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Business Model Inovation Framework

Business Model Innovation

An empirically derived framework for early stage business model innovation

Master of Science Thesis

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Business Model Innovation: An empirically derived framework for early stage business model innovation
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Abstract

Business Model Innovation has been stated as a key priority among many companies. According to a 2008 study by IBM, around 2/3 of CEOs report a need for extensive changes of their companies' business models.

The innovation of a company's or industry's business models can occur from serendipity or a deliberate process. To increase the focus during the business model innovation, the likelihood of success and the repeatability a deliberate process is needed.

This master thesis presents an empirically derived framework and process for analyzing, rethinking and eventually reinventing current business models.

The framework is the outcome of a process where we reviewed theories and methodologies that are usually associated with business model innovation. This input was put together in a framework and a process to be carried out to identify and develop new business models for a current business, including indications of the reinvented business models attractiveness. This framework and process was then applied to an empirical case, a product line of a business unit at SKF, a global industrial company. The insights gained during the process were incorporated into the final framework presented as a result of this thesis.

The final framework comprises the four modules *Business background, Innovating the business model, Concept assessment* and *Reinvented business model*. Each module contains various tools designed to assist in gathering and analyzing information, generating and assessing innovation ideas and communicate the suggested business model to stakeholders.

Applied on the SKF case, the essential contributions of the framework relate to its impact on (1) the amount of ideas, (2) the quality of them and (3) the efforts needed to generate them. The framework provoked workshop members to think in new and different ways and approach a given problem more systematically and from wider range of perspectives then what previously had been done.

In reaching an attractive reinvented business model, a team encompassing different key areas of knowledge, e.g. product development and marketing and sales, should be represented in the project team. The project team responsibilities should include strategic/budgetary, operational and financial authorities. In addition, to steer and evaluate the innovations, the project team must have deep customer insights regarding the true value a product is bringing and which "job" at the customer site that actually is being done.

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1   Introduction

1.1   Background

At the heart of virtually every company's business is the business model – the logic by which the business is run and grow. More precisely defined the business model, be it explicitly stated or simply inherent in the people of the organization, is the rationale of how an organization creates, delivers, and captures economic value (H. Chesbrough, R. S. Rosenbloom, 2002). Most companies work actively to design their offering to customer and improve their operations to deliver this value. This often manifests itself through incremental improvements and cost reductions of current products or services. However, it sometimes happens that a company not only changes its value proposition towards their customer, but they change significant parts of the whole business model, such as the way they make money on services, the resources they use, the activities with which operations are carried out, the way pricing is set up and the revenue model is designed etcetera.

Business Model Innovation is important; according to a recent study done by IBM, around 2/3 of CEOs report a need for extensive changes of their companies' business models (IBM, 2008). Another study argues that business model innovation is equally or more important than product innovation (the Economist, 2005). Osterwalder (2010) distinguishes business model innovation as a result of one of four objectives:

1. to satisfy existing but unanswered market needs
2. to bring new technologies, products or services to market
3. to improve, disrupt or transform an existing market with a better business model
4. to create an entirely new market

There are several examples, large and small, of how companies have successfully innovated their business models. One company currently famous for such innovation is Apple, who through the introduction of the iPod and iTunes Store moved into digital music record sales with a completely novel model of doing business. Another famous example is Dell, who revolutionized the personal computer industry with an innovative distribution channel. A third company, with a long track record of business model innovation is Proctor and Gamble (P&G) who have successfully gone outside their own walls to search for ideas on how to improve the value proposition, putting down the objective that only half the ideas for innovations should come from inside the company – the remaining half from outside. A fourth example is that of the recently emerged, rapidly growing low cost airlines, such as Ryan Air and Southwest airlines. By realizing that customers simply wanted to be transported from A to B and removing costly items from the customer offering, they could significantly reduce the price of flying. The list goes on…

Arguably, the term business model innovation is as widely used as it is poorly defined and understood. Lying in the personal interest of the authors, there is hence an interest in contributing to the understanding of the business model innovation term by making the concept operational and applying it and methodologies that are usually associated to business model innovation to the case of a real company. One opportunity for such a venture was given by the industrial manufacturing company SKF.

1.2 Innovation at SKF Linear Actuators

The global industrial company SKF, mainly known as a world leader in ball bearings, is no exception when it comes to the need for business model innovation. One part of SKF which currently rates business model innovation as a strategic topic is SKF's business unit Actuation Systems. The business unit's primary activity is to manufacture solutions for linear motion control, i.e. producing push and pull forces in linear directions. The application area for actuators is vast, but one example of a major industry is the medical field with applications in e.g. hospitals bed and incubators.

The product line Linear Actuators has recently been subject to a business opportunity within a new area of actuators with different characteristics than SKF's traditional actuators. In short, the main differences to traditional SKF actuators involved the vastly increased speed, precision and control of actuation – new product features which led to the actuator addressing a whole new market segment with already established competitors.

Facing the challenge of product and market diversification all at once, SKF experienced not only a need for formulating a business strategy for the new actuator business, but also an opportunity for differentiation from established competitors in conjunction with the market entry. The alternatives that SKF was facing was to either include the new actuator as a portfolio expansion and apply the same business model as to traditional actuators, or to formulate a new, reinvented business model tailored to the new actuator range. The final decision was to attempt a reinvented business model with the aim of addressing the market better than the current business model, while also differentiating from competitors.

The reinvention of the current SKF Actuator business model is hence focused on both the current in-house business models within actuation systems and established competitors' within this field. Similar to one of the four rationales of business model innovation by Osterwalder (2010), the aim is to "improve, disrupt and/or transform an existing market with a better business model". Applying a structured approach to business model innovation on this new product line is intended to result in both practical and implementable innovations and a practically useful approach for how to work with business model innovation in an existing business within a large manufacturing firm such as SKF.

Since the Business Model Innovation applied at SKF regards a strategic critical business opportunity no empirical details regarding the actual innovation concepts or final reinvented business model innovation can be disclosed. The thesis will hence focus on the process of business model innovation and present a framework for how to practically perform business model innovation especially in its early phases, trough workshops, creating synthesis of ideas and to end up with an implementation road map, refined through application in one empirical case useful for reinvented business model.

1.3 Research question

How can large technological companies work to systematically and creatively question current business models to be able to find extended or new customer value and new or better ways to appropriate part of the added new value – in brief to reinvent the business model for an established business?

1.4 Aim and Purpose

The aim of this thesis is to develop a theoretically derived yet empirically grounded work collaborative process for business model innovation useful in attempts to reinvent business models in established product centered manufacturing companies. The purpose is to contribute to the understanding of how business model innovation can be transformed from a serendipitous activity performed by few and by accident into a structured process used by a project group with overall responsibility for the current and future business model. In doing so, reinvention of a business model can be done faster and resulting in implementable projects with a defined business impact.

The aim of the thesis is to outline a generic best practice process based on the key learnings from the applied business model innovation case at SKF.

2 Research Design and Methods

The Research Design and Methods will firstly explain the research methods used during the study and secondly the process used during the project. The latter serves as a problem break-down of the project and describes the sequential process we used to carry out the study. Due to the process-oriented trial-and-error nature of the study, emphasis has also been put on presenting the steps in the process – and the order with which they were carried out.

2.1 Qualitative Research

Since business model innovation within traditional industries, such as actuation systems, is rather unexplored we needed to grasp and elaborate on aspects over a wide range for our conclusions to be meaningful to the purpose of the study. The topic was therefore addressed using a qualitative approach (Bryman & Bell, 2007). We saw great use of addressing the research topic by emphasizing impressions and experiences from customers and SKF staff, instead of applying a statistical approach which would only allow assessment of one or a few hypotheses.

2.2 Research Methods

Literature studies were mainly used to identify a best practice business model innovation process. This study provided enough insights of business model innovation processes for us to create a hypothesis regarding framework build up. This framework was then tested in a real business model innovation process at SKF. Finally the framework was amended with the lessons learned during the process.

To understand the customers and their true needs we used hypothesis driven semi-structured interviews (Bryman & Bell, 2007) with customers and internal personnel at SKF. In addition we performed live studies of how customers are using the products aimed to provide insights of their problems and how the product is helping them solve this problem.

2.2.1 Literature and Written Sources

There is currently some, however limited, literature on business model innovation available. The literature includes a limited range of books e.g. *Blue Ocean Strategy* by Kim & Mauborgne (2005). Additional sources of information include the articles and weblogs of various authors and consultants associated to business model innovation. We supported the use of recent literature on business model innovation with traditional, renowned literature on corporate and business strategy in order to fill possible gaps for forming the complete business model for the product line.

2.2.2 Hypothesis-driven Semi-Structured Interviews with Customers, SKF personnel and Experts

The interviews were based on the importance of understanding the customers' true problems and needs (Blank 2006). Blank (2006) describes the concept of Customer Discovery and Customer Validation. We use these concepts to set the scene and focus for successful business model innovation, i.e. understand in which areas innovations would create utmost value.

A hypothesis-driven semi-structured interview template was used throughout the interviews with customers and personnel. Semi-structure in the questions allowed for grouping of data and benchmarking of mutual relations, while the respondents to have freedom of elaborating on answers through follow-up questions (Bryman & Bell, 2007). Hence, the semi-structured interview template

as a research method was chosen, in favor of a structured interview template with no room for elaboration on chosen topics. Having hypothesis in each area was critical to quickly come to relevant discussions and collect enough data for synthesis. Hypothesis or pre-conceptions which were not valid were amended and tested in the new interviews.

The semi-structured interviews were performed with over 50 key customers, and over 20 internal SKF employees. Among the customers we included OEMs, System Integrators, End-users and Distributors in France, Germany and Sweden. The key customers were identified together with the project management team and market research and were mainly executed over the phone. Among the 20 internal employees, we focused the interviews on sales and marketing, R&D and Business Development personnel in Switzerland, France, Germany and Sweden.

2.2.3   Interview Template

The interview template consists of detailed questions regarding the purchase process, products, product life-cycle and industry, full generic template is attached in "Appendix II- Business Model Innovation Interview Template". The questions were derived from the research question which was broken down into these four sections where possible business model innovations were possible to find. Each phase was then broken down into *Generic Preconceptions* based on theoretical framework and discussions with project management. The Generic Preconceptions in each phase were then additionally broken down one more step, giving a concrete preconception which was considered important. The preconceptions were then reformulated to direct questions with additional follow-up questions dependent on the answers. The quality and comprehensiveness of the template was tested and revised during a workshop together with the project management team.

The interview template allowed us to direct the interviews into specific areas, likely to be of high importance to the actuator industry. Each question was also prioritized High, Medium or Low. Questions of Low priority were seldom addressed, whereas the High and Medium were prioritized. During the interviews, depending on the amount of time which usually was circa one hour, questions with High priority were addressed first. In total 41 questions were included in the final interview template.

Note: The template found in Appendix II has been made generic and is part of the final Business Model Innovation Framework

2.2.4   Live Studies at Key Customers

The live studies at Key Customers aimed at gathering and synthesizing customer data regarding their true benefits and "pains" associated with using the product, as a part of the Customer Discovery process (Blank 2006). More details of the live studies are presented in chapter 4.1 Customer insight.

2.3   Project Plan

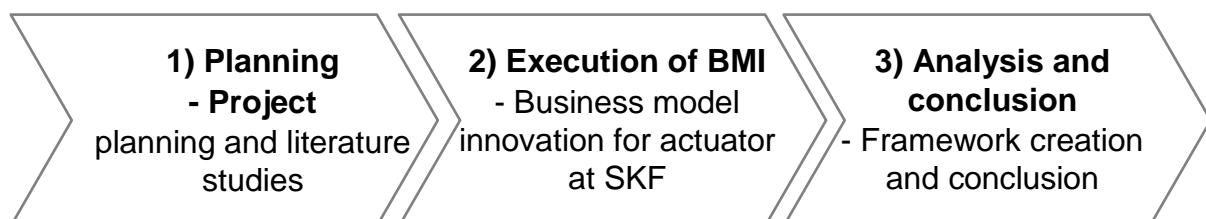| 1) Planning - Project planning and literature studies	2) Execution of BMI - Business model innovation for actuator at SKF	3) Analysis and conclusion - Framework creation and conclusion

Figure 1 - Project plan

The project plan consisted of three parts which iteratively helped to build the final business model innovation framework. The iterative process was necessary since we performed hypothesis-driven business model innovation, both regarding the process and actual innovations. This meant 1) forming an early hypothesis regarding best practice process, 2) test the process in the real life business model innovation case at SKF and 3) draw conclusions and amend the process based on lessons learned.

1) Planning and Framework/process development

The planning phase of the thesis consisted mainly of structuring the execution of the Business Model Innovation and draw guidelines based on extensive literature review. The framework/process development was performed by identifying and mapping existing business model innovation processes and modules. Several of our literature sources were focusing on a module or specific part of the innovation process, i.e. synthesizing the modules were an important part of the first phase. This output, the first hypothesis of the business model innovation framework is found in chapter 3.5.

One of our early hypotheses regarded the telephone interviews and customer site visits. Hence, these had to be booked at a very early stage to secure availability.

2) Execution of business model innovation in an empirical case

The execution phase consisted of carrying out the actual real life business model innovation process on an important theme for SKF actuation systems. This execution was important to verify the possibilities and limitations of business model innovations and to bring reflections and conclusions based on new data. The execution followed the process brought from the framework/development explained in detail in chapter 3.5.

By constantly challenging our work and reflect on the outcome we were seeking to amend the process after lessons learned. However, given the time constraint we limited the execution to only one try in each process step. I.e. the lessons learned and amended changes were not verified in an additional session.

The findings and results from the execution is found in Chapter 4. Business model innovation in practice.

3) Analysis of application of theoretically derived framework/process, result as a refined framework/process and conclusions

The analysis and concluding phase of the thesis consisted of reviewing our findings of mainly the execution process to understand how it could be turned into a generic framework for business model innovation. The generic framework did not have the same steps and content as the first hypothesis, i.e. the lessons learned influenced the shape and content. The analysis phase was done iteratively i.e. all steps in the process were analyzed before, during and after and well documented.

The ambition was to execute the process, involving key stakeholders at SKF and create clear implementation plans of the most promising innovations to create value in the organization. I.e. the analysis was guided by how the process could have been changed to create more value for SKF. The

focus of the business model innovation framework was hence to create innovations possible to implement, which allowed both incremental and radical innovations.

Our analysis of the business model innovation process is found in chapter 5.

3 Business Model Innovation in Literature

This chapter will gather and present literature on business strategy and business model innovation. Theory on both the process with which to carry out innovation and the tools with which to do so will be included, due to the intended thesis outcome of a process oriented framework. Also, some successful examples of innovation will be included to serve as a foundation for categorizing different types of business model innovation. While there is a strong collection of tools to use for generating ideas on how to innovate the business model, we conclude that in order to turn business model innovation into a process, the actual innovation process has to be preceded by modules gathering customer, competitor and value proposition insights. Hence, some theory on these topics is also included in the chapter.

3.1 Scope & Introduction

The scope of the literature study has been to gather concepts and tools focusing on the actual innovation idea generation of the business model, with the intention to assemble a framework that assists in generating ideas for business model innovation.

3.1.1 Included theory

To fully understand business model requires not only understanding the tools for business model innovation, but also the appropriate definition of the terms "business model" and "business model innovation". Hence, these two concepts form the initial sections of this chapter. The following section focuses on the tools available for business model innovation. The covered areas were identified by reviewing subject matter literature and consolidating relevant sections. The indications from blogs and subject matter experts of customer centricity and customers as a source of innovation as important business model innovation tools also led to the inclusion of literature sources not directly related to business model innovation, in order to cover these gaps adequately. The business model innovation literature by Osterwalder & Pigneur (2010) was found to be highly relevant to the project. Hence, the chapter largely follows the structure of Osterwalder & Pigneur and has been supported to a large extent by complementary literature to cover the identified theory need.

The thesis does not intent do go deeply into project management or actual market entry implementation and, as a result, literature on these subjects have been deliberately excluded.

3.1.2 Discussion

Much of the gathered literature focus on how to express a business model and how to generate ideas for business model innovation, which is in line with the overall objective of the literature study. However, most of the tools and frameworks put forth by authors to assist in the innovation process, demand that large amounts of knowledge be available beforehand and used as input to the innovation tools. They generally do not, however, present recommendations on which tactical means to use in the acquisition, gathering and presentation this information, such as guides on when to use interviews, observations or quantitative analysis, etcetera. As the objective of the thesis is to present a process "from start to finish" on innovation of the business model, the lack of theory detailing aspects such as knowledge acquisition and gathering constitutes a potential gap in the presented

literature background and could, as such, be identified as one area for further study and refining of the framework.

3.2   What is a Business Model?

A business model can be defined and described in several ways. This section addresses our view which is based on the definition of Osterwalder & Pigneur (2010)

3.2.1   The definition of a business model

We have mainly looked at two contemporary definitions of a business models:

"A business model describes the rationale of how an organization creates, delivers and captures value" (Osterwalder & Pigneur, 2010)

A business model consists of four interlocking elements: customer value proposition, profit formula, key resources and key processes. Taken together they create and deliver value with the customer value proposition being the most important element. (Johnson et al, 2008)

They are similar in the emphasis of value creation and capture however somewhat different in how they structure a business model which we will see in next chapter. We have chosen to use the definition of Osterwalder & Pigneur (2010) above.

3.2.2   The purpose of a business model

All companies have business models as of the definitions above, however companies differ widely in how explicitly the model is stated. The main purpose of making the business model explicit is to get a shared view and understanding of the elements in the business model among all stakeholders (Osterwalder & Pigneur, 2010). This shared view is of high importance for making it possible to innovate the business model.

3.2.3   The content of a business model

From the definition of the business model we concluded that the value creation, delivering and capture are the main focus of the business model. To understand how value is created and captured Osterwalder & Pigneur (2010) illustrates a business model through nine building blocks:

- Customer segments
- Value propositions
- Channels
- Customer relationships
- Revenue streams
- Key resources
- Key activities
- Key partnerships
- Cost structure

The nine building blocks are illustrated in the picture below:
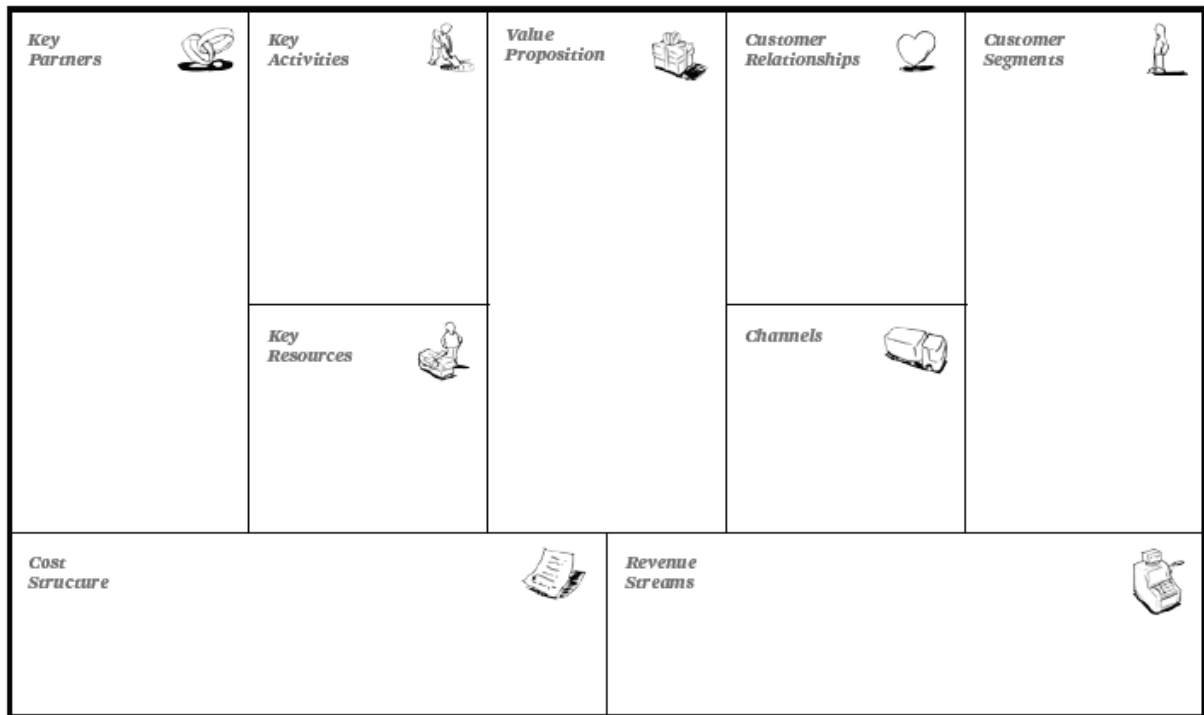
Figure 2: The nine building blocks of the business model (Osterwalder & Pigneur, 2010)

3.2.3.1 Customer segments

The main criterion of a customer segment is that there is a need that requires a distinct offer (Osterwalder & Pigneur, 2010). However it can also be distinguished through a different type of distribution channel or relationship. In addition, a customer segment can have different profitability or willingness to pay for different aspects of the offer.

Hutt & Speh (2007) specifies five requirements for evaluating the desirability of a potential market segments:

1) *Measurability* - information on buyer characteristics
2) *Accessibility* - possibility of focused reach, both marketing and selling
3) *Substantiality* - size and profitability of segment
4) *Compatibility* - marketing and business strength match to present and future segment demands
5) *Responsiveness* - response to aspects of the marketing mix elements: price, product, place and promotion

3.2.3.2 Value propositions

The value proposition describes the bundle of the value creating products and services (Osterwalder & Pigneur, 2010). It solves a customer problem or satisfies a need. A value proposition can be innovative and represent a new or disruptive offer, while others are similar to existing market offers, but with added features and attributes. Osterwalder & Pigneur are supported in this view by Johnson et al. (2008) and Christensen et al (2007), who all emphasize the importance of "getting the job done", meaning that a good value proposition solves an important or fundamental problem in a

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given situation for the customer. Hence, a good value proposition requires a deep understanding of the job and all dimensions of the process before, during and after the job is being done.

3.2.3.3   Channels

Channels describe how a company communicates, distributes and sells to a customer segment (Osterwalder & Pigneur, 2010). Hence, channels comprise all important touch points to the customer. The purpose with the channels is to raise awareness, help customers to evaluate the offer, purchase products and services and provide post-purchase customer support. Channels can be divided into five main types (Osterwalder & Pigneur, 2010):

1) Sales force
2) Web sales
3) Own stores
4) Partner stores
5) Wholesaler.

Each channel type is used in one or many of the five channel phases (Osterwalder & Pigneur, 2010):

1) Awareness
2) Evaluation
3) Purchase
4) Delivery
5) After sales

3.2.3.4   Customer relationships

Relationships are of high importance in the business to business market but can in many occasions also play an important role in the business to consumer market (Hutt & Speh, 2007). Relationships can range from personal to automated and have the three main reasons (Osterwalder & Pigneur, 2010):

1) Customer acquisition
2) Customer retention
3) Customer upselling

3.2.3.5   Revenue streams

Osterwalder & Pigneur (2010) illustrates the importance of revenue streams by stating that the customers are the heart of the business model while revenues are the arteries. Revenue streams may result from different pricing mechanism e.g. fixed list prices, bargaining, auctioning, market dependent, volume dependent or yield management. In addition, revenue streams can be a one-time sales or recurring transactions. Johnson et al (2008) include the revenue streams in their business model block: profit formula. Johnson et al. (2008) highlight that a common mistake is to believe that the profit formula and revenue streams is interchangeable with business model but as we see it is just a piece in a larger context.

