshop's ability to analyse the machine's problem and the overall quality of the performed work. (Dep: AR) A service manager claim MC offers safety and guarantee quality (MC Retailer).

5.1.5.3 Conclusion

Due to the cost-consciousness of older machine customers, they often use third party workshops which offer cheaper prices but to a lower service quality than MC workshops. Inadequate service quality will impact the sacrifice of time, effort and energy. Older machine customers only wish to have good enough service why they often use third party workshops, despite the greater risk of lower quality and consequently increased time, effort and energy spent. They therefore differ from the new machine customer whose primary concern is to minimize these sacrifices. They are therefore willing to pay a higher price to obtain a qualitative service, while older machine customers are more willing to trade reliability as well as time, effort and energy to receive a lower price.

We thus conclude that reliability is dynamic in importance. As MC performs excellent service, rather than the good enough service required by the older machine segment, we therefore consider this value driver overserved.

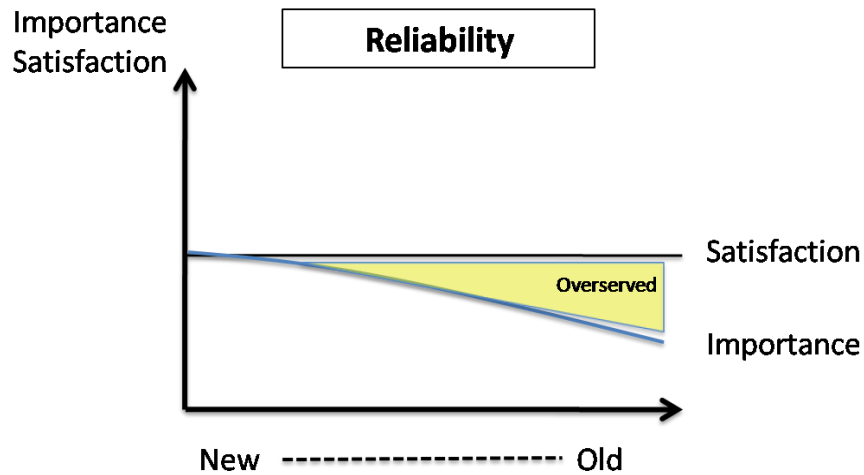


Figure 14: Reliability is considered overserved as MC offers a satisfaction level above what is regarded as important for the older machine customer.

5.1.6 Technical competence

Technical competence is considered a service-related value driver and concerns for instance the company's ability to comprehend the customer's business, their specialisation and the way they use technology to generate solutions.

5.1.6.1 Importance

Comprehending the customer's business is independent of the age of the machine (MC Retailer). However, new machine customers and old machine customers do have different requirements on technical expertise. A customer with a new machine expects the machine to function more or less flawlessly. As the machine has two-year warranty, the customer in this segment does not need to have great technical qualifications as all repairs are done by the warranty workshop. Machines on service contracts are also provided with service by the workshop during the contract period. (Dep: SD) They therefore wish to have a very skilled mechanic, which takes responsibility of the job conducted (GS). Larger customer often wishes to have a personal mechanic (MC Retailer). Machines of this age are usually very technically complex why the manufacturers (e.g. MC) are usually the sole service providers. However, older machines have a lower technical complexity than newer. (MC Retailer) Many older customers have their own workshops, why they often have a great understanding of the machine, its condition and technical needs (VV, MC Retailer).

5.1.6.2 Satisfaction

As MC is the manufacturer of the machines, their workshops consequently entail great expertise in the latest technology associated to the machine. Such competence is a great competitive advantage as many competing workshops are behind in the technical progress of the machines. (MC Retailer) The service contracts ensure the service is performed by educated mechanics (Int.doc, MC). MC workshops are capable of performing most services wished by customers so their service offer is broad (MC Retailer). Repairing older machines is therefore not a technical problem (MC Retailer). As mentioned, customers with older machines have often developed their own workshop competence regarding less complicated service and repairs. However, some customers with older machine use MC workshops for larger and more complicated repairs. (WF) There are customers with older machines though who use third party workshops when major repairs are required. This is because they are not sufficiently competent or lack the proper tools to solve the problem themselves, but not the money to visit the authorized workshops. (VV, Dep: UM)

5.1.6.3 Conclusion

As older machines have less technical complexity, we hereby conclude that technical competence is declining in importance. Importance is thus a dynamic value driver. MC's technical competence is above what is required from the older machines, as it is adapted to new machines. This value driver is therefore regarded as overserved in the older machine segment.

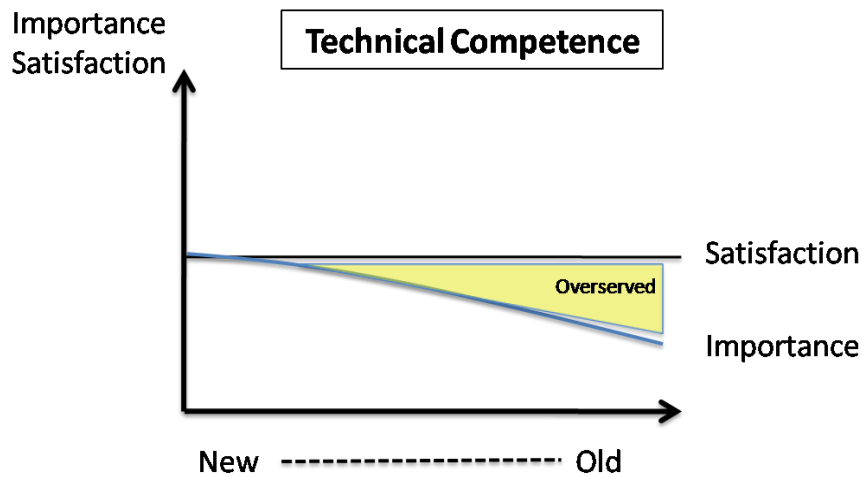


Figure 15: MC offers a technical competence which exceeds what is required by the old machine customer, why technical competence is defined as overserved.

5.1.7 Image

Image is defined as the company's reputation and credibility and the value driver is linked to relationship between the company and the customer. In this sense image is related to the service and parts business and not the purchase of the machine.

5.1.7.1 Importance

Image can be defined as the customer's view on the company. Customers interviewed select their service provider much on the basis of image (CS, SA). When comparing different alternatives they choose often the workshops, which they *believe* will satisfy their needs the most (Dep: SD).

5.1.7.2 Satisfaction

MC's aim is to be professional and first class service providers (MC Retailer) (Int.doc, MC). Image position is highly valuable for MC as it enables them to keep their price position when selling new machines (Dep: SD). This image is reflected in how the workshops are being measured and directed and consequently how the workshops operate and treat customers (Dep: AR). As discussed, the workshops manage to fulfil these central directives to some extent even though there are improvement areas (MCCD). However, looking at what creates value to customers, the characteristics are greatly adapted to customers owning new machines (Dep: AR). Older machine customers perceive MC as expensive according to many interviewed customers. (CS, SA) They are therefore very resistant to even consider MC workshops as an alternative (MC Retailer).

5.1.7.3 Conclusion

Older machine customers are considered to perceive MC as an expensive supplier of service and parts as a result of the existing image. Whether or not they actually are expensive in the long run could be discussed. However, as long as the image signals costs, it is hard to attract the customer owning old machines in the workshop. Image is thereby consistently important which is proved by the older customer's reluctance to using the perceived expensive MC workshops. MC has however a homogenous image and marketing which is targeted at the customer owning new machines. This has negative impact if attempting to attract the older segment.

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Image is considered dynamic in satisfaction level, as the older machine customer does not correspond to the existing static image offering. Image is important no matter age, and is therefore static. We hereby conclude this value driver underserved in the older segment.

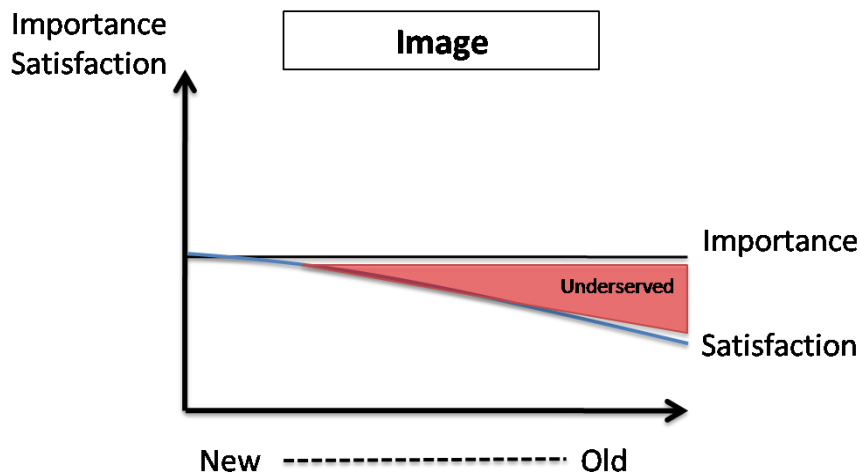


Figure 16: Image is underserved since MC has not adapted their image to the older machine segment even though the driver is static in importance.

