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SKF's sustainability services on the Swedish aftermarket

- The customer demand and suggestions on how the services should be packaged, promoted and sold.

Bachelor Thesis in Industrial Economy and Management

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Preface

We would like to thank SKF and all the employees interviewed. Their commitment and knowledge was vital for this study. We want to extend a special thanks to Martin Thorn and Tobias Finndin, who made this study possible by initiating the project and supporting us throughout the whole process.

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Executive Summary

Negative externalities of the industry have been a disregarded issue for a long time but in recent decades demands have been raised, both from governments and from customers, that companies business must be more environmentally friendly and sustainable. As the pressure to become more sustainable increase, new markets open up and new business opportunities arise. For SKF, that for a long time has manufactured products and solutions that reduce energy consumption, there is now an opportunity to also sell services related to sustainability.

The purpose of this study is to analyze the level of demand on SKF's Swedish aftermarket for the services SKF's global Energy and Sustainability Management Team (ESM) has developed. These services are CNA-ES, which is a survey that shows what potential there is for a company to save energy, EMS, which monitors the energy use, and shopfloor awareness cards, which help companies to discuss sustainability issues. The purpose is also to provide suggestions for improvements on how these current sustainability services can be packaged, promoted and sold by SKF's sales unit in Sweden on the Swedish aftermarket.

Internal information and data has been collected through interviews of employees at SKF, both in Sweden and globally. The collection of data about the demand for these services was made through interviews with clients to SKF in the pulp and paper industry and in the metal industry. A market investigation was made to see if other companies offered sustainability services similar to the ones SKF offers. The data collected internally and externally was of both quantitative and qualitative nature and was obtained from both primary and secondary sources.

The study shows that there is a demand on SKF's Swedish aftermarket for the sustainability services that the ESM team has developed. The market investigation shows that other companies are already selling similar services. The market is thus ready and it is therefore important for the sales unit in Sweden to realize this and bring these services to their aftermarket as quickly as possible. If this is not done there is a risk that SKF miss out on possible businesses as customers chooses to purchase similar services elsewhere.

In order to sell these services, SKF need to be identified as a credible supplier of sustainability. This can be done by using the current core values of safety and reliability to connect to the sustainability concept in two ways. Reliability can be tied in to energy efficiency since downtime energy consumption is the largest energy efficiency problem for the industry today. Likewise SKF can use their brand identity as a provider of safety to tie into the social aspect of the sustainability concept.

SKF should focus the promotion of the sustainability services on the maintenance managers, since they are the ones responsible for what services being purchased. SKF should also nominate one dedicated SKF employee to be responsible for bringing these services to the Swedish aftermarket. This person should have a lot of knowledge in sustainability issues to sell these services.

Sammanfattning

(Executive summary in Swedish)

Titel: SKF hållbarhetstjänster på den svenska eftermarknaden - kundefterfrågan och förslag på hur dessa tjänster ska paketeras, marknadsföras och säljas.

Negativa externaliteter från industrin har varit en åsidosatt fråga under en lång tid, men under de senaste decennierna har krav höjts, både från regeringar och från kunder, att företagets verksamhet måste bli mer miljövänlig och hållbar. I takt med att trycket ökat på företagen att bli mer hållbara, öppnar nya marknader upp och nya affärsmöjligheter uppstår. För SKF, som under lång tid har tillverkat produkter och lösningar som minskar energiförbrukningen, finns det nu en möjlighet att även sälja tjänster med anknytning till hållbarhet.

Syftet med denna studie är att analysera efterfrågan på SKF:s svenska eftermarknad för tjänster som SKF:s globala energi- och hållbarhetsgrupp (the ESM team) har utvecklat. Dessa tjänster är CNA-ES, som är en undersökning som visar vilken potential det finns för ett företag att spara energi, EMS, som mäter energianvändningen och shopfloor awareness cards, som hjälper företag att diskutera hållbarhetsfrågor. Syftet är också att ge förslag på förbättringar på hur dessa nuvarande hållbarhetstjänster kan paketeras, marknadsföras och säljas av SKF:s försäljningsenhet i Sverige på den svenska eftermarknaden.

Insamlingen av interndata har gjorts genom intervjuer av anställda på SKF, både i Sverige och på global nivå. Insamlingen av data om vad efterfrågan på dessa tjänster är har gjorts genom intervjuer av kunder till SKF inom massaindustrin och inom metallindustrin. Även en marknadsundersökning har gjorts för att se om andra företag också erbjuder hållbarhetstjänster. Insamlad data har varit av både kvantitativ och kvalitativ karaktär och inhämtats från både primära och sekundära källor.

Studien visar att det finns en efterfrågan på SKF:s svenska eftermarknad på de hållbarhetstjänster som ESM-teamet utvecklat. Marknadsundersökningen visar dessutom att andra företag redan idag säljer liknande tjänster. Marknaden är alltså redo och det är viktigt att säljavdelningen i Sverige inser detta och börjar erbjuda dessa tjänster till sina kunder så snabbt som möjligt. Om detta inte görs finns en risk att SKF missar möjliga affärer då kunderna köper dessa tjänster av andra företag.

För att sälja dessa tjänster måste SKF identifieras som en trovärdig leverantör av hållbarhet. Detta kan göras genom att använda de aktuella kärnvärden, säkerhet och tillförlitlighet, för att ansluta till hållbarhetsbegreppet på två sätt. Tillförlitlighet kan kopplas till energieffektivitet, eftersom energiförbrukningen vid driftstopp är det största energieffektivitetsproblemet för industrin idag. På liknande sätt kan SKF använda deras starka position som en leverantör av säkerhet för att knyta ihop den sociala aspekten av hållbarhetsbegreppet.

SKF ska fokusera marknadsföringen av hållbarhetstjänsterna på underhållscheferna, eftersom det är de som är ansvariga för vilka tjänster som köps. SKF bör också utse en dedikerad SKF anställd som får ansvar för att leverera dessa tjänster till den svenska eftermarknaden. Denna person bör ha mycket kunskap om hållbarhetsfrågor för att sälja dessa tjänster.

Nomenclature

BeyondZero - An initiative from SKF with the purpose to reduce the negative impact on the environment from their own operations and at the same time help customers reduce their negative impact on the environment by offering products and services that are more environmental friendly.

CNA-ES - A survey that shows what potential there is for a company to save energy. A part of the ESM teams portfolio of sustainability services.

EMAS - Stands for Eco Management and Audit Scheme and is an environmental management system for organizations to evaluate, document and improve their environmental performance.

EN 16001 - An European energy management system with a similar structure as the ISO 14001 and is the predecessor of ISO 50001, organizations certified against EN 16001 is required to indent them before 2014-12-31 and all certifications from 2012-04-24 is required to made against ISO 50001.

Energy and Sustainability Management (ESM) team - The team works on a global level and is responsible for SKF's energy and sustainability management portfolio consisting of different products, services and solutions

EMS - A service that measures the energy use within the production. A part of the ESM team's portfolio of sustainability services.

ISO 14001 - A specification created by the International Organization for Standardization for an environmental management system and is a internationally recognized standard that forms the basis for the establishment of environmental management. It can be used in all forms of organizations within all kinds of industries.

ISO 50001 - A specification created by the International Organization for Standardization for an energy management system, which specifies requirements for establishing, implementing, maintaining and improving an energy management system, whose purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy safety, energy use and consumption.

Regional Sales and Service (RSS) - One of SKF's two business areas on the Industrial Market and covers both Original Equipment Manufacturers (OEM) and end users for all other industries that SKF serves and is organized from a geographical perspective.

SA8000 - Stands for Social Accountability and is a certificate standard for social and ethical responsibility for organizations.

Shopfloor awareness cards - Cards that help companies to discuss sustainability issues. A part of the ESM team's portfolio of sustainability services.

SS 627750 - A Swedish energy management system standard that is an alternative to the ISO 50001 standard.

Sustainability - A development that meets the needs of the present without compromising the ability of future generations to meet their needs. Sustainability throughout the report will refer to the aspects energy efficiency, environment and safety.

Sustainability services - Services that contributes to the preservation of the environment by prolonging resource use.

Sustainability services (SKF) - Services that helps the customers' to make their processes better in the three dimensions of sustainability (environmental, economic, social).

Triple Bottom Line - To measure businesses by three criteria; economical, ecological and social.

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1. Introduction

This chapter aims to describe why the chosen subject is interesting from both an academic perspective and the company's perspective. A brief historical background of the subject and SKF will also be given as to introduce the setting for this study.

Ever since the industrial revolution started, the demand for energy has been increasing at a massive rate. This in turn has led to a larger and larger negative impact on the environment. Companies have been pressed by stakeholders to continuous growth, resulting in an increasing environmental footprint on our surroundings. The negative externalities of the industrial sector have been a disregarded issue for a long time and just in recent decades has the problem been brought up for a serious discussion. According to Björn Stigson¹, the primary targets for reaching sustainability, and more specific energy efficiency, are the business sectors because it is at the operational levels the largest resources are being used. It is in the industry, nevertheless, the biggest progress regarding sustainability issues is being made in society today, due to the greater awareness of their operations impact on the environment. Therefore businesses also have a major role to play as a solution provider.

Despite the fact that sustainability issues have been a somewhat “new” area for most companies in recent years, the need for energy efficient solutions and sustainable products is of great importance for many companies today. The progress has been rapid and in the near future sustainability issues are expected to be a crucial part of every company's business. Today many companies are only doing what is required of them, meaning that they only work with sustainability issues as much as they have to in order to maintain their environmental policies and to avoid breaking the law. As customers are becoming more aware of the negative impact on the environment stemming from the goods and services they purchase, the interest in sustainability issues is increasing among both huge international firms and small local business owners. According to Thomas Haglund Flemström², most of the companies are actively and seriously looking into the sustainability issue today. One of the reasons for this development is the perceived risk of negative externalities in the future becoming internalized by regulation. As the perceived risk is financially evaluated, companies feel the pressure to include sustainability issues in their business. Some companies also see business opportunities in the sustainability area and by marketing their companies as a “green” and sustainable alternative are able to increase their brand value and customer demand for their products. Sustainability services have begun to grow and evolve and will, according to the current trend, be a large factor in determining customer demand and market value in the future. (Nidumolu et al 2009, p.57-64)

There are only a few academic reports that analyze or provide an overview for the business-to-business market for sustainability services. Historically this has to do with the lack of incentives for suppliers to establish a “green” brand, but with the emergence of a more serious awareness of negative externalities a growing number of both large and small companies are being certified to environmental and social

¹ Björn Stigson, Senior Advisor at World Business Council for Sustainable Development and Professor at Handelshögskolan, Gothenburg, lecture the 20th of April 2012

² Thomas Haglund, Team leader of Sustainability Services at Accenture, Sweden, lecture the 20th of April 2012

management systems and standards such as ISO 14001, EMAS and SA8000. These companies are also increasingly insisting on environmental and social audits and accreditations from their suppliers (Charter et al 2002, p.7). There are also many energy management systems as a reflection of the increasing importance of the energy issue. For example SS 627750, which is a Swedish energy management system, EN 16001, a European standard, and in 2011 the International Standard Organization launched ISO 50001, a system for energy management whose purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance. (Offerman 2012, p.43)

For many marketers, the pursuit of sustainability value brings them into uncharted territory and confronts them with many new and difficult questions (Charter et al 2002, p.9). Greener marketing is characterized by a focus on environmental issues and by an emphasis on reducing environmental damage. Sustainable marketing is the next natural step forward, with an emphasis on progress towards greater sustainability. It is a broader management concept which focuses on achieving the ‘triple bottom line’ through creating, producing and delivering sustainability solutions with higher sustainable net value whilst continuously satisfying customers and other stakeholders (Charter et al 2002, p.12). The new constraint on the value-delivery to the customer, which the sustainable product or service creates, is to also include a delivery of environmental value. In the context of business-to-business markets, the challenge for the marketer is to make this new value delivery of environmental value fulfill a “need” for the customer and at the same time create an awareness of the “need”. One of the key issues to address in the business-to-business market is how to develop a business case of the services³. The number of academic studies covering this problem within the area of business-to-business marketing is still very few in comparison to the studies covering sustainability services in the business-to-consumer market. One of the goals with this study is to address this issue.

1.1 The definition of sustainability

The general meaning of sustainability or sustainable development is a development in which resource use aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come (International Union for Conservation of Nature (IUCN), 2006). This is the definition of the Brundtland Commission and it consist of three parts; economic, social and ecological development. John Elkington (1997, p.20) referred the three parts as the triple bottom line.

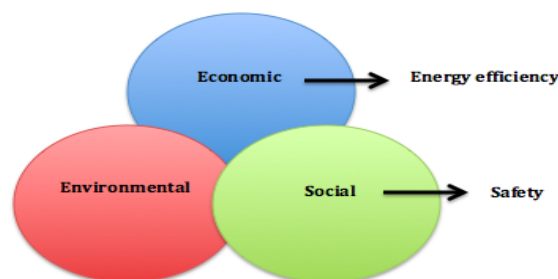


Figure 1. Sustainability by definition and our focus areas in this study.

³ Björn Stigson, Senior Advisor at World Business Council for Sustainable Development and Professor at Handelshögskolan, Gothenburg, lecture the 20th of April 2012

Sustainability throughout the report will refer to the aspects energy efficiency, environment and safety. Sustainability services contribute in the same sense to the preservation of the environment by prolonging the resource use. In many cases, products are used for a relatively short period of time and then disposed of and replaced by new ones, something which adds to the already high level of material and energy consumption. One way to look at sustainability services is to view them as replacements of products that have “built-in obsolescence”, meaning products with an intentionally limited life (Beltz 1999, p.86). Sustainability services could also be conceived as services that contribute to the development of processes or products that in some sense prolongs resource use. If a company pursue a differentiation strategy offering high-quality products or services that satisfy the needs of customers for a longer period of time instead of products or services with “built-in obsolescence” it may be beneficial for the customer, producer and the environment. Hence, services of high quality are always a form of sustainability services. High-quality products satisfy the needs of the customer and build up the reputation of the company at large and its brands (Beltz 1999, p.86).

1.2 SKF background

SKF was founded in 1907 and is today a leading global supplier of products, solutions and services within rolling bearings, seals, mechatronics and lubrication systems. Services include technical support, maintenance services, condition monitoring and training. SKF’s operations on the Industrial Market are divided into two business areas; Strategic Industries (SI) and Regional Sales and Service (RSS). RSS covers both Original Equipment Manufacturers (OEM) and end users for all other industries that SKF serves and is organized from a geographical perspective. The Swedish sales unit belonging to RSS Nordic is responsible for sales of all SKF’s products and services to OEMs and end users on the industrial market in Sweden. The Swedish sales unit covers five customer segments: MMPC (mining, mineral processing and cement), pulp & paper, metals, marine and food & beverage.⁴

SKF’s organization comprises a team entitled the Energy and Sustainability Management (ESM) which is internally recognized as a “Center of Excellence”, meaning a group of people with great knowledge in a specific area. The team works on a global level and is responsible for SKF’s energy and sustainability management portfolio consisting of different products, services and solutions. The ESM team has a global focus on developing and managing this energy and sustainability management portfolio to comprehensively achieve and sustain energy savings, but it is the local sales units’ task to market and sell these services to the customers. This infers that it is the Swedish sales unit in RSS Nordic that has the responsibility to sell and deliver sustainability services to the industrial aftermarket in Sweden.⁵

Opportunities for SKF

The change towards making the industry and the production in it more sustainable is opening an opportunity for SKF to grow. SKF has developed a concept, called “Beyond Zero”, which is a strategy on group level whose purpose is to reduce the impact on the environment. It consist of two parts; first to reduce the environmental impact from SKF’s operations in its own factories, in other words to reduce the

⁴ Sales Representatives at RSS, SKF, interviewed between 23rd of February and 4th of March

⁵ ESM Team, SKF, interviewed between 2nd of February and 14th of April

carbon emissions derived from manufacturing products, and second to innovate and offer new technologies, products and services that provide customers with improved environmental performances⁶. The second part is connected to the aim of this study; to provide suggestions for improvement on how SKF's sales unit in Sweden should package, promote and sell sustainability services.

The demand for sustainability services that SKF offers might increase as companies becomes more interested in making their own businesses more sustainable. There is also a chance for SKF to be seen as the “green” company and as the natural choice for companies who strives for more sustainability in its business processes. In the current situation, however, the sales unit does not have enough knowledge of the demand for sustainability services on the Swedish market⁷. This information is important for the sales unit in two ways, first in order to define and package sustainability services that are demanded by the end users on the industrial aftermarket in Sweden and second to be able to promote and sell SKF's services in a customer-driven way. Since the market is fairly new the study also aims to give an indication of customers' knowledge within the area of sustainability and map their actual need and what potential there is for SKF's sustainability services.

Today SKF has much knowledge within the area of sustainability but there is limited knowledge of what the customers on SKF's aftermarket in Sweden demands and what the industry as a whole demands when it comes to sustainability services⁸. This study will hopefully bring value to SKF and help the sales unit in Sweden to learn more about the market demand and how to develop its own strategy for selling sustainability services.