3.2.3.6   Key resources

Key resources are highlighted as a separate building block by both Osterwalder & Pigneur (2010) and Johnson et al (2008). Johnson et al (2008) describe typical resources as: people, technology,

products, facilities, equipment, channels and brand. Osterwalder & Pigneur (2010) separates four distinct resource categories:

1) *Physical* – manufacturing facilities, buildings, vehicles, machines, systems, point-of-sales systems and distribution networks.
2) *Intellectual* – brand, proprietary knowledge, intellectual property rights, partnerships and customer databases.
3) *Human* – personnel, highly important in creative and knowledge industries.
4) *Financial* – financial solutions and guarantees is included in companies in various contexts e.g. telecom network and car companies helping customers with financial solutions.

3.2.3.7 Key activities

The key activities are the most important actions a company must take to operate successfully. Osterwalder & Pigneur (2010) define three different categories of key activities:

1) *Production* – designing, making and delivering a product in substantial quantities.
2) *Problem solving* – solutions to problems which are the dominating key activity in consultancies, hospitals and many other service organizations.
3) *Platform/network* – developing and maintain a platform or network is key activity in e.g. eBay's, Microsoft's and Visa's business model.

3.2.3.8 Key partnerships

Partnerships are increasingly becoming a cornerstone of many business models. Companies create alliances to optimize their own business model and profitability, reduce risk or acquire resources (Osterwalder & Pigneur, 2010). Optimization includes not owning all resources and not performing all activities in-house mainly to reduce costs. Reduction of risk and uncertainty can be done by forming a strategic alliance in e.g. using a certain technology such as Bluray.

Osterwalder & Pigneur (2010) distinguish four types:

1) Strategic alliances between non-competitors.
2) Coopetition, partnerships between competitors.
3) Joint ventures to develop new businesses.
4) Buyer supplier relationships to assure reliable supplies.

3.2.3.9 Cost structure

The cost structure describes all costs included in the business model. Johnson et al (2008) and Osterwalder & Pigneur (2010) include direct costs, indirect costs, economies of scale and scope in the cost structure. The cost structure is predominantly driven by the cost of the key resources, key activities and partnerships required by the business model. The cost structure itself is an important factor in all low cost companies e.g. Ryan air.

3.2.3.10 Discussion

Osterwalder & Pigneur's framework is effective at illustrating the current business model and suggesting means by which the business model can be innovated in each of the nine building blocks. The framework focuses strongly on the value proposition and how this is made available to the customer through the other eight building blocks. However, as opposed to e.g. Blue Ocean Strategy

(Kim & Mauborgne, 2005) there is little reference to competitors and competing value offers. Hence, the nine building blocks framework fails to adequately put the business model in a competitive setting. The strength of the framework is to suggest and dig down into various areas of the business model where innovations can occur, while its weakness it the ability to compare the own business model to that of competitors.

3.3 What is Business Model Innovation?

Business model innovation is a new to the world innovation in one of the nine building blocks which is creating value for customers and or users in some new way.

3.3.1 Background – BMI as a theoretical concept

Drawing from our chosen definition of a business model from Osterwalder & Pigneur (2010) and the nine building blocks we add the definition of an innovation to get our definition of Business Model Innovation. An innovation is something that is new to the world and is creating value in some way, i.e. possible to turn to a commercial success (Granstrand, 2007). Our chosen definition of BMI is, hence, an innovation in one or several of the nine building blocks of a business model. What distinguishes BMI is that the innovation regards the business model as such and not necessarily the product.

Despite our definition, Business Model Innovation (BMI) is not a clearly defined theoretical concept in the academic world (IBM, 2006). IBM (2006) has defined three different types of BMI's in their Global CEO study:

1) Industry model innovation – innovating the industry value chain by moving into new industries
2) Revenue model innovation – innovating the revenue model through offering re-configuration and pricing models
3) Enterprise model innovation – innovating the role the company play in the value chain by configuring the networks, suppliers, customers and others, including capabilities/asset configuration.

We see that IBM's definition is not discrepant from ours, since their three types of innovations are included in the nine building blocks.

3.3.2 Examples of successful business model innovation

We gave some examples in the introduction, however, since examples clarify the concept we choose to give three additional with a short explanation (IBM, 2006):

1) Dell has eliminated intermediaries by going directly to the end-customers via the Internet. This is an innovation with implications in all nine categories of a business model. Looking at IBM's (2006) definition it is an industry model innovation.
2) Cirque du Soleil is one example of how the value offer to customer was changed in combination with a new cost structure. IBM refer to this as revenue model innovation, and points out that the offer was directed to a new target audience.

3) Gillette has a pricing model innovation where they under-price razors to sell razor blades. This has been highly successful and was at the time of introduction a completely new way of pricing razors.

3.3.3 Sources of innovation

Eric von Hippel (1976) stated the concept of "user innovation", meaning that more users and consumers are innovators of new products instead of e.g. suppliers. Von Hippel noticed that some users pioneered in using the product in a novel way due to deficits in the current product. Sometimes those individuals share their experiences with the manufacturing company, hoping that a better product will be produced. By studying lead users how they use the products, novel ways of using a product and additional needs can be discovered.

3.3.3.1 Discussion

The implication of user innovation as suggested by Hippel is that the user and/or customer be included in the innovation process. The innovation framework should therefore strive to offer ways of user inclusion, either by customer interviews, customer observation or customer participation in innovation workshops.

3.3.4 Diffusion of innovation

Everett Rogers (1962) explains in his book "Diffusion of innovations" how innovations are spread among different members of social system. Rogers highlights five factors that mainly influence a presumptive users' decision to adopt or reject an innovation.

- Relative Advantage: How improved an innovation is over the previous generation.

- Compatibility: How well an innovation fits the individual's life and "infrastructure".

- **Complexity or Simplicity**: If the innovation is easy to use an individual will more likely adopt it.

- Trialability: How easily an individual can see, feel and experiment with an innovation.

- Observability: How visible and easy to observe an innovation is to an individual.

3.4 Business Model Innovation Tools

Several Business Model Innovation tools exist. This chapter addresses both the ones which have been spread world-wide as well as less well known ones but still regarded as critical for our framework.

3.4.1 Blue Ocean Strategy

Kim & Mauborgne (2005) wrote the innovative and highly appreciated book: "Blue Ocean Strategy – How to create uncontested market space and make competition irrelevant". The title reveals the aim of the book and Kim & Mauborgne have created tools and ways of working with business model innovation. Kim & Mauborgne argue that, because value customer value is the difference between utility and price, successful innovation requires looking at the whole system of utility, price and cost. The cornerstone of Blue ocean strategy is "value innovation" – the simultaneous pursuit of differentiation *and* low cost – and the main framework tools include (Kim & Mauborgne, 2005):

- Strategic canvas – a canvas to highlight 8-12 areas of competition and possible innovations.

- 6 paths framework – looking at possible innovations from six different categories: industry, strategic group, buyer group, scope of products and services, functional and emotional orientation of the industry and time/trends.
- ERIC-grid - areas to be Eliminated, Reduced, Increased and Created drawing from the strategic canvas.
- Buyer Utility map – to spot if the innovations are new and radical (blue oceans) or competing on old terms (red oceans).

3.4.1.1   Strategic canvas

The strategy canvas is used to visualize the value curve over a range of selected value factors. It functions as a diagnostic and action framework for building a blue ocean strategy. The horizontal axis captures the range of factors that are competed on by the current industry, while the vertical axis captures the performance, or magnitude, of each factor as experienced by the customer (Kim & Mauborgne, 2005). The strategy canvas serves two purposes. Firstly, to illustrate the current state of the market and industry positions. It indicates which areas are invested in and how various incumbents compete. Secondly, it forces the company in pursuit of a blue ocean strategy to think out ways that would significantly change its value curve, including the introduction of new value factors, so as to distinguish itself from the current state of competition (Kim & Mauborgne, 2005).

3.4.1.2   6 paths framework

The six paths framework looks across six different dimensions of company and market boundaries in order to stimulate thinking differently about conventional structures and processes. The paths are (Kim & Mauborgne, 2005):

1. Looking across alternative industries instead of focusing on competing within an industry
2. Looking across strategic groups within industries instead of a company confining itself to established strategic groups
3. Looking across the chain of buyers instead of focusing on the same buyer group as the rest of the industry
4. Looking across complementary products and services instead of a company limiting itself to the scope of an industry's products and services
5. Looking across functional or emotional appeal to buyers instead of accepting an industry's functional or emotional orientation
6. Looking across time instead of focusing on the same point in time as the rest of the industry.

Kim & Mauborgne (2005) argue that by looking across these conventional boundaries, companies can reconstruct conventional market boundaries by gaining insight into what factors they should eliminate, reduce, raise or create (see: ERIC-Grid) in their offering and taking appropriate action.

3.4.1.3   ERIC-grid

The Eliminate-Reduce-Increase-Create Grid is argued by Kim & Mauborgne (2005) to help driving innovation by forcing them to fill in the grid with the actions of eliminating and reducing as well as raising and creating. In doing so, the framework aims to assist not only the increasing of value factors, but also the reduction of cost-driving value offers, so as to pursue differentiation and low cost simultaneously. It is furthermore argued that because completing the grid is a challenging task, it forces companies to scrutinize every factor the industry competes on, thereby adding to the

understanding of the range of implicit assumptions that are unconsciously considered in competing (Kim & Mauborgne, 2005).

3.4.1.4 Buyer Utility Map

The buyer utility map (BUM) aims to provide an in-depth understanding of what customer value is actually offered and enable the comparison of old and new products/services in a two-dimensional matrix, in which the horizontal axis consists of the buyer experience cycle while the vertical axis comprises six different factors of customer experience, or, value (Kim & Mauborgne, 2005).

The first dimension, buyer experience cycle, covers the customer's experience over all stages in which the customer is involved in the product. It consists of six stages (Kim & Mauborgne, 2005):

1. Purchase
2. Delivery
3. Use
4. Supplements
5. Maintenance
6. Disposal

Figure 3 - Buyer utility map

The second dimension, utility levels, consists of the different ways in which utility can be offered to the customer (Kim & Mauborgne, 2005):

1. Customer productivity – Helping the customer to do things faster, better, or in different ways
2. Simplicity – Making life easier for the user of the product or service
3. Convenience – Considered a luxury category, contributing to saving customer time or frustration
4. Risk – Reducing any type of risk, such as financial, time, legal, commercial risk etcetera.
5. Fun and image – Providing fun and image by means of association and experience
6. Environmental friendliness – Adding customer utility by friendliness towards the environment

The configuration of a certain product/service along the 36 boxes of the 6x6 matrix enables the illustration of a certain value offer's basis of differentiation which, in conjunction with a market analysis and customer needs analysis, can answer whether a viable customer proposition is in fact present and which obstacles can be removed to unlock additional customer value (Kim & Mauborgne, 2005).

3.4.1.5 Discussion

The Blue Ocean Strategy presents a number of frameworks by which business model innovation can be assisted. While the objective of Blue Ocean Strategy essentially is to create a differentiated customer value to a lower price, the individual frameworks seem equally suited to generate ideas that would justify a higher price. As opposed to the Osterwalder & Pigneur framework, Blue Ocean Strategy explicitly emphasizes the importance of differentiating from competitors. The strategy

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canvas, for example, is used to highlight value proposition factors on which to differentiate. However, the framework offers little guiding on how to acquire competitor and customer knowledge and assumes that this is readily available to be used in the various frameworks.

3.4.2   Innovation Radar

The innovation radar framework (Sawhney et al, 2006) consists of twelve dimensions of business innovation which can be used for business model innovation. Sawhney et al (2006) highlights that many companies put all innovative efforts within product innovation, hence risk missing all possible innovations concerning the business model.

1) ***Offerings*** – develop new innovative products or services: Apple IPod and ITunes
2) ***Platform*** – use common components or building blocks: Disney animated movies
3) ***Solutions*** – create integrated and customized offerings to get the job done: UPS logistics solutions
4) ***Customers*** – identify unmet customer needs or new customer groups: Green mountain energy focus on "green energy"
5) ***Customer experience*** – redesign customer interaction touch points: Cabela's store as entertainment concept
6) ***Value capture*** – redefine how company gets paid: Google Adwords
7) ***Processes*** – redesign core operating processes to increase efficiency: Toyota production systems
8) ***Organization***- change form or function of the firm: Procter & Gamble front back hybrid organization
9) ***Supply chain*** – think differently about sourcing and fulfillment: General Motors Celta use of integrated supply chain
10) ***Presence*** – Create new distribution channels or point of presence: Starbucks music CD-sales in coffee stores
11) ***Networking*** – create network centered offerings: Department of Nework Centric Warfare
12) ***Brand*** – leverage a brand into new domains: Virgin group "branded venture capital"

3.4.2.1   *Discussion*

Similar to Osterwalder & Pigneur (2010), the Innovation Radar presents a number of dimensions of a generic business model, although with less detailed elaboration on each individual dimension or suggestions on how to carry out the innovation process. The strength of the framework is hence to suggest dimensions of business model that can be subject to innovation, but the lack of process orientation requires the 12 dimensions to be integrated into a current framework, such as the one by Osterwalder & Pigneur or Blue Ocean Strategy.

3.5   Theoretically derived hypothesis of framework

The literature study gathers an assortment of different tools that help illustrating the current business model and that can potentially assist the generation of ideas on how to innovate it. Each framework presented does this in a unique way; the ERIC-grid, for example, does it by suggesting how various dimensions of the value proposition can be tweaked, while the innovation radar focuses on actually identifying such dimensions (although on a generic level). This variance in approaches is believed to be beneficial in that it forces the innovation framework participant to think differently, in several different ways, which is expected to benefit the width of innovation ideas generated.

We noted that most of the frameworks require and use knowledge of customers, competitors and the value proposition as input to the innovation tools. However, the literature does not present how this knowledge is to be acquired, but it is assumed to be available at the start of the innovation process. We believe that it is important to include in the process modules where this knowledge is gathered so that it can be available for input in the innovation tools. Therefore, in addition to a stand-alone innovation framework module, we have chosen to include the three modules of customer, competition and value offer insight to precede the innovation module (see below)

```
Customer      Competition     Value offer     Innovation
insight         insight         insight         insight
```

3.5.1 Customer, competitor and value offer insight modules

We noted that most of the frameworks use customer, competitor and value offer understanding as input to the modules, but little guidance on how to acquire such knowledge was provided. Hence, we determined there was a need to include modules relating to this required knowledge, to ensure that all the necessary data be provided prior to engaging in the innovation insight module. The formation of these three modules has not been the focus of the literature study, but the focus has rather been on what came to be called the innovation insight module. However, by assessing the data need that the innovation frameworks are implicitly dependent upon, this data need forms a minimum level of knowledge to be provided through the respective modules (see *Content* below). The form in which this knowledge is to be obtained is concluded to be a combination of interviews internally at SKF, interviews with customers and competitors and external data search on primarily market and competitors (see *Execution* below).

3.5.1.1 Content

The list of questions below represents our summary of the minimum set of knowledge required to adequately perform all the exercises of the Innovation insight module. The list has been derived from our interpretation of what knowledge requirement each included framework put on the participant.

1) **Customer insight:**
   - Customer purchase process?
   - Roles and responsibilities of each actor in this process?
   - Key supplier of complementary products?
   - Competitive factors in the supplier industry of the products?
   - Is any supplier offering a superior and unique selling proposition?
   - Differentiated needs among customers?
   - Key selling points to customers?
   - Are purchasing decisions influenced by emotions or strictly rational?
   - Main technological drivers influencing your industry?
   - Main market drivers influencing the industry?
   - Main social, health and regulative trends influencing the industry?
   - How do customers use the product?
   - Potential supplements to the product which can add value for the end customer?
   - Value added services available?

- Services available during the use of the product?
- How is the product renewed? Updated or replaced?
- If the product is updated, are the products typically replaced separately, improved or unchanged?

2) **Competitor insight:**
- Competitors, product ranges, market shares?
- Distinguishing factors of each competitor (product and service)?
- Main competitor performance on each available performance category?
- Importance of price?
- Importance of lead time?
- Importance of service level?
- Importance in precision?
- Importance of quality?

3) **Value offer insight:**
- Importance of relationship?
- Complementary products?
- Substitute products?
- Applications for the product?
- Strengths/weaknesses of the product?
- Trends (human, market, technical)?

3.5.1.2 Execution

The referenced literature mentions to some extent how knowledge is to be obtained, especially knowledge concerning the customer insight module. For example, Hippel (1976) mentions the importance of including the customer/user in the innovation process and Osterwalder & Pigneur (2010) suggest that multifunctional teams of employees collaborate to plot the current business model. However, our decision to focus the literature study on the actual innovation idea generation process and not on literature specialized on obtaining "background" knowledge, such as competitor intelligence, implies that the execution of the customer, competitor and value proposition insight modules are not comprehensively explored. Hence, the planned execution of the three modules are – similarly to their content – based partly on explicit recommendations in referenced literature and partly on our interpretation Below is a summary of our conclusion of primary ("P") and secondary ("S") means of obtaining background data to support the customer, competitor and value offer insight modules:

	Customer interviews	Customer observation	Competitor interviews	Internal interviews	Internal workshops	External quantitative data	Internal quantitative data
Customer insight	P	S		S			S
Competitor insight	P		P			S	
Value offer insight	P			S	P	S	
Innovation insight				P	P		S

3.5.2 Innovation insight module

The primary focus of the literature review has been to gather tools to generate ideas on how the current business model can be innovated. These tools are all placed in the innovation insight module. While we noted some overlaps between the various innovation tools, such as Osterwalder & Pigneur and the Innovation Radar, the decision to include all of them is based on the preconception that the variances in approaches would help to generate a wide spectrum of innovation ideas.

In summary, the innovation insight module consists of the following frameworks:

Tool	Description	Purpose
Current business model	Using the Osterwalder & Pigneur framework (nine building blocks), describe current business model	Establish a consensus view of the current business model to create a common understanding of what there is to innovate
Value proposition canvas	Plot the current value proposition against those of competitors and generate ideas on how performance can be altered on current categories, or new categories introduced, so as to generate an attractive value proposition	Visualize performance against competitors and generate ideas on how to differentiate by altering performance on current categories or launch new aspects of the value proposition
ERIC-grid	Observe patterns in other industries, strategic groups, buyer groups, complementary products, functional/emotional appeal and trends in time, to generate ideas on how to apply these learnings to the current business model	Using observations from other industries, strategic groups, business units etc to generate innovation ideas
Opportunities assessment	Answer 34 pre-defined questions that suggest areas where the current business model could be altered to create new customer value or improve internal efficiency	To identify areas that have the potential to be innovated further through an easy-to-use tool that requires little innovative capacity and imagination from the participant
Buyer utility map	Look across a combination of the two dimensions *buyer experience cycle* and *customer value* and identify innovation ideas in each intersection of the 6x6 matrix	To encourage the participant to think about innovation ideas throughout the buyer experience cycle instead of only one or two moments, e.g. use.

Figure 4 – Theoretically derived hypothesis of framework

5   Execution of framework and analysis of framework tools

This chapter provides a detailed account for our implementation of the business model innovation tools onto the actual case. Innovation tools and the project process outline were derived from theory and subsequently applied in practice. The learning and experiences that were acquired during this process will be presented, so as to serve as a foundation for the following analysis. The structure of this chapter follows the planned implementation process as described in Methodology and shown below

| Customer insight | Competition insight | Value offer insight | Innovation insight |

5.1   Customer Insight

A commonly iterated argument when it comes to business model innovation is to start with the customer in mind. Business model innovation in general and Blue Ocean Strategy in particular, is to find new ways of satisfying customer needs. Hence, a natural starting point for our work was the Customer Insight module, which was managed as a separate module.

5.1.1   Approach

As business model innovation theory often describes the customer value as the most important, yet to a large extent overlooked, foundation for innovation, our intention was from the beginning to perform a thorough customer insight module. Since the primary source of customer value naturally is spread out among the current and potential customers, the majority of data for the customer insight module was collected by performing customer interviews with company representatives from a variety of companies within the target segments of the product. In addition, company visits were made to see and analyze the actual use of the actuator. A secondary source of customer value was through interviews with SKF sales and segment managers, who are in continuous contact with the market, in order to collect their perception of customer value. The specific input that we received from individual companies was then combined with the generic understanding of SKF employees to provide an appreciation of what different market segments there are, what their individual customer values are composed of and how the individual segments differ among themselves.

In total 52 interviews with companies in the target markets were performed and augmented with 20 interviews with SKF employees. Individual interviews ranged from 30 minutes to 4 hours in duration, with the average duration being around 1½ hour. We used an interview template (full generic template in *Appendix II – Interview template*), with slight adjustments to the different customer segments, to conduct the interviews in a semi-structured way.

Interviews were conducted with constructors, purchasers, designers and management at different levels. The ambition was to address all areas in the interview template, i.e. purchase process, products, life-cycle, industry analysis, although focused altered slightly depending on the function of the interviewee. By addressing all areas to all interviewees (however not all questions), different opinions and angles of the same questions were identified. Most of the interviews were performed over telephone; with approximately 15 of them being conducted face-to-face.

During the telephone interviews, we had formed ourselves an idea of the areas where benefits existed based on the pre-conceptions/hypotheses. Four live studies at key customers, small-large OEMs, were performed to amend these lessons learned by observing the actual use of the product focusing on these key areas. Observing helped us to understand the true value and possible difficulties in the use of the products, beyond the preconceptions and general truths.

We identified a number of key customer applications and focused on these when booking the customer site visits. While visiting the customers, we focused on both the benefits and also the difficulties with using the product in each application. The benefits and difficulties were first discussed in an interview with a factory manager or developer managers. After discussing the matter we observed how the product was used to verify the explained benefits and, if possible, observe the difficulties. In addition, pros and cons with alternative solutions were discussed as a part of the benefits discussion. However, in addition to observing the benefits and difficulties that was given by the factory manager we watched and discussed the use with the employees working in the manufacturing processes. We documented all indicated benefits and difficulties and together with the customers quantified or qualitatively discussed the value of a solution to the difficulties or the increased benefit.

To validate a customer benefit and difficulty, we synthesized the data and identified patterns. This allowed labeling customers according to the specific application, benefit and difficulty. After the live studies, complementary interviews were performed to confirm the revised view of the true value that the products are creating.

The interviews and site visits gave us an understanding of the problem a customer wanted to solve and how competitors' products helped solving this problem. In addition, a good understanding of the value was brought to the table as an important input for future pricing and business models.

While the duration of the customer insight module was estimated to last 4 weeks, starting in the very beginning of the projects, the module eventually took 1½ months full time with smaller additions and adjustments to the module taking place into the third month of the project.

We used a market segment approach to identify interview respondents from all market segments to make sure we covered as wide area of customer value as possible. To facilitate for this process, we started by designing a market segmentation based on two company character variables: *customer segment* and *end-user industry segment*[1]. The customer segment break-down refers to where in the value chain the company is present and its size. Separating between these types of companies was perceived as necessary since we hypothesized that they would exhibit different characteristics in customer value and purchasing process. The end-user industry segment naturally refers to the industry of the end-user, i.e. the user which benefits from the operation of the actuator as it was intended to be used. Separating between end-user industries was perceived as necessary due to different requirements in product performance and service & support were hypothesized to differ

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[1] Note: Risk of word confusion. What we refer to as "market segment" is often talked about as "customer segment" in marketing literature. We dedicate the term customer segment to the type of company as regards to its place in the value chain. In combination with "end-user industry segment" this makes up the overall market segmentation.

between such segments. In the end the customer interviews covered 9 out of 12 industry segments and were spread out over all 7 customer segments, supporting the ambition to understand the different customer values for individual market segments. The full market segmentation is shown below. The segmentation is based on the two variables *customer segment* and *end-user industry segment*.