5.1.8 Trust

The value driver trust concerns aspects such as the supplier's ability to fulfil the promises made to the customer, the accuracy of the information provided from the supplier and the customer's confidence to the supplier.

5.1.8.1 Importance

A satisfactory service is when it fulfils the customer's expectations. Customer dissatisfaction is created when the workshop does not provide the expected service with regards to time, price or quality (MC Retailer). Feeling trust to the service provider is independent of the age of the machine (MC Retailer). For instance, keeping the promised time required for the job is of great importance (D). However, as customers of older machines are more price sensitive, unexpected costs are greatly damaging to the customer relationship (CS). This could for instance regard the invoice of the job conducted, which often does not correspond to the forecasted price of the planned service (MC Retailer). For new machine customers an incorrect invoice has less impact on profitability (D).

5.1.8.2 Satisfaction

Trust is the primary factor MC offers (MC Retailer). Customers state that MC workshops are good at completing service and repair when promised. They are

furthermore satisfied with MC's ability to specify delivery time for unavailable parts and to keep that timing. (MCCD)

Several customers have however complained about a lack of information on additional costs and on providing estimates and quotations. (MCCD) A questioned customer agreed, claiming that the invoice often exceeds the promised price at the time of the booking (CS). MC are "parts changers", they rather change the parts quickly to deliver on time instead of conducting a thorough and detailed diagnosis of the machine's condition, as it requires too much time. This in turn increases the price why customers owning older machines rather see they prioritized keeping the price low as opposed to performing quick fixes. (SA) Another interviewed asserted that MC is not adequately clear on what they charge. He furthermore thought the reason for the inconsistency between the promised price and the actual charged price, are the complex working processes. (D) This is confirmed by a MC service manager who claim that the larger size of MC workshops as opposed to smaller competitors risk communication issues and misunderstandings along the several steps between a meeting, booking and delivery of the service or part (MC Retailer). Smaller workshops on the other hand have the advantage of having one interface to the customer. Three employees in a MC workshops corresponds one in a smaller workshop. This enables a more personal and trustworthy relationship. (D)

5.1.8.3 Conclusion

The value driver trust is very much depending on the service provider's ability to keep what has been promised to the customer. Keeping promises is important no matter the age of the machine. However, the consequences of not keeping promises may differ somewhat between new and old machine customers. Trust is another beneficial value driver, which has great impact on sacrifices. Customers with older machines consider keeping the price promised to be more important due to their price-sensitivity. New machine customers instead regard time as a more important driver.

MC is trustworthy and reliable when it comes to delivering on time. Again this is natural, as the company has always strived at delivering value to this segment. We believe this is as important for old machine customers as for new, why the both satisfaction and importance with regards to time are considered static drivers. As MC manages to satisfy the importance level of both segments the arrows are aligned and trust related to on-time deliveries is appropriately served.

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However, with regards to price, service costs often exceed what has been promised to the customer at the time of booking the service. Trust with regards to price is therefore regarded as underserved.

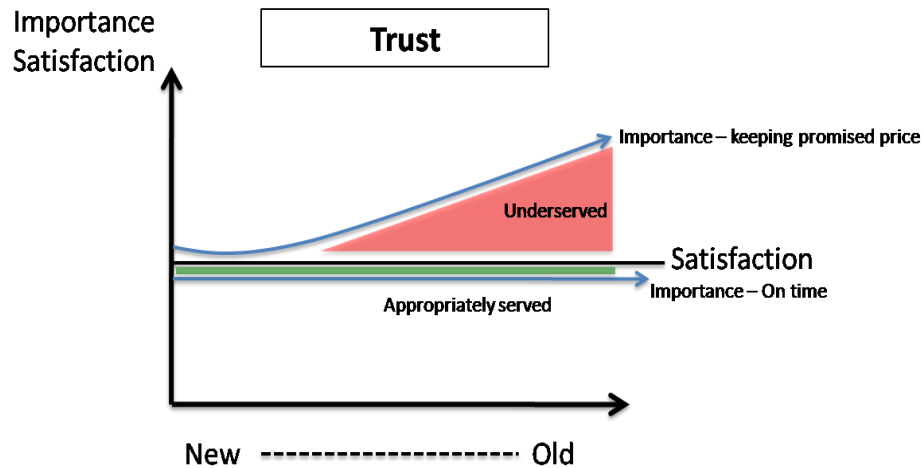


Figure 17: Trust is divided into trust with regards to keeping promised prices and delivery times. The former is considered underserved as old machine segment requires promised prices to be kept which is not satisfied by MC today. The latter is defined as appropriately served since it is important and MC delivers on time.

5.1.9 Solidarity

Solidarity concerns the relationship between the supplier and the customer. It regards the company's commitment and willingness to benefit the customer and to assist with both expected and unexpected problems.

5.1.9.1 Importance

A personal relationship is the most crucial determinant when choosing service provider (HB, MC Retailer). The service-orientation of the treatment determines the choice of service provider (VV). The customer wishes to feel unique and seeks attention (MC Retailer). The ability to make the customer feel safe and confident in the relationship with the workshop is crucial (MC Retailer). It takes time and effort to build loyal customer relationships (MC Retailer). A slight mistake however can make the customer switch supplier quickly (Dep: SD).

5.1.9.2 Satisfaction

Incentives to have profitable customer relationships automatically exist in the workshop network due to central KPI measurements (Dep: AR). Successful workshops are the ones, which handle customer issues no matter what (Dep: SD). Many claim that this personal contact is facilitated if the size of the workshop is small, why MC has a great disadvantage (GS). Questioned service managers at MC workshops claim however to be investing greatly in customer relationships. They

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assert that relationships are built over time why the service provider must think long-term when investing in customer relationships instead of expecting instant revenue generation. (MC Retailer) MC has despite their generally large size, have proved to be prominent at maintaining personal relationships to their customers according to market research (MCCD).

MC workshops are however not actively trying to maintain relationships with older machine customers, which are proved by the declining customer loyalty (Dep: UM). Another example of this passivity is the business of used machines. MC's used machine organization put little effort in trying to promote service and parts upon the selling of the used machine. Therefore, crucial and potentially profitable relationships are not being established. (CS)

5.1.9.3 Conclusion

Maintaining a good relationship to the customer is the key success factor for a workshop. Most questioned workshops and customers confirm this, why the value driver solidarity is considered static in importance. MC has succeeded at keeping good relationships with existing customers but they fail at establishing relationships with the older machine segment. Satisfaction is therefore defined as dynamic and solidarity is thus underserved.

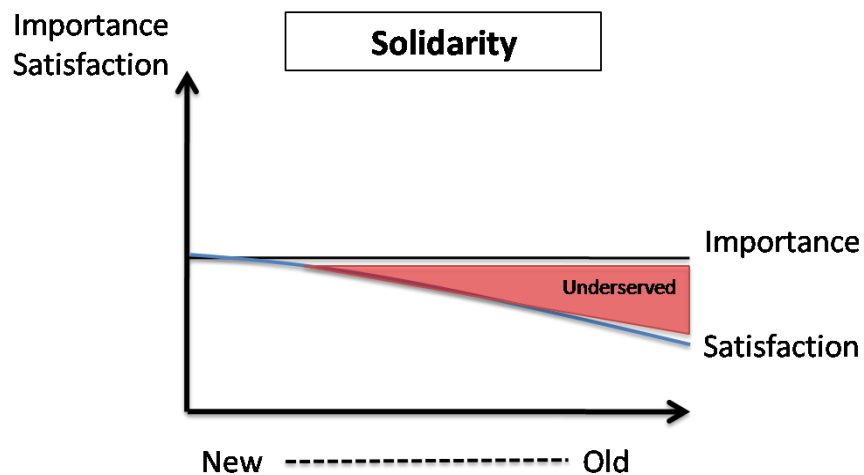


Figure 18: Solidarity is underserved due to MC's current inability to establish relationships with older machine customers despite its significance.

5.1.10 Price

Price is a product and service related value driver defined as a sacrifice. It concerns most prices the customer pays for the product and services offered, if they are justified and fair and how they stand in comparison to competitors.

5.1.10.1 Importance

Due to the devaluation of the machine along the lifecycle, the older the machine, the more price sensitive the customer becomes (GS). The industry that the older machine customer are operates in is subject to great competition where margins are pushed from both customers and suppliers. Marginal is pushed from all angles, why price is crucial, especially for contractors with older machines. (WF) As mentioned, many older machine customers have therefore built up their own workshop to be less dependent on other entities in the industry and to keep profitability stable (CS, HB).