1.3 Purpose

This study has two purposes related to each other. The first purpose is to map the need and demands for sustainability services among end users on SKF's aftermarket in Sweden.

The second purpose is to provide suggestions for improvement on how SKF's sales unit in Sweden should package, promote and sell its sustainability services to make them more competitive on the market for sustainability services.

1.4 Delimitations

In this study we have delimited us to research and analyze SKF's services connected to sustainability on the Swedish aftermarket. SKF products and other services will not be treated. Since all the information obtained has been through sources at SKF Sweden AB results of the internal investigation do not necessarily apply to other SKF Group divisions. The study is mainly qualitative and therefore quantitative results such as results of economic nature have not been included in the report.

SKF acts on a wide range of segments on the industrial market in Sweden. After evaluating the market and receiving an overall picture, we decided to limit us to two industries; the pulp and paper industry and the metals industry and more specifically to SKF customers in these two segments.

⁶ Ibid

⁷ Sales Representatives at RSS, SKF, interviewed between 23rd of February and 4th of March

⁸ ESM Team, SKF, interviewed between 2nd of February and 14th of April

This study will focus on the energy efficiency, reliability and safety aspects of the sustainability services. So of the sustainability concept the focus will be on energy efficiency and safety and less on the environment. For example we will not investigate the environmental impacts due to emission in the industrial market, or other externalities directly linked to the processes.

1.5 Problem analysis

The aim of the problem analysis is to break down the two purposes into smaller manageable questions in order to capture all aspects relevant to the study, and provide a focus during the structuring of the study. The problem analysis is divided into two parts where a deeper problematization of the two purposes is made. The questions asked in this section will be the scope of this study and the answers to the questions will be provided in the forthcoming chapters.

1.5.1 What are the demands for sustainable services?

In order to evaluate if there is a market for sustainability services and if the market share is large enough to be profitable for SKF, it is important for SKF to have knowledge about the demands for these kinds of services. The question about demand is broken down into five more detailed questions, all connected to the main purpose.

What aspect of sustainability is demanded?

Sustainability consists of three dimensions; economic, environmental and social dimensions. It is important to find out which of these dimensions are demanded. Do all dimensions have the same value or do companies demand, for instance, the environmental dimension higher than the social dimension? The type of services that are demanded within the area of sustainability is also relevant for the study to answer.

Why do the companies demand sustainability?

Do companies have requirements from stakeholders? Do they have internal goals defined by the management that they should invest in sustainability services? Do companies believe that they can benefit from implementing sustainability solutions?

Who in the company demands sustainability?

What role do the people who demands sustainability do for example the maintenance manager, energy engineer, or environmental manager have and what influence do they have in the buying center? The buying center is the group of people involved in the purchase decision and consists of people from different departments and with different roles in the company. It is important to map the buying center within the customer's organization in order to find out how the persons that are involved and have influence over the buying decision act. Also, are there any incentives and/or interest for buying sustainability services for the people responsible for making the purchases?

What is the demand for SKF's sustainability services?

The three sustainability services could have different demands from different companies. Is there a difference in the demand for the services in the two industries?

When are the sustainability services demanded?

Is there a demand for the services today or will the demand increase in the upcoming years? It is relevant to find out where on the development curve the market is today. One other aspect is to find out how the development for the next five or ten years will be. Is the market demand for sustainability services expected to grow or decline in the near future?

In order to answer the questions above it is important to first define what a sustainability service is and how the customers think of it and what they expect from a service connected to sustainability. There might not be any well-established definition of a sustainability service and companies might have their own definitions and different people in the organization might have different perceptions of what sustainability is. In order to find out what the customers demand regarding sustainability services it is vital to have an understanding of what they mean when they are talking about a sustainability service and what they expect from a service like this.

1.5.2 How should SKF package, promote and sell its sustainable services?

Finding out the demands for sustainability services will be essential in order to answer the second purpose; to give suggestions on how the sales unit in Sweden should package, promote and sell its sustainability services. This section makes a problematization of how these sustainability services should be packaged, promoted and sold.

What should be packaged and how should it be packaged?

Should the package be customized or standardized? Customers in different industries might have different needs and therefore demand different kinds of services. It might then be important for the sales unit to have different kinds of service packages which can satisfy all customers in their unique way. In contrast, it might be that companies have the same needs or at least have very similar problems and demands about the same services. Then it might be favorable to have a general package that could satisfy all customers and all industries. It will also be of interest to examine if the sustainability services should be offered as an additional service to an existing service or as a separate deal. Will the business be big enough to be sold as a separate deal and is a separate deal demanded from the customers? In order to know how these services could be packaged in the best way, it will be of great value to know what attributes customers value and what they are willing to pay for. Some of the services the customers might see as something that SKF should offer for free, since other companies do so, and some services they are willing to pay a high price for. This will be obtained by the answers to the questions asked in the section above.

How should the marketing be executed?

A first step in making suggestions on how the marketing should be executed is to find out whom in the buying center the marketing should be directed to? The questions of how the buying center was constructed were taken up in the section above in order to find out which persons were in charge and had influence on the buying process. After finding out which persons demands sustainability the promotion of the sustainability services could be done in a better way. If the RSS unit know what type of people, e.g. what role the people have, responsible for making purchases they can promote

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sustainability services more effective. They will know what buttons they should press and what arguments they should use to make the customers interested in buying the services.

Also, what type of attributes the customers are interested in and what factors that could be seen as order winners is valuable information to obtain in order to know what buttons to press and to direct the marketing better?

How do customers perceive SKF and how can SKF position themselves as a supplier of sustainability services?

What is SKF's position on the market today? Do customers see SKF as company that delivers high quality products and services? Are they seen as an supplier of low cost products and services? SKF current market position for the services sold today is of value for us to find out in order to give suggestions on how the sustainability services could be improved. Do customers to SKF and other industrial companies see SKF as a supplier of sustainability services? Are SKF seen as a "green" company by their customers and the market that could help them to become more energy efficient and more environmental friendly? Is it a natural choice for customers to turn to SKF if they want help to save energy or is it more natural to go to a company working exclusively with sustainability? If it is not, how should SKF do to position themselves as supplier of sustainability?

The first step to take in order to make suggestions is to find out how "regular" services offered today are packaged, promoted and sold. By regular services we mean services that are not considered sustainable. The question will then also be if the new services should be sold in the same way as the existing, or if they are too different from the existing services so that SKF must have a different strategy for the new ones.

Another important aspect is to analyze SKF internally. What characterize this company? What are its strengths and weaknesses? Information about SKF is important for us to collect in order to make suggestions on how these new services could be packaged, promoted and sold. The internal and external communication is another aspect to analyze. How is the internal communication functioning today? Is there any communication gaps between what the board conveys and what the sales representatives do in practice? Are the sales representatives given the right tools and do they have incentives to sell sustainability services? Also; are there any communication gaps between the sales unit and the customers? Could it be that the customers have a big need for sustainability services but the sales unit is unaware of this or that they are unable to sell services that the customers demand? If such gaps exist they could lead to that the sales unit launches a service package that is not deeply rooted in the demands from the customers and therefore will not be purchased by them. Such gaps will be important to try to bridge.

2. Theoretical framework

The theoretical framework is the basis for our study and to ensure the coverage of different points-of-view we have elaborated the theoretical framework by triangulation. Thus the theories presented below are a combination of several different theories. To choose the theoretical framework we have deliberately searched for theories both within “general marketing” and “service marketing” to support the more unique features of our study.

2.1 Approaches to marketing

In our study we have chosen to define marketing as it is presented by Christian Gronross (Kotler 2009, p.6): ‘Marketing is a customer focus that permeates organizational functions and processes and is geared toward marketing promises through value proposition’. Kotler (2009, p.8) also quotes Peter Drucker, a management theorist describes the process of marketing: ‘The aim of marketing is to know and understand the customer so well that the product or service fits him or her and sells itself’. There are two approaches to marketing paired with two different types of business relations, the marketing mix approach and the industrial network approach.

2.1.1 The marketing mix approach

According to Kotler (2009, p.17) a firm has four competitive means in its marketing mix - the so-called four P’s (product, price, place and promotion). The product and how it is formed and packaged is important for the firm’s possibility to compete on the market. Also the price, how it is promoted and the place, meaning the way it is distributed is of importance. The basic idea behind the Marketing mix approach is that the buyers constitute a mass-market where the sales representative can influence the demand through the four P’s. The relation between the sales representative and the buyer could be seen as solely a transaction and not as collaboration between the two actors.

2.1.2 The industrial network approach

The Marketing mix approach is suitable for describing business situations where producer and user do not need close contact and the sales representative is the active part. However, in situations where the customer and the supplier works closely together, and have been doing so for several years, the industrial network approach is a better way to describe the situation. Temporary price discounts and marketing campaigns will have little or no effect on whether there will be a sale or not. Instead there is collaboration between the sales representative and the buyer and the main focus for the sales representative is to develop the current products and solutions in order to meet the demands from the customers. Often the demands from customers on a business-to-business market are complex and custom made for the specific company and therefore a deep and close collaboration between the two parties is needed. (IMP Group 2004)

2.2 Marketing management

Marketing management is the science of choosing a target market and getting, keeping and increasing customers through delivering superior customer value (Kotler 2009, pp.38-46). In practice marketing management deals with the design of the

marketing mix. In regards to service marketing academics usually talk of the 7Ps where the three extra service elements added to the usual product/service, price, promotion and place are process, physical evidence and people (Kotler 2009, p.17). Process is defined as the way a service is delivered to the customer; it can also refer to the systems the provider uses to deliver the service. Physical evidence is a differentiator of the service and embodies the benefits of the service to the customers, either by some metrics or other measurables, physical evidence are usually a major obstacle when creating or launching a new service. People refer to who delivers the service and what skills and expertise these people have (e.g. knowledge base of the company). More importantly, because services depend on the skills and expertise of the people who deliver the service, what makes a new service successful is how much it leverages the provider's knowledge base.

2.2.1 Segmentation, differentiation and positioning

The business market contains a complex mix of customers with diverse needs and demands and usually the company cannot meet these needs and demands from the whole market. Therefore companies need to make a segmentation of the market to identify different groups of customers whose demand and behavior are similar. The aim is to make adjustments in the company's offer to meet the unique need of each specific segment. However, for the segment to be feasible it must be measurable and accessible through communication and distribution. It must also be responsive to different marketing mix elements, such as pricing, and it must be large enough to be profitable (Hutt and Speh 2010, p.124).

Hutt and Speh (2010, pp.127-136) describe two types of segmentation bases, macro level and micro level, to divide groups of customers into different segments. Macro segmentation centers on the characteristics of the buying organization and the buying situation by dividing the market by organization size, geographic location, type of organization and type of purchase. Micro segmentation goes deeper and requires a higher degree of market knowledge, focusing on the characteristics of decision-making units within each macro segment. Micro segments are divided by purchasing factors, such as quality and price, by purchase strategies and by the structure of a company's buying center.

After choosing the group of customers to focus on through the segmentation process, the differentiating process starts. This means that the products or services the company is offering should differ from what other actors offer. This could be done by making products or solutions with better quality, lower price or better services than those offered by competitors. (Hutt and Speh 2010, p.163)

The segmentation and differentiating process will lead to a market position for the company. The two processes is made and chosen by the company and derived from the demands of the customers. A company's position however could not be selected directly by the company but is an assessment made by the customer of how they see the company, for example as a market-leader or a low-cost alternative. Indirectly the position could be chosen by the company through the segmentation and differentiation process and through marketing. (Hutt and Speh 2010, pp.165-166)

Successful positioning requires managers to understand their target customers' preferences, their conception of value, and the characteristics of their competitors offering (Lovelock and Wirtz 2011, pp.90-102). Services, however, relates to other of the 4 Ps of marketing, including service processes (e.g. convenience of use),

distribution systems, service schedules, location, the service's environment and service personnel.

To serve their particular segment best the producer must have focus, which means providing a narrow product mix that answers to their segment's needs. The extent of a producer's focus can be described as Robert Johnston (1996, p.10-20) does, along two dimensions: Market focus, which is the extent to which a producer serves few or many markets, and Service Focus, which describes the extent to which a producer offers few or many services.

A fully focused producer provides a limited range of services to a narrow segment. The developed expertise in the niche may provide recognized protection against competitors and also allows the producer to charge premium prices. Market focused producers also focus on a narrow segment but has a wide range of services. These producer needs to develop knowledge about how to match their offering to their customers. Service focused producers offer a narrow range of service but to a wide market, these producers need to develop their knowledge of many different segments. Many of the service producers fall into the unfocused category because they try to serve both broad markets with a wide range of services. (Johnston 1996, p. 10-20)

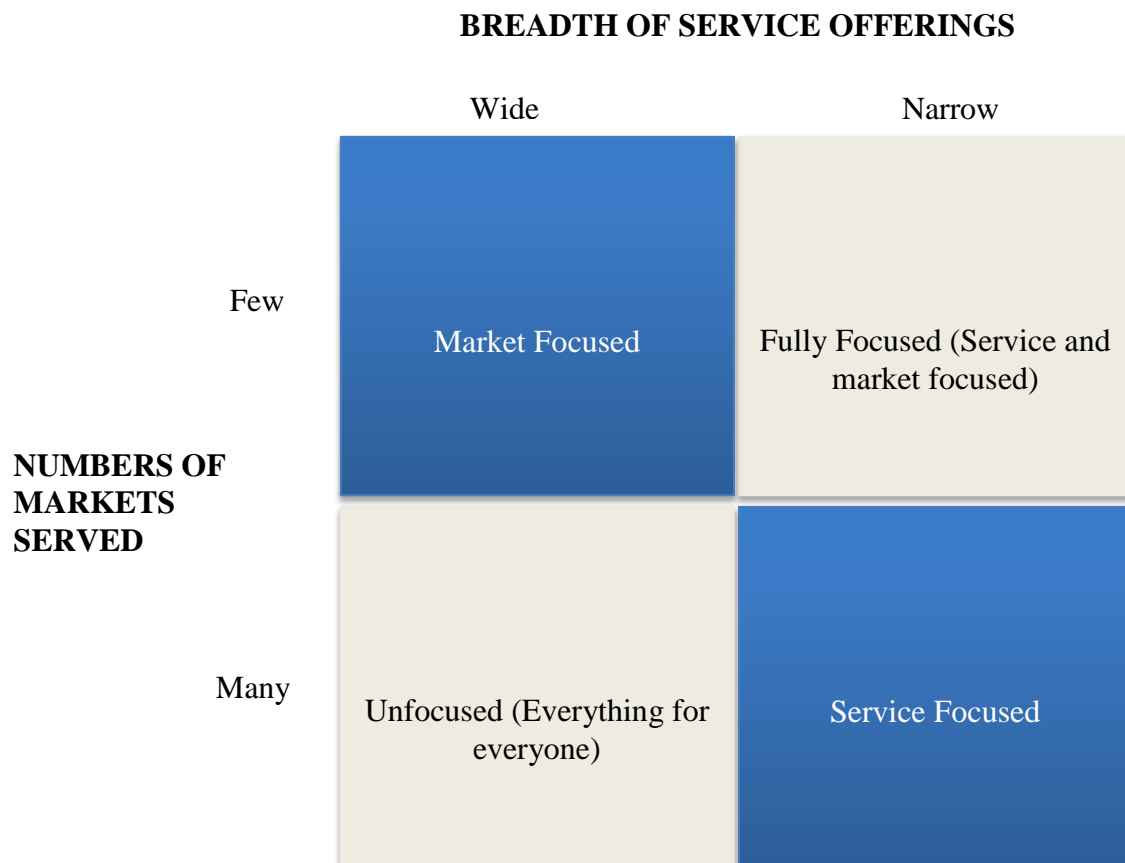


Figure 2. Focus strategies

2.2.2 Determinant and important attributes, and service levels

The motive for why a certain vendor's products or solutions are chosen by a customer can be explained by determinant and important attributes. When customers of services determine which service to buy, competing alternatives' determinant attributes are what end up being the basis for their decision. These attributes are often not considered the most important by customers, since they are only used to diversify between services in the last stage of choosing (Lovelock and Wirtz 2011, p.88).