	Large OEM	Medium OEM	Small OEM	Large end-user	Medium end-user	Small end-user	System integrator
Electronics	*Segm A1*	*Segm B1*	*Segm C1*	*Segm D1*	*Segm E1*	*Segm F1*	*Segm G1*
Materials handling	*Segm A2*	*Segm B2*	*Segm C2*	*Segm D2*	*Segm E2*	*Segm F2*	*Segm G2*
Packaging & Labeling	*Segm A3*	*Segm B3*	*Segm C3*	*Segm D3*	*Segm E3*	*Segm F3*	*Segm G3*
Food & Beverage	*Segm A4*	*Segm B4*	*Segm C4*	*Segm D4*	*Segm E4*	*Segm F4*	*Segm G4*
Machine tools	*Segm A5*	*Segm B5*	*Segm C5*	*Segm D5*	*Segm E5*	*Segm F5*	*Segm G5*
Medical & Scientific	*Segm A6*	*Segm B6*	*Segm C6*	*Segm D6*	*Segm E6*	*Segm F6*	*Segm G6*
Paper & Paperboard	*Segm A7*	*Segm B7*	*Segm C7*	*Segm D7*	*Segm E7*	*Segm F7*	*Segm G7*
Robotics	*Segm A8*	*Segm B8*	*Segm C8*	*Segm D8*	*Segm E8*	*Segm F8*	*Segm G8*
Rubber & Plastics	*Segm A9*	*Segm B9*	*Segm C9*	*Segm D9*	*Segm E9*	*Segm F9*	*Segm G9*
Printing	*Segm A10*	*Segm B10*	*Segm C10*	*Segm D10*	*Segm E10*	*Segm F10*	*Segm G10*
Textiles	*Segm A11*	*Segm B11*	*Segm C11*	*Segm D11*	*Segm E11*	*Segm F11*	*Segm G11*
Woodworking	*Segm A12*	*Segm B12*	*Segm C12*	*Segm D12*	*Segm E12*	*Segm F12*	*Segm G12*

Figure 5 – Market segmentation

5.1.2 Results

The customer insight module resulted in a description of what the customers need in terms of product performance and supplier service & support, input on potential areas of use for the product, the purchasing processes for different customer types, as well as preferred characteristics of the supplier. As regards to the differences between market segments, we perceived that customer segments to a larger degree than industry segments exhibit large differences in customer value when compared to their peers.

During our customer visits we noticed that some companies currently used manually time consuming solutions in e.g. multi position movements. In addition, goods were sometimes damaged by the rather binary pneumatic movements. Insights like this were important for our innovations and solutions and found by just studying the product in use, which shows the strength in customer live-studies.

Some additional examples of important customer insights along the life-cycle are listed below:

1) Awareness & triability
   a. Engineers most often perform research online before purchasing an actuator
   b. End-user awareness of different actuators and pros and cons is limited
   c. Customers rarely change supplier and value familiar brands high
   d. Fairs and direct sales (cold calls) are common way of approaching new customers
2) Specification, selection and purchase
   a. Distributors value platform flexibility in the selection phase

      b.   End-users rather often specify brand of the actuator, which e.g. reduces risk, different parts in stock

      c.   Long term product stability, trust for supplier and price are the key purchasing criteria for large customers (OEM)

      d.   Small customers are more often in need of a full solution (turn-key)

3) Delivery and installation

      a.   Short delivery time is of high value for partners and distributors

      b.   Ease of installation is of high value for customers who performs installation for end-users

      c.   Small customers demand product with installation

4) Use

      a.   Load and duty cycle change during the use, hence it is hard to know and calculate the actual product life-time

      b.   Uptime is critical for especially large end-customers, since actuator failure can drive severe costs in process downtime

5) Maintenance and repair

      a.   End-users want to fit and forget the actuator, i.e. minimized need for support and maintenance

      b.   Quick replacement is of high value if actuator fails, for especially large end-customers, since downtime can drive severe costs

6) Disposal

      a.   Minimum efforts in the disposal is attractive as well as minimum environmental impact

      b.   Industry demands on traceability increases

The main differences between different customer segments were to be found in delivery lead-time expectations, the range of complementary products and the possibility of delivering "turn-key" solutions, the amount of selection and installation support needed and in preferences of supplier characteristics in terms of geographical and market reach.

The main differences between different end-user industries were e.g. the degree of focus on product performance vs supplier characteristics. We could also distinguish some trends among a few of the end-user industries to require global reach of the supplier and fast delivery lead times for spare parts to a larger extent than other industry segments.

5.1.3   Knowledge gaps and reflections

While we feel that the understanding of customer value and purchase processes that was generated during the customer insight module were sufficient to draw generic and specific conclusions on customer value, we think that the evaluation of ideas, which comes later in the innovation process, would have benefitted from a quantitative assessment of customer value. Typically, such data would include the ratio of respondents who would value a certain support offer or product performance adjustment, or a rating of attractiveness of a pre-defined list of product and service attributes.

We experienced that the semi-structured interview template provided a good foundation for not missing any areas of importance in the interviews. In addition, by having a semi-structured approach,

comparisons between answers and conclusions of differences between customer segments, company functions were made possible. Having more open questions regarding the current use and difficulties in using competitors' products sometimes give even more open and various answers. However, several of our interviewees, i.e. constructors etc., had difficulties and some reluctance to bring relevant insights when not guiding them into a specific questions domain. This may have been a result of making cold calls to the customers, i.e. their incentives for an open less-structured interview are relatively low and increase the risk of losing the interviewee's interest. Hence, we kept to the semi-structured template but with an explorative interview technique always elaborating on interesting and dissimilar answers so different angles and views could be captured.

5.2 Competition Insight

Understanding competitors' business models and the subsequent value offers gives good learning opportunities. In addition, identifying their strengths and positioning in the market place gives valuable information regarding which unique positioning to adopt.

5.2.1 Approach

The competition insight was performed by an initial round-table discussion with SKF-personnel to identify ten key competitors and speed up the search process. We then mapped the key competitors onto eight aspects, derived from the customer interviews and internal discussion with SKF engineers and sales personnel.

- Product range
- Supplements
- Price-level
- Supply chain
- Quality and brand
- Expert advice
- Turn-key
- Geographical presence

The mapping was done by web-site browsing. During interviews with customers, consultants and other market players we also addressed questions regarding competitors to get an external perspective on their performance in the eight areas above.

The performance of all competitors was then qualitatively assessed in current state competition radar as illustrated below.
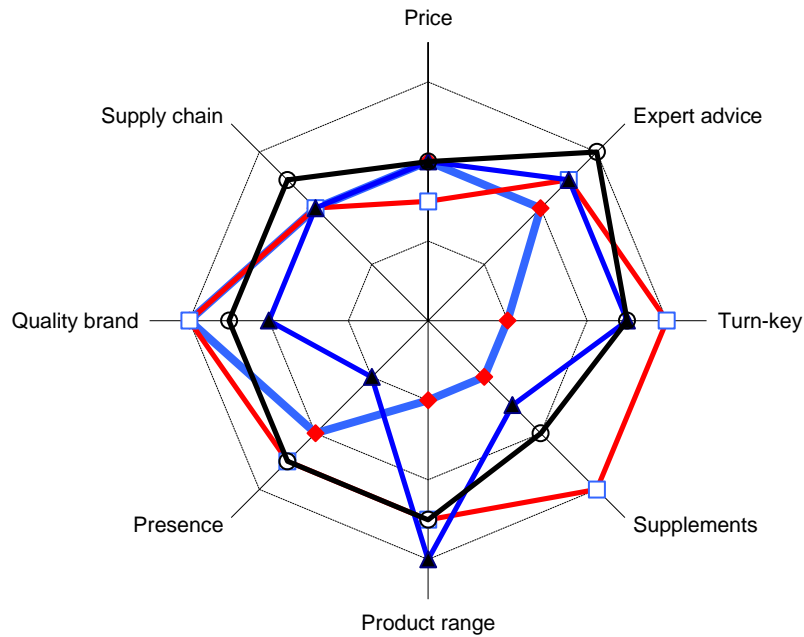
5.2.2 Results

The results of the competition insight were mainly qualitative with judgments of competitors' strengths, weaknesses and value propositions. All competitors seemed to compete on similar terms, in particular with lead-time and product performance as main selling propositions. Competing on similar terms seemed to make price the last differentiator. Price however, is often disclosed or in reality way lower than list-price, hence making it hard to benchmark. The results from the competition insight were, hence, exclusively based on a qualitative understanding of the competitive situation.

5.2.3 Knowledge gaps and reflections

The approach with internet browsing is very easy and feasible from an external point of view. However, it limits the insight to the competitors' own words and self-perception. The insights from interviews with customers and consultants gave a more honest, though subjective, description of each player. Optimally, interviews with competitors would have been conducted as well to understand how they work and their values, but since this in not viable from a competitive intelligence and disclosure point of view, it was left out.

The eight aspects are well suitable for the actuator market and were created in discussions with engineers. The relevant dimensions in the competition radar i.e. should however be separately created in each industry to be useful.

The eight aspects created a good basis for understanding the differentiating aspects of each competitor. However, we felt that mapping competitor behavior and the addressed customer segments could have been included for a better understanding of which ideas were creating the

most value. Learning from competitors is a great source of finding best practices "as-is", however need to be augmented with innovation modules to create new innovative ideas.

5.3 Value Offer Insight

Identifying the value offer consisted of two parts: 1) the existing applications and industries that the actuator is used in and 2) the current value offer and customers segments that SKF has. Knowing the actual applications and their respective attractiveness and SKF's current value offer and segments, helped to re-position SKF in the market place.

5.3.1 Approach

To understand the existing value of the actuator we identified and analyzed 19 of the most promising current applications. These were mainly identified during the customer interviews and internal interviews with SKF-personnel. All applications were then assessed through six steps as below:

1) Description
   a. Example applications
2) Requirements
3) Application fit
   a. Pro SKF actuator
   b. Against SKF actuator
4) Application attractiveness
5) Substitutes
6) Interest for SKF (High/Medium/Low)

The applications of high and medium interest were then analyzed from an industry perspective to understand which applications that occurs frequently in attractive industries. Industry attractiveness was decided on size, growth and price. This gave a good overview of the most interesting industries and applications.

To identify the current value offer SKF has to its customers, we interviewed product owner, product development and marketing personnel. This gave us a comprehensive view of the product characteristics, range and supplements as well as lead-times offer and current selling propositions beyond product performance.

5.3.2 Results

Mapping, deeply investigating and ranking current applications gave us a good understanding of the actual use of the product and in which situations the actuator delivered most value to customers. In total, two applications were regarded as high interest, nine of medium interest and eight of low interest.

Comparing the applications- and industry attractiveness to current SKF customer targeting, was important to challenge SKF segment structure and customer targeting.

5.3.3 Knowledge gaps and reflections

To map applications and industry attractiveness and compare this to SKF's current positioning, value offer and customer targeting helped to understand SKF opportunities with the *current* value offer.

However, it did not help or aim at identifying new value offers or completely new customer segments. This was however done in the innovation insight module.

5.4   Innovation Insight

The innovation insight module is where ideas for innovations – "innovation concepts" – on the current business model are supposed to be generated. The module as performed by us used ideas generated both during the customer insight interviews and the workshops dedicated to the innovation insight module. The intention is to generate a wide range of ideas on how the current business model can be re-invented.

5.4.1   Approach

We carried out the innovation insight module by preparing and moderating four workshops with in total nine SKF employees. The major part of the work associated with this proved to lie in the selection and preparation of workshops to be performed. Each workshop was designed by us using inspiration from business model theory and prepared using our acquired knowledge and the input received during customer interviews. All frameworks were intended to "help the mind" when generating innovation concepts, and are as such based on either a range of questions to answer and elaborate on or a structure to use when approaching an overall question on how to improve customer value.

The choice of which workshops to include was based on reviews of business model innovation theory. During the review process we came across various theoretical approaches on how to view business model assessment and/or innovation and a few methods. After having selected and short-listed some of these methods we then reviewed them with a focus on where different methods overlap and what gaps there are between *knowing* about the method and being able to *apply* them onto a practical situation. In doing so we were able to combine some methods and adapt others to suit the specific purpose of creating a framework for re-inventing a business model within an industrial company.

The formation of the ***Value proposition canvas*** was mainly inspired by Blue Ocean Strategy's ERIC-grid and strategy canvas tools, but while the strategy canvas intends to visualize how a suggested business model compares to competitors, the Value proposition canvas visualizes the own value offer performance compared to customer needs. What the two tools have in common proved to be the visualization of business model performance and the insights generated when having to contemplate about which aspects that in effect constitute customer value. In the workshop, the workshop members are asked to think about where we over- or underperform compared to customer expectations, in order to identify what aspects of the value offer can be reduced/eliminated or increased/created.

We chose to use the insights gained from the "customer insight" module to rank the categories and sub-categories below in terms of Importance (1:very low -5:very high) and then in the workshop rank the Internal performance (1:very low-5:very high). The workshop participants were also allowed to add additional categories.

Category	Sub-category
Price	Purchase price
	Life cycle costs
Product	Product performance
	Product range
	Accessories
	Design
	Convenience/simplicity
	Customization
	Accessibility
	Evaluation/trial possibilities
	Environmental friendlieness
	Fun
Brand	Awareness/familiarity
	Status
Customer	Cost-reduction for customer
	Customer relationship
	Service and instruction
	Risk reduction
Life-cycle	Delivery
	Purchase
	Use
	Maintenance
	Disposal

Figure 7 – categories in Value proposition canvas

The **Six paths** framework is inspired by the Blue Ocean Strategy. The workshop members are encouraged to come up with solutions to value offer gaps by using six different ways of approaching innovation. The rather opened questions inspired to rather various ideas and discussions, however, participants had difficulties coming up with relevant ideas without guidance and example of ideas.

The **Opportunities assessment** has been inspired by part of the Business Model Generation book by Osterwalder. In one of the chapters, Osterwalder suggests that a SWOT-analysis be carried out on all nine building blocks of a current business model concept, in order to scrutinize it from several angles. We found that this tool not only could assist the assessment of a current business model, but also help generating innovation concepts for *changing* a current business model. By internal trial-and-error in the project group during the workshop preparation, we found that while the *opportunity* part of the SWOT-analysis successfully helped the mind to generate innovation concepts, the other parts did not do so to the same extent. Therefore we eventually decided to increase the focus on the opportunity idea generation and omit the strengths, weaknesses and threats assessments from the workshop.

The **Buyer utility map** was the last of the four workshops to be included in the module and possibly also the most ambitious one. The framework looks at all combinations across the two dimensions *utility level* and occurrences in the *product life cycle* in order to identify innovation concepts that are

not necessarily obvious at first sight. The framework is inspired by the Blue Ocean Strategy tool with the same name, but with a different use. We also chose to modify the parameters of buyer utility by adjusting some of the utility levels and rearrange the product life cycle. The size of the framework and the related risk of the framework taking a very long time are managed by the workshop leader prioritizing between the combinations prior to the actual workshop, so that the most important aspects get the most focus.

5.4.2 Results

The four workshops resulted in 35 distinct ideas, which we label "innovation concept". An innovation concept in this regard typically contains an idea on how to build on the existing business model or an idea on how aspects of the current business model can be eliminated or replaced in order to do business differently. While we encouraged workshop members to elaborate on the practical implications and feasibility aspects of their ideas, we also allowed idea generation of "out of the box" nature.

Examples of ideas that were generated during the workshops included e.g. 1) Real time monitoring of product performance throughout the use phase, 2) SKF hosted Hotline chat and Blog for sharing best practice and provide easy customer access to product expertise 3) Online application for RFQ submissions.

5.4.3 Knowledge gaps and reflections

When designing the *Value proposition canvas* workshop we had several iterations on how to go about. The concept of forcing the participants to reduce performance as well as increase was debated internally in the project team. However, during the workshop we noticed that by not allowing performance in all dimensions to be increased, the innovativeness of the participants actually increased. At the same time the pragmatism and possibility to implement the ideas increased. The reason we found was that decreasing performance in any dimension requires innovative thinking to come up with solutions and understand the impact on customer value. When creating the workshop we performed a trial workshop in a small group with no restrictions of decreasing performance and the result were that almost all dimensions were increased without care taken to importance to customer. Hence, we chose to force the participants to also decrease some factors.

To understand which dimensions to be increased or decreased we chose to include importance to customer, based on the customer insight interviews. We noticed however, that this needed to be anchored in the workshop group; hence we discussed and explained each ranking including internal performance. When necessary we changed the ranking. After each participant had created a new value proposition "how can this be done?" revealed the actual innovative thinking and ideas.

The **buyer utility map** has similarly to the *Opportunities* and *Six paths* frameworks been augmented with questions and hints to help the workshop members for above mentioned reasons. In addition, when executing the workshop we noticed that we qualitative discussed the customer insight in the two dimensions, life-cycle and utility level. This helped the participants and added guided the ideas to address the customer current difficulties in each step. Hence, we added the customer insight field to be filled out prior to the workshop by the moderator. We anticipated the very large matrix to be

too time consuming to address completely. Hence, we chose the most relevant aspects to focus on before the workshop. This increased the relevance of the ideas.

Interestingly, when we look back on the workshop with a focus on which ideas came from whom, we can conclude that the intensity of ideas seems independent from the function of the individual workshop member; we included persons from various functions and levels and all of them contributed with innovative ideas. If we turn the focus to the four workshops, we note that the *Opportunity assessment* produced the most ideas, that the *Buyer utility map*'s strength lies in that it asks relatively specific questions, that the *Value proposition canvas* requires quite an innovative mindset and that the *Six paths* framework probably has the potential to generate the most disruptive ideas but at the same time is more volatile in the quantity of ideas that will come out of the workshop.

Furthermore, we note that even though all workshops included new workshop members, some ideas reappeared in several workshops. It also happened that workshop members, even some in manager positions, expressed "why have we not implemented this idea yet?" upon coming up with innovation concepts. It is obviously the case that even though ideas on how to improve current business operations come up during daily work, they do not necessarily make their way to an implementation stage.

During the execution of the opportunity assessment workshop we experienced that workshop members struggled with entering the right mind-set for creating innovative concepts, as this type of questions and open-minded thought processes are typically in contrast with those constituting the major part of daily business activities. When noticing the idea struggle we spontaneously gave some hints to help the process. Those hints proved to ease the mind at the participants and after only a few hints the creativity increased and the dialogue improved. Hence, we prepared and included hints both for the "opportunity assessment 9 BM blocks" and the following workshops, "six paths" and "buyer utility map". However, note that hints should only be used when the dialogue and creativity get stuck, since it steers the mind in a certain direction. A hint can e.g. be an example of answers or a "framework" to guide the mind. See example below from the workshop "Opportunity assessment 9 BM blocks"

"1. Could we generate recurring revenues by converting products into services?

Hint: Leasing of product, Full-service agreement, selling a service instead of a product

"2. Could we extend our service offering?

Hint: Think from product life-cycle perspective, e.g. purchase, delivery, use, maintenance, disposal

Due to the nature of the innovation insight module as a process of creating something with a blank paper approach, there were in hindsight no knowledge or information that we think would have improved the process. However, we noted that the preparation before the workshops, especially preparing examples of other companies being innovative in the area in question and hints on how to process, were essential to the success of the workshops and often assisted in encouraging ideas and moving the workshop forward.

5.5   Additions to the theoretical model

After performing the innovation insight module 35 innovation concepts (ideas) had in total been created from the four workshops. The 35 innovation concepts were however only alterations of the product or business model and not a coherent reinvented business model. Looking at the 35 innovation concepts we realized that several ideas were related, either in the content or where in the life-cycle they addressed a problem. By mapping the relations and cluster ideas, a complete business model innovation concept could most likely be created. A concept should represent a new offering to the customer through a reinvented business model.

At this stage we had no theory or manual on how to turn the separate ideas to a reinvented business model. However, the need for additional steps in the business model process was apparent.

We saw a strong need for two additional steps to the theoretical model:

- **Business model concept assessment:** Innovation ideas needed to be structured and clustered to coherent business model concepts
- **Implementing innovation:** The commercial potential of each business model concept needed to be investigated and an implementation plan prepared for the most promising concept

5.6   Addition 1: Business model concept assessment

Five different business model concepts were created out of the 35 innovation ideas that came up during the Innovation insight.

5.6.1   Approach

To map all innovation ideas, the material from the workshops was assessed and all good ideas were gathered and grouped according to where in the product life-cycle they occurred. Each idea was put on a post-it note on a large piece of paper containing all life-cycles phases. The phases in the life-cycle that were used were taken from the Blue Ocean Strategy's Buyer Utility Map (Kim & Mauborgne, 2005): 1) Purchase, 2) Delivery, 3) Use, 4) Supplements, 5) Maintenance and 6) Disposal.

We regarded an innovation idea as something new and possibly attractive in comparison to the current business model. Hence, innovation ideas came in rather different shapes, spanning from small "quick-fix" ideas to larger, more complex, thoughts with impact on many different levels of the business model.

Having all 35 innovation ideas in the life-cycle, we noticed that 27 of them appeared in the Purchase phase. Hence, we added a phase "Awareness & triability", and renamed some of the others, to get better overview of where in the life-cycle the innovation actually contributed. The seven phases we ended up with were:

1) Awareness & triability, 2) Specification, selection & purchase, 3) Delivery & installation, 4) Use, 5) Supplements, 6) Maintenance & repair and 7) Disposal.

27 of the innovations were now appearing in the first two phases, showing that the room for innovations, or the focus of the innovation insight module, is towards the first phases of the life-cycle.

In order to go from 35 innovation ideas in the life-cycle to distinct business model innovation concepts, we assessed each phase in the life-cycle and grouped ideas that could be used in separate business models. After the first two phases we had five rather distinct concepts which we augmented by adding ideas from the five remaining phases.

Each of the five business model concepts were now assessed through five comprehensive sections:

1) Tagline/story:
   a. Customer insight: Describing which customer needs in which segments that drive the reinvented business model.
   b. What if…?: Showing an alternative scenario from today based on the reinvented business model.
   c. Positioning: Describing the position in the market place that the business model would lead to.
   d. How it is done: Summarizing the most important steps and features to reach the reinvented business model.
2) Value proposition canvas: showing the importance differences in value propositions between the new and old business models and new categories of competition in a canvas consisting of 8-12 categories.
3) Business model framework: assessing which features that are needed in each of the nine business model building blocks.
4) GAP-analysis: analyzing which gaps that exist in each business model building block between the as-is and to-be business model. The actions needed and timeframe for these was also assessed.
5) Business impact and uncertainty:
   a. Profitability: Investigating the revenue and costs associated with the business model.
   b. Uncertainty & risks: Highlighting the most important uncertainties and risks with the business model.
   c. c) Sustainable advantage: Assessing how easy the reinvented business model is to imitate for competitors, e.g. whether the business model gain network effects or similar advantages.
   d. d) Future state: What is the next step in terms of product portfolio and market and customer segments?