5.1.10.2 Satisfaction

MC admits they have higher prices than most competitors (Dep: UM, Dep: SD). However, calculating the total cost the difference is small as MC performs the service quicker than competitors (WF). Questioned customers with older machines have a common opinion that MC's workshops are more expensive. They claim to be administrative and bureaucratic why small service jobs end up being expensive. As mentioned, one customer claimed MC's workshops are "part changers". (SA) Another interviewed agree by saying that MC are so time controlled, which is why they quickly choose to change parts instead of trying to repair it in a cheaper way. It is therefore not adapted to customers with older machines. (D)

5.1.10.3 Conclusion

Price is undoubtedly a very dynamic value driver in importance. The older the machine is, the lower residual value it has and the more price-sensitive the customer is. Price greatly affects and correlates with the other value drivers as the machine is aging. Customers owning older machines are willing to trade other value drivers such as time, effort and energy to receive a low price. Trust, solidarity and reliability increases in importance with regards to keeping the price promised. Whether or not the image of the workshop is perceived as expensive also have great influence on these customers purchase decision. MC does neither promote themselves to the targeted segment, nor offer competitive prices. Competitors, the customers' own workshop as well as other third party workshops, therefore gains market shares relatively to MC.

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Price is therefore considered dynamic and greatly underserved and is a prerequisite to address to create value in the older machine segment.



Figure 19: Price is increasing in importance the older the machine, while MC has a homogenous price-setting. It is therefore considered underserved.

5.1.11 Time, effort and energy

This bundled value driver concerns the relationship between the company and the customer. It refers to the sacrifices of time and effort spent in developing the relationship with the supplier, the energy invested by the customer, the number of meetings required with the supplier etc.

5.1.11.1 Importance

A new machine is a great investment, which requires a high utilization rate in order for it to be profitable. Customers thereby expect a more rapid service on new machines. (GS) The customer of a new machine expects the machine to function close to flawlessly. They expect high-class service, availability of parts etc. In other words, they want much the service provider to put great time, effort and energy into satisfying them. They are therefore sensitive to unexpected effort and energy spent due to inadequate service. (MC Retailer) Thus, if an older machine endures long standstills this has less impact on losses than new machines why the urgency of service in case the machine breaks down is comparatively lower as the machine ages (Dep: UM). Expectations of the service provider are argued to decreasing the older the machine. (CS)

5.1.11.2 Satisfaction

MC states they wish the customers to focus on their core business (Int. doc, MC). This is exemplified by thorough service planning in corporation with the customer, by offering service contracts and by providing service reminders to the customers. MC is furthermore good at completing the service when promised. Customers are

much satisfied with MC's proactive planning and ability to not waste time according to surveys. (MCCD)

MC's aim is to offer a service, which gives maximum machine usage and minimum time and revenue losses. For instance, MC has developed an "availability insurance" which includes economic compensation upon standstills and when the repair time exceeds a certain limit. (Int. doc, MC) Speed is thus prioritized in the workshops (MC Retailer). This is confirmed by customer questionnaires, which show a high satisfactory level regarding the waiting time from the booking to the completion of the service (S2N 2009). Waiting time is greatly dependent on the overall economic situation. During industrial downturns MC workshops has lower utilization rate, why they can assist incoming customers faster. (MC Retailer)

Many of the questioned customers with older machines claim however that MC's workshops are rather slow in helping the customer out. They are hard to do business with and administrative. (GS) MC can furthermore improve their readiness for emergency repairs (Int. doc, MC). An interviewed competitor to MC, on the other hand claims their key success factor is to assist customers with their problems directly without needing to plan the service in advance. Their planning horizon is three times shorter than a MC workshop. (Comp)

5.1.11.3 Conclusion

Again, time, effort and energy is a declining value driver as it is closely correlated to the devaluation of the machine. Customers with new machines value quick and easy service and expect the machine to function flawlessly, whereas customers owning old machines are willing to trade such benefits with a lower price to a certain extent. The value driver is therefore considered dynamic in importance. MC on the other hand mostly prioritizes time to price as they for instance focus on solving the problem quickly (such as exchanging parts) rather than diagnosing the problem, as this may take too long. The workshops thereby work according to the preferred trade off of the customer with new machines. MC is therefore perceived as overserving the older machine segment when it comes to time, effort and energy.

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Time, effort and energy is a dynamic value driver and thereby overserved as customers owning old machines rather see a focus on appropriately serving the value driver of price.

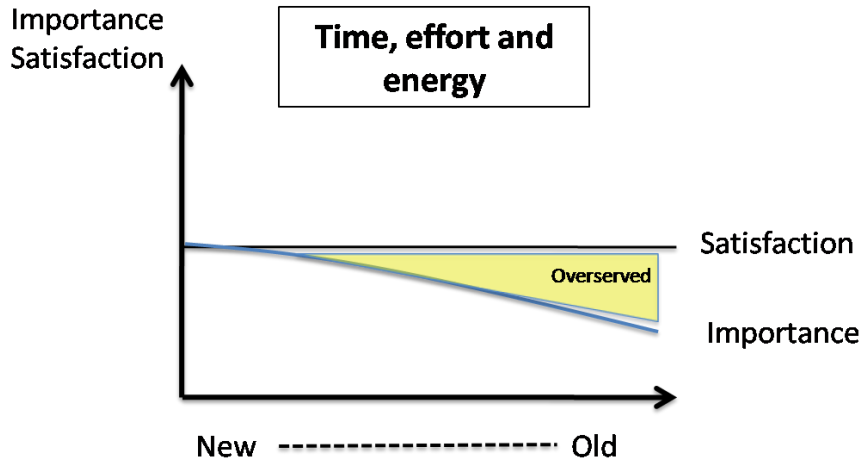


Figure 20: Time, effort and energy is overserved since MC is delivering above the wished level of the older machine customer.

5.1.12 The MaP of Opportunities

The results, which constitute what we call the MaP of Opportunities, are summarized in Table 5. We can here draw the conclusion that MC creates value to the new machine segment as the value drivers are appropriately served. Regarding the older machine segment, some of the value drivers are being addressed by MC's current offering such as product quality and trust (time). They also have *opportunities* of under- and overserved value drivers, which if handled appropriately, ought to increase the value creation to the older machine segment.

Table 5: The MaP of Opportunities: The serving level of the different value drivers in the new and old machine segment. (Derived from the MaP-model)

		Value Drivers	New	Old
Benefits	Product	Product quality	■	■
		Product flexibility	■	■
	Service	Responsiveness	■	■
		Flexibility	■	■
		Reliability	■	■
		Technical competence	■	■
	Relations	Image	■	■
		Trust	■	■ ■
		Solidarity	■	■
		Sacrifices	Price	■
Time, effort and energy	■		■	

Hereby the MaP-model is completed and the research questions have been answered. We have characterized the older machine customer and identified what drives value and how well MC's offering addresses what is considered as value driving. Despite not being a part of the initial purpose of this thesis, we find it greatly contributive and interesting to conduct a discussion of the results. Initially we will formulate short recommendations on how MC ought to act to appropriately serve the under- and overserved value drivers. In other words, how they ought to use the MaP of Opportunities to enable an increase value creation.

6 How to use the MaP of Opportunities

The implication of the results of this thesis will be discussed in this chapter where we conclude the strategic choice we believe MC must make if targeting the older machine segment. The discussion intends to be dynamic, where we mix the results of the thesis, empirics, our own thoughts and additional theories.

We will now present the actions we recommend MC to take to use the MaP of Opportunities and thereby increase the value creation to the older machine segment.

6.1 MaP-results and opportunities

Product quality (overserved)

The older machine customer has a tolerance with lower quality as long as it motivates the price. To make the value driver appropriately served, MC can decrease the quality of the parts and thereby enable a cheaper price. Using used parts for instance could do this.

Product flexibility (appropriately served)

The broad parts range is vital for the older machine segment as the parts demanded are rare, where MC's established and large parts organization come to great use. As appropriately served indicates, the product flexibility ought to create value in the older machine segment.

Responsiveness (underserved)

In order to appropriately serve the value driver responsiveness, we believe that MC must increase their understanding of the older machine segment and business.

Flexibility (underserved)

As proved by the declining penetration rate, the older machine customer does not perceive their current offering as valuable. We therefore believe, as mentioned, that MC must differentiate their offering to older machine customer to create value in this segment.

Reliability (overserved)

Despite reliability being overserved, we naturally do not recommend MC to decrease their service quality. However they could for instance, as mentioned in technical competence, use less advanced or newly employed mechanics to enable a decrease in price.

Technical competence (overserved)

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As the complexity of older machines is less, MC mechanics and tools could be considered overqualified. However, MC could allocate less advanced resources on the older machine segment to enable a cheaper price of the service.