Important attributes are the attributes that will qualify the service and enable it to go on to the last stage of choosing. Important attributes must be above a certain level for the customer to consider the service. Performance below this 'qualifying' level of performance will possibly disqualify the company from being considered by many customers but at the same time any further improvement above the qualifying level will probably not gain much competitive benefit for the company. (Lovelock and Wirtz 2011, p.89)

To create a positioning strategy it is required more than just identifying the determinant and important attributes, service levels also needs to be established. Decisions must be made on what level of performance to offer on each attribute. Some service attributes are easily quantified, while others are qualitative. Marketing researchers' main task is to identify the determinant attributes to be able to differentiate their service to best suit their target segment. These attributes are sometimes quantifiable but many times are also qualitative. Safety for example is subject to individual interpretation and not easily quantifiable. When these determinant attributes have been identified each attribute should be operationalized and standards for each of them should be established. (Lovelock and Wirtz 2011, pp.88-89)

Developing a positioning strategy can take place at several different levels of the organization, amongst multi-site, and/or multi product service businesses a position might be established for the entire organization, it could also be established for only a specific service. In the latter case there must be consistency between the positioning of different services offered at the same location, because the image of one may spill over into the others. A positioning strategy links together market analysis; size of segment, alternative ways of segmenting the market, the demand in the geographic location, and trends, internal analysis; financial, human, and physical resources, constraints, reputation, goals and values, and competitor analysis; identification of strengths and weaknesses, and current positioning in relation to competitors. The outcome of this analysis is the statement of the desired positioning of the producer in the market. (Lovelock and Wirtz 2011, pp. 90-94)

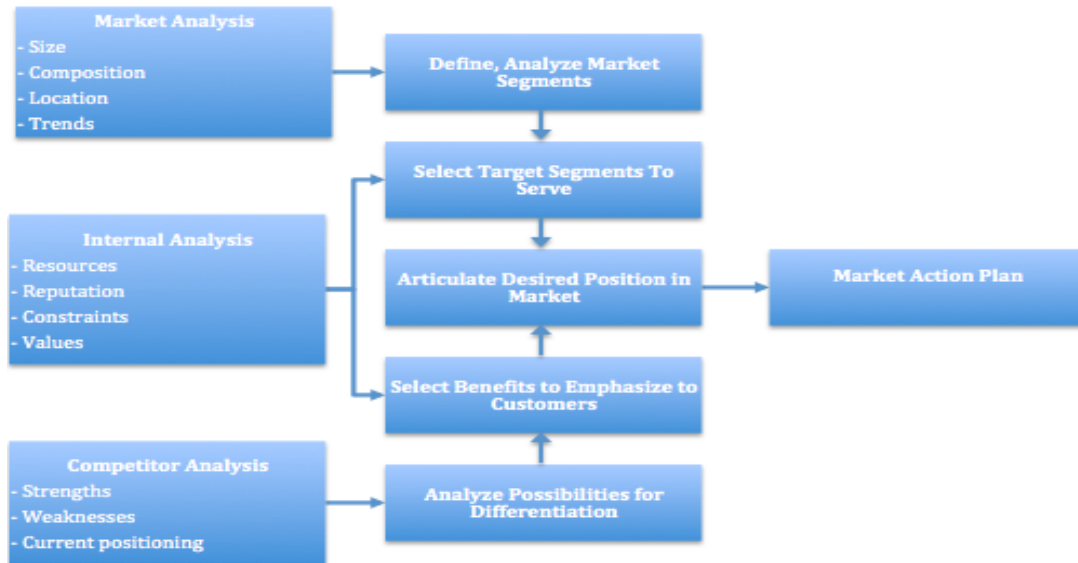


Figure 3. Developing a Market Positioning Strategy

2.3 Buying centers and the organizational buying process

The buying center or a decision making unit is a group of employees within an organization that is responsible for purchasing decisions. Major purchases often require inputs and expertise from different parts of the organization such as financing, accounting and shop floor workers. In general the buying center consists of people with seven different roles (Kotler 2009, pp.274-275):

1. The Initiator is the person who starts the purchase process by defining a need.
2. The User is the employee that will actually use the product or service when it is received. They usually initiate the buying proposal and help define the product requirements.
3. The Buyer is the one responsible for dealing with suppliers and placing orders and has the formal authority. Buyers help to shape product specifications, but their major role is to select vendors and negotiating.
4. The Decider has the power to make the final purchase decision, they decide ultimately on the product or service requirements or on suppliers.
5. An Influencer has the ability to affect what is ordered, for example an engineer or product manager with expertise for the specific purchase. Influencers help defining specifications and providing information for evaluating alternatives.
6. The Approver is a person who authorizes the proposed actions of deciders or buyers.
7. The Gatekeeper controls the flow of information.

Organizational buying involves several stages, each of which yields a decision. The organizational buying process is shaped by a host of internal and external forces, such as changes in economic or competitive conditions or a basic shift in organizational priorities. The major stages of the organizational buying process are (Hutt and Speh 2010, p.65):

1. Problem Recognition
2. General Description of Need
3. Product Specifications
4. Supplier Search
5. Acquisition and Analysis of Proposals
6. Supplier Selection
7. Selection of Order Routine
8. Performance Review

Whether or not the purchaser has experience of purchasing a particular product or service is it important to know because the purchasers may approach the buying decision quite differently than first-time buyers. There is three types of buying situations: New-task buying situation where decision makers perceive the problem as new. The buying influencers and decision makers lack defined criteria for comparing alternatives, and also lack a predisposition toward a particular solution. In this situation the marketer should participate actively in the initial stages of the buying process. In a Straight Rebuy situation the buyers have much experience and require little information. The purchaser have well-developed criteria for the purchase decision, and often also a predisposition toward one or a few suppliers. If the supplier has had the advantage of being selected once, then the strategy should be to reinforce the relationship and be responsive to the changing needs of the customer. If the supplier has not been selected before, the marketer must convince the purchaser that they can benefit from breaking the routine. The marketer must understand the basic needs of the purchaser, and convince the purchaser that their requirements have changed or that the requirements should be interpreted differently. In a Modified Rebuy situation the purchaser feel that they can benefit from re-evaluating alternatives. The motive for this could for example be factors such as quality improvements or cost reductions, or it could also occur because the purchasing firm is displeased with their current supplier. A current supplier should gather information to understand the needs better and try to move the purchaser into a straight rebuy situation. The supplier that is not doing business with the purchaser should try to hold the purchaser in a modified rebuy situation long enough for the purchaser to consider other alternatives. Knowing why the re-evaluation occurred could be pivotal. Offers of performance guarantees from the outside supplier are a effective strategy (Hutt and Speh 2010, pp.67-70).

2.4 Service Package

The service package is thought of as the product dimension of a service, and is developed through conceptualization of the service. To be able to accomplish this, four levels need to be conceptualized when developing the service package. First the Customer-Benefit needs conceptualization, which means that the service provider defines what core benefits the customer receives from the service. These benefits can consist of functional, effectual or psychological attributes coming from the service. Second the Service is conceptualized, which defines the general benefits that will be delivered through a bundle of goods and services. Third the Service Offer is developed in more detail and questions about when, where and to whom this bundle will be provided are answered. The final level handles the Service Delivery System and includes activities to be done, what capabilities and knowledge needs to be provided, equipment, facilities, layouts for custom work flow and developing of

procedures for the achievement of the goals. Bundling is a practice of marketing two or more services in a package for a special price. This is usually practical in the business service environment since most service businesses have a high ratio of fixed costs to variable costs and a high degree of cost sharing among their many related services. Hence the marginal cost of providing additional services is generally low. Pure bundling is used when the service only is available in bundled form and in Mixed bundling can purchase them either bundled or individually (Hutt and Speh 2010, pp.279).

2.5 The gaps model of service quality

The gaps model of service quality will for simplicity be referred to as the gaps model in continuation (Zeithalm et al 1990, p.32). The model takes into account two main gaps; the customer gap and the provider gap.

2.5.1 The provider gap

To close the customer gap the gaps model suggest that the provider gaps needs to be closed. The listening gap is the difference between what the customer expects and what the service provider understands the expectations to be. This gap arises often from the fact that not enough or poor market research have been done, that there is a lack of communication within the organization upward to management, that there is an insufficient relationship focus or because of Inadequate service recovery (Zeithalm et al 1990, p.34).

The service design and standard gap reflects the difference between customer-driven service designs and standards that are based on pivotal customer requirements, and management perceptions of what the customer expects, that are often based on company concerns such as productivity or efficiency. This gap arises because of poor service design, absence of customer-driven standards or inappropriate physical evidence and “servicescape”, which refers to how the service is perceived holistically by the customer regarding the physical attributes in the service environment, by symbols such as logos, ambient conditions such as scent and noise and space/functionality such as layout and equipment. (Zeithalm et al 1990, pp.34-37)

The service performance gap is the discrepancy between development of customer-driven service standards and actual service performance. This discrepancy highlights the importance of measuring service quality on the basis of the customer-driven standards. This gap arises because of deficiencies in human resource policies, failure to match supply and demand, customer not fulfilling their roles and problems with service intermediaries. (Zeithalm et al 1990, pp.32-37)

The communication gap illustrates the difference between service delivery and the service providers' external communications. This gap arises because of a lack of integrated service marketing communications, ineffective management of customer expectations, over promising, inadequate horizontal communications and inappropriate pricing (Zeithalm et al 1990, pp.32-37).

2.5.2 The customer gap

The customer gap is the difference between customer expectations and perceptions. Closing this gap is according to the model critical to delivering quality service, and forms the basis of the gaps model. The sources of customer expectations are marketer-controlled factors such as pricing, advertising and guarantees, and factors less controllable such as word-of-mouth communications, and competitive offerings. (Zeithalm et al, p.32)

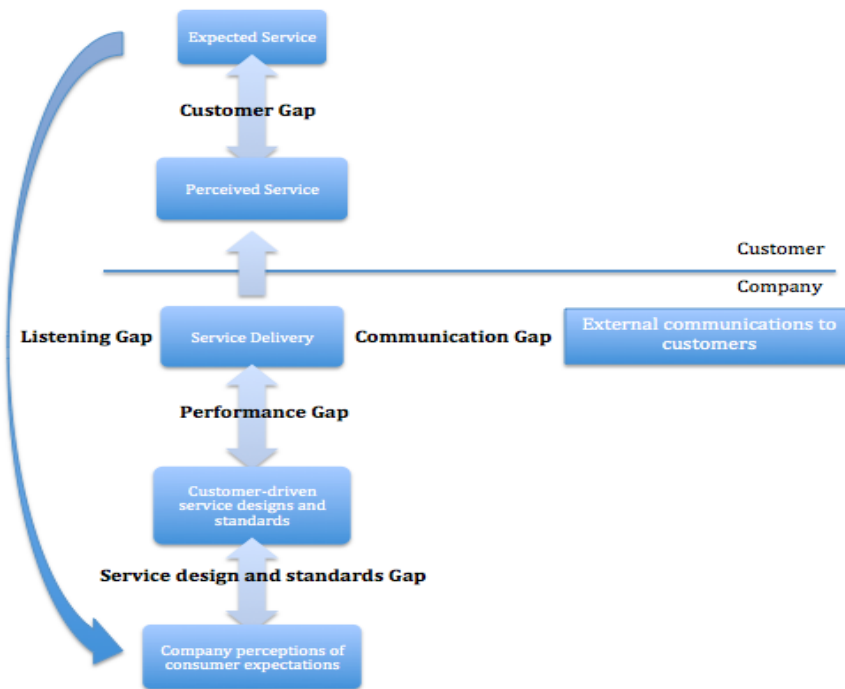


Figure 4. Gap model

3. Method

In this chapter the method and the research strategy that was used to collect the data is discussed. A mix of qualitative and quantitative data was collected through both primary and secondary sources and used in the study. The research strategy, a case study, the different kinds of data collection methods, the sources used for information and a brief discussion of the different sources reliability are described.

3.1 Research strategy

When choosing a strategy for research there are two different kinds of method approaches, the inductive method and the hypothetical-deductive method. The inductive method refers to analyzing the data collected and through the material make more general and theoretical conclusions. The other method refers to making a hypothesis based on earlier theoretical material and to test the hypothesis to see if it could be rejected or supported by the theory. (Wallén 1996, p.89-91)

Since this project is about mapping the needs and demands for sustainability services on the aftermarket and to give suggestions on how SKF's sales unit in Sweden could sell sustainability services, the hypothetical-deductive method was not suitable for this task. The inductive method was used instead by collecting data both internally and externally and drawing conclusions from it.

Research strategy for the theoretical framework was elaborated through triangulation to able to cover different points-of-views of the subject. Triangulation helps to strengthen our conclusions by providing different aspects of the main questions. By arriving at the same conclusion from different angles, which could be argued is more important when the subject for the study is relatively new; a higher degree of validation for the conclusions could be reached.

3.2 Primary and secondary data

At an investigation a main issue is how to manage the information and to assess the quality and how available different kinds of information are. There is a distinction between information from primary sources and information from secondary sources. Primary sources are information that has been collected directly from source that is being studied and is therefore new information. Methods used to collect this kind of information are for example interviews, surveys or focus groups. If the data collected is coming from an article, database or from other sources where the information is not collected for the specific purpose, the data is secondary. In comparison, gathering of primary information is often more time consuming but has a great advance in being more flexible and specific to serve the purpose than secondary information has. (Eriksson & Wiedersheim-Paul 2008, p.30-33)

Data can be collected through either qualitative or quantitative methods. The method chosen depends on what type of data the specific investigation aims to describe. A quantitative analysis aims at describing data that is possible to measure and is easy to define, e.g. numbers and quantifiable data. One way to collect this type of data is, for instance, by using databases or surveys. Qualitative data is often used to describe things that are not possible to measure and quantify and a qualitative analysis goes deeper into the problem. In many cases a combination of quantitative and qualitative data is used. The possibility of doing a qualitative analysis is depended on the

measure values that are chosen as study objects and other selections. (Wallén 1996, p.73-75)

In this study we used a mix of primary and secondary data, and in order to receive an overall picture of the problems both qualitative and quantitative methods were necessary to use. Primary data consists of interviews of SKF employees, customers to SKF and a market survey performed on actors with similar offers to the ones SKF have. As secondary data, online publications and internal material from SKF was used. The interviews held with SKF employees and customers were of qualitative nature and the market survey was of both qualitative and quantitative nature.

3.3 Data collection

Data collection method is from a scientific perspective often the most central part. This method needs to in a clear way show the working process. It is important that the reader can interpret the quality of the data collection. (Wallén 1996, p.62-64)

Common data collections methods are; survey techniques in forms of postal and Internet survey, face to face interview and telephone interview. There are both advantages and disadvantages with all data collection methods. Surveys are cheaper but do not have the same interactivity as interviews. With questionnaire surveys and telephone interviews it is easier to be available than with face-to-face interviewing. A benefit with interviewing is the possibility to complement and explain questions to the one who is being interviewed. Depending of what result the interviewer wants it is important to choose the most suitable method. (Eriksson & Wiedersheim-Paul 2008, p.30-33)

Interviews with SKF

To gather information from SKF employees, both face-to-face interviews and telephone interviews were used. These methods are relevant in those cases because of the detailed questions, and the possibility to ask attendants follow up questions during the interviews.

We started by interviewing SKF employees working with sustainability and continued with people from the sales unit. Among employees working within sustainability, there was a project manager, sustainability manager in marketing, corporate sustainability manager and more. Three out of six people in the ESM team that developed SKF's sustainability services were also interviewed. After receiving an overall picture of SKF's employees working within sustainability and about SKF's sustainability services we started interviewing persons within the sales department (RSS Unit); the sales unit manager, solution factory manager, regional sales manager and sales representatives. A list of the questions asked and persons interviewed can be found in Appendix A.

Market Survey

We performed a market survey at a maintenance fair in Gothenburg at "Svenska mässan" the 13 - 16 of March 2012. The companies at the fair consisted of suppliers for the industrial market. The purpose was to receive an overall picture of what the suppliers on the industrial market offered in services connected to sustainability. We wanted to receive an understanding of the demand for sustainability services in general. The survey also focused on how companies offering sustainability services market and sell their services, and what attributes are most important for buyers. We

interviewed 38 companies at the fair from different segments in the industry. Employees that were interviewed were mostly sales engineers and maintenance managers. The questionnaire comprised of 8 questions that were relevant in order to collect the information we needed. A list of the questions asked and companies interviewed can be found in Appendix C.

Interviews with customers

Interviews with SKF's customers were mostly conducted by telephone because of the companies' distant geographical location and time constraints to manage them all. However, three interviews were made face-to-face at a company's factory. We interviewed customers to SKF within two industries, pulp and paper and metals. One to three employees was interviewed per company representing different units of the organization, one purchaser, one maintenance manager and also a person working with environment, safety and/or energy. Interviewing several employees with different perspectives gave us an overall picture of the buying process, the companies' needs and also how actively they are working with sustainability issues today. A list of the questions asked and persons interviewed can be found in Appendix B.

3.3.1 Case study

A case study is a method where a detailed investigation of a specific case, e.g. an individual, group or organization is made. The method can be used to nuance, deepen and develop concepts and theories (Wallén 1996, s115-117). Often the focus is on social relations and to analyze patterns in the phenomenon that is being studied. The benefits of making a case study is that one can see what happens in real situations and that great knowledge of the process can be obtained. (Eriksson & Wiedersheim-Paul 2008, p.36-38)

Case studies of four competitors to SKF on the market for sustainability services were made. The purpose was to identify SKF's market positions and patterns of the industrial market in sustainability. The purposes was also to study how competitors are packaging, promoting and are selling its sustainability services, related to the second purpose of this study. From the 38 companies at a maintenance fair that was interviewed, four were chosen for a deeper study, Statoil, Inspecta, EagleBurgmann and Ahlsell. One to two persons per company were interviewed, about their sustainability services and market position.