5.6.2 Results

The results from the workshop generated distinct concepts that were essentially comprised of groupings of several ideas into a concept which would be able to clearly communicate a distinct value proposition to customer. One example is the "Online knowledge leader" concept, which included, among 10 other ideas, the three ideas previously mentioned under *5.4.2 Results* ,namely: 1) Real time monitoring of product performance throughout the use phase, 2) SKF hosted Hotline chat and Blog for sharing best practice and provide easy customer access to product expertise 3) Online application for RFQ submissions. These three ideas form the core of the concept (to be the knowledge leader available online) and are supported by the 10 other concepts.

All in all, five distinct reinvented business model concepts were formed:

1) The online knowledge leader
2) The problem solver
3) The substitute replacer
4) The trusted choice
5) The partner offer

The five concepts were based on different customer insights, positioning, value offer etc. and all included different innovations from the 35 innovation ideas. Some innovations ideas of more general nature were however used in two or more of the business model concepts. We presented the business models as concepts, hence, extrapolated on their unique features to give a clear distinction between them and to create five stories and visions.

These five concepts were presented with five slides each on the topics described above. The results were that the five separate business models were easy to understand and after the in total 25 rather dense slides the concepts and the project group at SKF could discuss and assess the feasibility and business potential of all concepts. After members of the project group had ranked and commented the business model concepts our understanding of which reinvented business model concepts that had the highest market potential were clearer.

5.6.3 Knowledge gaps and reflections

While we after the business model concept assessment did know which business models had the highest potential, we did not know how to combine the most promising features from each of them. Hence, the most important knowledge gap that occurred after assessing the five business model concepts was how to go from the concepts to one final business model.

The definition of a business model concept was important in the process of creating synthesis of innovation concepts. We realized that regardless of where in the life-cycle the innovation concepts occurred, a new business model must be able to be well positioned towards the customers. Hence, a business model concept was defined as any group of concepts or single innovation concept that would create a new and competitive positioning strategy towards customers.

The majority of the innovations were early in the product life-cycle and two of the business model concepts, the online knowledge leader and partner offer, were focused on *where* and partly *why* product was bought. "The problem solver", "The trusted choice" and "The substitute replacer" were focused solely on *why* a product was bought, keeping the existing distribution channels however, reposition the product and adding important dimensions in the offer.

This definition of a business model concept forced us to choose among the innovation concepts to create a focused offer, however, without limiting "reuse" of good innovation concepts that would add value in any business model. Other definitions would have been possible, e.g. to include innovation concepts from all parts of the life-cycle in a business model concept. However, this would most likely have created complex business models, difficult to both realize and communicate to customers.

By choosing positioning as the distinguisher between business models, combinations of business model concepts were possible and SKF finally chose to pursue two of them in combination. This was

possible and forced us to be dynamic in the fourth and final phase of the business model innovation process. The comparison could be made to concept cars, where each car is rather extreme and the actual car reaching the consumer market includes ideas from several concept cars and is less extreme.

Creating business model innovation concepts by clustering ideas with a connection in life-cycle or content proved to be a very useful for SKF. The 35 ideas were very difficult to handle due to the volume and disparity between them. The five business model concepts were on the other hand easily communicated internally, in terms of value proposition, gaps from current business model and company set-up.

After requesting feedback from the involved SKF personnel, we finally decide on the two most interesting Business Model Innovation concepts. During the assessment and feedback loop we noticed that the depth of analysis of each business model concept is important. The depth of the analysis must be to such a degree that the different business model concepts true potential and costs are revealed.

When a business model concept was chosen as the most promising, a more detailed implementation plan and business case on each initiative must be assessed before investments can be made, which called for an additional final step in the business model innovation process.

5.7 Addition 2: Reinvented Business Model

The implementing innovation module builds on the final business model concept that was developed in the concept assessment module. It includes positioning and competitor analysis and identifying and prioritizing target market segments. It also includes a risk assessment, assigning time frames and costs to the projects needed to implement the innovations and setting up the financial business case and implementation plan. All of which are critical parts of any investment decision. The SKF project team explicitly asked for a business case and implementation plan, after we chose a concept to pursue for further analysis. SKF experience, which we share, is that without quantifying the costs and benefits of a project, such as a business model innovation with the included change initiatives, the suggested project would most likely stay as a project.

5.7.1 Approach

After having concluded which business model concepts to build the final business model on and which of the innovation concepts to include, further analysis was required to close the remaining gaps. The perceived gap to take the business model from a concept to reality was three-fold: 1) An explicit customer segmentation and targeting was missing, 2) The business model concept did not to a satisfactory extent explain the business model in relation to the competitive situation and 3) The financial and implementation aspects of realizing the proposed business model had not been considered to their full extent.

The implementation module includes the *Value offer in life-cycle* section, where we use the life-cycle structure from the *Buyer utility map* to reconnect the customer insights with the value offer from the individual innovation concepts in the final business model.

The *GAP-analysis of projects* served to determine which individual projects had to be carried out in order to realize the business model. It also assigns cost, time and urgency to each project and assists in the planning and budget processes. The costs are transferred to the *Business case*, the latter which also includes the projected financial impact of the business model as a whole. Lastly, the *Implementation plan* uses the time and urgency of the individual projects to set a starting date for each project.

5.7.2   Results

The result of the module as a whole was according to expectations. The module complemented the business model well and bridged the perceived gap between understanding the business model and implementing the business model. Since we were also in a position where we had to "sell" the business model to the project sponsors, the module was in large parts what constituted the full business case from our side towards the sponsors.

5.7.3   Knowledge gaps and reflections

While the literature focusing on business model innovation puts little emphasis on such concrete implementation structures, for a large industrial company to fully implement a business model, having the architecture and overall logic in place is not sufficient, but need to be complemented with concrete steps on how to take the innovation from idea to practice. Therefore, we chose towards the end of the project to include such a module in the innovation framework.

The reason for including customer segmentation was to be able to separate between the needs of different market segments, assign them a market size and prioritize efforts towards those segments where the business model is expected to have the most impact. We decided to keep the framework structure for the customer segmentation quite basic in order to maintain focus on the primary drivers and main differences between different segments.

We furthermore experienced that while the innovation process started with the customer insight, the connection between the insights that were acquired in the beginning of the process and the final business model concept were not well enough tied together. Our solution was to develop the *Value offer in life-cycle* section, where we use the life-cycle structure from the *Buyer utility map* to reconnect the customer insights with the value offer from the individual innovation concepts in the final business model.

The competitor assessment is a natural ingredient in any business model formation process. The main consideration that we had regarding competitor analysis was not whether to include it or not, but rather where to place it in the process. After having noted that the competitor understanding was to a large extent already present in the minds of SKF employees, we chose to place it in conjunction with the positioning analysis, since they are closely linked. Furthermore, since the latter is dependent on which business model is chosen the competitor analysis had to be placed after the final business model was chosen. The positioning analysis was included since we felt it would be a strength to articulate the two strongest dimensions of differentiation against competitors.

We did not experience that we missed any significant knowledge, nor did we experience a request for sections that were not included in the module upon presenting the project to sponsors. We can, however, note that we were fortunate to have access to high-quality market size data on the

customer segments and this served as a fundamental decision basis when prioritizing customer segments. Without this data it would have been much more difficult to prioritize segments, so it is worth noting for future replications of the process the importance of good customer segment data.

6 Analysis of framework process and sequence

This chapter compares the process and sequence from the planned vis a vis the recommended sequence of the developed tools for business model innovation. The chapter also presents reflections on each individual part of the framework. The complete framework is found in the Appendix Excel-file "Business Model Innovation Framework". The framework is intended to be presented as a generic guideline for carrying out business model innovation. It will hence not provide any instant solutions, but rather provide the structure of how a company can replicate the process to yield results that are applicable on their individual conditions.

6.1 Process Analysis

6.1.1 Planned and recommended sequence

The planned and recommended business model innovation processes are shown below. The three first steps in the planned sequence, Customer, Competition and Value offer insight, are included in the first step in the recommended sequence "Business background". The name of value offer insight was changed to "overview of applications" to be more concrete about the actual use of the product. In addition a chapter regarding the product characteristic has been added since this is part of the background and "setting the stage" for the innovation. The last part of the business background is a chapter regarding trends and drivers which is included to set the stage for the innovations and force reflections regarding current trends. Additions of the Business Model Concept Assessment and Reinvented Business Model module have also been made to the recommended process. Hence, the recommended sequence consists of the planned sequence with the additions of Business Model Concept Assessment and Reinvented Business Model. The creation of "Business background" is mainly a change of nomenclature to create fewer and more distinct steps with more focus on the innovation, conceptualization and implementation.
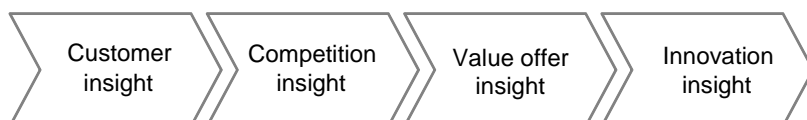
Figure 8 – Planned sequence

Customer insight → Competition insight → Value offer insight → Innovation insight
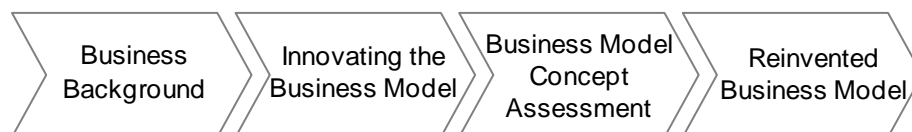
Figure 9 – Recommended sequence

Business Background → Innovating the Business Model → Business Model Concept Assessment → Reinvented Business Model

The process structure and sequence that we eventually concluded to be the preferable one builds on treating innovation as an iterative process and separating between "mind set requirements" between modules. An illustration of how this is reflected in the framework is the differences between module 1) Business background and 2) Innovating the business model. The Business background incorporates background information that, depending on the current quality of business intelligence accessed by the company, will typically require varying extents of additional intelligence acquisition and analysis. However, they all share the common objective or serving as a platform – a way of "setting the stage" – for the innovation process to rest on; they constitute the research phase of the innovation project. The second module, Innovating the business model, on the other hand is

distinguished by its emphasis on encouraging the creation of new ideas. As opposed to the previous module, which builds on *gathering current information*, this module constitutes the creative part of the innovation project with an emphasis on *creating new ideas*.

After having performed the project, as expressed in chapter 4.5, we saw a need for creating business model concepts of the separate ideas, as well as an implementation and business case assessment. The Concept assessment module aims to assess and refine ideas generated in the previous module while the Reinvented business model module is intended to package the final innovation proposal into a concept to be implemented by the company and, hence, is more focused on implementation and taking action.

The recommended business model framework hence is built of four distinct phases, each with a clear purpose and content. The content in each step is described in the table.

1) Business background	2) Innovating the business model	3) Concept assessment	4) Reinvented business model
Goal & scope	Current business model	Tagline – story	Customer segments
Product characteristics	Value proposition canvas	Value proposition	Value offer in life-cycle
Overview of applications	Six paths	Business model framework	Competitors' value offer
Competitive environment	Opportunity assessment 9 business model blocks	GAP-analysis	Positioning
Customer insight	Buyer utility map	Business impact and uncertainty	GAP-analysis and projects assessment
Trends and drivers	Innovation concepts assessment	Final concept assessment	Business case
-	-	-	Risk assessment
-	-	-	Implementation plan

Table 1 - Business model innovation framework components

6.2   Individual Frameworks Analysis

This section contains an analysis of each part of the business model innovation framework and the analysis behind each modules outline. To understand how each section is performed in detail, consult the attached Excel file "Business Model Innovation Framework".

6.2.1   Business background
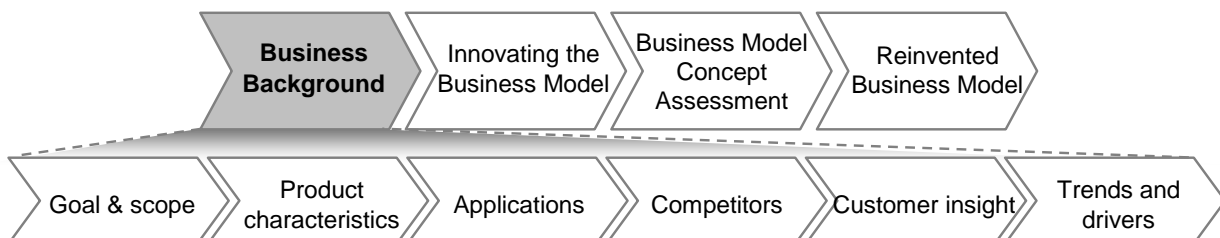
The business background module is setting the stage for the business model innovation project. The module consists of six chapters, 1) Goal and scope , 2) Product characteristics, 3) Applications, 4) Competitors, 5) Customer insight, 6) Trends and drivers.

1) The **goal and scope** are crucial for aligning the project team and to set the right expectations. In our process we could have established an even larger buy in from the sponsor group by, at the very

start, clearly define the goal and scope of the business model innovation project. This would have e.g. made it easier to later assign responsible persons for the necessary change projects which have to be put in place to transform the business plan at the end of the project. This also helps to spread the word in the organization and to be the kick-off of the project. Hence, the inclusion of goal and scope was something that we underestimated the importance of in the beginning of the project, but that we put emphasis on in the final framework.

2) As a second step the **product characteristics** need to be clearly defined and known by all project members. Understanding the product characteristics helped us to come up with relevant new innovation, by both enhancing the current value creation and find new areas of use. Our hypothesis was that this has to be made at an early stage which we found verified since it helped to set a base line for the innovations. The product characteristics showed us hard fact differences between SKF's actuators and competitors' which were one crucial piece in finding a profitable positioning strategy. The conclusion is hence, that a thorough product understanding early in the innovation process is necessary for understanding the true product possibilities and relevant positioning from a technical point of view.

3) Having mapping of **applications** as the third step is necessary to understand in which areas the product is currently being used. While being focused on the current applications, it sets the stage for the project and deepens the understanding of the product. In addition, application mapping aligned the project team of the current purpose of the product. Our application mapping was however very thorough and time consuming. In total 19 target applications for the actuator were identified and described in detail. While it is important to understand the current applications, our conclusion is that more efforts should be made on the innovations and possible areas of new business. Hence, we chose to limit the applications part in our business model innovation framework to a description of application and understanding the market size and attractiveness.

4) **Competitors** are a source of great benchmarks and interesting ideas for what to do differently. We chose to focus on their target segments, distribution channels, pricing strategy and spotted best practices. Since SKF was new in this particular part of the actuator market competitors' business models set the stage of how business is done. We noticed e.g. how competitors worked with distributors and partners in different ways. Mapping competitors' distribution channels gave us a good foundation for interviewees. Our analysis is hence that competitors' business models must be mapped at an early stage, before conducting customer interviews in order to have insights full and focused questions.

5) **Customer insight** is the most crucial element in the business background module. The insights gained in the customer insight section are the foundation for innovations, choices and the reinvented business model. This was our hypothesis, experience and conclusions from articles such as "Getting the job done" by Christensen 2007. As explained in chapter 4, we put a strong emphasis and time on this section. Our analysis is that quantification of value is a good complementary to the qualitative interviews. This gives a data ground and makes it easier to anchor the true customer value in the project team. Strong anchoring of the true customer value is essential for pragmatic results and effective change management at the end of the project. We can conclude that customer visits and studies of how they use the product are of great value and helps identifying the unspoken needs. We

realized that SKF had a long distance from R&D to the end-customers. By visiting the customers this distance dramatically decreased and value-adding insights were gained.

6) **Trends and drivers** are the sixth and last section of the business background. Understanding the trends and drivers for those helped us to take a broad view of which innovations could be of use. We identified trends through reading market literature and reports. To help to understand the most important trends we decided on the three most relevant categories for trends:

- Human

- Technical

- Market

While trying different methods for breaking down trends and drivers we found that one particularly effective way of doing so is splitting them up into human, technical and market related drivers. This helped both in the brain storming process around trends, the data search to quantify trends and in the communication of conclusions to stakeholders. Comparing to a split up based on for example time: "1-3 year trends, 3-10 year trends, 10> year trends" or similar, the human, technological and market trends are more aligned with how people intuitively identify, understand and analyze the impact of trends."

Within these three categories both drivers and barriers exists. For example, a human barrier within actuation systems is that many companies currently using pneumatic solutions see no need to change the technology since they have an established knowledge base on how to use this technology. A technical trend in the actuator market is that Internet, web-design and CAD-models are crucial parts of how engineers get product information and work with design. A market trend is for example that companies have an increased demand of product traceability. Large costs associated with not being able to back trace product parts in case of machine or product failure.

6.2.2   Innovating the business model
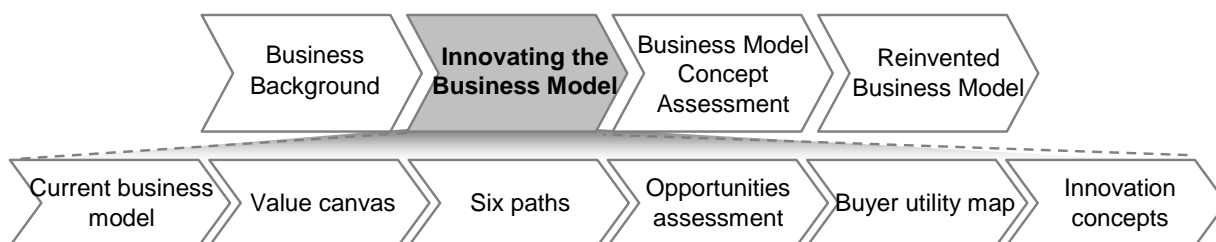
The innovation insight section consisted of four workshops which generated 35 distinct innovation concepts. However, we realized that in addition to the four, a first workshop to set the stage and put the project team on the same level of understanding of the current business model would have been beneficial. During our work we used Osterwalder's business model definition to turn the innovation concepts to business model innovations. Osterwalder's business model could however also be used for defining and understanding the current business model, which is to be innovated. Hence, we created and tested such a workshop based on defining the "as-is" business model by discussing the model with a stance on each of the nine building blocks. After defining the as-is, we elaborated on ideas of possible "To-be" key partners, key resources and customers etc.

The need for a thorough "as-is" understanding of the business model and the inspiration this workshop gave for possible "to-be" states, were the foundation for the creation of the first workshop in the innovating the business section **"Current business model "as-is" and "to-be"**. Including this workshop in the section does not only give additional innovations concepts but also increase the output quality of the other workshops.

The **"value propositions canvas"** generated fast, easily communicated innovation concepts and almost complete business model innovations. Even skeptical workshop participants turned out positive to the exercise since it evidently created ideas in short amount of time. The need for reducing performance in categories was highly appreciated and forced the participants to focus the concepts and realizing that high performance is neither needed nor realistic to have in all categories. This workshop is very much based on an accurate customer insight from the interviews and customer visits. During this exercise it becomes evident that customer insight is crucial since any misinterpretations of the true value will lead to innovations concepts with low commercial value. However, with our thorough initial customer value mapping during several interviews we felt that the customer insight played a key role in guiding the workshop participants to interesting innovations in the fields with the absolute highest relevance to the customers.

We realized before the workshop that the number of areas where possible innovations can be done must be made rather short (8-12) for keeping the innovations relevant and crisp. The areas that to be included should either have high customer importance, or a large gap in current performance to customer value, either over or under performance. These rules for choosing the categories turned out well. Areas with distinct over delivery got lower focus in the innovations and interesting ideas of improving a low performance in important categories were found. This insight helped us in creating an algorithm as a help for assessing the areas, driven by customer importance and current performance.

The "**six paths framework**" workshop turned out well, and forced the participants to assess the business model from these six areas highlighting areas easily to forget in the day to day business. Most innovation concepts came from the functional and emotional understanding of customers as well as the time and trends impact on the business model. The previous assessment of trends and drivers could during this exercise be turned into real innovation concepts. The workshop demanded some introduction and leading questions in the beginning during the first "path" looking at alternative industries, but the discussion then turned out well.

We challenged the workshop outline with having a group discussion with alternatives e.g. individual post-its notes etc. However, seeing that the areas are rather broad and complex to understand, a group discussion gives a deeper insight of the actual topic and meaning, hence facilitates higher quality and relevance in the innovations. Thus, we chose to keep the workshop in the group discussion format.

The "**opportunity assessment**" using the nine building blocks benefits from a previous full mapping of the business model, which we hence added first in the innovation insight section (as previously discussed). With a good current understanding the opportunities are more easy to assess and possible to make more crisp. The trial and error methodology that led us to the conclusion to create a workshop with sole focus on opportunities was reinforced during the workshop. Focusing on only

opportunities generated several good innovations, whereas weaknesses and threats would have needed a second iteration in transforming the threats into innovations. The opportunity assessment takes the previous "as-is and to-be" workshop one step further with questions based on hypothesis of where the true value is created. After performing the workshop we came to the conclusion that 34 questions should be split into two parts in order to keep the energy in the workshop. In addition, to come up with innovations concepts, the facilitator has an important role in asking "how?" each time participants only answers yes or maybe.

The hypothesis driven approach worked very well as a complement to the more open-ended workshops and questions in the six paths and "As-is and To-be" workshops. By beginning with the more open-ended workshops the participants mind is not limited and rather disruptive ideas can come up. In contrast, the hypothesis driven questions focus the answers into more incremental ideas on current state. However, by asking leading questions, the participants are forced to analyze several relevant fields which cover a large part of possible innovations. The combination is powerful and hence the two last workshops are more hypotheses driven to force participants to investigate all relevant fields.

"Buyer Utility map" is as previously stated a very ambitious workshop with a key success factor in having the facilitator choosing relevant fields to focus on. The rationale to look at buyer utility across life cycle captures the essence in the customer insight of where value is created. The framework was opportunistically created after realizing that the buyer utility map in itself does not create any innovations but refined with questions very interesting ideas can be created in specific period of the product life cycle. As input to the workshop, the customer insight again plays a vital role in creating meaningful and commercially viable innovations.

6.2.3   Business model concept assessment
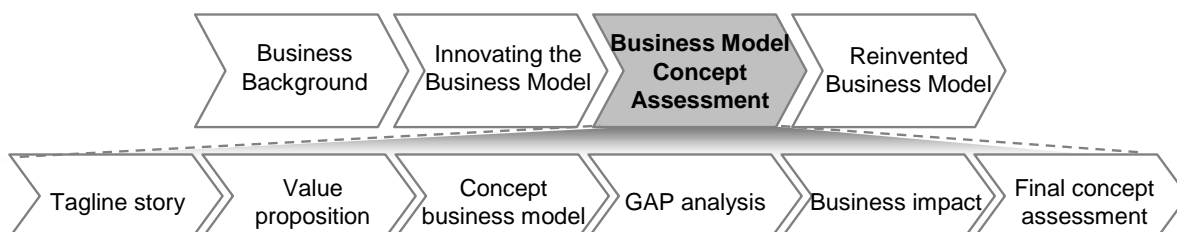
Building business model concepts meant creating syntheses from the individual innovation concepts. This was a crucial and challenging part in the business model innovation process, since the innovation concepts had no previous connection. New ideas, both incremental and more disruptive, were rather easy to gather from workshops with well thought through facilitation. However, grouping the ideas in the life cycle to competitive business models demanded creativity and business insight.

The presentation of each business model with the five slides was a very effective way of communicating the ideas and the challenge to reach the wanted state. The ambition with the concept presentations was to have decision material for the executives to choose a business model for the deeper analysis and an implementation road map. The concept presentation was also an important step in the analysis of full business model concepts. It was of great value to assess how the value proposition of the innovated business model differed from current, which gaps and actions were required, profitability, risk and the sustainable advantage.