Image (underserved)

MC must build an image that is perceived as value creating for the older machine customer. The appropriate marketing tactics and a change of the “expensive” MC brand are therefore crucial to attract the older machine customer.

Trust (price) (underserved)

MC must improve their ability to keep promises when it comes to prices. For instance, the invoice must correspond to the forecasted price. Building trust is crucial to enable value creation to the older machine customer.

Trust (time)(appropriately served)

MC should naturally strive for keeping the delivery times promised, as breaking promises is always destructive in a customer relationship. Thus, they should maintain their current ability to serve on time.

Solidarity (underserved)

A prerequisite for succeeding in the older machine segment is to establish relationships with these customers. Service managers ought to find the potential customers within their geographical area of responsibility and keep frequent contact with these.

Price (underserved)

The older machine customer is foremost concerned with costs as they are not that financially strong. To create value to the older machine segment, MC must therefore contribute to keeping their costs low. One evident way to achieve this is to decrease the prices for the service and parts offered.

Time, effort and energy (underserved)

Again older machine customers are more concerned with costs than with sacrifices time, effort and energy. They are therefore willing to a certain extent to trade these value drivers such as waiting time to obtain a lower price. MC could therefore for instance prolong the waiting hours for the older machine customers and perform the service upon resource availability in the workshop. They could also accept these customers at more low cost labor hours.

6.2 The process of creating customer value in industrial services

As theory states, when knowing what drives value for the customer the next step is to construct a set of scenarios attached to the results (Borch & Rasmussen, 2002). Strategic planners can then develop future plans and development projects (Wilson,

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2000) e.g. define a new value proposition. A great challenge is to shape the future by imagination. (Ratcliff, 2006) Thus, a new value proposition can create growth. (Manufacturing Today, www)

On the basis of above recommendations on how to address the identified opportunities we have developed a sequential process on how to act on these for reaching an appropriate serving level (see Figure 21). Firstly, MC must find and establish relationships with the older machine customers. Secondly, they must understand the customers' business and based on the findings, adapt the offering in a value proposition. "A value proposition is an analysis of the benefits, costs and value that an organization can deliver to customers..." It is also explained as a positioning of value, where value is benefits subtracted by costs. (Barnes et al., 2009) Naturally, theory on value proposition is thus very much related to the concept of customer value previously presented.

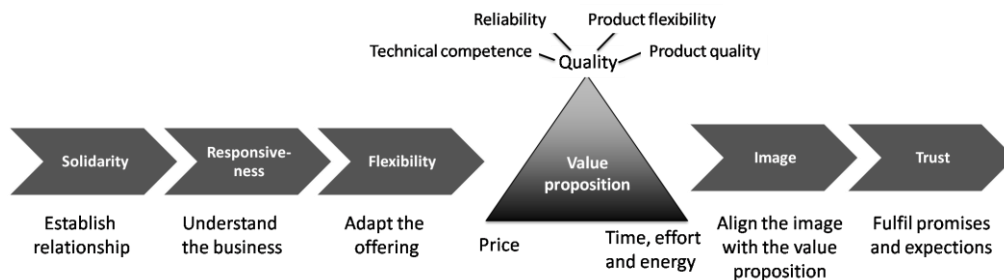


Figure 21: The process of appropriately serving value drivers.

Our developed value proposition comprises the beneficial value drivers of technical competence, reliability, product quality and product flexibility which is bundled into *quality*. It furthermore contains the sacrifice of *price* and *time, effort and energy*. Upon developing a value proposition to the older machine segment, MC must align the *image* with the proposition to attract the customers. Lastly, MC must constantly strive to build *trust*. What they promise in their value proposition with regards to price, time and quality must be fulfilled.

As mentioned in Delimitations, we do not intend to compare the value drivers with each as we only investigate whether or not they change as the machine ages. Based on our process of creating value we draw the conclusion nevertheless that the value drives in arrows are considered crucial no matter which segment a company aim to target. They could thus be regarded as prerequisites to create value in a market segment. With regards to the value proposition, the triangle of quality, price and time, effort and energy is commonly discussed where trade- offs between the three often must be made. Thus, if a company intends to target a new market segment, developing a value proposition is naturally also a prerequisite. However, the company must contemplate the composition of the proposition. If MC intends to

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target the older machine segment, they must consider what the MC old machine customer value proposition ought to comprise.

We have now presented the recommendations on how MC should act on the different value drivers to enable an increase in the value creation in the older segment. We will hereafter revise the implications these recommendations may have on the company's current strategy and illustrate the strategic choice we find MC must make.

7 The strategic choice

The triangular relationship between the value drivers is shown in Figure 22. Again the concept of customer value is brought into the discussion where we have adopted the definition of the term as the difference between benefits and sacrifices. Quality is here regarded as a beneficial value while price and time, effort and energy are sacrificial.

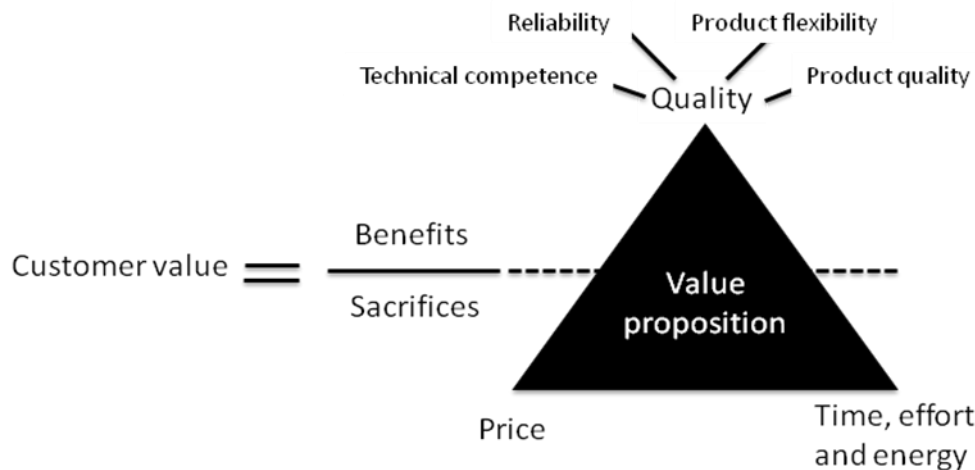


Figure 22: The value proposition based on the triangle perspective on value drivers.

As shown by the comparative Figure 23 (next page), the new customer demand a value proposition of high quality and little time, effort and energy spent. MC strives to address these value drivers by aspiring to become a first class service provider, which in turn has reflected the high prices of service and parts. Thus, we believe this current value proposition of MC to enable value creation in the new machine segment. Based on what we have identified as value driving, the older machine segment on the other hand demands a different value proposition from the service provider. A proposition comprised by lower prices while time, effort and energy as well as qualitative service is not as important. Thus, how MC ought to address the older machine segment, i.e. the appropriate value proposition, is somewhat contradictory to the company's current customer proposition.

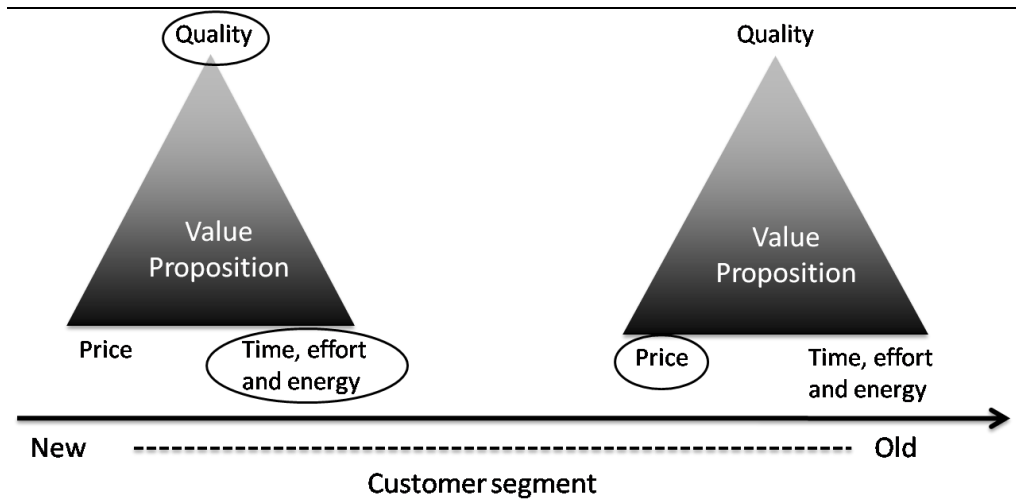


Figure 23: The differing value propositions to the new and old machine segment.

We believe MC find themselves in this ambivalent position due to the characteristic of the product at hand, services. As service-related products such as machines are lifecycle related and therefore require a dynamic perspective, several stakeholders along this timeline may impact the strategic direction of such companies. Consequently, this requires a dynamic view on the company strategy. It is thus not surprising that companies like MC with service-related products have strategic dilemmas to resolve on whom to target and how to do so.