3.3.2 Source analysis

To critical review data involves investigation of the material in terms of validity and reliability and by questioning the material to verify its relevance. Validity refers to the extent to which a measurement or conclusion is legitimate and corresponds to the real world, which means that a test is valid if the tests measures what it is supposed to measure. Reliability refers to in which extent the test will result in the same outcome if the test is made several times. Beyond validity and reliability an analysis of the relevance of the data must be made. All data gathered is often not relevant for the specific problem. To some extent critical review can be seen as a method of selection where irrelevant information is weeded out and relevant information is retained. (Eriksson & Wiedersheim-Paul 2008, p.53-55)

In a more narrow way a set of four criteria can be used to assess sources; contemporary requirement, objectivity, dependency and authenticity. The first criteria examines the time elapsed between the measurement and the documentation of the

result. Objectivity examines which self-interest the source has in this matter. Dependency refers to ensure that the information from two or more sources does not depend on each other. The meaning of authenticity is to ensure that the information gathered is true and genuine. (Eriksson & Wiedersheim-Paul 2008, p.53-55)

Since most of our interview data came from sources the sales organization had put us in contact with, our data collection could have been hampered by the sales unit if they wanted to skew our results. Since we received this task from the sales unit and since our other data collection gave results similar to what we received from customers we believe that we were provided with random customers. Another problem is the relatively small sample size we have used in the customer interviews. The population of large Swedish SKF customers in pulp and paper or metals is however not that large and we believe that our more quantitative market survey gave the breath we needed.

Our interview material from SKF internally is quite extensive and we have tried to almost exclusively use interview data or raw data in form of actual service instructions instead of marketing material when evaluating different offers. The market survey data could be questioned since we focused on suppliers and not potential customers, but we believe that the most extensive way to find market potential for sustainability services is to look at what and how other companies sell their offers. Since the market is broad and undefined, looking at suppliers gives a more comprehensive picture of the market for sustainability services as a whole.

4. SKF's sustainability services and communication

This chapter aims to describe SKF's current sustainability services, what market position SKF has today and how the internal communication is handled. This information is valuable in order to enable analysis of how the package, promotion and sale processes could be improved by the sales unit in Sweden regarding the sustainability services.

4.1 SKF's market position

SKF are primarily known for its bearings, since it was the invention of a self-aligning ball bearing that caused the founding of the company in 1907. Since then, the company has grown and developed its competence in other fields. Today SKF is working in five segments; seals, bearings and units, lubrication systems, mechatronics and services. SKF's strategy of being a sustainable alternative is expressed, for instance, through having solutions and products that have high reliability. Some of SKF's products and solutions are differentiated as energy efficient, but SKF's core values have traditionally been reliability and safety.⁹



Figure 5. The Segments SKF are active in

In each segment SKF is differentiating its offer from the competitors by trying to be seen as the premium alternative. SKF puts great emphasis on making products and solutions of quality and to make them last over a long period of time¹⁰. Another aspect that is differentiating SKF from its competitors is its holistic approach¹¹. SKF has a close collaboration with its customers and engages all five segments when solving a problem for a customer and in that manner use synergies within its knowledge base. They also have a network of distributors helping the customers mainly by supplying them with consumables.¹²

4.2 Distributors and Solution Factory

SKF have a close collaboration both with its customers and its distributors. The reason is that many of the problems the companies on the industrial market have are complex and often include not a single part but a system as whole. To solve these kinds of problems SKF have discussions with customers to come up with customized

⁹ Sales Representatives at RSS, SKF, interviewed between 23rd of February and 4th of March

¹⁰ Ibid

¹¹ ESM Team, SKF, interviewed between 2nd of February and 14th of April

¹² Sales Representatives at RSS, SKF, interviewed between 23rd of February and 4th of March

solutions. Most of SKF relations to its customers are of a long-term nature. They work mainly with existing relations, which can be decades old.¹³

SKF has chosen a distribution structure where the distributors are mainly focusing on selling products to the industrial market. The distributors' responsibility is to supply the customers with all the products they need in order to maintain the production. The products sold by the distributors come from different manufactures and not only from SKF. All distributors must be authorized by SKF in order to sell its products and certain requirements must be fulfilled in order to be classified as an authorized distributor.¹⁴

When a customer need a product or need to solve a trivial problem they primarily contact the distributors. When the customers are in need of a deeper analysis in order to solve their problem, they contact the SKF Solution Factory which assists with a holistic approach to the problem. The salespeople of SKF usually work in teams which consist of a customer service representative who handles the contact with the customers and an application engineer who delivers expertise for the specific purpose in order to ensure that the calculations tied to the problem are correct. In addition the key account manager is included to deepen the contact with big clients and to pair the right people within the sales organization at SKF with employees at the buying company.¹⁵

The sales representatives more often meet employees at higher levels of the organization of customers that deal with decisions of a more strategic nature. The sales organization is there to support the customers with maintenance but since the distributors are present in the industry daily, they have the overall responsibility to ensure that customers have what they need for their daily operations. The purpose of the Solution Factory is to make the services more easily accessible to customers and increase SKF's ability to add value to its customer's processes. SKF Solution Factory can take over the entire or parts of the maintenance, including condition monitoring for its customers. The customer is encouraged to be proactive and work with continuous improvements, which SKF unit claims pays off by several different factors like machine availability, energy consumption and bearings consumption.¹⁶

4.3 ESM services and solutions

The Energy and Sustainability Management (ESM) team was created 2008 as a part of the "Beyond Zero" initiative which includes the aim to provide sustainability services for SKF's clients to reduce their energy consumption and environmental impact. The ESM team is a part of SKF's Reliability System Services Group within SKF and is marketed as a "Center of Excellence" within this unit. The ESM team has developed all the sustainability services regarded in this study. In the study we have defined a sustainability service as a service that makes the customers production more energy efficient, more environmentally friendly and safer. The sales unit's services that most conveniently fit into this description come from the Energy and Sustainability Management portfolio. The sustainability services are as follows¹⁷:

¹³ Ibid

¹⁴ Sales Unit Manager at RSS, SKF, interviewed 3rd of February

¹⁵ Sales Unit Manager at RSS, SKF, interviewed 3rd of February

¹⁶ Sales Representatives at RSS, SKF, interviewed between 23rd of February and 4th of March

¹⁷ ESM Team, SKF, interviewed between 2nd of February and 14th of April

- Client Need Analysis - Energy and Sustainability (CNA-ES)
- Energy Monitoring Services (EMS)
 - Compressed Air System
 - Pump System
 - Fan System
- Shopfloor Energy and Sustainability Awareness Cards

The ESM team consists of six persons recruited primarily from the industry with experience from the operations and energy management field. Since the ESM team was founded they have been helping SKF's customers and SKF's own facilities to develop and improve processes to identify energy savings and manage energy costs. They conduct the CNA-ES interviews together with sales representatives and are the ones making the energy reduction potential estimations and solutions. Once the solution is ready they are however not responsible for implementing it, that is the local sales unit's responsibility. The ESM team also acts as internal ambassadors for sustainability services and business opportunities concerning sustainability and energy efficiency.¹⁸

The ESM team is currently working on several new services that have not yet reached the market. One of these services is the Comprehensive Energy Assessment (CEA) which initially was developed for internal use. CEA measures energy consumption and correlates it with energy driving factors to create a series where individual data points are benchmarked against expected energy consumption. The purpose is to visualize energy consumption and identify if and where energy consumption is above expected values.¹⁹

4.3.1 CNA-ES

Client Needs Analysis - Energy and Sustainability is a comprehensive interview form used to analyze a company's operations and is marketed as an "extensive, web-enabled plant wide assessment tool used to examine areas of the operation where energy efficiency improvement opportunities may exist." The interview form consists of 40 questions spread through four different areas: Energy and environmental management, Energy efficient tools, Energy efficient operations and Environmental controls.²⁰

The outcome of the interview form and the following analysis is a report on where and how improvements can be made. SKF's aim is not primarily to sell additional SKF products, but to identify what energy efficiency investments are possible and profitable and show the customer how to work with energy saving and environmental improvements in the future. The service is a part of SKF's "Beyond Zero" initiative and the ability to lessen customer energy consumption is a primary goal in itself. The ESM team believes that one marketing problem regarding this service is to convey the image of SKF as an independent actor while supplying this service. They believe that the answer to all the client's problems cannot, for credibility reasons, be to buy SKF products or services. Instead SKF offers to help implement parts of the recommended measures and forward the customer to other suppliers for the rest of the recommendations. CNA-ES will take into account energy efficiency, chemical

¹⁸ ESM Team, SKF, interviewed between 2nd of February and 14th of April

¹⁹ Ibid

²⁰ Ibid

treatments, lubrications use and other processes that impact the environment and internalized costs related to energy and material consumption.²¹

4.3.2 Energy Monitoring Service

SKF claims to have much experience with motor driven systems because of its long history dealing with assets in motion within the area of bearings. The ESM team uses this to differentiate the Energy Monitoring Service (EMS) from other actors' monitoring services. EMS is a service that monitors a company's production system. The service is divided into three areas; Compressed Air Systems, Pump Systems and Fan Systems. The data provided from this service can later be analyzed with the assistance from SKF with the purpose to receive information about how to best maintain the systems.²²

The procedure of implementing the EMS starts at the customer's plant with identifying key assets of the system. Then the distribution system is mapped by a monitoring device and specific areas of end use are identified. The device is then configured to the specific production system. The information collected through the EMS is used to establish system characteristics, operating parameters and operation schedules. By using the customer's plant staff, trained by SKF, or SKF staff to carry out routine measurements and monitor system energy efficiency, the customer can determine when it is cost effective to repair a worn component. The ESM team claims that the benefits in implementing EMS include improving reliability, keeping monitoring in-house and creating a platform for sustainable improvements. The main objective of the EMS is to inspect and monitor the following data in the different systems²³:

- Power use
- Power cost
- CO2 emissions
- System leak inspections
- Estimation of the cost of identified leaks
- Identification of inappropriate uses

The Energy Monitoring Service is designed for customers who desire an ongoing comprehensive energy management and monitoring program for their pump-, fan- and air compressed systems and would like to make savings in respective systems through reduction in energy usage. It was also developed for customers who have limited technical expertise and need a centralized data repository of energy efficiency and reliability data in one cohesive program that supports analysis and reporting. It especially useful if they have specific goals for energy reduction related to their systems, since measuring and monitoring not by itself lessen energy consumption.²⁴

Compressed air systems

The Energy Monitoring Service – Compressed Air Systems provides a complete and standardized approach to energy monitoring, helping to develop awareness and understanding of industrial compressed air system energy usage and CO2 emissions.

²¹ Ibid

²² ESM Team, SKF, interviewed between 2nd of February and 14th of April

²³ Ibid

²⁴ Ibid

SKF's approach uses methodologies for compressed air leak detection and calculation of system losses and energy efficiency. Energy cost, CO2 factors and alarm levels are determined and then used to build a data collection route map. From this data, the customers and a SKF technician creates the appropriate database for the customer's plant in SKF software to measure and monitor the data in customers' compressed air system.²⁵

The data collected are from various instruments that measure the system air leakage, system temperature, vibrations and also electrical measurements. The collected data is sent to a piece of software and reviewed and analyzed by SKF personnel. When the plant data has been collected and analyzed the customer gets a summary report. Each survey includes a collaboration period that allows the customer to review the received report and discuss the result with SKF experts seek out opportunities for optimization identified in the survey.²⁶

Pump systems

The energy efficiency of a pump declines over time due to factors such as the characteristics of the fluid being pumped, cavitation and scaling. The ESM team claims that the Energy Monitoring Service – Pump Systems will assist in determining when the customer's pumps should be rebuilt or the system modified to restore efficiency.²⁷

The first step is to select which pump systems will be included in the routine monitoring. This is done together with SKF representatives and facility personnel. A pump system's library is used to program an SKF application, indicating which pumps to monitor and assisting in identifying the desired parameters. The information is stored in a database to monitor the pump systems. SKF provides a combination of on-the-job and theoretical classroom training in order to equip the personnel with knowledge to make these routine measurements. The data stored in the database is transferred to a SKF application which provides the analytical tools necessary to give appropriate warnings about energy efficiency.²⁸

Once the plant staff is properly trained, the program is handed over to the plant staff or it can continue as an outsourced service. After the data for each pump system is collected and entered, a color-coded display provides a quick visual indication of status and any problems. This indicates when a component should be changed. The benefits in Energy efficiency monitoring provide an indication of reliability in the plant machinery assets. Uneven hydraulic forces developing within a pump can result in maintenance issues such as premature bearing and seal failure. Those same uneven hydraulic forces will also result in a decline of the pump system's energy efficiency.²⁹

²⁵ Ibid

²⁶ ESM Team, SKF, interviewed between 2nd of February and 14th of April

²⁷ Ibid

²⁸ Ibid

²⁹ Ibid

Fan systems

The Energy Monitoring Service will assist in determining when the fans should be rebuilt or the system modified to restore efficiency. Since every fan system is unique, the Energy Monitoring Service – Fan Systems applies a flexible process that follows some key steps which are similar to the pump system³⁰:

1. Fan systems selection process
2. Establishing a database that includes details on the fans included in the monitoring program
3. Programming route details into SKF applications
4. Training your operations staff
5. Program hand over and routine monitoring

Many aspects of fan systems, such as poor initial design, control, maintenance practices, excess vibration, heat and contamination can contribute to poor reliability and inadequate system performance. These same symptoms also significantly impact the system's energy efficiency.³¹

4.3.3 Shopfloor Energy and Sustainability Awareness Cards

Shopfloor Energy and Sustainability Awareness Cards, further referred as shopfloor awareness cards, is a mean to heighten awareness of energy efficiency and sustainability within a plant and target everyone from senior management to the shop floor workers. They were developed in order to engage all employees in energy and sustainability issues and to keep energy efficiency and sustainability in front of people on a regular basis. The cards could, for instance, be used during a shop floor's daily meeting where the supervisor talks a couple of minutes about sustainability.³²

Covered areas are; energy and sustainability, compressed air systems, condition monitoring for energy efficiency, pump systems and motor systems. The different areas contain questions about; energy, energy delivery, sustainability at home, calculation savings, pumping ownership costs and more. The cards are designed in such way that each area starts with a main question, "What is energy?", which leads into a short introduction of the question. The question is then expanded into further questions within the area, which are finally answered in the cards. After the questions have been answered, a card with discussion points follows which enables discussion within the meeting.³³

³⁰ Ibid

³¹ ESM Team, SKF, interviewed between 2nd of February and 14th of April

³² Ibid

³³ Ibid

4.4 Internal and external communication

Internal communication about the sustainability services is headed by the ESM Team, who are responsible for developing new sustainability services and also responsible for the initial steps of the internal communication³⁴. The ESM team, together with higher management, communicates the services to the Sales Unit Manager at the sales unit, which in turn is responsible for relaying the services and its contents towards the salespeople and managers of the sales unit. The Sales Unit Manager adds information to the flow as well, primarily about how the services should be marketed and sold and to whom.³⁵

The external communication is led by sales representatives serving as Key Account Managers for large to medium sized firms and the Solution Factory for smaller firms with less regular contact with the unit. The Key Account Managers are currently not informed about the market potential for and specifications of the sustainability services³⁶. The reasons for restraining the information are that the market for these services still is considered immature and that a comprehensive market research has not been conducted yet. Additionally, these services are considered to need more concretization for the customer to buy them. The Sales Unit Manager demand clearer business cases to be made for the sustainability services, for example showing how they can lead to larger deals further on. Otherwise the alternative cost for selling these services are considered too great.³⁷

³⁴ Ibid

³⁵ Sales Unit Manager at RSS, SKF, interviewed 3rd of February

³⁶ Sales Representatives at RSS, SKF, interviewed between 23rd of February and 4th of March

³⁷ Sales Unit Manager at RSS, SKF, interviewed 3rd of February

5. The market for sustainability services

To be able to define the current position and develop a positioning strategy the market for a service must be analyzed. The analysis of the market for the service and the competitor analysis lead to the selection of a target segment and a selection of benefits to emphasize to the customer (Lovelock and Wirtz 2011, p.90). This chapter aims to understand the market opportunities for sustainability services in general and the demand for SKF's sustainability services. This part includes; a market survey, a study of competitors, and interviews with customers to SKF. Since manufacturing companies often purchase sustainability services as a result of legal restrictions or governmental requirements the study was also supplemented by a study of the Swedish governmental energy policies and what benefits companies can obtain by investing in sustainability.

5.1 Swedish government energy policies

The Swedish energy policy builds upon the same three pillars as those of the energy collaboration in the EU: ecological sustainability, competition and security of supply. This has been agreed between all parties in the Swedish parliament 2009 (Energimyndigheten 2009). In 1996, the Swedish electricity market was deregulated and the market opened up for private actors to trade and produce electricity. In June 2004, the Swedish government raised the tax for electricity and reintroduced a taxation of 0.5 SEK/kWh for manufacturing industries. Today, the energy tax in Sweden is included in the value-added tax for energy consumption; therefore electricity consumption is subject for double taxation. The 1st January, 2011 the tax was further raised to 0.93% of consumer price index. Today 60% of the price of electricity consists of taxes. (Svensk Energi 2012)

Because of bottlenecks in the backbone of the Swedish electricity network, maintained by Svenska Kraftnät, the EU-commission decided that this had led to discrimination of producers outside of Sweden and therefore divided the Swedish market into four different regions with different rates for electricity. The decision came into force on the 1st of November 2011. (Svensk Energi 2011).