6.2.4 Reinvented business model
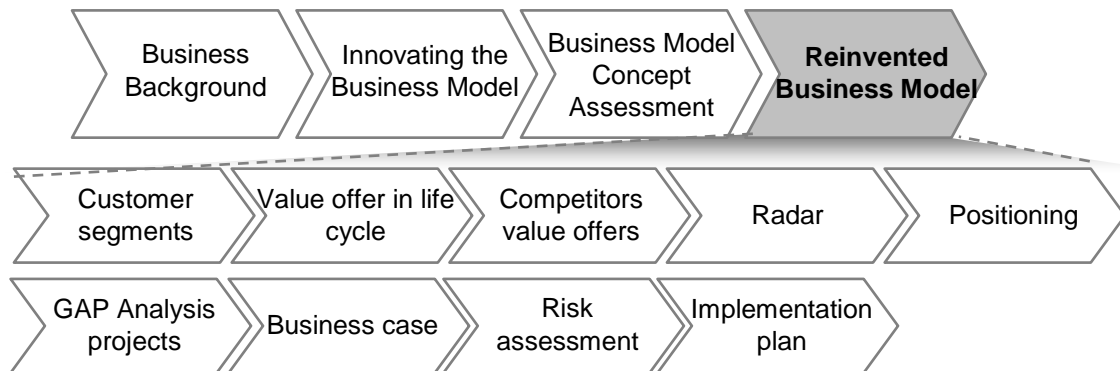
The reinvented business model and the modules in this section are a key distinguisher between our framework and other literature and reports within the field of business model innovation. Articles and literature, e.g. the Blue Ocean Strategy, do not tell how to go from a vision to a road map ready for implementation.

The basic idea and core of this section is to find the gaps between the chosen innovated business model and current and turn them into projects. Each project can then be assessed in terms of costs, business impact and timing and then be placed in an implementation road map. We could conclude that some innovation concepts which appeared attractive in workshops did not have an attractive business case when broken down into projects. This is an important lesson learned, and made us identify the projects with high impact and low risk.

We realized that without making a well-defined implementation roadmap, the business model concept would stay as concept and rarely be implemented. Hence, the rather complex changes needed to be broken down and analyzed in smaller pieces in order to drive a true change. This work put emphasis on trustworthy figures for the benefits and costs of each project which need buy-in from stakeholders.

The business model innovation process hence demands different skills to reach a successful outcome. Being open-minded and innovative is important during innovation concept creation, to reach competitive incremental and disruptive innovations. However, the innovation team needs to become pragmatic and very implementation oriented when working with business model concept and when developing the reinvented business model.

6.3 Innovation framework contribution to business model innovation

We have discussed how best to design the innovation process, starting with the overall process perspective and drilling down to each individual detail of the framework. But one question still remains, perhaps the most interesting one: "does the framework facilitate business model innovation?" Addressing this question requires shifting the analysis perspective from assessments of how to optimize processes to an analysis, however qualitative and hypothetical in nature, of the contribution that the business model innovation framework made, given the fact that there was already an overall ambition present for SKF to improve practices when we initiated our project.

Hence, the analysis topic of interest is to which extent we experience the innovation framework to be an enabler in innovation generation within a company. We believe the question can be addressed from the perspectives of quantity, quality, and time; each of which will be individually addressed below.

6.3.1 Impact on quantity of innovation ideas

Regarding the contribution of the framework to the generation if innovative ideas, this was accomplished in two ways. In line with our expectations, the framework seemed to help the creation of ideas to the novel company and its employees, but it also turned out to serve a second role of bringing to the surface and consolidating ideas that, while being already present *somewhere* in the company, was novel to the adequate forums and decision makers. We will discuss each of these two aspects below.

Starting with the first role of the framework, to facilitate the creation of novel ideas, we experienced during the innovation ideas generation phase that the framework does indeed provoke the workshop members to think in a different way than they are used to. Our conclusion as to the reason for this is twofold, partly based on the fact that a question about a certain non-obvious topic pushes an answer to that very question, but also based on the clever way of approaching the idea generation by looking at a problem from several angles, thereby augmenting the creative process that the idea-generation phase in fact is.

Turning to the second role of the framework, on the serving as a consolidator of ideas currently present in the organization, but spread out and inherent in individual employees minds, the frameworks enables the capturing of these ideas and the subsequent incorporation into the innovation process. In doing so, the framework bridges the gap from unexpressed ideas spread throughout the organization to a consolidated pool of concrete, well thought-through ideas which are then to be assessed and evaluated.

The Innovating the business model module resulted in roughly 35 innovation ideas. When comparing this number to the perhaps two or three comparable ideas present before we initiated the workshops, we can clearly conclude that ideas indeed were generated during the process. This would obviously also have been the case, had people been assigned to do some thinking and come up with ideas *without* using the framework. However, our observations of how the framework helped generating ideas in areas not always obvious to the workshop members, in addition to how it was used to approach a problem from several perspectives, indicates that using the framework typically would result in a larger quantity of ideas than not using it, the latter which would be the adequate basis for comparison.

6.3.2 Impact on quality of innovation ideas and concepts

While we feel that the outcome of the project in terms of the quality of ideas that were generated has reached a satisfactory level, we acknowledge that it will be difficult to determine how much of the outcome is to be assigned to the framework on the one hand and, on the other hand, to the people involved in the process.

There are, however, some aspects of the process that support an argument in favor of using the framework. Firstly, generated ideas go through an evaluation process that provides for a fair and

thorough assessment of the viability of ideas and combinations of ideas. This is allowed for by the evaluation process frameworks, under which ideas are presented, scrutinized by several workshop members and assessed in conjunction with other ideas. Hence, following the framework results in a clear description of each idea so that the idea can be communicated to fellow workshop members. The members can then collaborate in refining the idea, assessing its strengths and weaknesses and place it in a context of other ideas which would in combination generate a business model innovation concept.

6.3.3 Impact on time requirements

As regards to the time aspect, the whole process, from initiation of the project and definition of scope to completion, took approximately 4 months. Out of these, the one single phase which required the most resources was to get a good insight into the customer value. Structuring the process and related frameworks for how to generate innovation ideas and concepts also took its fair share of resources, although once structured and created the actual innovation workshops did not require particularly much time. In general we conclude that a lot of the time we spend on the project was allocated to setting up the process and frameworks. This process was to a large extent a trial-and-error process, where useful parts of our innovation process was elaborated on while parts generating less value to the project were tried but then taken out. Once done, having the innovation framework available and putting it into action in the workshops made the actual innovation idea generation very resource efficient. Also taking into account the quality of the outcome, we are convinced that the outcome of our project, the innovation framework, would enable for a significantly faster and more resource efficient innovation process.

7 Conclusion

This concluding chapter will discuss whether we believe that the framework that was generated, had it already existed, would have helped streamlining the implementation of business model innovation in our particular case. It will also be discussed the extent to which we think that the framework can be applied to other companies, industries, products and markets. Lastly we will provide suggestions on how we think the framework can be improved by further work on it.

The process, methodology and subject studied

The business model is at the conceptual and cognitive core of corporate and business unit strategy in every company. However, to view the business model as a static part of strategy is to ensure being overtaken by competitors and new entrants in the long run. The business model needs to adapt to a changing environment with respect to competitors, customers and other factors. If the adaptation is significant enough, the term business model innovation is commonly referred to as the process by which the whole principle of how a company creates value for its stakeholders is changed. However, being a relatively new topic in the academic field, and with a limited number of studies made, we wanted to explore whether it's possible to transform business model innovation from a serendipitous activity performed by few and by accident into a structured process used by a project group with overall responsibility for the current and future business model.

What we wanted to accomplish was to assess how theories and methodologies that are usually associated with business model innovation could be productively "assembled" and applied to the case of a real company with the aim to develop a theoretically based yet empirically derived work process for business model development – a practically useful set of tools and a process to enhance business model innovation. As these theories often evolve as part of the explanation of business model in hindsight, testing how they could actually be applied to the real case to shape a business model from start posed a very interesting study – even if we are aware of the fact that what was created as business model innovation in theory in our empirical case was not possible within the framework of this thesis work to see come true also in reality. That would have given us additional important insights to refine our proposed business model innovation process. We were given the opportunity to do this at one of the business units of the industrial company SKF. As part of an extension of the scope of business of the business unit, the launch of a new family of products, we set out to reinvent the currently used business model to be tailored for the new market segments that would be addressed with the new product family.

Our approach to the study was to start reviewing the literature that exists on business model innovation and combining this with more traditional literature on strategy and marketing. Due to the novelty of the topic, sources such as blogs and articles were extensively used. We then used this material to design a framework for business model innovation, which was intended to serve as both a guiding structure for the innovation process and as a "toolkit" with a collection of business model innovation tools in the shape of workshops. As such the framework would serve partly as a checklist of which information to gather and in which order and partly to provide the tools necessary to transform information into innovation. Having the framework in place, we put the framework into action by going through it together with key personnel at SKF. Some extensive research was

necessary to complement the knowledge that was accessible within the company at the time, including a vast market analysis to gain insights about the new market.

After having completed the innovation process, including the design and presentation of the new business model, we took a step back to think about which modifications we had done to the framework during execution and which changes we would recommend for further rounds of implementation. This analysis and the analysis of how the framework relates to traditional processes of business model innovation led to the framework as presented in its final design and the conclusions presented here.

The contribution of the framework to the business model innovation outcome – some ideas for further academic study

Reconnecting to the research question that we initially set out to pursue and answer to, the main conclusion of interest is whether or not we experience the innovation framework to be an enabler in innovation generation within a company. We feel convinced that using the framework was an enabler in generating ideas to the extent and quality that we experienced. In attempting to explain why this is the case, the essential contributions of the framework relate to its impact on the amount of ideas, the quality of them and the efforts needed to generate them. Firstly we observed that the framework provoked workshop members to think in different ways and approach a given problem from different perspectives. It also functioned as a means for identifying, consolidating and bringing to the surface such ideas that were already present in, but spread out across, the organization. Secondly, we felt that the quality of generated ideas were subject to a favorable evaluation process through the framework, in which ideas were defined, communicated, scrutinized and refined in favorable way, which facilitated the input of several workshop members representing different positions within the company and provided for a fair assessment of each idea. Lastly, as regards to time requirements, the relatively little time that was spent on actually generating ideas compared to the significant time and effort that we spent on designing the framework indicates that the idea and concept generation and evaluation phases benefitted from having the framework in place.

A discussion on the stand-alone value of the framework should also be included. While we feel that the outcome of the project in terms of the quality and amount of ideas that were generated has reached a satisfactory level, we acknowledge that it will be difficult to determine how much of the outcome it to be assigned to the framework on the one hand and, on the other hand, to the people involved in the process. This brings about some uncertainty to the discussion of whether the innovation framework lives up to the desired expectations of quality of outcome. Taking into account, however, that our awareness of this aspect in the preparatory phases led us to take on a passive moderator role in the workshops should assure the replicability of the process once other people are involved.

The aforementioned observations contribute to our conclusion that the framework did in fact assist business model generation in the situation we were faced with at SKF. Hence, the question of whether the framework enabled for a better, more efficient innovation process compared to the hypothetical case of the framework not being used, all else equal, merits a positive answer.

How to turn business model innovation into a systematic, continuous process:

Having concluded that the framework can improve the innovation process, it is also interesting to discuss how it can be included as a natural part of business development activities in a company; i.e. who, when and how to integrate and use the framework. As regards to who should manage the innovation process, we concluded that this is preferably done by a multi-functional team of 8-10 project members. Access to some key areas of knowledge should be tied directly to the project members, such as understanding of the current business model, the products of interest and the target market. In addition, project team responsibilities should encompass strategic/budgetary, operational and financial authorities. This is important partly because of the need for adequate knowledge of the subject to perform a viable innovation process, but also because the need for relevant decision authority when it comes to implementing decisions.

When to perform the process is naturally dependent on the individual characteristics and needs of the individual business. Although the situations that call for business model innovation have been clearly illustrated – i.e. to satisfy existing but unanswered market needs; to bring new technologies, products or services to market; to improve, disrupt or transform an existing market with a better business model or to create an entirely new market – such situations are not always obvious until after the business model innovation has taken place. Our observation is that potential for business model innovation can lie latent in the business even with its currently available knowledge. Hence we would suggest that the framework and process be engaged not only once a need has been identified, but also on a continuous basis to reveal latent opportunities. The regularity with which this process could be recurring will depend on the dynamics of the industry in which the company operates, but it is reasonable to assume that there are enough changes in most industries to justify annual or bi-annual business model innovation reviews.

However, based on this project alone, we could never go as far as to conclude with certainty that this framework alone would cover all the business model innovation needs of a company, thereby eliminating the need or other innovation processes. Instead we would suggest that it be used as a complement to current processes to augment the current ways of crafting innovation. A way of facilitating this would be to include the framework process as one of the preparatory parts prior to a strategy review or similar. This would not only impose structure on the continuity of the process, but also promote the conclusions and decisions to be made directly to the decision making forum.

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Appendix I – Business model innovation framework

1. Business background

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1. Business background
Business model innovation framework

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Purpose with Business Model Innovation framework:
To reinvent the business model for an established business.

Purpose with Business background module: To align goal and have all needed current information available and spread to the project team in order to make feasible and long-term profitable business model innovations.

Methodology: Round-table discussions and market research.

Total time requirements: circa 11h discussion plus market research and customer insight.

Preparation:
1) Define the project team: Project leader with 8-10 fellow Business Model Innovation (BMI) project team member. The team should consist of co-workers with different backgrounds and ages and with a collectively as exhaustive as possible view and understanding of current business model, product and market. In addition, project team must include key personnel with budget, operational and financial responsibility of the current and future business model.

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1.1 Goal and scope

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1.1 Goal and scope
Business background
Business model innovation framework

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Purpose: To align goal and scope among project team, inform about coming workshops and split the project group into two diverse groups.

Methodology: Round-table discussion between all project participants

Time requirements: circa 3h discussion

Preparation:
1) Define goal, timeframe and which regions this project will concern.
2) Understand all four modules in the complete framework to be able to brief the project team on coming workshops.
3) Split the group into two diversified groups of circa 4-5 participants each with different backgrounds and ages and with a collectively as exhaustive as possible view and understanding of current business model, product and market.

How section is performed:
1) Answer the question after a discussion

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Goal

To systematically and creatively question the current business model to be able to find extended or new customer value and new or better ways to appropriate part of the added new value – in brief: to reinvent the business model for the established business.

Scope

Timeframe:	*"When should the business model be implemented?"*	
Regions:	*"Which product/offerings and customer regions are in focus?"*	

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1.2 Product characteristics

1.2 Product characteristics
Business background

Business model innovation framework

Purpose: To set the stage on product characteristics and strenghts/weaknesses; used later to spot innovation areas.

Methodology: Round-table discussion between project leader, developer and marketing.

Time requirements: circa 2-3h discussion when information is accessible.

Preparation:
1) Have financial performance e.g. turnover and margins and product information ready.

How section is performed:
1) Answer the questions after a discussion.

Product built-up	*"What are the main parts of the product?"*	
Product range	*"What different products are there?"*	
	"How do they differ in terms of output?"	
Accessories	*"What main accessories are there?"*	
Substitutes	*"What are the main substitutes?"*	
Strengths compared to substitutes	*"What are the product's key strenghts compared to substitutes?"*	
Weaknesses compared to substitutes	*"What are the product's key weaknesses to substitutes?"*	
Life-cycle	*"Where in the life-cycle is the product?"*	
Commodity or differentiated product	*"To what extent is the product differentiated or a commodity"?*	
Market share	*"What is the product's market share?"*	
Financial status	*"What is the product's turnover?"*	
	"What is the turnover CAGR last 3 years?"	
	"What is the product's margin?"	
	"What is the margin CAGR last 3 years?"	

1.3 Overview of applications

Purpose: To map and understand all current areas of application

Methodology: Round-table discussion between project leader, developer and marketing.

Time requirements: circa 1-3h discussion when application information is available, depending on the amount of different applications for the product.

Preparation:
1) Read about applications from competitors and market research.

How section is performed:
1) Answer the questions after a short discussion.

#	What is the application name?	How would you describe the application?	How large is the market for the application (1-3: Low/Med/High)	Application fit (1-3: Low/Med/High)	Application attractiveness (M+F)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
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19					

1.4 Competitive environment

Purpose: Ta map and understand the competitive environment.

Methodology: Round-table discussion between project leader and marketing, together with market research.

Time requirements: circa 2h discussion when competitors information is available.

Preparation:
1) Read material from competitors and market research.

How section is performed:
1) Answer the questions after a short discussion.

Competitor Concentration	*"Who are the competitors?"*							
	"How large is the competitor's revenue?"							
	"Which market share do they have?"							
Competitor behaviors	*"Which target customer segments do they have?"*							
	"Which competing products do they have?"							
	"Which pricing strategy do they use?"							
	"Which distribution strategy do they use?"							
	"How loyal are their customers?"							
Best practices	*"Are they doing things we are not?"*							
Strengths compared to competitors	*"What are the product's business unit's key strengths compared to competitors' products?"*							
Weaknesses compared to competitors	*"What are the product's and business unit's key weaknesses compared to competitors?"*							
Barriers to entry	*"Do we need to worry about any new entrants to market?"*							
Supplier concentration	*"Are suppliers a strong force in the industry?"*							
Industry regulatory environment	*"Are there any regulations which can play a vital role for the product?"*							

1.5 Customer insight

1.5 Customer insight
Business background
Business model innovation framework

Purpose: To understand the true customer value of the product. This is implicitly used throughout the innovation workshops and explicitly requested in the "Business utility map" workshop and reinvented business model module.

Methodology: Customer interviews and visits to understand how they use the product. Round-table discussion of findings. Use the interview template provided in Appendix II

Time requirements: Recommended a minimum of 3 customer live-studies and interviews in each segment

Preparation:
1) Prepare interview template, see full report for interview template example and methodology.

How section is performed:
1) Start by assessing each customer segment and describe their respective market share, size, profitability, key needs and channels.
2) Continue by assessing key needs and causes of frustration in different phases of the life-cycle. In addition, assess the role of the actors in all phases (e.g. who is taking the purchase decision and who is main influencer?).

Note: Use the interview template provided in Appendix II - Interview template

Use the insights gained during the interviews and studies of the actual use of the product together with the information below

Customer insight

Customer groups					
Market share					
Size (Rev.)					
Rev. CAGR (3 years)					
Profitability					
Profitability CAGR (3 years)					
Distribution channels					
Key needs					
Frustration					

Customer phases and decision makers

		Customer phases				
		1. Awareness	**2. Evaluation**	**3. Purchase**	**4. Delivery & installation**	**5. After sales**
		How do customers become aware about the product and service in each channel? Which customer frustration occur in finding the products to choose from?	*How do customers evaluate the product and service in each channel? Which frustration occur when evaluating?*	*How are customers buying the product/service in each channel? Which frustration occur while purchasing?*	*How do products get delivered to customers? Which customer frustration occur in delivery?*	*Which post-purchase customer support is requested and used? Are there any frustration occuring after sales?*
Own	Direct	Sales force				
		Web sales				
	Indirect	Own stores				
Partner		Partner stores				
		Wholesaler				
		Who at the customer is searching for product/service?	*Who is evaluating the product/service?*	*Who is taking the purchase decisions and who is directly and indirectly influencing?*	*Who is installing the product?*	*Who is using the product and affected by the after sales?*
		Actor				

Channel

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1.6 Trends and drivers

1.6 Trends and drivers
Business background
Business model innovation framework

Purpose: To understand the market trends, drivers and barriers that affect the business model before innovating.

Methodology: Round-table discussion between project leader and marketing, together with market research.

Time requirements: When market knowledge is gathered circa 2h discussion.

Preparation:
1) Read market research and industry articles.

How section is performed:
1) Specify the most important trends, driver for the trends and the impact that this will have on the business model.
2) Assess which drivers within the three categories "human", "technological" and "market" that can be important and boost your current market.
3) Within the same categories assess which barriers that can threaten the market growth or even cause a decline.

Specify trends, drivers and barriers:

Trend	Driver	Impact

Category	Driver	Impact assessment (High/Med/Low)
Human		
Technical		
Market		

Category	Barrier	Impact assessment (High/Med/Low)
Human		
Technical		
Market		

2. Innovating the business model

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2. Innovating the business model
Business model innovation framework

Purpose with Innovating the business model module: To identify a large quantity of possible innovation concepts >30 and synthesize these to 3-6 new reinvented business model concepts.

Methodology: Six workshops.

Total time requirements: 20h-25h preparation and 20-25h workshops.

Preparation:
1) Collapse all six sheets in the Business background by pressing the "1" in the upper left corner and then print all six sheets.
2) The whole project team should be handed copies on the business background phase and read the output before entering the innovating the business model workshops.
3) The whole team is doing the first workshop 2.1. Current business model "as-is" and "to-be" and the last 2.6 Innovation concepts assessment.
4) Group 1 performs workshop 2.2 "Value proposition canvas" and 2.3. "Six paths framework"
5) Group 2 performs workshop 2.4. "Opportunity Assessment" and 2.5. "Buyer utility map".

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2.1 Current business model "as-is" and "to-be"

Purpose: To understand the current business model, set the stage for the project team and find initital innovation concepts. In addition, this workshop is the most open-minded where no guidance is given for the innovation which gives a very high-spann in terms of possible innovations.

Methodology: Workshop

Time requirements: 3h preparation and 4h workshop.

Preparation:
1) Understand each of the 9 building blocks of a business model (Osterwalder, 2010).
2) Prepare answers and ideas on which the current business model's most important features are in each building block in order to facilitate a slow discussion.
3) Print business model framework below by collapsing/hiding grouped rows by pressing the "1" on the upper left corner of the sheet (or empty sheet "2.6.2. Business Model Framework" without hints) on an A2 paper and put it (or draw it) on a whiteboard, and use framework below for seeing the hints when needed. Prepare with yellow "As-is" and bright green "To-be" Post-it notes and pens.

How workshop is performed:
1) Each participant is handed a set of yellow "As-is" post it-notes and is asked to identify the current most important features/content of the first building block, key partners. Each feature that is brought up must have a precise name/tagline, a small illustration (also intangible features) and bullet points to describe the most important features. The building block is assessed circa 10 min. If necessary emphasize the hints below if not printed on paper.
2) Each participant is then asked to explain their notes and thoughts.
3) The participants are then handed the green "To-be" post it notes and is asked to brainstorm possible future valuable partners illustrated by a name/tagline, picture and bullet points. Quanitity is preferred before quality and the partners added value must not be great or clear. The to-be post-its are written during circa 10 min.
4) The "To-be" post-its are then explained by the author and valuable ideas are briefly elaborated on.
5) Step 1-4 is then repeated for all 9 building blocks, one at a time.
6) Circa 5-10 Promising "To-be" innovation concepts/ideas are brought to the "Innovation Concept" Sheet.

Key Partners

Hints:
Who are our key partners?
Who are our key suppliers?
Which key resources are we acquiring form partners?
Which key activities do partners perform?

Motivations for partnership:
Optimization and economy
Reduction of uncertainty and risk
Acquisition of particular resources and activities

Key Activities

Hints:
What key activities do our value proposition require?
Our distribution channels?
Customer relationships?

Categories: Production, Problem solving, Platform/network

Key Resources

Hints:
What key resources do our value proposition require?
Our distribution channels?
Customer relationships?
Revenue streams?

Types of resources: Physical, Intellectual (brand, patents, data), Human, Financial

Value Propositions

Hints:
What value do we deliver to the customer?
Which one of our customer's problems are we helping to solve?
What bundles of products and services are we offering to each customer segment?
Which customer needs are we satisfying?