Beauvillard et al. (2009) within Boston Consulting Group has modeled a Service Pyramid with all key element of how to achieve service excellence. Business logic and strategy formulation is forming the top of the pyramid. The three components; business model, strategy formulation and customer segmentation shows that MC must make a strategic choice if targeting the older machine segment before breaking the strategy down further.

The implication of the results of this thesis will be discussed in this chapter where we conclude the strategic choice we believe MC must make if targeting the older machine segment. The discussion intends to be dynamic, where we mix the results of the thesis, empirics, our own thoughts and additional theories.

7.1 Defining the strategy

This above argumentation greatly refers to theories on competitive advantage. Firms compete for customers, and must therefore meet the needs of the customers more effectively than your competitors are able to meet them. This is what competitive strategy is essentially about. (Faulkner & Bowman, 1995) The most traditional theory in this field is Porter's generic strategies and the "caught in the middle" discussion. Differentiation is when "a product is differentiated in such a way that the customer

is willing to pay a price premium that exceeds the additional cost of differentiation". (Grant, 2005) Another description is when the company offers a demanded product or service, which the competitors do not provide (Nilsson et al., 2002). A cost leadership strategy on the other hand is when the company can offer identical products or services but to a lower price than competitors (Grant, 2005). The third potential strategy is focusing on a specific segment. It is not a separate strategy but rather describes the scope of the market the company should compete on. The company can compete with a broad scope in the mass market or with a narrow scope in a defined focused market segment and everything in between (Porter, 1980). However, in either case, the basis of competition will be either cost leadership or differentiation. As we have not defined the scope of the older machine segment, we will hence focus on differentiation and cost leadership as the primary strategies in the following discussion.

7.1.1 Implication

The competitors found in the older segments are either third party workshops or the customers themselves, which both have price competitive offerings. As mentioned MC puts price premiums on their offerings, which is motivated by a higher quality and a lower time, effort and energy spent. We therefore argue somewhat simplified that MC's current strategy is defined as differentiation. However, the price-sensitive older machine customer in fact requires a more cost leadership strategy. The first interesting question is therefore:

Is it possible for MC to implement a cost leadership strategy despite their current differentiation strategy?

Porter claims that a company cannot combine a differentiated and low cost strategy simultaneously. One must instead decide which strategy to pursue as an unclear strategy can result in the company getting "caught in the middle". A firm in this position faces difficulties supplying the low mass-market segments and the high-margin customers. He therefore claims that a firm stuck in the middle must make a fundamental strategic alteration towards any of the three generic strategies. (Porter, 1980) If listening to Porter, MC must choose to maintain their differentiation strategy and thereby focus on the newer machine segment or make a fundamental strategic alteration and employ a cost leadership strategy to succeed in the older machine segment. Thus, Porter would have answered no to the questions above.

To pursue a cost leadership strategy, MC must offer identical products as the competitors' however to lower prices. Such a strategy is unrealistic as MC is neither able to nor are willing to compete with the cheapness of the third party workshops (Dep: SD). The company can however as given not compete with a pure differentiation strategy. Thus, we must look beyond Porter and find additional theories that can facilitate MC's strategic direction in the older machine segment.

7.2 Resolving the strategic dilemma of opposites

We found that several theorists have differing opinions on the stuck in the middle notion. Foremost Miller (1992) has been an active criticizer of Porter's notion of being "caught in the middle". He it is viable to combine the two generic strategies, as been proved by many companies. Baden-Fuller & Stopford (1992) state that the companies succeeding in resolving the "dilemma of opposites" are the most successful. Porter's generic strategies refer to merely manufacturing companies and products. Faulkner & Bowman (1995) adds service products in their theories on strategy, which suits our case. They claim that Porter's two strategies are compatible where companies can either increase or decrease the price and the so-called perceived use value of the offering or *combinations of these*. For instance, a car manufacturer can improve the performance or the styling while decreasing the price of the car. Thus, we believe that MC can find a combination of the two strategies at the extreme ends. This leads us to the interesting question on:

How far into the older machine segment do MC wish to go?

We believe the theories of Porter's and Faulkner & Bowman are greatly corresponding to the dynamic perspective on customer value in services. As concluded, what is considered value driving evidently differs along the machine's lifecycle. This consequently triggers the need for different value propositions to enable value creation as shown by the two triangles in Figure 24 (next page). In turn, we believe that a dynamic perspective on the MC's strategy must be adopted. A combination between the strategic theories and with the MaP-model that incorporates the dynamic value perspective in services could thus be powerful. Figure 24 shows our reasoning where we assume a strategic scale with the two extremities of differentiation and cost leadership along the timeline. We there illustrate our belief that the newer the machine the more differentiation strategy required and the older the machine the more successful is the cost leadership strategy. It is thus not a discrete relationship between two major segments of new and old machine customers requiring two distinctively different value propositions. Instead it is a continuous relationship, which somewhat simplified require a trade-off perspective. Thus, the older the machine customer is that MC decides to target, the more they must decrease the price and thereby adopt a cost leadership strategy. In turn, the more cost leadership strategy they incorporate, the more a decrease in the differentiated offering is enabled. How far into the older machine segment they ought to penetrate and thereby where they wish to compete are not questions for us to answer. We can only illustrate the strategic choice at hand and urge MC to take a stand.

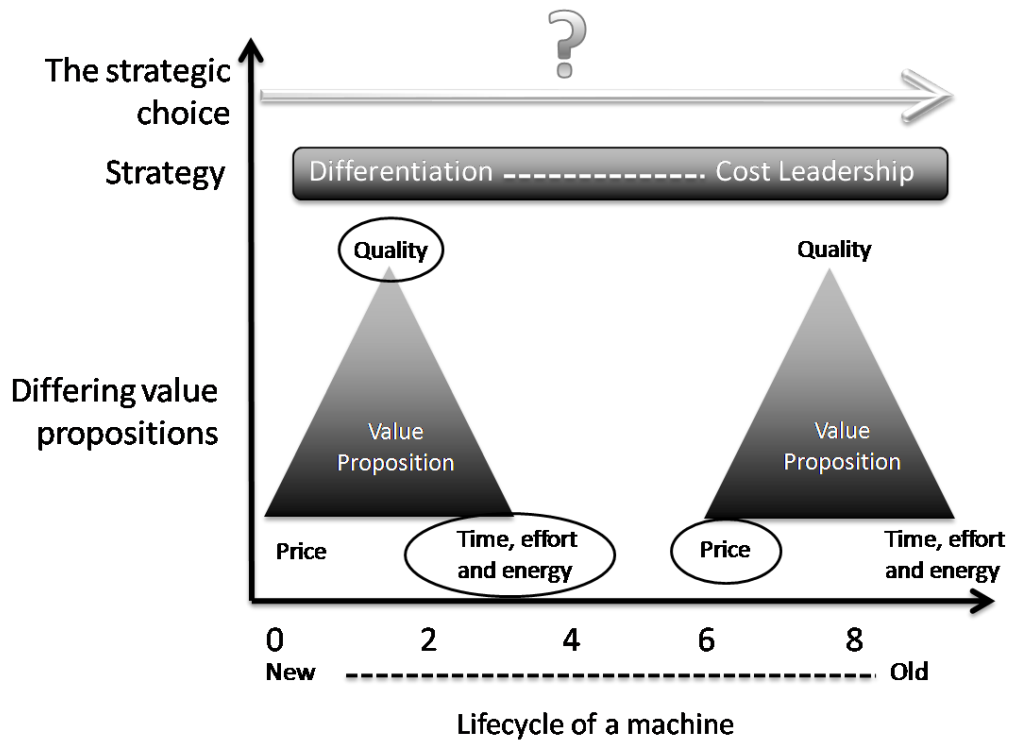


Figure 24: MC's strategic choice - where to compete?

8 Concluding words

We do not intend to answer the question on how far into the older machine segment MC should aim. We can only alarm that the company acts in a mature market, again shown in Figure 25, where a change is necessary.