In 2008, the Swedish government set up the goal of decreasing the overall emissions of Sweden to 40% through two propositions (2008/09:162 and 2008/09:163), in which plans to promote renewable energy and energy efficiency was presented. The goal for energy efficiency is to reduce consumption by 20% between 2008 and 2020 in every sector. This goal is to be achieved through a five year program for energy efficiency (PFE). The program receives 300 million SEK every year during this period and the responsibility for the implementation is carried out by Energimyndigheten, the Swedish administrative authority for energy. During the five previous years (2002-2007) there was a similar program for energy efficiency that received 200 million SEK every year. Due to the raised and expanded efforts, the new program has received additional funds and now consists of strengthened energy and climate work, gathering and spreading of information, counseling, and support for technology procurement and market introduction, networking activities and an initiation of a support system with energy mapping-follow-ups.

5.1.1 PFE, benefits for larger companies

For larger companies with energy intensive production there is an opportunity to take part of Energimyndigheten's program for energy efficiency (PFE). The program focuses on raising awareness within companies about the opportunities for energy efficiency measurements. The definition of an energy intensive production by the government (2008/09:163):

- Cost of the energy product and electricity is covering 3% or more of the overall net sale.
- Energy, carbon dioxide and sulfur taxes on the energy products and electricity used by the company amounts to at least 0.5% of the overall net sale.

The PFE last five years and participating and complying with it results in a tax reduction for electricity of 0.5 SEK/kWh. If a company qualifies and participates in the program, it will be given its own individual five year-plan starting at the end of the same month that Energimyndigheten receives the application. Today, companies can participate in the current program until December 2012. If the company is approved, they are first required to do an energy mapping of the company, an energy analysis and an implementation of an energy management system according to a certification. They are also required to establish procedures regarding the purchase of energy intensive equipment and an introduction of an action plan for energy efficiency measures. This should be done during the first two years and reported to Energimyndigheten. Where such operations are approved, the company is to realize and implement these measures over the next three years. The company will also continue to implement the energy management system and procedures for purchasing and planning. After the five years the company's work and results will be reported to Energimyndigheten for a follow-up (Energimyndigheten, 2012).

5.1.2 Energy audit check, benefits for smaller and midsize companies

For smaller companies it can be very costly to get a certification and one reason is that the standard for energy management systems in Sweden were developed as a result of Energimyndigheten's program, PFE, which is customized for larger companies. Therefore, the government decided to increase the efforts for smaller and midsize companies and Energimyndigheten was given the assignment to find customized instruments for managing the energy efficiency within this group of companies as well. In order to encourage action and raising awareness of energy efficiency issues, there is a subsidy called "energikartläggningscheck", a financial aid that smaller and midsize companies can use until 2014. The subsidy covers 50% of the cost, or at most 30 000 SEK, for energy mapping of either an operation or the whole company. The qualification for the subsidy only applies to companies or operations that use more than 500 MWh/year (Energimyndigheten, 2012).

5.2 Market survey

The market survey was conducted at the maintenance fair in Gothenburg 13 -16 March with 38 respondents. The fair consisted of suppliers from the industrial market. The questionnaire is available in appendix C.

Results from Q1 showed that 87 % of the suppliers at the fair offered a service or a product connected to sustainability. Services and products offered were for instance in the area of compresses and spill prevention, reduced emissions, reduction of energy consumption, repairs of electric motors and energy declarations of companies' productions. The market survey shows that suppliers are already providing similar services to those within SKF's sustainability services today. The results from Q2 showed that most of the companies offered their services to all industries.

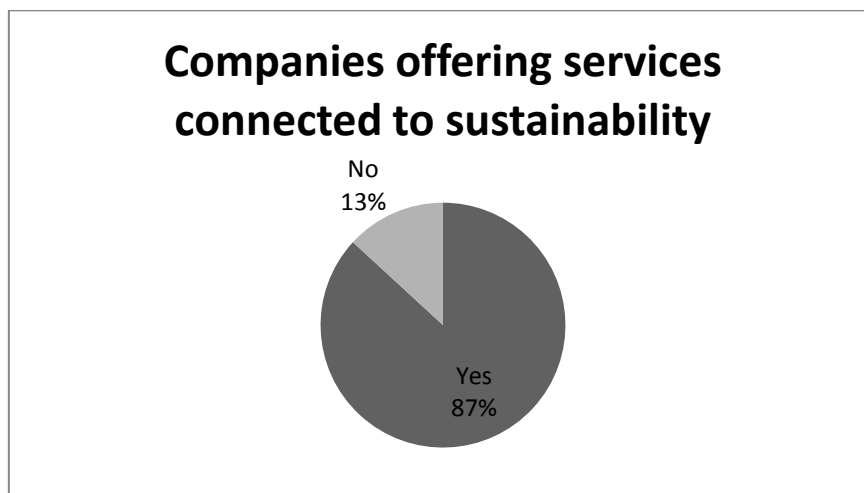


Figure 6. Q1, Companies Offering services connected to sustainability

Q3 gave the information that 66 % of the companies market on sustainability. This shows that not all of the 87 % of the suppliers that offer sustainability services or products market their services as such. From the sustainability factors energy efficiency, environmental and safety, the marketing was mostly focused on environmental factors. Examples on emphasized marketing areas were reduced carbon dioxide emissions and longer lifespan for products.

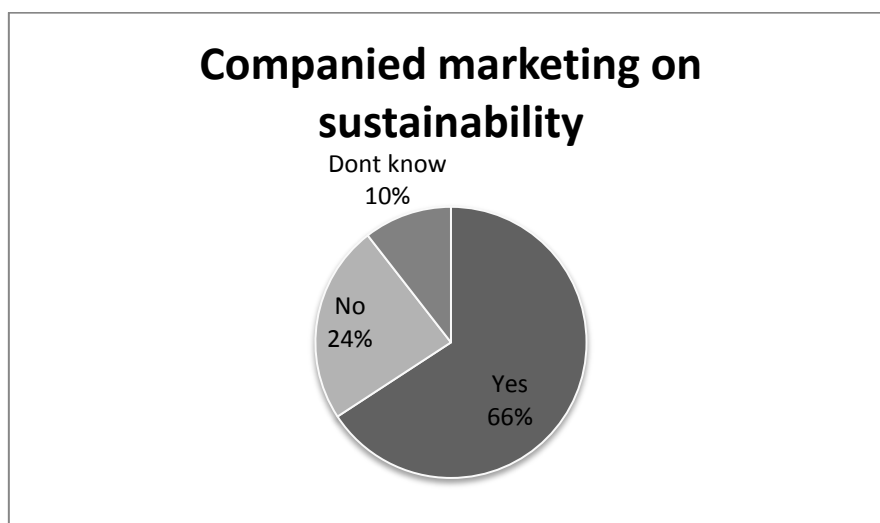


Figure 7. Q3 Companies marketing on sustainability

Results show that there is a need and demand from customers for sustainability services on the aftermarket. According to Q4 82 % of the suppliers noticed an increased demand from customers buying services connected to sustainability. From Q5 we received that 92 % believes that the demand will continue to increase in the next 5 to 10 years. Reasons for this increased demand are, according to many suppliers, rising energy prices, legal requirements, more sustainability awareness and more focus on carbon dioxide emissions.

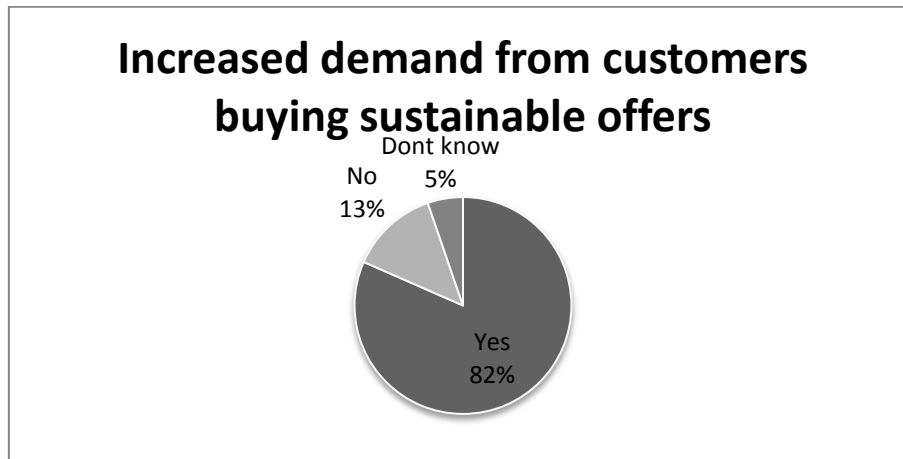


Figure 8. Q4, Increase demand from customers buying sustainability offers

Q6 gave us the information that about 32 % of the suppliers at the fair had at least someone in their organization working solely with sustainability (i.e. environmental, energy or safety questions). This shows that companies have started to actively think about sustainability.

Many suppliers also experience pressure from external actors to be sustainable as a company and to offer and sell sustainability services, a result from Q7. Pressure comes, for instance, from customers to fulfill the ISO certification, from stockholders and from the board.

5.3 Customers

According to McKinsey (Creys 2010, p.2), there are four fundamental barriers for companies not realizing the prospects of energy efficiency. One of these barriers occurs because energy efficiency typically requires large upfront investments to achieve savings that accrue later. In addition, energy efficiency has a low mindshare and the opportunities are fragmented across too many devices for the company to be able to regard them. Finally, the organizations that would primarily be responsible for implementing an energy efficiency solution find it hard to measure the efficiency, which makes them less motivated to act. Another barrier that could arise during the buying process is that personal in the factories are reluctant to change buying patterns and thus usually requires their usual tools and machines in their daily routines, as they often want to be “heroes on their own machines”³⁸.

³⁸ ESM Team, SKF, interviewed between 2nd of February and 14th of April

5.3.1 The pulp and paper industry and the metals industry

Throughout the interviews with customers we have found that customers within the pulp and paper industry in general pay more attention to sustainability issues than in the metals industry. The metals industry need more monitoring of the machines to assure that they do not break down as the processes are more unstable due to higher heat production, therefore there it is a big risk when shutting them down, since it could entail that they will not start again. The common practice in the pulp and paper industry is to once each year dedicate a day to maintenance. As the maintenance managers in the metals industry cannot afford to shut down the machine park as they would in the pulp and paper industry, the machines can be maintained, repaired or renewed very rarely or only during breakdowns.

The consumption of energy is in general increasing within the industry. During 2010 the energy consumption in the industry increased with 10% in comparison to the previous year. The total electricity usage increased 7% in comparison with the previous year. The metals industry increased its usage with 23% and the pulp and paper industry increased its usage with 2%. During the year of 2010 the metal industry continued to increase its usage to 31% in comparison to the previous year and the pulp and paper industry to 4% (Statistiska Centralbyrån 2010).

5.3.2 Interview data

We interviewed six industrial customers, three from the pulp and paper industry and three from the metals industry, and twelve different people within those companies, provided by the sales unit at SKF. They were mainly maintenance managers, but also sustainability managers, safety managers and people from the purchasing department. All the data below comes from interviews and we will, for privacy reasons, not denote who said what, instead a list of all customers interviewed can be found in Appendix B. The data below is the result of the questionnaire and is presented in the form of headlines reflecting the questions asked in the interviews.

Maintenance work and controlling the energy use

In general the machine bodies in the factories are not replaced for about 50 or more years, while smaller parts of the machines are replaced on a regular basis. Machine-breakdowns are common and occur every other week, even if assigned employees constantly work with preventing breakdowns. There will always be some breakdowns, but more reliable machines could save a lot of money.

Daily maintenance work on the factories is important to prevent breakdowns and prolonging the machine-lifetime. In the pulp and paper industry the machine bodies are cleaned every other month, and at two interviewed pulp and paper companies they turn off all the machines for a few days once a year, with the sole purpose to do repair work and more thorough cleanings. In the metals industry there are generally daily maintenance work, but the machines can never be shut down completely. It is not worth to turn them off because of the risk of them not starting again. In a metal plant, because of the high heat, the machines rapidly become worn out which causes the machines to break down more easily than in other industries.

The energy use is harder to control because of the unreliability of the machines in the metals industry. This means the same amount of energy is consumed all year around, even if the need is less during the summer than the winter. The sequence of this is that a lot of energy goes to waste which leads to higher costs. While some companies have

Energy or Sustainability managers working solely with reducing energy consumption, other companies do not have a dedicated position for just those questions and the responsibility is put on other managers.

Measurements of the energy use

Most of the companies have their own systems measuring the energy use in the factories. Because of the large amount of data being measured, a problem that often arises is to know what data is relevant to analyze and what data is not.

Measurements of the machines energy use is done daily. Analyzing of the data is done monthly in the pulp and paper industry and daily in the metals industry. Common measurements for both industries are pressure, heat, electricity, steam and more. What is not always being measured is the downtime energy consumption when the machines break down. This is costly for companies. Today, they are constantly working with preventing breakdowns by daily maintenance work.

The importance of sustainability

Because energy efficiency is considered to be equivalent to cost savings, it is considered to be an important goal. The environmental perspective however is generally not considered as important. For companies who have made commitments that affect their decision making when purchasing services, such as participating in the Dow Jones Sustainability Index assessment, it is more difficult to rank the different aspects of sustainability; energy efficiency, environmental and safety, because the commitments requires that they meet all requirements to some standard. But even when there are demands on all aspects of sustainability, safety is quoted as the aspect that, for other reasons considered, is the most important. The aspect of energy efficiency, however, is considered important from an economic perspective. Safety is more directly linked to compliance of some regulation or some standard. The services that comply to all of the aspects of sustainability simultaneously are considered the most attractive ones.

Demands for sustainability services

For maintenance managers, who usually are the most active participants in the purchasing process, the greatest need is to increase or maintain the capacity of the machines at a low price. Energy efficiency improvements and optimizations are greatly needed among customers. Education, personal consulting, optimization of the process, and identification of areas for improvement are other needed services but not as requested as the energy efficiency and optimization services. The manufacturing process also sometimes requires external services but in these cases the requested services are at academic research level, and not dedicated services. Companies participating in PFE often need to bring in external consultants to carry out studies on energy efficiency, but the actual implementation of the solutions for areas of improvement that have been discovered usually will preferably be done in-house. Often, companies do measurements with external systems, but the analysis of measurement data and monitoring is done in-house.

Demands for CNA-ES

All of the companies interviewed, both in the pulp and paper industry and the metals industry, were positive to a service like the CNA-ES and said that there often is a need for this kind of service. Some of the companies interviewed had already made a survey that resembles the one that SKF can offer from competitors. One company in

the metals industry said that larger companies have services like CNA-ES in-house, but added that it could be important for those companies as well to perform a survey like this because it is initiated by a third part. One company in the pulp and paper industry also said that “it is easy to get blind to flaws in the own factory and that is it good to have an independent actor that can look at the factory with fresh eyes and analyze the situation and see what flaws there might be in the factory. The actor should also have the tools and services to make an improvement. The same company also adds that it is important to not force the customer to buy the whole package but to make additional services or products optional. They said that they had bought a survey like the CNA-ES a few years ago and the company selling this service also had additional services connected to the survey. The company chose not to buy the additional services but instead to make its own version. Thus they took advantage of the survey and could obtain knowledge of obstacles in the factory that blocked the production. One problem with a survey like CNA-ES that one company interviewed stated was that it took a lot of time to carry out and that it took time from the employees (e.g. maintenance manager) daily work chore. Also, the implementation of the services connected to the survey might not be straightforward. There could be some start-up problems with the changes and not just psychical problems connected to the machines but also psychological. One company interviewed claimed that it is important to get dedicated employees who can really see the usefulness of the changes in order for them to be permanent. Otherwise it might happen that the changes are made and worked with for a few days and then the employees get tired and return to old routines.

Demands for Energy Monitoring System (EMS)

All of the companies in the pulp and paper industry have these kinds of monitoring systems in the company today. One of these companies argued that if SKF should come and make an analysis like this, many employees would be skeptical. They were more used to take in an actor working in the pulp and paper industry for services like this and their opinion were that these actors have a better perception for their specific industry, while the others definitely saw SKF as a credible partner offering this service. Another opinion was that the target customers for these kinds of services were small-sized companies.

Interviewed metals companies measured the majority of the values in their machine parks. It is common that companies have different measurement systems for different machines, e.g. compressed air systems, pumps etc. According to one of the companies, there is always a need for monitoring system that is customized for the individual customer. The requirements they had on a service like this where that the systems should identify leaks and other problems fast and in a simple way visualize lots of data and measured values. The matter of sustainability, though, is considered much more important from an economic perspective. The down time is usually perceived as more costly than other waste in energy usage.

The data should be presented in a simple way and the connection to profitability should be clear, meaning that the systems should visualize how much money is used and how much could be saved if the energy consumption dropped. This is important in order to motivate the employees. It should also be clear what the purpose is and what benefits the company can obtain from implementing systems like EMS. Another recommendation from a customer was that SKF should send weekly or monthly

reports on the energy consumption telling if the consumption is under control or if it is rising unexpectedly high.