Characteristics: Newness, performance, customization, "getting the job done", design, brand/status, price, cost reduction, risk reduction, accessibility, convenience/usability

Customer

Hints:
What type of relationship does each of our customer segments expect us to establish and maintain with them?
How are they integrated with the rest of our business model?

Examples: Personal assistance, self-service, automated services, communities, co-creation

Channels

Hints:
How do we reach customers?
How are we integrating with customers?

Example phases: 1) Awareness 2) Evaluation 3) Purchase 4) Delivery 5) After sales

Customer Segments

Hints:
For whom are we creating value?
Who are our most important customers?

Examples:
Mass market
Niche market
Diversified
Multi-sided platform (different stakeholders/segments)

Cost Structure

Hints:
What are the most important costs inherent in the business model?
Which key resources are most expensive?
Which key activities are most expensive?

Sample characteristics: Fixed costs, variable costs, economies of scale, economies of scope

Revenue Streams

Hints:
For what value are customers really willing to pay?
How are they paying?

Types: Asset sale, usage fee, subscription, leasing, licensing, brokerage, advertising
Pricing: List price, product feature dependent, customer and volume dependent

2.2.1 Value proposition canvas - workshop

Purpose: To plot internal performance in relation to customer importance in each segment to find the value propositions where additional value can be created or reduced. These value propositions are then elaborated on to find innovation concepts by Eliminating, Reducing, Increasing and Creating value offer.

Methodology: Workshop

Time requirements: 3h preparation and 3h workshop **per customer segment**.

Preparation: Preparation consists of four phases. Separate preparations and workshops must be done for each customer segment.
1) a) Assess each generic sub-category, one at a time, and specify how this category is applied in the industry, e.g. deciding which product performance that is assessed. b) then assess the category according to importance (1-5) from a customer value point of view and c) assess and rank the internal performance (1-5) on each sub-category compared to competitors, where 5 is the competitors performing the best, i.e 3 is "in-line" with competition. Do step a)-c) for each of the 23 categories below.
2) Important and industry specific categories and sub-categories not covered by the list are added and assessed in the same way, this gives the current strategic canvas
3) The list of 23 (or more if categories added) must now be reduced to circa 8-12 categories which will be assessed during the workshop. The 8-12 categories are found by first sorting all categories in order of importance for customer. The 8-12 most important categories are the one of most potential of innovation. However, in addition, all categories where potential "over"- or "under-delivery" are found by an algorithm are labeled "increase?", "Reduce/eliminate" and "Assess" and should also be assessed as candidate for the 8-12 categories included in the workshop. When the 8-12 categories are decided these should be described further to make sure that they are understood during the workshop.
4) Group all rows not included in the 8-12 chosen categories (Press Data - Group - Group). Then collapse all grouped rows and columns and print a) this sheet, b) the "New value-proposition canvas". (Two "New categories #" will still be shown in the canvas used for workshop in order to encourage new categories and ideas)

How workshop is performed:
1) Each workshop candidate is handed section #1.1-#1.2. of the Value proposition module. Section #1 describes the categories and performance. Section #2 shows the current performance on a canvas to increase the understanding of the situation and is used as a base for innovation.
2) Each category is explained and customer insight and internal performance discussed. If the discussion leads to any changes in the assessment they should be recorded and changed afterwards.
3) When all categories are understood and agreed on each participant is asked to create their own value proposition canvases by plotting new performances on each category and being forced to Reduce, Increase and Create categories. The rationale is that categories cannot be increased without a reduction/elimination of anything else or a price increase. In addition, being forced to create new categories is a good way of innovating.
4) Each participant's canvas is then discussed and the important question "how can this be done" is asked for each new performance, e.g. "How can delivery-precision increase from in-line to best in-class performance?"
5) Step 3-4 is done for a 2nd canvas.
6) All innovation concepts and ideas that occurred during the workshop are transferred to the "2.6.1. Innovation concepts" sheet and workshop leader labels them with a name/tag-line, a small picture and bullets points explaining the innovation idea.

Definitions:
 - *Innovation concept*: An innovation concept or idea is anything that is a new way of doing business. The innovation concept can either directly or indirectly creating value for the end-customer. An innovation concept can more or less be anything but e.g. a new way of delivering the product, a new product feature. Innovation concepts are the very foundation for the final business model innovation and are gathered in sheet "3.5.1. Innovation concepts" where they should get a illustrative name/tagline and visualized with a small picture and described with 2-3 bullet points. Even intangible innovations (a majority normally) should be visualized.

Specify sub-category, importance, value rank and explanation

Category	Sub-category	Applied sub-category	Importance customer insight (1:very low - 5:very high)	Internal performance rank (1:very low-5:very high)	Explanation	Potential action areas
Price	Purchase price					
	Life cycle costs					
Product	Product performance					
	Product range					
	Accessories					
	Design					
	Convenience/simplicity					
	Customization					
	Accessibility					
	Evaluation/trial possibilities					
	Environmental friendlieness					
	Fun					
Brand	Awareness/familiarity					
	Status					
Customer	Cost-reduction for customer					
	Customer relationship					
	Service and instruction					
	Risk reduction					
Life-cycle	Delivery					
	Purchase					
	Use					
	Maintenance					
	Disposal					
New category	*New sub-category #1*					
	New sub-category #2					

2.2.2 Value proposition canvas - workshop

Importance - Customer insight   Current performance

Relative performance

1

0

New sub-category #1

New sub-category #2
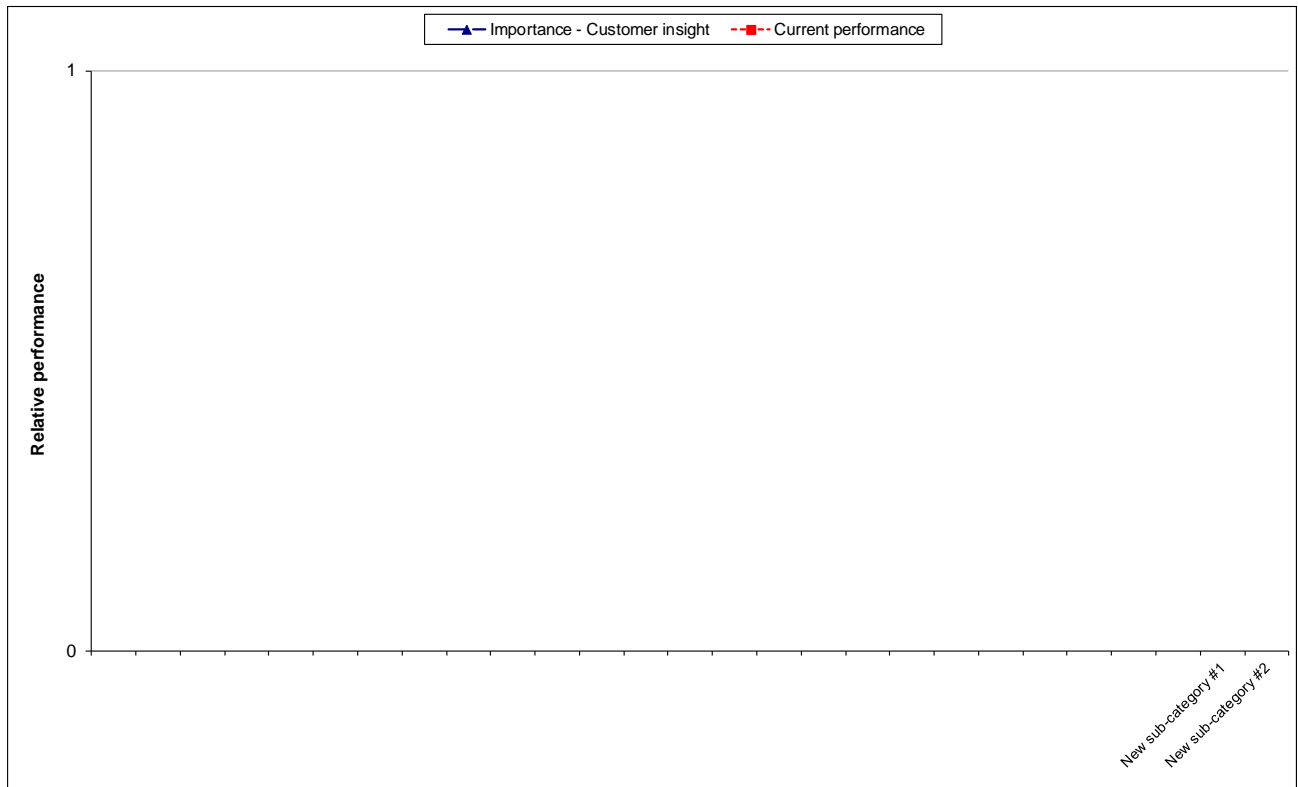
2.3 Six paths – workshop

2.3 Six paths - workshop
Innovating the business model
Business model innovation framework

Purpose: To find innovation concepts, new terms of competition or so called "blue oceans" by looking across industries, strategic groups, buyer groups, complementary products and emotional orientation.

Methodology: Workshop

Time requirements: 3h preparation and 3h workshop.

Preparation: Preparation consists of understanding the workshop, the purpose and assess all questions. By having assessed all questions the workshop-leader can easier help a stuck discussion if needed. Additional reading regarding the "six paths framework" is found in the "Blue Ocean Strategy" (W. C. Kim, R. Mauborgne, 2005).

How workshop is performed:
1) Collapse all rows and columns by pressing "Data - Group - Hide" or the number 1 at the top left corner on the screen and print the questions to each participant.
2) Ask the questions and facilitate a discussion regarding each path. When needed give hints or own ideas. Each good idea should be elaborated on briefly but not discussed into to much detail. Quantity goes before quality.
3) All somewhat promising innovation concepts, circa 4-6, are brought to the "3.6.1. Innovation concept" sheet where workshop leader labels them with a name/tag-line a small illustration of the concept and bullet points explaining the content.

Definitions:
- *Alternatives vs. Substitutes*: Products which have different forms but offer the same functionality are called *substitutes*. Products which have different forms *and* functionality, but share the same purpose are called *alternatives*.
- *Industry vs. Strategic group*: An industry is comprised of all all companies offering comparable substitute products/services. Strategic groups occur *within* an industry, grouping together companies which compete on similar terms and with similar motives.

Path	Explanations and examples	Questions	Answers
Look across alternative industries	The purpose of this question is to look beyond the traditional competition of competitors substitutes. By identifying also the alternatives, novel but powerful strategies might arise through combining the advantages of each alternative and eliminating the not-so-important parts. Examples: Car is an alternative to Airplane (the common purpose is to get from A to B). Restaurant is an alternative to Cinema (the common purpose is to enjoy a night out).	Which alternatives do your customers have except for choosing between you, competitors and conventional substitutes? What are the alternative solutions to our product and offering? Why do customers trade across them? How can we combine the advantages of each of the alternatives and incorporate into one offer?	
		Hint: Try to understand what purpose the product offering is really serving. What other ways of serving this purpose are there? How do potential customers who are not customers today fulfilling the purpose?	
Look at strategic groups within industries	Strategic groups are groups of companies within a given industry, that compete on similar terms. The purpose of this question is to combine the advantages of predominant strategic groups in order to come up with a new one. Examples: The fitness club *Curves* combine the dicipline and encouragement of Health Clubs with the low-cost, convenience and non-thretening atmosphere of Home Training Programs. The *Champion* combines the low-cost of prefabricated housing with the individuality, high-quality image and customization ability of on-site developers (through modularity and a large but standardized range of accessories).	Which are the strategic groups in the industry? What are the pros and cons of each strategic group? How can we combine the decisive advantages of different strategic groups to create a new one?	
		Hint: See what terminology is being used when competitors are presenting their products/services and their "unique" offerings. Look at companies within several strategic groups. Consider how we can take the strongest parts of each positioning and reduce/eliminate the not-so-strong parts, in order to create a strong, cost-effective offering.	
Look across the chain of buyers	For a given purchase there is often not only one buyer, but a chain of buyers and influencers. These individuals have shifting motives for a purchase, but companies within an industry often tend to focus on one and the same target buyer. By refocusing on the whole chain, we can tweak the offering and offer unique customer value, thereby differetiating us from competitors. Examples: *Canon* created the office desktop printer by focusing on and targeting corporate users, not the corporate purchaser. *SAP* became successful by focusing on the corporate purchaser, not the functional user.	What is the chain of buyers in our industry? Which buyer group does our industry typically focus on? If we shifted the buyer group of the industry, how could we unlock new value?	
		Hint: Look at typical stakeholders in customer companies. Who is the purchaser, designer, influencer, user, end user, decision maker, owner... How do their motives and rationales differ and what do each stakeholder value? Look both across and within customer segments.	
Look across complementary products and service offerings	Products are often used in conjunction with other products and services. By putting oneself in the shoes of the user, one can find complementary products or services that would solve problems related to the use, augment the user experience and hence increase value. Examples: *IKEA* has baby sitting facilities in their stores (problem: to go to IKEA requires having to solve the baby sitting problem). Vacuum cleaners free of cleaning bags eliminate the inconvenience of having to change the bag.	What is the context in which your product or service is used? What happens before, during, and after? Can you identify the pain points? How can you eliminate these pain points through a complementary product or service offering?	
		Hint: Go through the life cycle of a purchased good and plot where inconvenience occurs. Eliminate/reduce this inconvenience.	
Look across functional and emotional appeal to buyers	Competition within an industry tends to converge on one of two possible sources of appeal: functional or emotional. By challenging the predominant functional-emotional appeal of the industry, a company can often find new market space. Examples: Emotional-to-functional: *HQ House* hair salons simplified the emotional but timely "ritual" of haircutting in Japan by eliminating hot tea serving, shoulder rubs and the use of several warm towels, therby offering a quick wash and haircut to a significantly reduced price (and cost). *Starbucks* shifted the functional focus of commodity coffee sales into the experience of enjoying coffee in an emotional atmosphere.	Does your industry compete on functionality or emotional appeal? If you compete on emotional appeal, what elements can you strip out to make it functional? If you compete on functionality, what elements can be added to make it emotional?	
		Hint: Emotionally oriented industries offer many extras that add price without enhancing functionality. Reducing/eliminating those extras may create a fundamentally simpler, lower-priced, lower-cost business model that customers would welcome. Conversely, functionally oriented industries can often revive commodity products by adding elements of emotional appeal.	
Look across time and act on trends	By identifying and acting on macro trends, a company can gain a head start over its competitors. The intention here is to not only project trends themselves, but to generate business insights into how the trend will change value to customers and impact the company's business model.	What trends have a high probability of impacting your industry, are irreversible, and are evolving in a clear trajectory? In what ways can different, plausible evolutions of these trends impact your industry in the coming time? Given this, how can you open up unprecedented customer utility?	
		Hint: One way of breaking down trends is by human, technical and market trends. Assess how the industry has changed over the last 5-10 years, take into consideration current trends also those not yet affecting the industry. Extrapolate trends and assess the plausible impact of each scenario. Generate concepts for how the companyt could benefit from these trends, should they continue	

2.4 Opportunity assessment 9 business model blocks – workshop (Part 1/2)

2.4 Opportunity assessment 9 BM blocks - workshop

Innovating the business model
Business model innovation framework

Purpose: To assess the current nine business model parts mainly to find opportunitites and threats for innovations

Methodology: Workshop

Time requirements: 3h preparation and 2*2h workshop.

Preparation: Prerequisite is a full mapping of current BM. Preparation consists of understanding the workshop, the purpose and assess all questions. By having assessed all questions the workshop-leader can easier help a stuck discussion if needed. Any questions within the building block that are not applicable should be removed and additional relevant opprtunity areas within the 9 blocks added.

How workshop is performed:
1) The work-shop is divided into two sections 2h each, question #1-18 first and then #19-34. Most questions should be answered "*yes*", "*no*" or "*maybe*". All "*yes*" and "*maybe*" answers encourage to elaborate on the reason by asking "*how?*".
2) The hints are there in-case inspiration and help for the mind is needed. Work-shop leaders own thoughts can also get a stuck ideation going when hints do not work. Each good idea should be elaborated on briefly but not discussed into to much detail. Quantity goes before quality.
3) All somewhat promising innovation concepts, circa 5-10, are brought to the "Innovation concept" sheet.

PART 1

Business model nine areas	*Questions*	Answer:
Value proposition	**1. Could we generate recurring revenues by converting products into services?**	
	Hint: Leasing of product, Full-service agreement, selling a service instead of a product	
	2. Could we extend our service offering?	
	Hint: Think from product life-cycle perspective, e.g. purchase, delivery, use, maintenance, disposal	
	3. Which additional customer needs could we satisfy and how; what complements to or extensions of our Value Proposition are possible?	
	Hint: Look from customer life-cycle: e.g. need, search & evaluation, purchase, delivery, use, maintenance, disposal	
	4. What other jobs could we do on behalf of customers?	
	Hint: What are the jobs to be done at the customer, which are we satisfying today, which can we satisfy in the future given our core competence and partners	
Cost/revenue opportunities	**5. Can we replace a one-time transaction revenues with recurring revenues?**	
	Hint: Leasing, possibilities to add recurring services along the life-cycle of products?	
	6. What other elements would customers be willing to pay for?	
	Hint: Customer productivity, risk reduction, convenience, image, design, environmental friendliness during life cycle of product	
	7. Which cross-selling opportunities do we have internally and/or with partners?	
	Hints: *1) Regards which products from the same range end up and collaborate at customer site.* *2) Compare product range our own and partners.*	
	8. What other revenue streams could we add or create?	
	Hints: Add new products, accessories, services (up-selling) and market expansion throughout the life-cycle of product	
	9. Can we increase prices?	
	Hint: Bundle offer, price differentiate, price occur later in the process, up-front price is lower	
	10. Where can we reduce costs?	
	Hints: Think value chain and think Value offer (where do we over-deliver?) What do customers pay for that we don't need to offer, what can we Reduce or Eliminate.	
Key resources	**11. Could we use less costly resources to achieve the same result?**	
	Hints: Identify main cost-drivers and assess the top 5.	
	12. Which key resources could be better sourced from partners?	
	Hints: Are we putting money where someone else is as well? Look vertical at suppliers and customers or horizontal at competitors	
	13. Which key resources are under-exploited?	
	Hints: assess the use of the key resources creating the most value to customers	
	14. Do we have unused intellectual property of value to others?	
	Hints: Think R&D, databases and patents	
Key activities	**15. Could we standardize some key activities?**	
	Hints: Look throughout the value chain	
	16. How could we improve efficiency in general?	
	Hints: Benchmark with competitors: what are competitors doing more efficiently?	
	17. Can Internet and web-platforms boost efficiency?	
	Hints: Think customer interaction and life-cycle.	
	18. Are there outsourcing opportunities?	
	Hint: Oversee key costs internally and assess each non-core activity and explore BPO practices such as F&M, IT and Finance & Accounting	

2.4 Opportunity assessment 9 business model blocks – workshop (Part 2/2)

Key partners	**19. How could greater collaboration with partners help us focus on our core business?**	
	Hint: Which actitivities are largely time consuming and draws focus from core actitivities?	
	20. Which partner channels could better help us to reach customers?	
	Hint: Look at key customer segments which currently are or are not reached and see which other products customers are currently using, a possible combined offer would then lead to customers	
	21. How could partners complement our Value Proposition?	
	Hints:	
	1) How does our value proposition fit into the big picture at customers	
	2) What are our gaps in value proposition?	
	3) What does the customer really want?	
	4) When have we missed deals because we lacked something?	
Customer segments	**22. How can we benefit from a growing market?**	
	Hints: Assess early mover advantage, network effects, scale economics	
	23. Could we serve new Customer Segments?	
	Hint: Assess niche segments and high potential segmetns	
	24. Could we better serve our customers through finer segmentation?	
	Hint: Challenge current segmentation and look at new customer patterns as segmentation criterias.	
Customer channels	**25. How could we improve distribution channels efficiency or effectiveness?**	
	Hint: Are our distribution channels currently serving the right customer segments? Are the right people connected at our company and customers, e.g. engineers talk to engineers?	
	26. Could we integrate our channels better?	
	Hint: Look at possibility to integrate vertically with customers and suppliers, e.g. data interchange to refill our and customer stock.	
	27. Could we find new complementary channels?	
	Hints: Look at competitors channels and complementary products channels to your product	
	28. Could we increase margins by directly serving customers?	
	Hint: Assess distributors value add and compare to in-house resources and competence	
	29. Could we better align channels with customer segments?	
	Hints: Which channel has 100% exposure to segment	
Customer relationship	**30. Is there a potential to improve customer follow-up?**	
	Hints: What does competitors do? How does other industries do?	
	31. How could we tighten our relationship with customers?	
	Hints: What does customer value? Can our competence help them doing business?	
	32. Could we improve personalization?	
	Hints: Can we increase personal bonds with the target segments?	
	33. How could we increase switching costs?	
	Hint: How can be increase the customers' dependence on us, e.g. take increased responsbility and integrate our systems?	
	34. Do we need to automate some relationships?	
	Hints: Which unprofitable relationship is taking too much of our resources?	

2.5.1 Buyer utility map

Purpose: To assess and grasp the true customer value the product creates, to be able to find relevant and crisp innovations along the product life-cycle.

Methodology: Workshop

Time requirements: 3h preparation + 3h workshop

Preparation:
1) Read and assess the "job to be done" (Utility level 1.) for each phase of the life-cycle a) - g) to assure understanding of questions and hints and have ideas to boost a slow discussion. Utility level refers to which "utility", i.e. value it creates for the customer.
2) Identify which of the utility levels 2.-8. (customer productivity, risk etc.) are most important in each of the phases (a-g, awareness - disposal) and have the largest potential of improvement/innovation. Choose 2-4 utility levels in each phase giving a total of circa 20 "areas" of interest. Assess the customer insight and possible innovation concepts to be prepared on each area.
3) The utility levels and phases should then be highlighted with a red border and printed on an A2 print-out or several small A4 and put on a white-board. Participants can hence easy see which areas that have been chosen for closer assessment. Post-it notes and thick pens are brought to the workshop.

How workshop is performed: The workshop consists of the questions regarding "the job to be done" and then the circa 20 question-areas regarding the specific customer utility that was chosen during each phase.
1) Start by assessing the actual "job to be done" (Utility level 1) Question 1), 1) customer insight) "what is the true job to be done within purchase?", where insights are drawn from customer experience. Then ask question 2) "how can this be better solved?" to find innovation concepts, hints can also be used for additional questions. This is done for all parts of the life-cycle of the product to set the stage and fast find innovation concepts.
Question 1 is always answered by a round-table discussion to set the stage on each areas and share customer insights. Question 2 regarding innovation is then answered individually by having each participant illustrate their ideas/solutions/innovations concepts on a post-it stickers. Each participant is painting a picture and writing max 3 bullet points explaining each concept on the post-it and then put it on the A2 paper in the chosen question-area.
2) Continue by assessing each of the identified important utility levels, one at a time, in two steps:
  a) Assess customer insight by answering question 1 with round-table discussion.
  b) Find innovations by answering question 2 using post-it pictures. If necessary, give hints.
  c) General hint: Which industry is in the frontier of this value proposition within the phase and what can we learn from them? E.g. Rolex is state of the art in creating a status brand and we can learn a lot from their marketing work in terms of selecting where to show ads, how to design them and consistently keep the message.
3) Each innovation/concept is then assessed by having the participant explaining the thoughts behind their post-it. Each concept is then shortly elaborated and discussed.
4) 5-10 identified concepts are then chosen to be moved to the "innovation concept sheet".