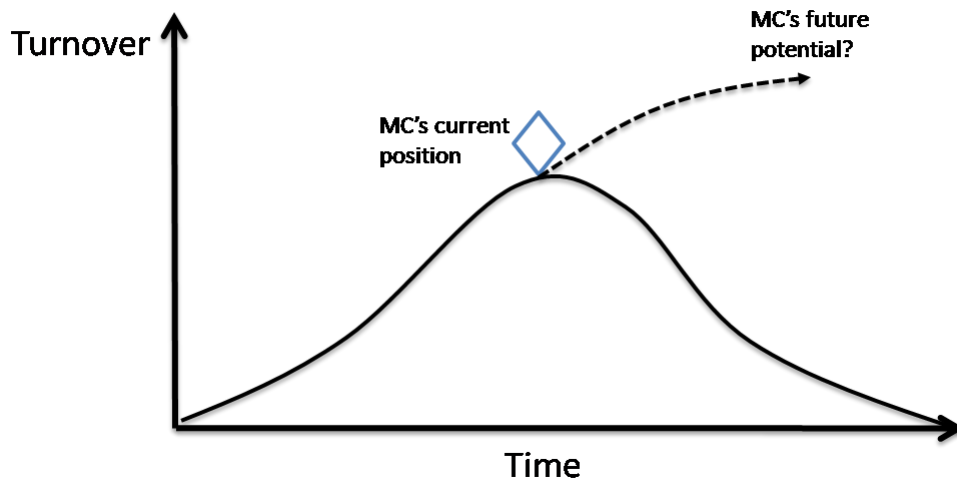


Figure 25: The essential need for change.

We believe the service and parts business in the Danish market has a turnover potential, which is not fully utilized today as the market penetration is decreasing. We base our beliefs on the fact that the service and parts demand of older machine segment peaks around five years of age. The older machine segment may therefore be the answer to the change needed. We have furthermore highlighted the importance of understanding what drives value to the customer when developing value propositions. Due to the character of the product concerned in this thesis, service, we have added the dynamic perspective on value creation.

Based on the belief that the older machine segment is a potential solution to improve MC's future turnover potential, we have painted the previously white wall of whom the older machine customer is and which opportunities MC can find in this segment. The findings are however somewhat contradictory to MC current market strategy and position which complicates the choice of penetrating this segment. We therefore conclude that MC faces a strategic choice of how far into the segment they wish to go and which strategy they consequently ought to employ to target the chosen segment. As Baden-Fuller & Stopford (1992) claim that the most successful companies are the ones that manage to resolve the "dilemma of opposites". However, we cannot make the decision. We can thus only urge MC to take a stand whether or not to initiate a strategic objective to increase the market penetration. As Verloop (2004) state, innovation becomes increasingly crucial in maturing

companies or industries. Thus, regardless of their strategic decision, the company must find a solution to address the maturing machine market. We thereby sum with the following citation:

“Quality is nowadays more or less taken for granted. On top of this you have to innovate in order to differentiate your company. Innovation has to be what quality was in the mid 90’s.”

Speaker from MC, Seminar in Copenhagen April 2005 (Järrehult, 2009)

8.1 Theoretical contribution

We have foremost in this thesis tried to help MC in their strive to reach future potential. However, we believe that the output of the theoretical development, the MaP-model, is applicable on other situations as well. We believe that this situation ought to be characterized by service related products such as machines. As mentioned theorists state, service products involve long-term relationships why one must incorporate a dynamic perspective on customer value and value creation. We have therefore added the dynamic and static terms on how to identify what drives value and if this changes along this relationship. The model is furthermore based on Lapierre’s value drivers, which does not only refer to service related products but also to business-to-business contexts. Thus another criterion when applying the model is that the company ought to have business-to-business customer relationships.

Concluding, the MaP-model is a way for industrial companies with service related products to identify opportunities for value creation. It highlights the importance of obtaining a dynamic perspective on what drives customer value and on the strategy to address the potentially differing value drivers.

9 Reference list

9.1 Written sources

- Anderson, J.C, Narus, J.A (1999) *Business Market Management*, Prentice-Hall, NJ
- Anderson, J.C, Jain, D.C, Chintagunta, P.K (1993) *Customer value assessments in business markets: a state-of-practice study*, Journal of Business-to-Business Marketing, Vol. 1No.1, pp. 3-29
- Arbnor, I., Bjerke, B. (2009) *Methodology for creating business knowledge*, 3rd edition, Sage Publications, Trowbrige Great Britain, The Cromwell Press
- Baden-Fuller, C. and Stopford, J. (1992), *The firm matters, not the industry*, in de Wit, B. and Meyer, R. (1998), *Strategy: process, content, context*, 2nd edition, Cengage Learning EMEA, United Kingdom
- Barnes, C., Blake, H., Pinder, D., (2009) *Creating and Delivering Your Value Proposition: Managing Customer Experience for Profit*, Kogan Page, United Kingdom
- Bettencourt, L.A., Ulwick, A. (2008) *The customer-centered innovation map*, Harvard Business Review, May
- Beauvillard, A., Jentsch, A., Kurmann, D., Obring, K., Ulrich, P. (2009) *Achieving excellence in after-sales services*, Boston Consulting Group, September
- Bonoma, T., Shapiro, B. (1984) *How to segment industrial markets*, Industrial Marketing Management, Vol. 13, ss. 257-268
- Borch, K., Rasmussen, B. (2002) *Commercial use of GM crop technology: Identifying the drivers using life cycle methodology in a technology foresight framework*, Technological Forecasting & Social Change 69 765–780
- Chen, GG., Forsythe, DW., Weikart, LA. and Williams, DW. (2009) *Budget tools: Financial methods in the public sector*, CQ Press
- Cooper, RG. (1993) *Winning at New Products: Accelerating the process from Idea to Launch*, Reading, MA: Perseus Books
- Curran, J. G. M. and Goodfellow, J. H (1990) *Theoretical and Practical Issues in the Determination of Market Boundaries*, European Journal of Marketing, 24, 16–28
- Denscombe, M. (2002) *Ground Rules for Good Research*, Open University Press, United States of America

The MaP of Opportunities- How to Create Value in the Older Machine Segment

Edvardsson, B., Gustafsson, A., Witell, L. (2010), *Customer integration in new service development: experiences from Denmark* CTF-Service Research Center, Karlstad University Denmark

Elliot, G., Ang, L. (2000) *Segmenting Industrial Buyers by Loyalty and Value*, The report was published at the 16th IMP conference in Bath, Great Britain

Faulkner, D., Bowman, C. (1995) *The essence of competitive strategy*, Prentice Hall, Great Britain

Griffith, R. L. and Pol, L. G.(1994) *Segmenting Industrial Markets*, Industrial Marketing Management, **23**, 39–46

Grönroos, C. (2008) *Service Logic revisited: Who creates value? And who co-creates?*, European Business Review, Vol. 20, No4, pp. 298-314

Gummesson, E. (1995) *Relationship marketing: its role in the service economy*, in Glynn, W.J., Barns, J.G. (Eds), *Understanding Services Management*, Wiley, New York, NY, pp.224-68

Grant, R. M. (2005) *Contemporary Strategy Analysis*. 5th ed. Blackwell Publishing Ltd, Oxford

Jacobson, R. (1992) *The Austrian school of strategy*, Academy of management review, Lexington, MA, Vol. 17 No.4, pp 782-807

Järrehult, B. (2009) *The innovator's solution*, Presentation ppt, SDeaker from MC Seminary, April 2005

Kano, N., Seraku, N., Takahashi, F., Tsuji, S. (1984) *Attractive Quality and Must-be Quality*, The Journal of the Japanese Society for Quality Control, April, pp. 39 -48.

Lapierre, J. (2000) *Customer-perceived Value in Industrial Contexts*, Journal of Business & Industrial Marketing 15(2/3), 122-140.

Lehmann, D., Winer, R. (2005) *Product Management*. 4th Edition New York

Levitt, T. (1965) *Exploit the Product Life Cycle*, Harvard Business Review, Vol. 42, No. 6, pp. 81-95

Lichtenhal, J.D, Wilson, D.T, Long, M.M (1997) *Scientific contributions to the field from the Journal of Business-to-Business Marketing*, Journal of Business Research, Vol. 38, pp. 211-233

Lindstedt, P., Burenius, J. (2003), *Skapa ööverträffat kundvärde*, Nimba, Värmdö
Mason, J. (2002) *Qualitative research*, SAGE publications, Great Britain, Cromwell Press

Mattsson, B., (2006) *Kostnadnyttanalyt för nybörjare*, Räddningsverket

Mazumdar, T. (1993) *A value-based orientation to new product planning*, Journal of Consumer Marketing, Vol. 10 No.1, pp.28-41