Demands for shopfloor awareness cards

The overall picture obtaining from the interviews were that most customers were positive to the cards. They believed that the intention of the cards was good but some thought that it could be hard to make them work in reality. For people on the shop floor it might be hard to see the value in reducing energy consumption in their daily work, and they could feel that their change in behavior makes no difference compared to the very energy intensive production. Some companies also thought that the cards were a service not significant enough to be sold separately and therefore should come for free when another service were bought.

Pressure from external and internal actors to be more sustainable

Increased demand for sustainability services from customers is often caused by pressure from external and internal actors to be more sustainable. Companies can only affects their own situation, so continuously working with improvements is one way of being competitive.

There is currently pressure from stakeholder for companies to conduct themselves ethically and straighten their sustainability profile. A good way to do that is by offering a sustainability report, which today has become more common and is being offered by many of the interviewed companies. During the procurement process it is common that customers look at what certifications a supplier has, for example ISO certifications, and which one of them is the most sustainable. The products are often similar between many companies, so a good environmental profiling could be what determines which supplier is chosen.

The buying process

Even if companies have different processes for buying services and products there were some common denominators in the interviewed companies. The demand for a certain service or product usually is initiated from a maintenance manager or a production manager. These managers often have a deeper knowledge about their company's production line and know what is needed to maintain and develop the line in order to make it more efficient and more reliable. The production/maintenance manager is however often not the only actor in a buying process. There is always a buyer connected to the purchase in one way or another. They usually have limited influence in deciding what product/service to purchase but have greater impact in negotiating the price and are responsible for writing the contract. Influencers on the maintenance manager and purchaser during a buying differ between the interviewed companies, examples on influencers are employees working with energy, environmental questions, safety, chemicals and leakage etc.

One of the companies interviewed said that the person requesting a new service or product (often an engineer or a maintenance manager) has to fill in a PFE form; otherwise they would not be granted resources for the purchase. This company was however participating in the PFE-program and their buying process might be unique for their company.

Competition between investments

Customers usually do not have a separate budget for sustainability services, purchases of this character compete with all other types of investments and under the same conditions. The investments normally compete on the basis of payback time. The required payback time for a services of this character that customers have on their investments, is between two to three years. One of the companies said that, since there is a tough internal competition for investment funds, it is difficult to argue for the company to make an investment that has a payback time of more than three years.

There are also investments in which payback time is not considered the most important assessment base, which then is a result of other issues predominating. This can be because of decisions at a more strategic level or simply because of regulations. Safety and work-environment are examples of issues that have led customers to re-prioritize the order of factors that control the decision-making. Although investments are often made with a starting point in payback time, energy calculations still are often included in the decisions, but only as part of the assessment base. The energy calculations then have an argumentative value in the internal deliberations about what investments to make.

5.4 Competing sustainability services

Four competitors to SKF from the market survey at the maintenance fair was chosen for a deeper case study; Statoil, Inspecta, EagleBurgmann and Ahlsell. Their sustainability services will be presented as a result of both interviews from the fair and internet research. This deeper case study helped us to evaluate the second purpose how SKFs sustainability services should be packaged, promoted and sold.

5.4.1 Statoil's Plant Survey

Statoil lubrications have a sustainability service called Plant Survey, which has some similarities with the CNA-ES interview form. During a Plant Survey, a team of one salesperson and one engineer will go through a facility or plant and what lubrication solutions are used and what the current and future need for lubrication systems and lubricants are. The data is then analyzed and presented with a couple different alternatives for which lubricants that could lower total costs for the company. Statoil supplies all the suggested solutions themselves and use the Plant Survey to point out how customers can buy different lubricants and save money, especially in downtime reduction, while still remaining Statoil customers. As an added benefit, the higher quality oil that is the standard solution is more eco-friendly and have a higher purchasing price, which retains Statoil's revenue streams.

The Plant Survey is however not something Statoil qualifies as a sales strategy, but rather a service for which the customers pay. Statoil also makes no claim of being independent and will only suggest solutions they can provide themselves. The service is in practice a way to increase sales for high quality lubricants by pointing out where companies can save money, but can be marketed as a sustainability service as well since the focal point is increasing lubricant lifespan and hence lessening the impact on the environment. Statoil claims Plant Survey has been a success and that they have had a lot of customers so far. There are, however, no statistics to support this claim.³⁹

³⁹ Henrik Leinerud, Sales representative at Statoil Lubricants. Interview at Svenska Mässan the 15th of March.

5.4.2 Inspecta's Technical consultations, Testing and Training

Inspecta is a Scandinavian supplier of inspection. They offer services in inspection, certifications, tests, technical consultation and training. Several of these are similar to SKF's sustainability services. Inspecta's service test is similar to SKF's service EMS. In this service, advanced equipment is used to find latent defects together with staff that can interpret the results observed. Inspecta offers ultrasonic testing, magnetic particle testing for hardness testing and more. The purpose with this service is to discover defects in time. A service that is similar to CNA-ES is called Technical consultation. It is an analysis and solutions for improved safety and availability of mechanical components and systems. The analysis is within material and corrosion, strength and risks, reliability and optimization methods. With the analysis as a base they then provide advice and tools to ensure a safe working environment and avoid costly stops.⁴⁰

Inspecta offers measurements that are regular which help to early discover potential problems and provide solutions to these. They combine different techniques and competencies to solve complex problems and provide solutions where the plants are optimized in a holistic perspective. Inspecta's training courses is arranged to strengthen companies' knowledge and constantly improve and develop efficiency, safety and quality in the companies' services, products and operations. This service is in a way similar to shopfloor awareness cards, in the part of educating employees. The shopfloor awareness card also has a purpose of educating people, but not by training course, instead by cards that regularly helps employees to think more about sustainability.⁴¹

5.4.3 EagleBurgmann's Technical analysis, Maintenance service and Training

EagleBurgmann is a supplier of sealing technology. Within its sustainability services division they offer overall solutions customized for the individual companies. EagleBurgmann markets its sustainability services on quality, reliable and flawlessness. EagleBurgmann offers a service that is similar to the CNA-ES called Technical analysis & support where a service team of sealing technicians analyzes a customer's sealing problems and processes. They use methods in data logging and imaging for the diagnosis of critical positions for the operations of the facility. A service that is similar to EMS is called maintenance service, where EagleBurgmann document functional data, failure causes and costs. The aim is to evaluate maintenance costs and sealing operations on a continuous basis. They can thereby present actions to extend the service intervals. EagleBurgmann offers a service called training, an extensive range of postgraduate courses in sealing technology. Training is developed for employees in maintenance and service, pulp and paper industry, power plants and more. Same reasoning as for Inspecta regarding SKF's service shopfloor awareness cards also apply here.⁴²

⁴⁰ Bengt-Åke Johansson, Sales representative at Inspecta. Interview at Svenska Mässan the 15th of March.

⁴¹ Bo Johansson, Sales representative at Inspecta. Interview at Svenska Mässan the 15th of March.

⁴² Johan Lexhag, Sales representative at EagleBurgmann. Interview at Svenska Mässan the 15th of March.

5.4.4 Ahlsell's Energy efficiency solutions

Ahlsell is a Swedish technical trading company selling installation products, tools and machines, electrical equipment, tools and machinery, refrigeration and do-it-yourself-products. Ahlsell has launched an energy efficiency initiative which is a concept to guide industries among issues of energy efficiency.

Ahlsell's concept of energy efficiency includes the labeling of its own products which fulfill the requirement of 20% lower energy consumption against benchmark product or which has a payback time of 5 years or less as a result of the reduction of energy consumption. The label "energieffektiv" (energy efficient) is an Ahlsell-label with the purpose of making it easier for the customers to identify their energy efficient products. The documents of verification for the requirements are supplied through Ahlsell's own website, a dedicated website to the initiative, and also together with the services to customers. Together with ÅF, a Swedish consulting firm, they have also compiled a summary of the laws, standards and recommendations concerning energy efficiency, for specific capital assets such as fans, as well as overall solutions, together with a summary of the benefits of these solutions. Another part of the concept is the elaboration of manuals for industry, home, office maintenance and the provision of seminars and education within the area of energy efficiency.⁴³

Ahlsell has additionally developed a dedicated website for the initiative with the explicit purpose of being a venue for learning about energy efficiency solutions and its practices for industry, consultants, electricians and house owners. Ahlsell market the initiative as a knowledge resource and as an ambition for reaching the EU's goal of a 20% reduction of the energy usage, and helping companies achieving this goal.⁴⁴

⁴³ Ronald Åström Sales representative at Ahlsell. Interview at Svenska Mässan the 15th of March.

⁴⁴ Ibid

6. Analysis

In order to provide SKF with suggestions on how the current sustainability services could be packaged, promoted and sold in Sweden it is vital to understand why, when and by whom these sustainable services are demanded. It is also important to understand what problems, obstacles and opportunities exist for the sales unit in Sweden to bring these services to the aftermarket. With the foundation of collected data regarding SKF's sustainability services that were presented in chapter four and five and the theoretical framework presented in chapter two, the questions asked in the problem analysis in chapter one will be answered. The goal is to find and highlight what problems and opportunities lay ahead for SKF's sales unit in Sweden in order to successfully market the sustainability services.

6.1 The demand for sustainability services

Due to increasing energy consumption in the industry today, combined with pressure mainly from the government and the shareholders demanding optimization and energy efficiency, the market for sustainability services is growing. In general, the market in Sweden offering services connected to sustainability has come a long way, but it is still far from fully developed. The market survey shows a clear demand for sustainability services that were confirmed by many interviewed suppliers. Several suppliers offer similar services as SKF's sustainability services and reports success, which confirms the demand for sustainability services.

What aspects of sustainability are demanded?

Energy efficiency and safety are two aspects that companies have addressed for a long time and they are now a part of the daily work. The latest trend is a growing demand for environmental aspects of investments, something companies today are starting to see as more and more important. But all of the three aspects (economic, environmental and social) are not yet equally demanded by companies. One company claim that energy efficiency is most demanded since the importance stems from an economic perspective. Safety, a subcategory of the social aspect, has for a long time been an important factor for customers within the manufacturing industry. A pulp and paper company that was interviewed said that all the aspects depend and rely on each other, so the importance is as great for all three aspects. This was a company with a strong environmental profile.

Daily maintenance works in the factory is important to prevent machine breakdowns and prolonging the machine-lifetime. The downtime energy consumption for a machine is very costly for a customer. Increased reliability for the machines is therefore an aspect that is demanded from many companies. SKF focuses on the energy efficiency aspect while marketing and selling the sustainability services, when they should be focusing more on reliability.

Who in the company demands sustainability?

The demand for energy efficiency and safety services comes mainly from the maintenance manager. The demand is derived from the continuous work with maintenance in the factory that is done to prevent economic losses through machine failures and energy inefficiencies. The companies' boards also demand sustainability, the major interest lies in strengthening their company profile and to be seen as a "green company". This is mostly achieved by certifications.

What is the demand for SKF's sustainability services?

Analyzing the demand for SKF sustainability services we could clearly see a demand for the CNA-ES and the EMS services. Several competitors to SKF from the maintenance fair offer similar services, confirming that demand. Customers saw a value in what the shopfloor awareness cards intended to do, but very few considered it something that they were willing to pay for.

For the CNA-ES service, customers in both industries were positive. Almost every interviewed company had already bought a similar service from competitors to SKF. The service is demanded for the whole machine park among smaller companies, to receive an overview of the total energy consumption and possible energy savings. For larger companies, this service is more suitable for one part of the machine park at the time. One problem with the CNA-ES is the time required from employees (e.g. maintenance manager) to carry out the survey. The implementation of the services connected to the survey will also take time and therefore the benefits for the service needs to be highly motivated for the customers to purchase it.

The demand for the EMS service differed between the two industries. All companies already measured most of their energy consumption, but not all were monitoring them. Interviewed companies in the pulp and paper industry, had their own monitoring system where most of the machines were being monitored. In the metals industry not as many machines as in the pulp and paper industry were monitored, so the demand for a service like the EMS service is greater in the metals industry. This shows a large difference in how far the different industries have come. Although the part of the EMS services that was most demanded was not the monitoring itself, it was the part where the output of the data was analyzed. Most of the customers were positive to see SKF offer a service like this, but one customer in the pulp and paper industry were skeptic about the credibility of a service like this coming from SKF.

Companies liked what the shopfloor awareness cards intended to do, but some of the customers interviewed in both industries already performed similar services in-house. Those who might be interested were companies being at the beginning of a phase of being more sustainable, and these cards could help them to get started. From the case study of four competitors, none of them offered a similar service, which could be an advantage for SKF, but it could also mean that there is limited demand for this kind of service. Competitors offered training courses instead of cards, the training courses one competitor had developed attended to strengthen company's knowledge in fulfilling legal requirements and constantly improve and develop, efficiency, safety and quality in the company's services, products and operations while the cards cover questions about energy, energy delivery, sustainability at home, calculation savings, pumping ownership costs etc.

When are the sustainability services demanded?

There is a demand for sustainability services today and this demand and is estimated to increase in the future. 82 % of the companies from the market survey saw an increased demand for sustainability services today and the demand expects to increase in the next 5-10 years. Reasons for this increased demand are, according to many companies, rising energy prices, larger awareness in being sustainable and more focus on CO₂ emissions. Consumption of energy in general is increasing today within the industry and also the forthcoming investments are increasing in both metals industry and the pulp and paper industry due to an expected increase in volume changes.

6.1.1 SKF's market position

Industrial companies in Sweden in general perceive SKF primarily as a supplier of bearings, while long-term customers of SKF see them as a supplier of reliability and safety. SKF's brand is strong on the industrial market as a whole, but focused on traditional core values (e.g. reliability, safety and credibility) and none of the companies interviewed in this study made a connection between SKF and sustainability. SKF has for a long time had the foundation for delivering energy efficiency, since the higher quality the bearings have, the less energy they waste. SKF's brand identity is connected to reliability and a system where energy is not used fully for the intended purpose might, for instance, cause vibration which could lead to an unstable and unreliable system which in turn could cause breakdowns. Such systems are therefore neither reliable nor sustainable and the connection between reliability and energy efficiency is made clear. It is however only recently that the market has started to value sustainability as an argument for making business decisions. SKF has worked with reliability and safety as sales arguments for a long time and now they are given the opportunity to be recognized as a supplier of sustainability and energy efficiency, something customers start to value increasingly more. With over hundred years of experience in the area of energy efficiency, SKF only need to modify its market communication to promote their brand as sustainable. SKF already have the knowledge base within rotating assets to make energy efficiency and sustainability solutions and could use that to create credibility in offering sustainability services.

Other suppliers of sustainability services are currently starting to create market shares for themselves and building sustainability and energy efficiency into their brand identity. Many of the interviewed companies had already started internal processes and projects relating to energy efficiency and were looking for outside assistance mainly considering ways to analyze, present and benchmark big chunks of data. Most interviewed companies already gathered much data regarding energy efficiency, but did not know how to use it in a simple and comprehensive manner to find concrete measures that would reduce energy consumption. This is an important market potential for services that are currently being developed, like the Comprehensive Energy Assessment (CEA) as well as the Energy Monitoring Service (EMS).

All of the case studies show companies that have come further than SKF in marketing and selling sustainability services similar to the CNA-ES and the EMS. The market is already being populated by suppliers and since the market is relatively new there is still room to create market shares for new entrants. It might be important to use current relations to carve out a customer base for sustainability services before other providers manage to form long-term relationships with SKF's current customer base. Since customers currently do not see SKF as a supplier of sustainability services there is great long-term business potential that SKF might miss out on.

In order to create a clear connection between the sustainability services and SKF's other services it might be beneficial to use CNA-ES and EMS to initiate the process of forming deeper collaborations with current customers with the purpose of becoming a maintenance partner. This could also be a way to use the sustainability services as a stepping stone to a bigger business, as requested by the sales unit, which would increase interest from the sales representatives and create possibilities to deepen the collaboration between the sales unit and their customers.

Today the sales unit serves a broad segment of customers within the manufacturing industry and delivers services across five different platforms. The services are customized to the customers' need, as SKF has a close collaboration with their customers. In that respect their service portfolio overall could be defined as market focused as their services range across multiple competence areas and its market being narrow. SKF's sustainability services could pave the way for a different approach by being more service focused and offering standardized services. Developing a standard design could lead to a simpler way for the sales unit to interact with customers. The new design of the sustainability services could lead to opportunities to engage with new customers.

6.1.2 Customers buying centers and organizational buying processes

The buying situation in the pulp and paper and the metals industry are very similar. The responsibility for buying sustainability services usually lie on the maintenance manager, purchasing managers and in some cases energy managers and environmental managers. These positions in the company make the critical decision in purchasing sustainability services. The different roles in the buying center that Kotler describes are distributed between these employees; hence the marketing should be directed to these positions.

We have observed that there are two cases of how the buying center is formed. The main differences in these cases are if the company has an employee that is responsible for energy or environmental issues or not.