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2.5.2 Buyer utility map – workshop (1/2)

2.5.2 Buyer utility map
Innovating the business model
Business model innovation framework

Specify customer insight and brainstorm solutions/innovation concepts

PART 1

Utility levels	Examples	Questions	a) Awareness & triability		b) Specification, selection &		c) Delivery & installation	
			1) Customer insight	2) Solution/innovation concept	1) Customer insight	2) Solution/innovation concept	1) Customer insight	2) Solution/innovation concept
			Hints:		Hints:		Hints:	
1. The job to be done	Rolls-royce manufactu	1) What is the true job to be done? 2) How can it be better solved?						
2. Customer productivity	Automation industry	1) How and when is the product affecting customer productivity in each phase? 2) How can it be increased?						
a) Product performance	PC Sector	1) How is the customer using the product performance? 2) Which performance does the customer need more/less or other of?						
3. Convenience/Simplicity	Seniorphone, ATM	1) When and why does frustration occur? 2) How can it be reduced or eliminated?						
a) Customization	Tailored products	1) Which type of customization is the customer in need of? 2) How can it be increased without driving costs?						
b) Accessibility	Making products availa	1) How accessible is the product offering? 2) How can it be made more accessible?						
4. Risk reduction	Insurance companies	1) Which customer risks occur in each phase? 2) How can they be reduced or eliminated (look at other industries being prominent at risk reduction)?						
5. Fun & image	Disney	1) How is product image expressed? 2) How can it be enhanced?						
a) Newness	Cell phones	1) Is the product regarded as new? 2) How can the experienced newness be increased?						
b) Design	Fashion and consumer electronics	1) How is the product design perceived in each phase? 2) How can it be made more distinct or modified to create a higher value?						
c) Brand/status	Rolex and skateboarder outfit	1) Which brand/status signs are as important for the customer? Why are they important and which does the product currently have? 2) How can the product offering be perceived as higher status?						
6. Price	Ryanair	1) Which aspects is creating a possibility to increased price and which aspects are not worth paying for? 2) How can these aspects be created?						
7. Cost reduction	Helps customers to reduce costs	1) What incurr costs for the customer? 2) How can these factors, i.e. costs be reduced?						
8. Environmental friendliness	McDonalds recycling	1) How does the product affect the environment? 2) How can this impact be reduced?						

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2.5.2 Buyer utility map – workshop (2/2)

PART 2

Utility levels	Examples	Questions	d) Use		e) Supplements		f) Maintenance & repair		g) Disposal	
			1) Customer insight	2) Solution/innovation concept	1) Customer insight	2) Solution/innovation concept	1) Customer insight	2) Solution/innovation concept	1) Customer insight	2) Solution/innovation concept
			Hints:		Hints:		Hints:		Hints:	
1. The job to be done	Rolls-royce manufactu	1) What is the true job to be done? 2) How can it be better solved?								
2. Customer productivity	Automation industry	1) How and when is the product affecting customer productivity in each phase? 2) How can it be increased?								
a) Product performance	PC Sector	1) How is the customer using the product performance? 2) Which performance does the customer need more/less or other of?								
3. Convenience/Simplicity	Seniorphone, ATM	1) When and why does frustration occur? 2) How can it be reduced or eliminated?								
a) Customization	Tailored products	1) Which type of customization is the customer in need of? 2) How can it be increased without driving costs?								
b) Accessibility	Making products availa	1) How accessible is the product offering? 2) How can it be made more accessible?								
4. Risk reduction	Insurance companies	1) Which customer risks occur in each phase? 2) How can they be reduced or eliminated (look at other industries being prominent at risk reduction)?								
5. Fun & image	Disney	1) How is product image expressed? 2) How can it be enhanced?								
a) Newness	Cell phones	1) Is the product regarded as new? 2) How can the experienced newness be increased?								
b) Design	Fashion and consumer electronics	1) How is the product design perceived in each phase? 2) How can it be made more distinct or modified to create a higher value?								
c) Brand/status	Rolex and skateboarder outfit	1) Which brand/status signs are as important for the customer? Why are they important and which does the product currently have? 2) How can the product offering be perceived as higher status?								
6. Price	Ryanair	1) Which aspects is creating a possibility to increased price and which aspects are not worth paying for? 2) How can these aspects be created?								
7. Cost reduction	Helps customers to reduce costs	1) What incurr costs for the customer? 2) How can these factors, i.e. costs be reduced?								
8. Environmental friendliness	McDonalds recycling	1) How does the product affect the environment? 2) How can this impact be reduced?								

2.6.1 Innovation concepts assessment

2.6.1 Innovation concepts assessment
Innovating the business model
Business model innovation framework

Purpose: To organize concepts in the life-time of product

Methodology: Workshop

Time requirements: 3h

Preparation:
1) Each innovation concept must have name/tag line, picture and 3 bullet points. For concepts which has not been created with a name, small picture and bullet points this must be prepared.
2) Put all concepts in one of the seven life-cycle phases.
3) Print life-cycles containing the innovation concepts. Print 3 empty Business Model frameworks to *each* participant from the next sheet "Business model framework".

How workshop is performed:
1) Each participant prepare individually 2-3 *Business Model Innovation concepts (BMI-concept)* by choosing and creating syntehsis among chosen *innovation-concepts* from the life-cycle. The innovation-concepts are unranked to not steer or limit participants creativity. The BMI-concepts can be created with innovations on all or some of the nine building blocks, for example deriving from a new value proposition, new way of making revenue, new customer relationship, new key resources etc. The BMI-concepts are not limited to the innovations available but can preferrably include new areas not mentioned before in the building blocks (e.g. reaching customers via a new distributor might put demand on finding distributor-partners). Each participant prepare a new tag-line for their BMI-concepts. This is one of the most important parts of the whole Business Model Innovation framework. By bringing synthesis to the innovation concepts complete new Business Model ideas arise.
2) Each participant present the tag-line and the idea behind the full BMI-concept.
3) Each concept is then discussed and elaborated on rather deeply to make sure that all participants have understood the true meaning of the concepts and have an idea of the profitiability potential, hurdels for implementing it and risks associated with it.
4) The 3-6 most promising concepts are then moved on to the BMI-Concept assessment for deeper investigation.

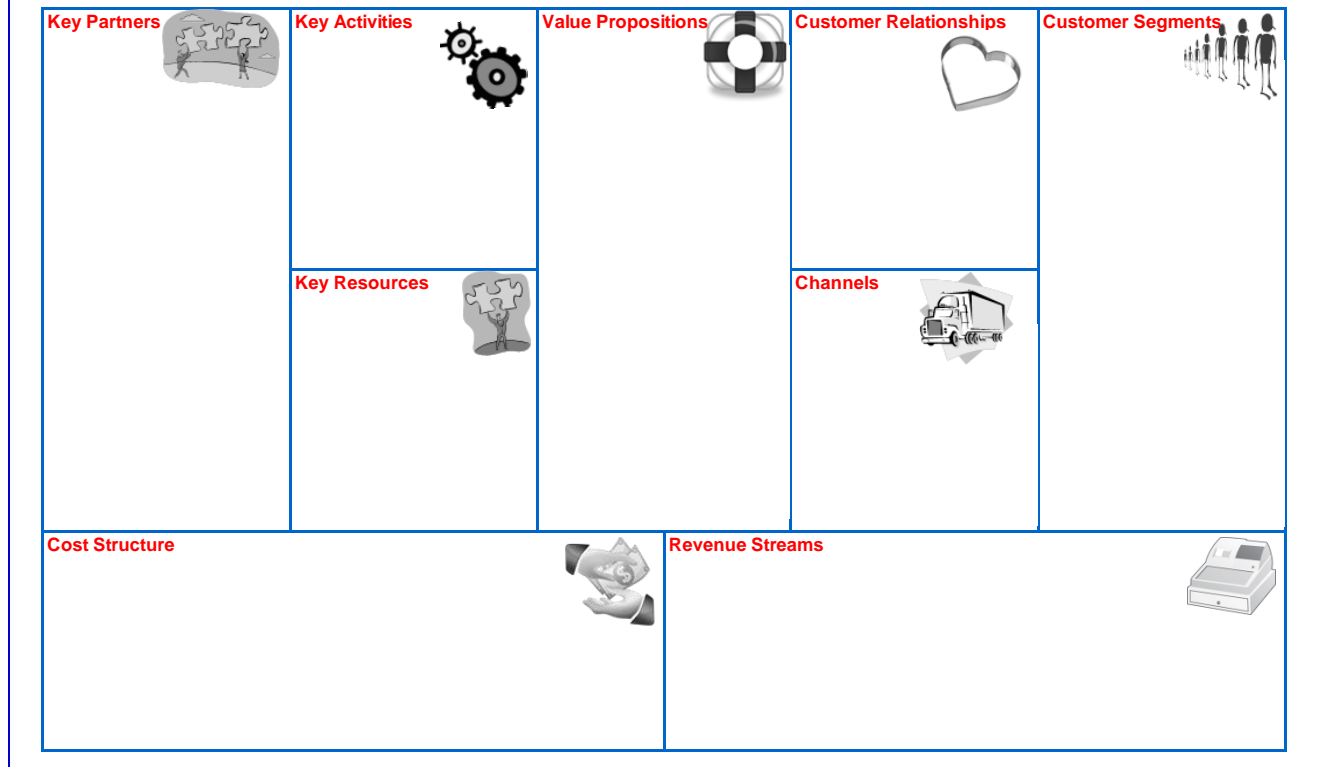| a) Awareness & triability	b) Specification, selection & purchase	c) Delivery & installation	d) Use	e) Supplements	f) Maintenance & repair	g) Disposal

2.6.2 Business model framework

2.6.2 Business model framework
Innovating the business model
Business model innovation framework

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
	Key Resources		Channels	

Cost Structure	Revenue Streams

3. Concept assessment

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3. Concept assessment
Business model innovation framework

Purpose with Concept assessment module: To elaborate on the 3-6 Business model concepts in order to assess their long-term profitability potential, hurdles for implementation and commercial uncertainty in order to choose which one to pursue an in depth analysis of in the "Reinvented business plan" module.

Methodology: Each Business model concept assessed individually from five different angles: 1) Tagline-story, 2) Value proposition, 3) Business Model, 4) GAP-analysis and 5) Business impact and uncertainty. The project leader or the most knowledgeable project member on the innovation field performs this anlaysis. Discussions are made when needed as a complement to the individual work. All concepts are then printed and assessed by the two project groups. The most promising concepts are assessed in the final phase.

Total time requirements: Circa 10h per BMI concept + 2h disucssion of the concepts.

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3.1 Tagline - story

Purpose: To create a story around the concept by highlighting the customer insight, the scenario on how it could be, positioning and how it is done.

Methodology: Individual work

Time requirements: 1-2h per BMI concept

How it is performed:
1) Describe an "As-is" stage short and crisp highlighting the customer insight, i.e. the current situation and possibly the frustration linked to a certain behaviour. (e.g. customer lack service...)
2) Describe a "To-be" vision by answering the question "What if..?" creating an alternative scenario which is the essense of the whole Business Model Innovation concept. (e.g. all customer get fast and competent service throughout the life-cycle of the product)
3) Describe which position this would lead to in the market place. The position should be linked to the innovation and if possible created so that it is not competing directly with any other conventional position. (e.g. #1 service provider when all competitors are competing on price)
4) Desribe how it is done and be short but precise, highlighting the most important aspects leading to the new business model.

Customer insight

What if…?

Positioning

How it is done

3.2 Value proposition

Concept assessment

Business model innovation framework

Purpose: To illustrate the new value proposition and new features.

Methodology: Individual work.

Time requirements: 1-2h per BMI concept.

Preparation:
1) Assess each of the 23 applied sub-categories to see whether the value proposition is changed with the Innovated Business Model compared to the current. Everytime it has changed from current Business Model fill in the New performance.
2) All categories that are changed, either up or down, should be included in the new Value proposition. Each of the applied sub-categories should be rewritten when necessary to make sure that the meaning suits the value proposition in the Business Model concept. Group and hide/collapse all grouped value propositions that are not affected by selecting the entire row and press "Data-Group-Group" and then press the "1" in the upper left corner on the excel sheet.
3) Create entire new sub-categories, not included in the previous business model, that are invented within the concept. (e.g. new hotline service- telephone can be a "5" very high performance in relation to competition from non-existing)
4) All applied and new sub-categories are now shown in the graph of the "Value proposition canvas", which is the output.

## Specify sub-category, importance, value rank and explanation

Category	Sub-category	Applied sub-category	New performance (1:very low -5:very high)	Internal performance rank (1:very low-5:very high)	Explanation
Price	Purchase price				
	Life cycle costs				
Product	Product performance				
	Product range				
	Accessories				
	Design				
	Convenience/simplicity				
	Customization				
	Accessibility				
	Evaluation/trial possibilities				
	Environmental friendlieness				
	Fun				
Brand	Awareness/familiarity				
	Status				
Customer	Cost-reduction for customer				
	Customer relationship				
	Service and instruction				
	Risk reduction				
Life-cycle	Delivery				
	Purchase				
	Use				
	Maintenance				
	Disposal				
New category	New sub-category #1				
	New sub-category #2				

3.2.2 Value proposition canvas
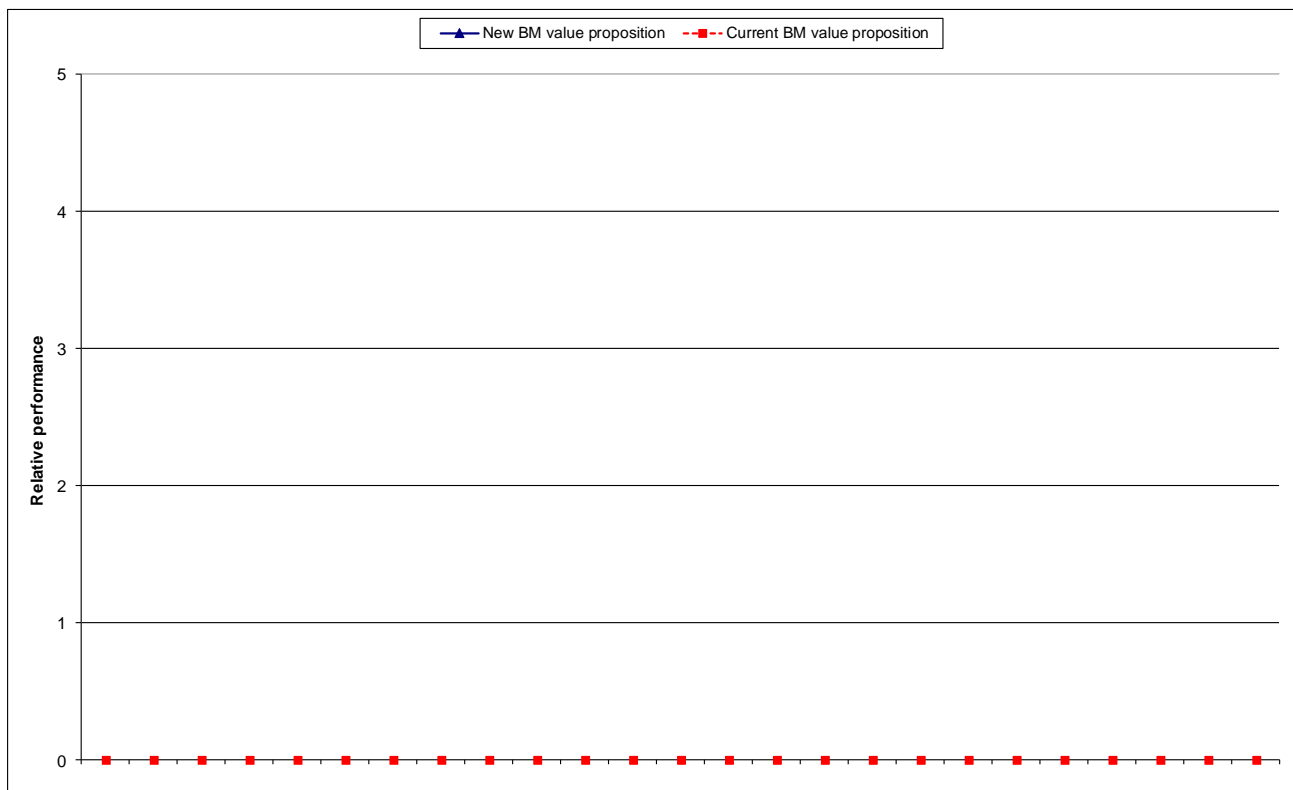
3.2 Business model framework

3.3 Business model framework
Innovating the business model
Business model innovation framework

Purpose: To understand and illustrate how the Business model concept affects the other parts of the business model.

Methodology: Individual work.

Time requirements: 2-5h per BMI concept.

How it is done:
1) Start by filling in the blocks that are directly affected by the Business model concept. Each innovation concept should have a describing name/tagline and a short explanation beneath.
2) Then fill in all other building blocks and assess how they are affected and if possible innovate new ideas while working.

Key Partners

Name/tagline
Description

Hints:
Who are our key partners?
Who are our key suppliers?
Which key resources are we acquiring form partners?
Which key activities do partners perform?

Motivations for partnership:
Optimization and economy
Reduction of uncertainty and risk
Acquisition of particular resources and activities

Key Activities

Name/tagline
Description

Hints:
What key activities do our value proposition require?
Our distribution channels?
Customer relationships?

Categories: Production, Problem solving, Platform/network

Key Resources

Name/tagline
Description

Hints:
What key resources do our value proposition require?
Our distribution channels?
Customer relationships?
Revenue streams?

Types of resources: Physical, Intellectual (brand, patents, data), Human, Financial

Value Propositions

Name/tagline
Description

Hints:
What value do we deliver to the customer?
Which one of our customer's problems are we helping to solve?
What bundles of products and services are we offering to each customer segment?
Which customer needs are we satisfying?

Characteristics: Newness, performance, customization, "getting the job done", design, brand/status, price, cost reduction, risk reduction, accessibility, convenience/usability

Customer Relationships

Name/tagline
Description

Hints:
What type of relationship does each of our customer segments expect us to establish and maintain with them?

Examples: Personal assistance, self-service, automated services, communities, co-creation

Channels

Name/tagline
Description

Hints:
How do we reach customers?
How are we integrating with customers?

Example phases: 1) Awareness 2) Evaluation 3) Purchase 4) Delivery 5) After sales

Customer Segments

Name/tagline
Description

Hints:
For whom are we creating value?
Who are our most important customers?

Examples:
Mass market
Niche market
Diversified
Multi-sided platform (different stakeholders/segments)

Cost Structure

Name/tagline
Description

Hints:
What are the most important costs inherent in the business model?
Which key resources are most expensive?
Which key activities are most expensive?

Sample characteristics: Fixed costs, variable costs, economies of scale, economies of scope

Revenue Streams

Name/tagline
Description

Hints:
For what value are customers really willing to pay?
How are they paying?

Types: Asset sale, usage fee, subscription, leasing, licensing, brokerage, advertising
Pricing: List price, product feature dependent, customer and volume dependent

3.4 GAP-analysis

3.4 GAP-analysis
Concept assessment
Business model innovation framework

Purpose: To understand the gaps between the business model concept and current state and to elaborate on possible actions.

Methodology: Individual work.

Time requirements: 1-3h per BMI concept.

How it is done:
1) Start by assessing each building block at the time, starting with key partners, to see which topics in the business model building block that constitute the most important gaps between as is and to be state. Write down all these topics in the building block. Group and collapse/hide any building block that does not have any important gaps by selecting all the rows in the building block and pressing "Data -group - group" and then press the "1" in the left corner of the excel sheet.
2) For each topic at the time fill in As is state and To be. Then categorize the type of hurdle which lies between as is and to be. Describe the hurdle and how it can be overcome. Summarize the actions and decide on a hypothesis on the time-frame needed to overcome the hurdle.

Change topics		GAP		Hurdles assessment	
BM building block	**Topic**	**As is**	**To be**	**Type of hurdle**	**Description and action**
Key partners	*Hints: Choose one of the topics from the "Concept business model"*	*Hints: What does current state look like?*	*Hints: How do we want it to be?*	*Hints: What type of hurdle is in the gap? Example: Strategic Structural/processual Systems Competence Financial Time* *Action & timeframe*	*Hints: Describe the hurdle and how it can be overcome?* *Hints: Timeframe, summarize the actions needed*
Key resources				*Action & timeframe*	
Key activities				*Action & timeframe*	
Value proposition				*Action & timeframe*	
Customer relationships				*Action & timeframe*	
Channels				*Action & timeframe*	
Customer segments				*Action & timeframe*	
Revenue streams				*Action & timeframe*	
Cost structure				*Action & timeframe*	

3.5 Business impact and uncertainty

Purpose: To understand the profitability potential and uncertainties with the Business model innovation concept.

Methodology: Individual work.

Time requirements: 2-3h per BMI concept.

How it is done:
1) Assess profitability, uncertainties & risks and sustainable advantage by summarizing each topic through a clear and precise "action title" and a short text. Be as precise and inlclude numbers when possible. The reader should in the limited space have the ability to assess the commercial potential and decide whether the BMI is commercially feasible and long-term potentially profitable or not.
2) Give a vision regarding future state to help the reader visualize which customer and product offering developments can be possible.

Profitability	**Volume: Title** Text **Price-Level: Title** Text **Cost structure: Title** Text **Profit margin and profitability: Title** Text
Uncertainty & risk	**Commercial uncertainty: Title** Text **Risks: Title** Text
Sustainable advantage	**Complexity to imitate: Title** Text
Future state	**Market & customer segments: Title** Text **Product offering: Title** Text

3.6 Final concept assessment

Concept assessment
Business model innovation framework

Purpose: To evaluate the BMI concepts and choose one (or two or more if aimed at different segments and possible to pursue at the same time), in addition to grasp good ideas from other concepts.

Methodology: Workshop

Time requirements:

Preparation:
1) All BMI concepts and simplicity business impact matrix below are sent out to the project group for reading and feedback preparation.
2) Each participant individually ranks the BMI concepts from 1-5 (1: very low, 5: very high) in the two dimensions: simplicity and business impact (5, 5 hence means a very simple BM with a very high business impact), before the workshop. In addition, short comments regarding the rank should be written. The average on simplicity and business impact is then giving the rank and outcome.
3) The results are put together and printed in the graph below and brought to the workshop.
4) 3 large business models of the top three BMI concepts including all post-its-notes with innovation ideas are brought and put in the workshop-room.

How it is done:
1) The simplicity business impact graph shows four squares, the ones in the upper right corner are the most attractive. The 2-3 most attractive ones should be assessed whether one of them should be implemented a) alone, b) as a combination of the 2-3 or c) as 2-3 separate and parallel business models (e.g. aiming at different customer segments).
Compare the concept presentation of the 2-3 foremost suggestions and focus on:
i) Customer segments' overlaps. Which customer segments are targeted by and not targeted by the concepts. Is an important segment untargeted, then the possibility of separate models increase. A customer segment should normally be targeted with one distinct offer.
ii) Value propositions' overlaps and conflicts. If there are overlaps in the value propositions this might indicate that a combined offer is possible. Separate value propositions should either be done as parallel bussiness models or, in particular if they are conflicting, not be pursued.
2) Decide in qualitative discussions on which business model(s) to focus on. This discussion and decision is crucial. Help is given by the simplicity and business impact graph and possible overlaps in customer segments and value propositions in deciding whether to pursue one, a combined or parallel business models. 2-3 business models may make business sense typically when they are directed to distinctly different customer segments or contain distinct differences in value proposition that still can be pursued together. Depending on whether one or several business models are chosen next step look slightly different.
If **one** is chosen:
3) Assess all innovation ideas from the concepts that are not chosen and find generic "easy win" ideas (simple ideas with good impact) that should be included in the chosen business model. Put all post-its in the right building block. When the business model contain all ideas from the Concept assessment and all "easy wins" from other concepts and the innovation insight, the Business model concept is ready for the next step "Reinvented business model".