The MaP of Opportunities- How to Create Value in the Older Machine Segment

- Miller, D. (1992), *The Generic Strategy Trap*, Journal of Business Strategy, No. 13, pp. 37-41
- Mitchell, V., Wilson, D. (1998) *Balancing Theory and Practice: A Reappraisal of Business-to-Business Segmentation*, Industrial Marketing Management, Vol. 27, ss 429-445
- Nilsson, H. Isaksson, A. Martikainen, T. (2002): *Företagsvärdering: Med fundamental analys*, Studentlitteratur, Lund
- Normann, R. (2001), *Reforming business: When the Map changes the Landscape*, Wiley, Chichester
- Oliva, R., Kallenberg, R. (2003) *Managing the transition from Products to Services*, International Journal of Service Industry Management, Vol. 14, No. 2, pp. 160-172
- Palmer, R. A. & P. Miller (2003) *Segmentation: Identification, intuition, and implementation*, Industrial Marketing Management, Vol. 33, pp. 779-785.
- Porter, M. E. (1980) *Konkurrensstrategier*. ISL Förlag, Göteborg
- Ratcliff (2006) *Challenges for corporate foresight: towards strategic proSDeptive through scenario thinking*, Foresight Vol. 8 No.1, pp. 39-54
- Ravald, A., Grönroos, C (1996) *The value concept and Relationship Marketing*, European Journal of Marketing, 30(2), 19-30
- Sauerwein, E., Bailom, F., Matzler, K., Hinterhuber, H.H (1996) *The Kano model: how to delight your customers*, in Preprints Volume I of the IX. International Working Seminar on Production Economics, Austria 19-23 February, pp.313-327
- Sharma, M.J., Yu, S.J. (2010) *Benchmark optimization and attribute identification for improvement of container terminals*, European Journal of Operational Research Vol. 201, No. 2, pp. 568-580
- Shen, X, Tan, K Xie, M (2000) *An integrated approach to innovative product development using Kano's model and QFD*, European Journal of Innovation Management, Vol. 3, No. 2, pp. 91-99
- Selden, L., MacMillan, I. (2006) *Manage customer centric innovation-systematically*, Harvard Business Review, April
- Slater, S.F., Narver, J.C. (1995), *Market orientation and the learning organization*", Journal of Marketing, Vol. 59 No. 3, pp. 63-74
- Strandvik, T., Holmlund, H., Edvardsson, B. (2008), *"Customer needing – conceptualizing industrial service from a customer perspective"* IB Bokhandel, Helsinki

The MaP of Opportunities- How to Create Value in the Older Machine Segment

Tashakkori, A., Teddlie C., Cotten, S.R. (1999) *Mixed Methodology: Combining Qualitative and Quantitative Approaches*, Contemporary Sociology, Vol. 28, No. 6, pp. 742-775

Ulaga, W., Eggert, A. (2006) *Relationship value and relationship quality: Broadening the nomological network of business-to-business relationships*, European Journal of marketing, Vol. 40, No 3, pp. 311-327

Ulwick, A. (2005) *What customers want – using outcome driven innovation to create breakthrough products and services*, McGraw-Hill Companies, United States of America

Ulwick, A., Bettencourt, L.A (2008) *Giving customers a fair hearing*, MIT Sloan Management Review, Spring

Vargo, S. L., Lusch, R. F. (2004) *Evolving to a New Dominant Logic for Marketing*, Journal of Marketing, Vol. 68, 1-17

Verloop, J. (2004) *Insight in innovation*, 1st edition, Elsevier, Netherlands

Wilson (2000) *From scenario thinking to strategic action*, in Mayle. D. (2006) *Managing Innovation and change* (eds) Sage Publications, Great Britain, pp 44-51

Witell, L., Edvardsson, B., Magnusson, P., Beckman, H. (2009) *Value creation in service-based states of business relationship*, Third Review of Industrial Marketing Management

Wong, J., Thomas, N.S., Chan, A. (2010) *Strategic planning for the sustainable development of the construction industry in Hong Kong*, Habitat International, Vol. 34, No. 2, pp. 256-264

Woodruff, R. B. (1997) *Customer Value: The next source for Competitive Advantage*, Journal of the Academy of Marketing Science, 26(2), 139-153

9.2 Internet Sources

McGraw-Hill Online:

http://www.mcgrawhill.co.uk/he/web_sites/business/marketing/jobber/files/glossary/m.html (2010-03-27)

Manufacturing Today: Davidson, L. (2010) Shift to growth:

http://www.manufacturintoday.com/cms2/index.php?option=com_content&view=article&id=1023:shift-to-growth&catid=121&Itemid=80 (2010-04-25)

Strategyn: Ulwick, A. (2009) What is outcome driven innovation:

<http://www.strategyn.com/resources/white-papers/> (2010-01-25)

Bnet

<http://dictionary.bnet.com/definition/value+driver.html> (2010-02-01)

Business Dictionary

<http://www.businessdictionary.com/definition/customer-value.html> (2010-03-11)

The MaP of Opportunities- How to Create Value in the Older Machine Segment

Consultancy Report

www.ibm.com (2010-01-25)

MC - Machine Corporation internal documentation (2010-01-12 until 2010-05-05)

Internal network

MC Customer Development – Customer survey

10 Appendix

10.1 Abbreviations of references

The following table describes how the references are used in the text:

Reference	Abbreviation
Customers	Initials as described below in Table 6.
Competitors	Comp
Department of Strategic Planning	Dep: SD
Department of Commercial Aftermarket and Retail	Dep: AR
Commercial Department	Dep: CD
Department of Used Machines	Dep: UM
Danish Market- Retail Network	MC Retailer
Internal Documentation, MC	Int. doc, MC

10.2 Lapierre's 13 value drivers in industrial services (2000)

The value drivers are divided into benefits and sacrifices on one dimension and product, service and relationship on the other, as shown in the following table. Examples of characteristics of each value driver are presented below.

	Product	Service	Relationship
Benefits	-Alternative solutions -Product quality -Product flexibility	-Responsiveness -Flexibility -Reliability -Technical competence	-Image -Trust -Solidarity
Sacrifices		Price	Time/effort/energy Conflict

Alternative solutions

The range of alternatives offered by the supplier

The supplier's capability to tailor their offerings to match your needs

The supplier's helpfulness in terms of assisting you in solving your problems

Product quality

The durability of products you buy

The reliability of the products you buy over the years

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The performance of the products you buy
The consistent improvement in product quality over the years

Product customization

The customization of products for your firm
The ability to meet unique specifications for products not offered by your IT supplier's competitors
The supplier's ability to offer different products from (not similar to) many of their customers
The ability to provide custom-built products for your firm

Responsiveness

Provide quick answers and solutions to your problems
Listen to your problems
Visit your locations to better understand your business

Flexibility

Their flexibility in responding to your requests
Their ability to adjust their products and services to meet unforeseen needs
The way they handle change
Their ability to provide emergency product and service deliveries

Reliability

The accuracy and clarity of the billing
Their ability to do things right the first time
The overall competence of employees with whom you do not have face-to-face contact
Their ability to keep promises
The accuracy of transactions

Technical competence

Their creativity
Their specialized expertise in your activity sector
Their ability to demonstrate comprehensive process knowledge of your business
The way they use new technology to generate solutions
Their ability to provide system solutions in response to your problems

Image

Its reputation
Its credibility

Trust

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Your confidence that the supplier is telling the truth, even when your supplier gives you a rather unlikely explanation

The accuracy of the information provided by your major supplier

The supplier's fulfilment of promises made to your organization

The judgment or advice on your business operations that your supplier is sharing with you

The sincerity of your supplier

Solidarity

The help provided by your major supplier when you run into problems

The supplier's problems sharing that arise in the course of your relationship with them

The supplier's commitment to improvements that may benefit your overall relationship with them (not only of benefit for their own sakes)

The supplier's willingness to meet your needs beyond the contract terms

Price

Most prices of the products and services you buy

Most prices you pay in relation to your major IT supplier's profitability

The impact of competition on the prices you pay

The justification of your major IT supplier in the prices they charge

The fairness of most prices you pay

Time, effort and energy

The number of meetings with the supplier's staff

The bargaining effort with the supplier's staff in reaching an agreement

Your time and effort spent for training a number of your employees

Your time and effort spent in developing a working business relationship with your major IT supplier

Your energy invested with your major IT supplier

Conflict

The frequent arguments you have with your supplier about business issues

The controversial arguments you have with your supplier

The disagreements you have with your supplier about how you can best achieve your respective goals

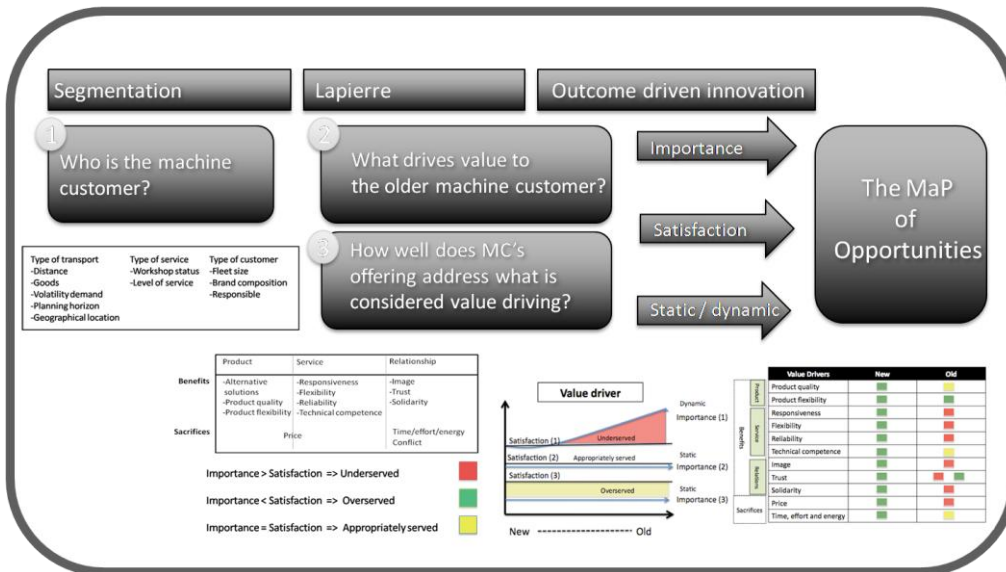
10.3 The customer segmentation model

The chosen variables categorized into: type of machinery, service and customer, and their different attributes.