In the first case a company has an employee working with energy or environmental issues, he or she works to continuously improve the company's efforts within these areas. The initiator of the buying process is usually a maintenance manager, who has gathered information about the benefits of purchasing different services. The maintenance manager will also, most likely, be the one using the service together with people in maintenance. When the service specifications are made clear, the staff responsible for buying the service is introduced. The buyer of the service is usually the purchasing manager, who makes the decision with the help from the maintenance manager who gives him or her the service specifications. The role of the purchasing manager is to find the appropriate vendor and negotiate the deal after these specifications. In some companies, there are influencers who affect what is ordered. These influencers are often related to the areas of sustainability and energy efficiency. The input they provide is relevant because they have expertise within sustainability and what degree of energy reduction the service can provide. By taking advantage of the government policies or commitments to certification standards which provide benefits for the purchasing organization, the customers can get discounts and/or tax reliefs which influence the buying decision.

Case with influencer:

- The Initiator is usually a maintenance manager, who has gathered information about the service.
- The Users consists of the maintenance manager together with people in maintenance, who usually makes the specifications for the service.

- The Buyer is usually the purchasing manager, who makes the decision with the help from the maintenance manager. He or she finds the appropriate vendor and negotiates the deal after the specifications.
- The Decider makes the final purchase decision, they decide ultimately on the product or service requirements or on suppliers. The bigger the size of the deal, the higher up in the organization the final decision is made.
- The Influencer is a person working with energy or environmental issues and provides expertise within sustainability. He or she provides information about what the impact on energy consumption a purchase can make and what other form of benefits that derive from the purchase.

The second case arises when there is not an employee working with energy or environmental issues that can influence the buying decision. Some companies within the pulp and paper industry and the metals industry do not have employees responsible for energy and environmental issues. This may change the approach on how the marketing should be done. If there is no employee working with energy or sustainability issues, marketing should be focused mainly on the maintenance manager who should be informed thoroughly about the benefits obtained by purchasing these services. It is common that the maintenance manager is not informed about government policies and other regulations because it is usually not a part of his job description. However, when the company has an energy and/or sustainability manager, then one of their work assignments is to be informed about government policies and regulations and what benefits the company can obtain from them.

Some companies have purchased similar services to the SKF sustainability services and are informed about them. Their buying procedure can be described as a modified rebuy. Other interviewed companies had a buying situation that can be described as a new task. If it is a new task situation, it might be beneficial for the salesperson to focus on the influencer and the initiator in the initial stages of the buying process, i.e. the maintenance manager, energy manager or environmental manager, since the maintenance manager usually is not fully informed and needs the assistance from the energy and sustainability managers. It is beneficial to have them present because they will validate the salesman's arguments when it comes to governmental policies and energy efficiency. This will facilitate the maintenance manager to make a decision. The other situation, modified rebuy, will have a different approach since the maintenance manager is somewhat informed in how the purchase is done and what the benefits are in purchasing these services. In this situation, a company usually is not satisfied with their current supplier and desires to change supplier. This is where the sales unit could market SKF as an energy efficient and asset reliable company to gain market shares.

A problem is that maintenance managers often want to be “heroes on their own machines”, i.e. if something breaks down they often purchase the same machine again because they know how that machine works and can control it independently. Something that is new and fairly unknown may cause uncertainty. It may also be that the maintenance manager does not want to give the responsibility of maintaining the machines. Therefore it will be important to try to convince the customers what the benefits are in these services, that the machines will become better and eventually be more reliable and safer.

6.2 Packaging sustainability services

One of the main purposes was to examine how the sales unit should package their services and how it should be sold. For the sales unit it is vital to focus on how to make a strong connection between what the package contains and what the customer needs and demands. The customer benefits of buying the package should also be well-defined in order for customers to see how they could benefit from buying the services and how they could help them become more sustainable.

The CNA-ES and the EMS services are not very flexible in itself but rather standardized and uniform. These packages should probably remain to be like this in order for the sales unit to have a well-defined and standardized service where both the sellers within the sales unit knows what they are selling and that the customers also have a clear perception of what they are buying. After these services have been delivered, the next step should be more customized to the needs of the customers. Many of the customers interviewed were positive to services that were not too general and standardized, but instead flexible so that they could be adapted to their specific company. The CNA-ES should probably not be packaged through bundling with SKF services outside of the sustainability services. This could make the customers feel obligated to buy specific products and services chosen by SKF. Neither should the EMS services make people feel locked in to buying only SKF products and services. Many customers prefer if they can choose whether they would like to have additional help from SKF or if they would not like to go further. Some companies might feel after the survey is made that they do not have a sufficiently strong need for additional services, at least not at the moment. In those cases, they should not be forced to go any further. If the customers choose to get further help from SKF, the solutions the sales unit provide should decrease in standardization and be made more customized according to that specific company's needs.

The CNA-ES is an engagement tool that can be used as “door opener” to start a discussion with a customer and lead to further business. To make the service more attractive it can be packaged together with a discount. The discount would imply a price reduction when purchasing SKF services that are recommended through the CNA-ES. This discount would be beneficial because some customer buy the CNA-ES service but do not continue in purchasing other services connected to the service. The discount would increase the probability in “tying down” the customer and discourage them from changing distributor. In addition it serves as making the connection between CNA-ES and larger deals clear to the sales representatives.

Another issue addressed in this study was if the CNA-ES, the EMS services and the shopfloor awareness cards should be sold as separate deals or if they should be bundled together with one of the services SKF offer today. The services could be sold in both ways, which makes it a mixed bundle. They have no restrictions of being sold together with other services in the sense that they could not be performed without other supplementary services. Still, SKF's sustainability services tie in to its traditional core values while adding an additional value; sustainability. Therefore these services could be sold together with other services that are sold today.

The shopfloor awareness cards are today sold as a separate deal and can remain to be sold separately. The cards could, nevertheless, be bundled together with other services. Many customers saw a value in the cards but added that it might be a service too small for them to buy separately, and that they expected a service like this to be

included for free when other services were purchased. Since there is a connection between the cards and the EMS service, they could be bundled together with the EMS service creating additional value when the EMS service is purchased. This is because topics brought up in the shopfloor awareness cards are related to what EMS monitor e.g. compressed air systems and pump systems. The information presented in the cards refresh the maintenance engineers knowledge about what can be improved within the facility. Periodically presenting the information in weekly meetings can make the maintenance engineers and related employees think about how they can improve their facility which in the end implies to a more sustainable environment.

6.3 Promoting and selling sustainability services

Since SKF's sustainability services are sold primarily on the aftermarket, the most important channel for customers and market communication is the relationships the sales units representatives have with potential buyers. This means that personal selling is the single most important form of communication channel.

All the interviewees agree that environmental issues do not justify financially bad investments. Instead, it is either seen as a determinant attribute when the basic qualifications for investments are made or as one of the important attributes itself. Energy efficiency has the inherent benefit of being a cost reducer as well as having an environmental upside, which makes it an easier sell compared to other environmental investments. This is important for the sales unit since they are able to convey both sustainability related benefits like reduced CO₂ emissions with their services as well as cost reducing factors relating to energy consumption.

In order to communicate with the market about the sustainability services the sales unit might need to emphasize cost reducing properties, but also factors relating to other SKF core values, such as safety and reliability. By using safety as an entrance to other sustainability issues, the sales unit could use SKF's current brand image in assuring customers that they are able to deliver solutions relating to other aspects of sustainability. Likewise, using reliability as a way to begin talking about energy efficiency can be one way to connect SKF's traditional core values with the new sales arguments.

The people who possess much influence in the decisions about purchasing the SKF's sustainability services are the maintenance managers. They are therefore the ones who need to be convinced and who in turn communicate the decisions upwards in the buying organization.

6.3.1 Determinant and important attributes

Important and determinant attributes have influence on whether a customer chooses to buy a certain service or not. Important attributes are those attributes that must be above a certain level for the customer to even consider the service, and determinant attributes are attributes that win orders. SKF is fairly new in offering services connected to sustainability, an area where competitors in Sweden has come much further. But SKF has long experience working with products and services that contributes to sustainability without actually marketing them in that way. To lead the way for present customers in sustainability issues differentiating their service portfolio in this way could be an important step.

To be able to deliver sustainability services with quality, the right service levels for the determinant and important attributes has to be established. Decisions must also be made on what level of performance to establish for the services on each attribute, determinant and important. This could be done easily for some services but be harder for others depending on how measurable the attributes are.

Important attributes for sustainability services are:

- **Reliability** - Companies continuously work with maintenance, and in order to prevent breakdowns, reliable machines are very important. This attributes could be seen as one with a high service level.
- **Safety** - From interviews the study shows that safety is directly linked to compliance of some regulation or some standard. Safety is also therefore seen as having a high service level since it restricts the customers to buy a service with certain specifications.
- **Credibility** - Credibility is an important attribute for customers since they need to have a company that they can be sure of that they provide the right services they need in the right time.
- **Customized service design** - This could be seen as either an important or determinant attribute. The aspect of the attribute that is seen as important is whether the customized service design is seen as a prerequisite for purchasing it, and the determinant aspect is whether the attributes determines the purchase.

Some of these important attributes are connected to what SKF stands for as a company, which is important in the context for the sustainability services to feel “SKF”. The attributes that customers already connect to SKF does not need to be emphasized in the same degree as those attributes that customers not usually connect to SKF’s core values, since they are implied.

For SKFs sustainability services both of the determinant attributes contains of a high service level:

- **Achieving certification standards and environmental policies**

Because of similarity in many companies’ services, maintenance managers and purchasers look at other factors that differ between the services. To be seen as a “green company”, through certifications and participation in for example the Dow Jones Sustainability Index assessment, the purchase of a service that could submit to these obligations is something that could determine a purchase for the customers. Certifications can be seen as both a determinant and important attribute. The attribute is important if a customer purchases a service to fulfill the demands of a certification, or is already certified. If a company instead considers fulfilling certifications it is more of a determinant attribute.

- **Payback time**

The payback time is a determinant attribute since the investments normally compete on the basis of payback time. For all of SKF’s sustainability services the payback time is a determinant attribute. For the CNA-ES service it is not the analysis itself that provides the revenue but the step afterwards, meaning the repairs, modifications and new implementations in the machine park. Since the

latter step is difficult to assess in advance, as the CNA-ES do not identify the problems until the survey has been made and the identified problems are specific for different users, only a more general clarification of the payback time can be made. For the customer to purchase the CNA-ES a more general description of the payback time for the latter step is needed. Since there is often only one budget for all investments, purchases of sustainability services compete with all other types of investments under the same conditions. If the payback time is too long customer might hesitate to buy a certain service. Therefore it is important at an early stage to be able to give physical evidence about what measurable benefits the service can provide for the customer, for example in reduction of energy in form of either case material or measured data for improvements. This is more easily done for EMS service as one analysis provided through the EMS service is a cost analysis. Many people, e.g. maintenance managers and purchasers, in the manufacturing industry has a way of thinking in short-term when it comes to payback time, the maximum payback time for them is usually two to three years. This is very common in the industry and a big problem since many services such as sustainability services many times are long-term investments. One way that this issue is addressed by the Swedish government is through their energy policies that comprises tax reductions for companies in the industry. It is an effort that focuses on raising awareness within companies about the opportunities for energy efficiency measures. Therefore the benefits of certifications and environmental policies are associated with the payback time and are both determinant attributes.

6.3.2 Provider gap

The provider gaps needs to be closed to be able to close the customer gap. If dedicated personnel within the sales unit take responsibility for establishing standard levels for the services, for packaging, promoting, selling and for the deliverance of the service the risk of individual gaps according to the gaps model will diminish. The gaps will always occur as long as they are not counteracted by stringent internal communication within the organization.

The service design and standards gap around SKF's sustainability services

This gap arises because of poor service design, absence of customer-driven standards or wrong physical evidence and “servicescape”. The sustainability services are today developed by the ESM team who also are responsible for communicating them to the sales unit manager, who in turn relays the service offers to the sales people and decide in what specific way the services should be marketed. The external communication is in turn handled by the Key Account Managers.

Since the ESM team designed the services to make energy savings for the customers according to the “Beyond Zero” initiative, the services are not customer-driven but based on the concerns of management. The sales unit manager considers the services from a business perspective in a higher degree, and has more “local” considerations than the ESM team, who act on a global market. It is therefore of importance for the sales unit to handle the service attributes’ different service levels to convey the sustainability service according to customer-driven standards on the Swedish aftermarket.

The CNA-ES is focused on energy efficiency and is closely linked with SKF’s “Beyond Zero” initiative. Customers sustainability efforts, however, mainly focuses on safety and takes solely energy efficiency into account as a monetary question and

are positive to it from an economic point-of-view. The CNA-ES is not fulfilling all the requirements from customers, since they perceive it as taking up too much of their time, and that the services implemented as a result of the CNA-ES anyway would be changed by the staff shortly after they were implemented to fit their old habits. To handle these problems, appropriate physical evidence could be delivered together with the service, such as measures on the determinant attributes; payback time, and how the service coincides with external commitments such as certifications and/or governmental policies.

Regarding the EMS services the service design and standards gap consist mostly of expectations on the simplicity of the service. This gap is bigger towards the customers in the pulp and paper industry than to customers in the metals industry who in some cases do not currently have an energy monitoring system but do measurements daily. The customers demanded a service that is focused on the leakage and reporting the maintenance staff rapidly about it. What the customers primarily needed was a tool to make them prevent down-time and making their processes more reliable, since the largest savings could be done in this area. The connection between cost and savings needed to be stated clearly and the service were preferred to be very simple and able to visualize lots of data for the customer. The EMS service today is mostly designed as an energy management tool to monitor and measure energy usage, which the customer mostly already have tools to do in-house. The big challenge for potential customers is that they do not know how to analyze all the data they are collecting.

Regarding the shopfloor awareness cards, the service and standards gap is wider than in the other cases and some customers did not feel they could fulfill their purpose. They stated that people on the shop floor would not feel that they would bring value to their daily work in comparison to the energy intensive production. Most customers were positive to what the cards intended to do.

The standards and performance gap around SKF's sustainability services

This gap arises because of deficiencies in human resource policies, failure to match supply and demand, customers not fulfilling their roles and problems with service intermediaries. According to Kotler, process, physical evidence and people are the additional three service elements in the design of the marketing mix. If Physical evidence or tangible clues is the main issue in the service design and standards gaps process and people address the issue of the standards and performance gaps.

Today the sustainability services are provided by the sales unit, but the CNA-ES is conducted by the ESM team. The personal from the ESM team is highly competent in the area of the sustainability services and the service performance is very standardized since a small amount of people are able to conduct the CNA-ES. With experience in the industry of operations and energy management and a deeper knowledge about the business opportunities in energy efficiency the ESM team can deliver their service and recognize what is required from the customer for them to deliver the sustainability service successfully. But they are only the solution designers and not the deliverers. Sales representatives from the sales unit together with application engineers normally handle the services that require implementation such as the EMS services. As the pulp and paper industry and the metals industry vary much, different Key Account managers are expected to provide the EMS services with relatively little knowledge about the services which lead to a less stable sale process and also less knowledge about the services. Some of the sales representative at the sales unit also declared that

they knew too little about the benefits of the sustainability services to be able to sell them.

The communication gap around SKF's sustainability services

This gap arises because of a lack of integrated service marketing communications, ineffective management of customer expectations, over promising, inadequate horizontal communications and inappropriate pricing. The communication gap handles the usual 4 of the 7 P's Product, Place, Promotion and Price, which are the communicated service elements and closing this gap usually consist of ensuring that communication promises to the customer are realistic and correctly understood by customers. One suggested solution according to Lovelock is to seek input from front-line employees and to develop internal educational advertising campaigns to strengthen understanding and integration among the marketing, operations and human resource functions and to standardize services across different locations.

The ESM team handles internal communication about the sustainability services, but the external communication is handled by the sales unit and mostly by the Key Account Managers who get the information from the Sales Unit Manager. Today there is no information about SKF's sustainability services reaching the customers because of the services not being clearly defined for the sales unit. The sales unit do not know how the selling procedure should be executed and to whom they should direct their attention. The customers on the other hand demand energy efficiency solutions and reliability solutions, which could be matched by SKF's sustainability services.

6.3.3 Customer gap

The customer gaps consist of the gap between service delivery and perceived service and the service quality gap between perceived service and expected service. The expected service is a result of mainly three channels, word of mouth from outside actors such as customers and suppliers, past experiences and the external communication from the provider. To close these gaps service organizations usually need to work on closing the other provider gaps that accumulate in the customer gap.

Since building up the expectations of the service is an initial step for the sales unit as customers past expectations are virtually non-existent and other customers or suppliers have little or no information about SKF's sustainability services, the customers' expectations are primarily built up by the sales unit's external communication. It is important that the sales unit seek first hand input from front-line employees that deliver the service to continually improve the sustainability service in an initial step and that the personnel is knowledgeable in sustainability. To be able to provide determinants as simplicity and understanding of the benefits of the service the personal delivering the services need to have knowledge across different industries as from the sustainability area.