If **2-3 business models** are chosen.
4a) Put up the business models sheets containing post-its with the innovation ideas. In addition, put up a blank business model.
4b) Now put all innovation ideas that could be beneficial in both business models on the blank common business model canvas.
4c) Assess all innovation ideas from the concepts that are not chosen and find generic "easy win" ideas (simple ideas with good impact) that should be included in the chosen business models. Put all "easy wins" post-its in the right building block in the common/shared business model or in one of the concept specific business models. When the business models contain all ideas from the Concept assessment and all "easy wins" from other concepts and the innovation insight, the Business model concepts and the common/shared business model are ready for the next stage "Reinvented business model".

Business model			Simplicity		
	Ease	Organizational fit	Strategic fit	Time frame	Sum
Questions	"How easy is the innovation concept to implement?" (1: not easy - 3: very easy)	"How well does the innovation concept suit with the current organization" (1: not well - 3: very well)	"How well does the innovation concept suit with the current strategy" (1: not well - 3: very well)	"How fast can the innovation concept be implemented?" (1: not fast - 3: very fast)	
					0
					0
					0
					0
					0

		Business impact		
Revenue	Profitability	Commercial	Sustainable advantage	Sum
"How large additional revenue is the innovation concept likely to generate?" (1: very low - 3: very high)	"How profitable will the innovation concept likely be?" (1: not profitable - 3: very profitable)	"How low commercial risk does the innovation concept carry?" (1: not low - 3: very low)	"How sustainable is the advantage of the innovation concept compared to peers?" (1: not sustainable - 3: very sustainable)	
				0
				0
				0
				0
				0

Customer segments
Market share
Size (Rev.)
Rev. CAGR (3 years)
Profitability
Profitability CAGR (3 years)
Distribution channels
Key needs
Frustration

4. Reinvented business model

4. Reinvented business model
Business model innovation framework

Purpose with reinvented business model module: The reinvented business module's purpose is to:
1) form a strong positioning in the market,
2) create a distinct value offer,
3) find all GAP:s between the current and new business model and turn them into projects,
4) assess the costs and time requirements of each project,
5) test all projects and the general feasability of the business model in a business case and sensitivity analysis,
6) perform a risk analysis and
7) an implementation plan based on chosen projects.

Methodology: The reinvented business model module is performed by the project leader with help from the team when necesarry. If more than one concept has been chosen from the BM concept generation, each of the "reinvented business model" steps will have to be done for each business model concept. This is possible and is necessary when separate distinct value offers exist to specific customer segmetns. The individual business model has to be steered separately within the company, however the implementation plan should contain all business models.

Use the slides from concept assessment as basis for the presentation of the business model:
1) Tagline - story
2) Value offer canvas
3) Business model architecture

Total time requirements: 24 hours

4.1 Customer segments

4.1 Customer segments
Reinvented business model
Business model innovation framework

Purpose: The customer segments section aims at increasing the understanding of the customer segments targeted by the value offer.

Methodology: Project leader uses information from customer insight section.

Total time requirements: 1-2 hours.

How it is done: The target segments are described rather detailed to set the stage and understand how increased value is created.

Offer	Tier	Value offer		
Customer segments	1st			
	2nd			
	3rd			
Market share				
Market size				
Average Selling Price				
Rev. CAGR (3 years)				
Profitability				
Profitability CAGR (3 years)				
Top 3 Key needs				
Purchase decision maker				
Influencer				
Gatekeeper				

4.2 Value offer in life-cycle

4.2 Value offer in life-cycle
Reinvented business model
Business model innovation framework

Purpose: To assess the value offer and understand how it does or does not create value in each phase of the life cycle. The value assessment is based on the customer insights in each phase.

Methodology: Project leader uses information from customer insight section

Total time requirements: 1-3 hours

How it is done: Describe the most important customer insights in each phase by using a heading for each insight and a brief description beneath. Actions that are needed for the business model and that will require to be implemented should be described in the "value offer" information field in each phase.

Awareness & triability		Specification, selection &		Delivery and installation	
Customer insight	Value offer	Customer insight	Value offer	Customer insight	Value offer
Customer insight #1 Description	*Value offer #1* Description				

Use		Maintenance & repair		Disposal	
Customer insight	Value offer	Customer insight	Value offer	Customer insight	Value offer

4.3.1 Competitors' value offer

4.3.1 Competitors' value offer
Reinvented business model
Business model innovation framework

Purpose: To assess the value offer in relation to competitors offering to create a unique positioning for the reinvented business model.

Methodology: Project leader uses information from competitor insight.

Total time requirements: 1-3 hours

How it is done: Rank relatively each main competitor's and own performance (1-5) in the 8-12 most important value offers from the value proposition canvas. Then sort the performances on the *own* most high performing fields. These top high-performing are the ones that should be selected from when creating the positioning in the next section. The performance in relation to competitors is shown in the value offer radar on the next slide.

Value offer	Own performance	Main competitor #1	Main competitor #2	Main competitor #3
#1				
#2				
#3				
…				

4.3.2 Competitors strategic radar

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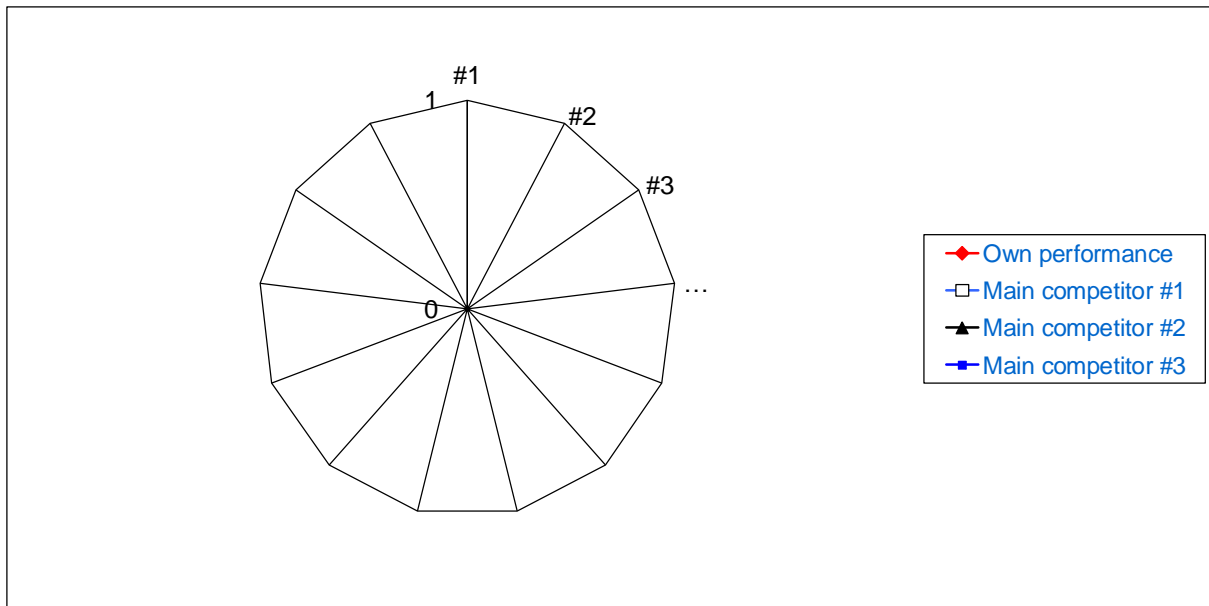
4.4 Positioning

4.4 Positioning
Reinvented business model
Business model innovation framework

Purpose: To find a distinct positioning by choosing the values that either have been created or where high achievement is made already according to the previous radar. Should be aligned with long-term company strategy.

Methodology: Project team round-table discussion

Total time requirements: 1-3 hours

How it is done: Assess the cathegories from the radar where competition is outperformed and choose two cathegories in line with the value offer and business model innovation idea where long-term profitability can be reached and complexity to imitate is high. Then plot competitors position according to these values. Let the size of the circle symbolize the market size of the competitor.

Positioning

Value A)

5.0	

3.0

1.0

1.0   3.0   **Value B)** 5.0

1
2
3
4
5
6
7
8
9
10
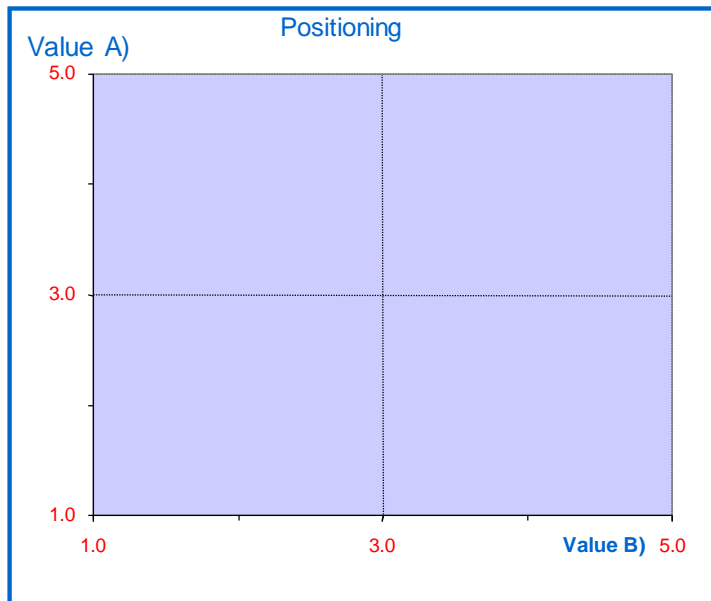
4.5 GAP-analysis and projects assessment

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4.5 GAP-analysis and projects assessment
Reinvented business model
Business model innovation framework

Purpose: To identify the projects that are needed to reach the "to-be" state required for the positioning. The projects are then assigned an urgency and importance in order to create an implementation plan.

Methodology: Project team round-table discussion

Total time requirements: 2-8 hours

How it is done:
1) Re-use the GAP-analysis from the concept assessment and identify all projects that are needed to create the aspects of the value proposition. Each value offer can consist of many projects depending on the nature. A project typically has a clear goal and it should be possible to measure the result afterwards.
2) Each project is then assessed from a a) time, b) costs c) urgency and d) importance.
To help the assessment which is often subjective and hard to base on facts without in depth investigation it helps to specify 5 increasing costs levels and 5 time levels and then rank the projects within 1-5 regarding time and costs. This gives a faster process and relative measurements, acutal costs should be assessed before a possible project launch and then rerun the business case.
The urgency is subjectively decided between 1-5 and the basis for the project start.
3) Sort the projects according to a) urgency. The projects should in next stage be assessed from a business case perspective to understand which project to include in the implementation plan.

Value:	Project time in month	Costs (1-5): '000 €	Urgency to start (1-5)	Importance (1-5)
1			1: Not urgent	1: Not important
2			2: Low urgency	2: Low importance
3			3: Urgent	3: Important
4			4: High urgency	4: High importance
5			5: Very high urgency	5: Very high importance

	Change topics			GAP		Action	Time & costs			
BM building block	Value	Project name	As is	To be		Action	Project time (1-5)	Costs (1-5)	Cost/month	Urgency (1-5)
Key partners	Value #1	Project #1								
Key resources										
Key activities										
Value proposition										
Customer relationships										
Channels										
Customer segments										
Revenue streams										
Cost structure										

</div>

4.6 Business case
Reinvented business model
Business model innovation framework

Purpose: To assess the financial impact of the business model and projects to be able to make decisions of whether to pursue the business model and the suggested projects.

Methodology: Project leader builds model. Project team assess the results for decision making.

Total time requirements: 5-10h

How it is done: Business cases and models must be built from scratch since all businesses have their own internal structure and customer segments. It is important to limit the number of inputs if the uncertainty is large. In addition, sensitivity analyses of all uncertain inputs should be made and presented to the project team.
Depending on the nature of the projects identified in the GAP-analysis, they typically either drive increased sales or the outcome is sold separateley. Regardless of the nature of projects, their NPV must be assessed looking at the PV of investments needed and the PV of future sales giving a NPV.
The reinvented business model should be compared to the current and a NPV for the reinvented business model should be created and sensitivty of all inputs made.

Blue: From source
Red: Assumption
Black: Calculation

Market share growth	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Market size units	100	105	110	116	122	128	134	141	148	155
Market size	1 000	1 050	1 103	1 158	1 216	1 276	1 340	1 407	1 477	1 551
Market share segment	1,0%	1,4%	2%	2%	3%	3%	4%	4%	4%	5%
Market share growth		40%	32%	26%	20%	16%	13%	10%	8%	7%
Market share growth decline per year from 2012	20%									
# of units sold	1	1	2	3	3	4	5	6	7	7

Market growth	
CAGR (2011-2020)	5,0%

Average Sales Price	10
Cost of Goods Sold (% of revenue)	80%
Cost of capital	10,0%

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Discount rate	110%	121%	133%	146%	161%	177%	195%	214%	236%	259%
	1	2	3	4	5	6	7	8	9	10

Project assessment	Increased sales	% of sold unit with added feature	Price	Cost per unit*	Margin %	Margin	PV of costs for projects
Value #1	10%						-10
Value #2		20%	10	5	50%	5	-15

Revenue 2011-2020	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenues	10,0	14,7	20,4	26,9	34,0	41,5	49,3	57,2	65,1	73,0
Value #1	1,0	1,5	2,0	2,7	3,4	4,2	4,9	5,7	6,5	7,3
Value #2	2,2	3,2	4,5	5,9	7,5	9,1	10,9	12,6	14,3	16,1
Total Revenue	13,2	19,4	26,9	35,5	44,9	54,8	65,1	75,5	86,0	96,3
COGS	-8,0	-11,8	-16,3	-21,5	-27,2	-33,2	-39,5	-45,8	-52,1	-58,4
COGS value #2	-1,1	-1,6	-2,2	-3,0	-3,7	-4,6	-5,4	-6,3	-7,2	-8,0
Profit	4,1	6,0	8,4	11,0	13,9	17,0	20,2	23,5	26,7	29,9
Present value of PV	3,7	5,0	6,3	7,5	8,7	9,6	10,4	10,9	11,3	11,5
Total profts	160,8									
PV of profits	85,0									

Project assessment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Value #1 PV	0,9	1,2	1,5	1,8	2,1	2,3	2,5	2,7	2,8	2,8
Value #2 PV	1,0	1,3	1,7	2,0	2,3	2,6	2,8	2,9	3,0	3,1
NPV Value #1	10,7									
NPV Value #2	7,8									

4.7 Risk assessment

4.7 Risk assessment
Reinvented business model
Business model innovation framework

Purpose: To understand the risks associated with the business model and projects.

Methodology: Project team round-table discussion.

Total time requirements: 1-3 hours

How it is done: Assess the risks from a Company, Competitors and Customer perspective to find where the most important risks are. Risk depends on the impact and probablity and is graded Low-High.

#	Customers	Risk	Countermeasure
1			
2			
3			
4			
	Competitors		
5			
6			
7			
	Company		
8			
9			
10			

*Risk depends on the impact and probablity and is Low-High

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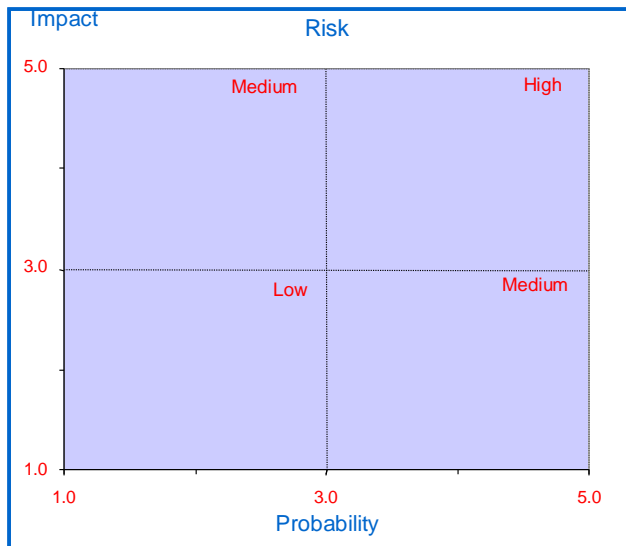
4.8 Implementation plan

4.8 Implementation plan
Reinvented business model
Business model innovation framework

Purpose: To create a feasible implementation plan in terms of costs and time.

Methodology: Project leader builds implementation plan according to GAP and business case. Project team assess the results for decision making.

Total time requirements: 2-5h

How it is done: Use the results from the GAP to spot urgency, cost/month and total time and the business case results to spot which projects to pursue.

Good Luck with the innovated business model!

Project	2010						2011											
	Q3			Q4			Q1			Q2			Q3			Q4		
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Value #1																		
Project #1	30	30	30	30	30													
Value #2																		
Project #1						20	20	20	20	20								
Project #2									10	10								
SUM	30	30	30	30	30	20	20	20	30	30	0	0	0	0	0	0	0	0
Quarter	90			80			70			30			0			0		
Year	170						100											
Total	270																	

Appendix II – Interview template

1) General questions and documentation request

Interview Template

General

General questions
Which position do you have in the company?
Which industries are you typically selling to?
In what typcial applications are your products used?

Requested documentation
Company presentation
Product presentation
Annual report

2) Purchase process

Interview Template

Purchase process

Preconception Level			Empirical Effect Level			
Generic Preconception	Preconception Break-Down	Preconception	Priority	#	Question	Follow-up question
Purchase process	Supplier	Suppliers have differences in the offer and customers may currently provide their own in-house solution	High	1	Who are you buying the product from?	If you are not buying the products, how come you choosed to make them in-house?
		Relationship with supplier of complementary products can be important for a full and differentiated offer	Medium	2	Are there any key suppliers of complementary products?	How are these complemenatary products affecting the focus products?
		Suppliers are chosen on mainly price, quality and leadtime	High	3	What are the main advantages with this/these suppliers?	How do these key advantages affect your business?
		a) Price is a key driver in choosing supplier	High	4	How important is the price of the product? Rank 1-5? (5= very important, 1=not important)	How does purchase price relate to Total Cost of Ownership (TCO)? Percentage of total and importance?
		b) Lead-time is a key driver in choosing supplier	High	5	How important is lead time in the choice of supplier? Rank 1-5? (5= very important, 1=not important)	How does supplier lead-time affect you and your customers?
		c) Service level is a key driver in choosing supplier	Medium	6	How important is service level in choosing supplier? Rank 1-5? (5= very important, 1=not important)	How does service level affect you and your customers?
		d) Delivery precision is a key driver in choosing supplier	Medium	7	How important is delivery precision in choosing supplier? Rank 1-5? (5= very important, 1=not important)	How does delivery precision affect you and your customers?
		e) Quality in delivery is key in choosing supplier	Medium	8	How important is product quality in choosing supplier? Rank 1-5? (5= very important, 1=not important)	How does quality affect you and your customers? How do you measure quality?
		Price, quality and lead-time is of highest relative importance	Medium	9	How would you rank these five parameters in relative importance?	How did you reason?
		Entering the market by replacing existing suppliers will be a main channel to market	High	10	Have you changed supplier anytime during this time?	Why did you change supplier?
		Customers with weaker relations to their suppliers are more keen on changing	Medium	11	Can you describe your relation with current supplier/s?	How would you want such a relationship to look?
	Decision Maker	The decision making process differ vastly between customers	High	12	Can you briefly describe your current purchasing process?	
		By engaging the actual decision maker, a purchasing decision can be effectively influenced	Medium	13	What are the roles and resposibilities of each actor in this process?	Who are the main influencers in this process?
		The actual decision maker can sometimes be the designer, creating a product specification fitting only one supplier	High	14	How specified is the product design in terms of suppliers product?	Does the product design limit the choice of product to any specific supplier?

3) The products

Interview Template
The products

Preconception Level			Empirical Effect Level			
Generic Preconception	Preconception Break-Down	Preconception	Priority	#	Question	Follow-up question
The products	Core product	The specification of the product is possibly a differentiator.	High	1	What specifications are important in the purchase decision?	How do these specifications affect you and your customers?
		Presicion is a core product characteristic and customer requirements on precision is the main decision criteria.		2	How important is the precision of the product?	How does the precision affect the application of the product?
	Complementary products	Complementary products can be a possible differentiator	High	3	What complementary products are there for the products?	What are the relation between the complemenatary products and the products?
		Suppliers of complementary products are interesting in terms of potential partnerships	HIgh	4	Who are the key supplier of complementary products?	What are the key advantages with these suppliers?

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4) Product life-cycle

Interview Template

Product life-cycle

Preconception Level			Empirical Effect Level			
Generic Preconception	Preconception Break-Down	Preconception	Priority	#	Question	Follow-up question
Product life-cycle	Use	The actual use of the product is a key component in the buying decision.	High	1	How do your customers use your product?	Specifically, how is the product used?
		Expectations of limited service requirements place high demand on reliability.	Medium	2	How reliable are the products during use?	
	Supplements	Supplements offered together with the product can be of importance	Medium	3	What supplements are offered together with the core product?	Are any of these supplements connected to the products?
		New supplements - not offered to date - can be a key differentiator	High	4	Do you see any potential supplements to the product which can add value for the end customer?	If yes, how would these add value?
	Maintenance	The maintanence required is expected to be very low, and is important to show a low TCO	High	5	What kind of service is done on the product?	Specifically, which service is performed on the products?
		The service offered during use can however be an important differentiating factor	High	6	Do you offer services during the use of the product?	How are these services offered; bundled or separate?
	Update	Renewal is an important differenititator	High	7	How is the product renewed? Updated or replaced?	
		Replacement of competitors products is a high-potential market entry	Medium	8	If the product is updated, are the products typically replaced separately, improved or unchanged?	If replaced, what are the main reasons for this update? New technology or worn out the products?

5) Industry

Interview Template

Industry

Preconception Level			Empirical Effect Level			
Generic Preconception	Preconception Break-Down	Preconception	Priority	#	Question	Follow-up question
Industry analysis	Strategic groups suppliers	Understanding the industry positioning is important for delivering high value	High	1	Which are the most competitive factors in the supplier industry of the products?	Among those which are the most important differentiator factors?
		Understanding if the industry is a commodity industry or not is important	Medium	2	Is any supplier offering a superior and unique selling proposition?	
	Strategic groups buyers	End-customers might show similarities across application (the use) of the product not only distribution channel and industry	High	3	Which differentiated needs do you see among your customers?	How do you segment your customers?
		Key selling points differ for customer segments, having price in focus for some and quality and lead-time for high end customers	High	4	What are your key selling points to customers?	Do these selling points differ among the customers segments?
	Functional & emotional orientation	Purchasing decisions are influencd by emotions and relations and not strictly rational	Medium	5	Are purchasing decisions influenced by emotions or strictly rational?	What emotions are influencing decisions in the industry?
	Trends	Technological trends may affect the purchasing decisions	High	6	What are the main technological drivers influencing your industry?	Do these differs from your customers?
		A market can e.g. be driven by shorter lead-times and lower price	High	7	What are the main market drivers influencing the your industry?	
		A market can be driven by e.g. regulations	Medium	8	What are the main social, health and regulative trends influencing your industry?	