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Type of usage		Type of service		Type of customer	
Type of goods	Agricultural Building & Construction Forestry paper Ore & Coal Chemical & petroleum ...	Workshop status	No own workshop Maintenance workshop Repair workshop	Fleet average age	0-3 3-5 5-8
Demand Volatility	Low Medium High	Level of service	No contract Contract	Fleet size	Small Medium Large
Planning horizon	Short Medium Long			Brand composition	Single brand Mix
				Customer type	Procurement responsible Fleet manager Managing director User Order manager Finance director

10.4 The MaP- model and its different tools



10.5 Interviewees

We hereby present the internal interviews, those conducted within the MC organization and the external interviews with competitors and customers. Internally, we have had several interviews with some as well as telephone calls sporadically. The interviews have progressed during the whole semester why these are the dates noted.

10.5.1 Internal interviews

We have been in contact with the following departments and interviewed the individuals noted both face-to-face and by telephone.

The departments (2010-01-12 – 2010-05-05)

Strategic Department (SD)
Commercial Department (CD)
Aftermarket and Retail Department (AR)
Used Machine Department (UM)

MC Machines Headquarters (2010-01-12 – 2010-05-05)

PA, *Former Manager of aftermarket*, SD, personal interview
LA, *Manager network development*, AR, personal interview
LB, *Manager aftermarket products*, SD, personal interview
AE, *Manager used machine*, UM, personal interview
AE2, *Product manager*, SD, personal interview
GE, *Manager operational development*, AR, personal interview
RF, *Senior Vice President*, SD, personal interview
HH, *Competitor analyst*, SD, personal interview
SJ, *CEO Machine Corporation*, personal interview
YP, *Project manager*, AR, personal interview
CS, *Competence development & marketing & regional support manager*, UM, personal interview
KT, *Business intelligence developer*, SD, personal interview
JK, *Director commercial aftermarket*, AR, personal interview
PB, *Parts manager, Danish market*, AR, personal interview

The Retail Network (2010-01-12 – 2010-05-05)

JF, *Director Service, MC Machine Retailer*, Presentation and workshop
PJ, (2010-03-16) *Sales manager used machine, MC Retailer*, Personal interview
DR, (2010-03-12) *Service center manager, MC Retailer*, Personal interview
DT, (2010-03-18) *Sales manager New/Used Machines*, Personal interview
Region East (2010-03-27) *Service managers, Part manager, Used Part manager*, Workshop

10.5.2 External interviews

We have conducted face-to-face and telephone interviews with the following companies, both competitors and customers (as shown in the table).

Competitors

NJ, (2010-04-06), *Sales manager, Cat Inc*, Telephone interview
ML, (2010-03-15), *CEO, JD Ltd*, Personal interview

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Customers

All customers interviewed had a spread among the segmentation categories. To keep the customer anonymous, we have named them with a letter. To categorize them generally we highlight some of the segmentation variables in the table below.

Table 6: Customers interviewed (OR= Order responsible, MR = Machine Responsible, CEO= Chief Executive Officer, Mix = OR, MR, Users, CEO etc.)

Segmentation variable	CS	HB	WF	GS	VV	D	SA
Workshop status	Yes	Yes	Yes	Yes	Yes	No	Yes
Fleet size	14	7	20	35	10	100	7
Brand composition	Mix	MC	Mix	Comp	Mix	Mix	Mix
Responsible	Mix	Mix	CEO	OR	Mix	OR/MR	Mix

CS: 2010-03-25, Telephone interview
 HB: 2010-03-25, Telephone interview
 WF: 2010-03-23, Personal interview
 GS: 2010-03-17, Telephone interview
 VV: 2010-03-18, Personal interview
 D: 2010-03-23, Personal interview
 SA: 2010-03-26, Personal interview

10.6 The interview guides

The following material has been used as a foundation when gathering data in interviews. The questions have been somewhat adapted to the individual interviewed.

10.6.1 Internal interviews

10.6.1.1 Questions to the headquarters

Customer value/needs

- Why do you believe customer loyalty has decreased as the machine ages?
- Have you experienced the similar trend?
- Who is the "older" customer? Is it profitable?
- Which offers do you have to the older segment?
- What would you say are the greatest differences in customer needs between "old" and "new" machine customers? (according to Lapierre's value drivers) Which

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- combination has been successful? How have you met the price requirements? How have you prioritized?
- How has the discussion been when developing an offering to older customers?
- Innovation
 - How is customer information gathered? Structured process or ad hoc?
 - Do you consider yourselves entrepreneurial?
 - Do you use the IT-system Customer Management? In what way? (to older machines too?)
 - How is Machine Corporation Customer Development (customer survey) used? How do you use customer complaints? Do you do any additional customer surveys (ex to the older segment)?
- Organization / Capabilities
 - Is or has there been an initiative taken to develop an aftermarket organization to the "older" segment?
 - Is there cooperation between commercial/used machine?
 - Is there cooperation between used machine / aftermarket?
 - Do you actively search for older customers?

10.6.1.2 Questions to the retail network (dealers and workshops)

- Date
- Interview Form
- Name
- Title
- Business
- What kind of services do you offer? (Machine sales, maintenance and repair ...)
- What types of maintenance and repair?
- What proportion of your business are service & parts sales (maintenance and repairs)?
- What is the age distribution on the machines that you serve?
 - How is it?
- Are there any maximum age on the machine you choose to take in?
What types of customers using the "older" / used machines? (Industry, size, SML, etc..)?
- Do you feel that you lose customers in service & parts sales (maintenance and repairs) the older the machine is?
 - Why do you think that is? (Secondary owner? Age = costs too high?)
- Who are the customers that you lose?
- Who remains?
- Who are your most loyal customers?
- What do you think is important when customers select a workshop to service (maintain and repair) for their older machines? (according to Lapierre's value drivers) (How is it from new machines? When is the "age shift" - Specific time or continuous?)
- How do you think the customer offering maintenance and repairs could be improved to customers with "older" fleet?
 - What is important?
- Do you offer services to customers with older machines? (How do these differ from new machines?)
- Why are you targeting old machines? Why not just new machines? (Proceeds of second-hand shop?)
- Are customer requirements different between old and new machine customers?
 - In what way?
 - How is it?
- Is there a "trade-off between customer requirements? (Eg quality to price)
- When is the change in ownership usually?

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- Have you adapted your offer to meet customer requirements of older machines?
 - In what way?
 - How has it paid off?
- The maintenance and repairs for the "older" machines, what do you see as your biggest competitors?
 - What do those who do not you do?
- What can / should you offer those who do not (competitor in the previous question) has to offer?

10.6.2 External interviews

10.6.2.1 Interviews with competitors

We have used the same interview material as when we interviewed the internal retail network.

10.6.2.2 Interviews with customers

- Date
- Interview Form
- Name
- Title
- Company
- Mode of machinery
- Where are you in the industry?
- How has the industry changed?
- How big is your fleet?
- Which brands is it composed by?
- Are your machines covered with service contracts?
- What are the key criteria when buying a machine?
- Age distribution of your fleet?
- What sets the requirements for you as a hauler with a newer/older machine fleet?
- Why do you use older machines?
- Do you buy used?
 - Why?
- How do you use your older machines?
- When and why do you sell your car?
- Own workshop?
 - If yes, why?
 - If yes, what does your workshop perform?
- Have you used external workshops?
 - If yes, why?
 - If yes, how is the shop?
 - How have you been in contact with the workshops?
- What is important to you when choosing service provider? (Presented by Lapierre's value drivers)
- Does MC meet those requirements?
 - Yes, why?
 - No, why?
- Do the requirements differ between older and newer machines in the service and repair?
- Who determines the choice of service provider?
- When you have unsatisfied with service?
- When have you been unsatisfied?
- What have you experienced in marketing?

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- What do you think would have made you use a service provider more often?
- Other great tips and ideas?