7. Conclusions and recommendations

Interviews held with customers to SKF clearly state that there is a need and demand for sustainability services on SKF's aftermarket in Sweden in both the pulp and paper industry and the metals industry. Sustainability aspects are today a way for companies to be competitive. Due to increasing energy consumption in the industry today, combined with pressure mainly from the government and shareholders, demand for sustainability in general and energy efficiency in particular is emerging. The aspects that are most demanded in a service are: energy efficiency, safety and reliability. The need for the environmental aspect of sustainability is emerging but is not yet equally demanded from customers today.

Out of SKF's sustainability services there is a clear demand for the CNA-ES and the EMS services. For the EMS services the attribute mostly demanded was not the monitoring, but the analysis of the data. The shopfloor awareness cards were not equally demanded but companies were still positive to what the cards intended to do.

The market is ready for sustainability services and it is clear that the sales unit in Sweden should make an effort in selling these services on the aftermarket. The market survey shows that other companies are already providing similar services today and the interviews with customers also shows that some of the customers already have purchased similar services from other companies. It is therefore important for the sales unit to bring these services to market as soon as possible. If the sales unit choose to wait there is a risk that they miss out on a potential business as customers decide to buy similar services elsewhere.

How the services should be packaged

The sustainability services, in this context the CNA-ES and the EMS, should be packaged in such a way that the customers can see the value and benefits all of the services in the package have for their specific company. The services should be standardized to make it simpler for sales representatives to bring them to customers. The solutions to the identified problem and improvement areas, however, should be customized for the specific company. The customers should nevertheless not be obligated to buy additional products and services from SKF after the CNA-ES and the EMS has been delivered. Instead they want to be free to choose from other suppliers. This is how the services are packaged today, so no changes need to be made. We recommend that the shopfloor awareness cards be primarily bundled together with the EMS service, but at the same time make them available to be purchased as a separate deal if customers ask specifically. These cards were demanded, but the companies interviewed did not see them as a large enough business and were not willing to purchase them. If the cards are bundled together with EMS, they will be offered as an added value for the customer, making the offer more attractive.

How the services should be promoted

We recommend focusing the promotion on the maintenance managers since they are responsible for evaluating what services should be purchased. In order to convince them to buy these services, the sales unit should clearly state which benefits the services entail. The maintenance manager is often responsible for gathering information about energy efficiency solutions and is also the end user of the service. In addition he or she communicates the specifications and what offers are most

suitable to the decision makers. The major benefits they want to obtain through these services are systems that are more reliable and more energy efficient.

Today, customers do not perceive SKF as a supplier of sustainability services, but see them as a credible supplier of reliability and safety. SKF should take advantage of this position and use it to make it clear for customers that they also are a supplier of sustainability services. We recommend making a stronger connection between reliability and safety in the promotion of the services, which are known core values of SKF. Safety is an aspect of sustainability, and this way another additional aspect of sustainability besides energy efficiency can be promoted for the services. This connection is important for the sales unit to utilize in order to change customers perception of SKF. The connection can be made clearer by highlighting that by delivering reliability, the processes will become more stable and thus safer. The economic benefits for the customer are provided by delivering reliability, which reduces downtime and leakage. This way, a stronger connection is made to SKF's core values, safety and reliability, and by also providing energy efficiency SKF provides sustainability from two different perspectives.

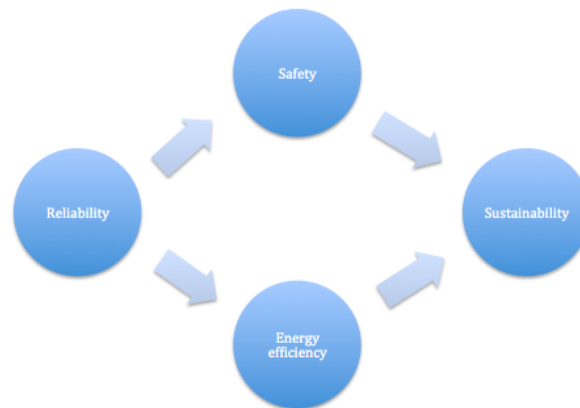


Figure 9. Connection between Reliability and Sustainability

The output of the EMS analysis need to be presented in a simple way and delivered quickly to the customer. Customers stated that they were not interested in services that only measured the energy use, since they were already doing that in-house. Instead, they demanded services that could analyze the data and give recommendations of how to improve the maintenance of the systems. Hence, we recommend that the sales unit promote the service mainly on this aspect.

The two identified determinant attributes for a customer of the sustainable services were: achieving certification standards and payback time. We recommend that SKF in a clear way present these attributes. We also recommend having the Swedish energy government policies as a part of the promotion to show the benefits of implementing energy efficient services. This includes reducing energy cost, hence lowering the payback time. The attribute of achieving certification standards are related to two different cases and can be seen both as an important and determinant attribute for the customer. It is an important attribute if a customer purchases a service to fulfill the demands of a certification, or is already certified with an existing company profile for sustainability. If a company instead considers fulfilling certification standards, it is a determinant attribute since they consider getting a certification and want to be

prepared. The payback time is a determinant attribute for the customer since the investments normally compete on the basis of payback time; the accepted payback time from customers in the industry is usually two to three years. We therefore recommend the sales unit to present the usual generated maximum, minimum and general payback times for the customers as an important part of the sales process.

Another important tool for the sales unit in order to present benefits with the sustainable services is to have business cases where SKF's services have led to reduced energy consumption. These cases can inform potential buyers what the services and products from SKF can do for their company by seeing what benefits similar companies have obtained.

How the services should be sold

We have noticed that there are two cases of buying process. The first case is when the influencer is an employee that is responsible for energy and environmental issues. In this case we recommend that the influencer should be invited to the sales meeting in order to validate the salespersons environmental and energy arguments. The second case is when there is not an influencer. In this case, the salesperson needs to inform the maintenance manager thoroughly about the environmental and energy benefits. In some situations, companies have not bought similar services before. If this is the case, the salesperson should focus on informing about government policies and link it to benefits connected to purchasing these services.

The CNA-ES should be used primarily as an entry point for future sales. Showing the potential energy savings and connecting it to additional SKF products and services is a good way to build SKF's brand as a supplier of sustainability and create sales arguments for the future at the same time. By using SKF's traditional core value safety as the entry point to show that SKF already is a supplier of sustainability in one hand and make the connection from reliability to energy efficiency to sustainability on the other, SKF will be able to use its current market identity to widen its brand and take a market position as a supplier of sustainability.

We also believe that there is a market potential for services that analyses data from monitoring services. The EMS has some potential for filling this need, but the CEA seems like a very good fit. This service is not yet for sale, but we believe it can be one of the most successful sustainability services if it is released to the market before customers have found other ways to fill the need for managing and analyzing data. In addition, this kind of analyzing solutions can open a door for SKF through which additional services can be marketed and sold with the end goal of forming long-term maintenance partner relations.

Dedicated sales representative

To reduce the communication gaps between different parts within SKF and to be able to deliver a standardised service, we recommend one dedicated sales representative for the sustainability services. This way misunderstandings regarding the sustainability services packaging, promoting, and selling are reduced and faster decisions are made, shortening time-to-market. The dedicated sales representative should preferably be enthusiastic and concerned about sustainability issues to credibly sell the services, as well as qualified in the relevant technologies. It is important to educate this sales representative about the underlying benefits of the sustainability services. A dedicated sales representative can also provide input for the organization to continually improve the sustainability services and develop standards for the sales

process and business benefits to be communicated throughout the sales unit. The sales representative should travel with key account managers to potential customers and pitch these services together with the key account manager. We believe that the cheapest and most efficient way to educate the sales unit about the sustainability services and how to sell them is by “learning on the job”; something a solution like this would provide opportunity for. This will also have the added benefit of showing the sales representatives in practice that the services SKF provide are demanded by customers in the aftermarket and that it can lead to larger deals later on.

Recommendations to the Sales unit

- Sell the services now
- Focus the promotion on the maintenance managers
- Make a stronger connection between reliability, safety and sustainability
- Have one dedicated SKF employee with a lot of knowledge in the subject to sell the sustainability services

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Appendix A – Interviews with SKF

Interview Questions

The following questions were used during the interviews with SKF employees.

Questions to employees working with sustainability issues

1. How do you define sustainability?
2. How do you define your sustainability services?
3. What are the trends within sustainability today and in the future?
 - 3.1 Are sustainability important for customers today?
4. Do you see any demands for sustainability from stakeholders?
5. Are there any gaps?
 - 5.1 Between the sales unit and SKF board?
 - 5.2 Between the sales unit and the customers?
6. How is the ESM team connected with the sales unit in Sweden?
7. How do SKF's "regular" services differ from "sustainable services"?
8. How are sustainability services promoted?
9. What are the best arguments to sell sustainable services?

Question to the sales unit

1. To what industries do you sell products and services to?
 - 1.1 If you sell within the Pulp and Paper industry, who are your customers in the industry?
 - 1.2 If you sell within the Metals industry, who are your customers in the industry?
2. Which questions do you ask to the customer, and how do your needs analysis look like?
3. Do you feel that SKF has provided you with enough information about the sustainability of services and sustainability in order to "sell" it?
 - 3.1 If not, what would you like to know more about?
4. Do you ask questions about sustainability when you're out at a customer, or do you only ask if the customer shows own initiative first?

5. If there is a need for sustainability services, how do you do to sell them?
6. How do you think that the Energy and Sustainability Services are packaged?
 - 6.1 Do you think sustainability is presented well in terms of Energy and Sustainability Services?
 - 6.2 Would you like to change how they are presented?
 - 6.3 Do you feel lack of any material in order to get customers interested in sustainability services?
7. What incentives are there for you as individual and for SKF as a company to sell sustainable services?
 - 7.1 Do you think that those incentives are good?
 - 7.2 If not, what incentive would you like to introduce?
8. Are there any specific sales targets that must be achieved in terms of sustainability services?
9. Do you sell the shopfloor awareness cards?
10. Do you sell the CNA-ES?
11. Do you sell the ESM services?
12. Who in the customers buying center decides which purchases to be made in terms of sustainability?
13. How good contact you have with your customers? How do you find out what they want, what problems they have, etc.?
14. How are your “regular” services differ from your "sustainable services"?
15. How do you market sustainability services?

Questions to the ESM team

1. What is your definition of sustainability services? What is the difference between a “normal” services and a sustainable service?
2. How is the development in the sustainability market, what is the pace of the development?
3. Are you working mainly with existing customers or is it a part of your job to find new customers?
4. What are the best arguments/triggers to sell sustainable services?

5. How are the sustainable services promoted to the end users on the Swedish aftermarket?
6. What are the demands for sustainable services on the Swedish aftermarket?
7. What do you think should be improved and focused on when it comes to sustainability services and its marketing?
8. What we know about CNA-ES is that its a service where you act as a third-part consultant, and that this is not a sales-meeting, is that correct?
9. Have we understood this correctly, an account manager checks if there is a need for sustainable services first by using CNA-ES or by regular questions? And if there is a demand for Sustainable services then an ESM member is called in?
10. How big percentage of the CNA-ES lead to an actual sale?
11. In the cases that don't lead to an sale, what do you think are the main reason for that?
12. What do you think are the biggest challenges in selling SKF sustainable services, in this case of services?
13. How was the CNA-ES questionnaire developed?
14. We heard that CNA-ES is based on a survey and we were wondering if you could send us a copy?
15. How do you work with shopfloor awareness cards? Who do you sell it to?
16. In pulp and paper and metals, who do you think are the main competitors in these industries?
17. Which of the Compressed air system, pump system and fan system, do you perform the most services in, in the pulp and paper industry?
18. Do you have any other material that you think that we need to look in to?

List of people interviewed

SKF Employee	Employment	Date of interview	
Magnus Rosén	Project manager, Corporate sustainability	31 January	In person
Magnus Fors	Sustainability Manager, Marketing	26 January, 8 February	In person
Jonas André	Corporate sustainability	26 January	In person
Mike Roberts	ESM team, Program manager Energy and sustainability management	9 February	Telephone interview
Ronald McKinney	ESM team, Consultant energy and sustainability management	16 February	In person
Lars Arvidsson	ESM team, Consultant energy and sustainability management	18 April	In person
Henric Widén	Sales unit manager, RSS Sweden	2 Mars	In person
Marcus Jennerholm	Sales manager, Sweden	5 Mars	In person
Måns Isacsson	Regional sales manager, Nordic region	9 Mars	In person
Tobias Finndin	Sales, Sweden	2 February	In person
Paul Uher	Sales, Sweden	31 January	In person
Alexander Ling	Sales	23 February	In person
Joakim Eliasson	Sales	27 February	In person

Appendix B – Interviews with Customers

Interview Questions

The following questions were used during the interviews with customers on SKF aftermarket.

1. What role do you have in the company?
2. Is there any person in your organization working with sustainable development? Do you know what this person's duties are?
3. Do you see a need for sustainable services?
 - 3.1 If yes, what type of services would you be interested in?
4. Do you have a budget for sustainable/environmental investments?
 - 4.1 If yes, can you use this to make the part where you are working more sustainable?
5. How important is sustainability (more energy efficient, more environmentally friendly and safer solutions) for you?
 - 5.1 Which of these aspects are the most important?
6. Do you buy any sustainable services today?
 - 6.1 If yes, which services? From which companies?
 - 6.2 If no, why not?
7. Which employees in your organization, except the purchaser, are involved and decides what should be purchased?
8. How do you do to measure and control energy use and environmental impact today?
 - 8.1 Is it difficult to measure or we would need the help from, for instance SKF, to make it better?
9. Is there pressure that your business will be more sustainable (e.g., more environmentally friendly) from shareholders, suppliers and customers?
10. Are you aware of any sustainable services from SKF?
 - 10.1 Would you be interested in energy efficiency analysis (CNA-ES)?
 - 10.2 Would you be interested of Energy Monitoring Service?
 - 10.3 Would you be interested in the shop floor awareness cards?
11. Do you feel that SKF is a trustworthy company to buy these services from?
 - 11.1 If no, what could SKF improve to enhance their credibility?
12. What time horizon do you have on your investments? If there was a service or solution that would have a long payback time (maybe 10 or 15 years) would you be interested in such service?

List of companies interviewed

Customer	Industry	Name	Employment	Date	Type
Holmen Braviken	Pulp and paper	Fredrik Johansson	Energy Engineer	11-apr	Telephone Interview
Korsnäs Frövi	Pulp and paper	Jan-Erik Hultman	Maintenance manager	03-apr	In person
Korsnäs Frövi	Pulp and paper	Mattias Albertsson	Mek Ing Central Maintenance	03-apr	In person
Korsnäs Frövi	Pulp and paper	Benny Gill	Purchase manager	03-apr	In person
Korsnäs Frövi	Pulp and paper	Christer Grans	Purchase manager for spare parts	03-apr	In person
Outokumpu/Avesta	Metals	Johan Eriksson	General Manager -Strategic Sourcing General Procurement	30-mar	Telephone Interview
Outokumpu/Avesta	Metals	Jan Nyström	General Manager, Maintenance	04-apr	Telephone Interview
Sandvik	Metals	Sara Eriksson	Category leader MRO	27-mar	Telephone Interview
Sandvik	Metals	Susanne Lindqvist	Energy Manager (Energy Council: Sustainability Manager)	04-apr	Telephone Interview
SSAB Luleå	Metals	Henrik Vourinen	Health, Environment, Safety	04-apr	Telephone Interview
Södra Cell Värddö	Pulp and paper	Stefan Glendell	Mechanical maintenance	04-may	Telephone Interview
Södra Cell Värddö	Pulp and paper	Madelene Johansson	Purchase	04-may	Telephone Interview

Appendix C – Survey questions

Survey questions

The following questions were used during the maintenance fair where suppliers in the industry were interviewed.

Q1. Do you offer any services connected to sustainability? If yes, what services?

Answer; Yes No Don't Know

Comment;

Q2. To what industries do you sell services connected to sustainability?

Comment;

Q3. Do you market on sustainability?

Answer; Yes No Don't Know

Comment;

Q4. Do you see an increased demand from customers in buying sustainability services?

Answer; Yes No Don't Know

Comment;

Q5. Do you think that the demand for sustainability services will increase in the long run, in about 5 - 10 years ahead?

Answer; Yes No Don't Know

Comment;

Q6. Is there anyone in your organization working continuously with sustainability?

Answer; Yes No Don't Know

Comment;

Q7. Is there a pressure from someone that you should sell more services connected to sustainability? for example, stockholders, suppliers or customers?

Answer; Yes No Don't Know

Comment;

Q.8 How do you differentiate towards competitors in sustainability?

Comment;

List of companies participating

Suppliers

Aesseal

Ahlsell

Airlec Pneumatic Vacuum

Assalub AB

Bidpart

BMH Technology

Borin AB

Certex

Continental ContiTech

Denios

Eagle Burgmann

Fixtur Laser

Friatec

Furmanite

Garnet Greenline

Gemex

Hoerbiger

Ikaros

Industrimiljö väst AB

Inspecta

LBM

Lönne Drive Technology

Metalock Engineering Sweden

Metso Expect Results

NEA gruppen, Elverkstad

Göteborg

OH-system

Particon

Selga

Shell/Univar

Sifco

SIKAMA

SKF

Statoil Lubricants

Sulzer pumps

TPM Industrimålning

Utek (branschorganisation)

Vico AB

ÅF
