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Business Model for Technical Pre-Sales Services

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Preface

This Thesis turned out to be a great professional challenge for me personally. Writing it really opened up some new thoughts about business in general and increased my incipient interest in business management. Having the chance to research a real life business problem made this project a real joy.

I want to thank my fellow colleagues who helped me along the way and shared their valuable thoughts and ideas with me. I would also like to thank my instructors Thomas Rohweder and Marjatta Huhta, and my classmates at Metropolia University of Applied Sciences for their much appreciated guidance and encouragement.

I would also like to express my gratitude to my girlfriend for the encouragement, patience, and understanding for the time I spent at the office writing this Thesis.

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Abstract



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The objective of the Thesis is to generate a suggestion for a new business model to implement technical pre-sales support services in order to improve the case company's competitive advantage. The need for the new business model arises from the different business prospects discovered by the sales managers of the case company. The case company has already developed its business model for serving turnkey business prospects, but the business model is not fully suitable for goods-dominant business prospects. Thus, a parallel model ought to be used for performing better in both situations.

The model is generated by utilizing the case study research method. Two hands-on cases were chosen beforehand by the case company. These cases are first, the on-site support for the customer testing/piloting and, second, the remote support for the customer testing/piloting.

The research started by reviewing relevant literature on customer value, strategy, and best practices of business modeling. A frame of the new business model was formed based on the existing knowledge. The frame was then filled in with information gathered from the management of the case company. Information gathering was done by arranging brainstorming sessions with the top management and the sales managers of the case company.

The actual suggestion for the new business model for technical pre-sales support was produced by combining the information from the literature review, and the information that was gathered from the case company's management. The suggested business model consists of a new customer value proposition, a profit formula for funding the business model, necessary resources, and necessary processes.

The result of the Thesis is a comprehensive business model suggestion that can be implemented in real life use, with minimal resources needed for the deployment.

Key words	Business model, CVP, strategy, service business, customer value
	value

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1 Introduction

This Master's Thesis examines and presents a proposition for a new business model for technical pre-sales services. The purpose for renewing the existing business model is to improve customer experience, and thus increase the turnover for the case company by bundling pre-sales services to the tangible goods offered.

In the past years, the enterprise mobility business, where the case company is competing, has been inflating at a rapid pace, as globalization and constantly increasing global competition has caused an increasing need for companies to cut operational costs and optimize operations. This process is especially evident in the developed countries where labor costs are high compared to the low cost or cost efficient countries. The need for optimization and cost cutting is inflating the market for technologies and systems that help the companies to cut redundant non-value creating work. Thus, more and more enterprises are recognizing the value of enterprise mobility (Barnes 2003). This is one of the fundamental drivers constantly increasing the market for the case company.

Since the case company has already gained major market share and expanded its operations in its key customer segments, it has now considered essential to keep the company strategy developing further, in order to maintain and grow its market share in all of the market segments it targets to be involved in. The challenge, that the company is facing now, is to adjust the business model and continue to adequately differentiate from the competitors in all business segments, thus being able to sustain competitive advantage.

1.1 The Case Company

The case company, found in 1986 and located in Helsinki metropolitan area, provides automatic identification based on enterprise mobility solutions to its b2b customers. These solutions usually consist of consulting services, software development, training services, and hardware equipment. The company employs approximately 80 employees located in Finland, the Baltic region, and Russia. The company turnover in 2009 was

around 10 million euros. The case company has been financially profitable for the 25 years of its operation.

Presently, the case company has been optimizing its operations to provide turnkey solutions consisting of software, hardware, and different types of services. For that reason, it has strongly directed the development of its business models and standard processes to serving these turnkey business prospects where the offering consists of different services offered in addition to hardware. The company has been able to successfully add customer value through offering turnkey solutions, especially by utilizing its resources in business consulting services, software development, and software production. Having allocated the majority of the company resources into the development and execution of its turnkey business segments, the company has experienced losing its competitive advantage in goods-dominant business opportunities. As a result, the management of the company has come to the conclusion that the consulting services, software development, and software production know-how cannot be effectively utilized to add customer value in goods-dominant business opportunities.

Therefore, a particular market segment chosen for this research is investigating goods-dominant business opportunities. The choice has been made on the ground of the fact that a significant part of new business prospects end up becoming goods-dominant instead of turnkey business prospects due to the influence of external factors that cannot be sufficiently controlled by the case company.

The approach towards the turnkey business prospects and the goods-dominant business prospects have to differ for to be able to add customer value. It has been detected that the choice of the approach must be done in an early stage of the sales process. The picture below presents the selection of the approach and defines the need for two parallel business models.

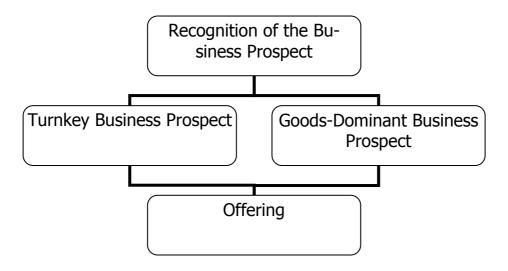


Figure 1. Recognition of a business prospect.

Figure 1 illustrates how the business model applied for the prospect in question can be chosen only after the recognition of whether the prospect is seen as being a turnkey business prospect or a goods-dominant business prospect. The case company has developed a business model for the business turnkey prospects, but has not done so for the goods-dominant prospects. The business problem resulted from this situation is presented in the next section.

1.2 Business Problem

The fundamental business problem is how to add customer value in goods-dominant business prospects as the case company has been able to add customer value in turn-key business prospects but not in goods-dominant business prospects.

As Karmarkar (2004), Vargo & Lusch (2004), and Govindarajan & Trimble (2005) state in their articles, change and strategic innovation are necessities in order to maintain competitive advantage and successful operations in the changing services economy. A deep and constant review of the strategy, processes, and organizational structures are all equally important aspects in maintaining the competitiveness of an organization. O'Reilly & Tushman (2004) in their article discuss different successful organizational structures for firms to be able to search for new opportunities. They believe that the key to learning and obtaining new capabilities lies in making adequate investments in

exploratory operations. They stress that the challenge of defining the adequate amount of exploratory activities lies in exploiting existing capabilities and exploring new opportunities, without either of these activities suffering from the other. In this article, different organizational structures are described and compared as for their abilities to make constant entrepreneurial actions possible, while sustaining the existing level of operations.

Govindarajan & Trimble (2005) suggest that strategic innovation can be obtained through theory-focused planning. Theory-focused planning consists of building a theory to make predictions. This theory-focused planning method can be used in seeking for new opportunities when entering an emerging industry where uncertainties are large and outcomes are not clear. This method emphasizes learning by testing theories.

The results of efficient technical pre-sales services cannot be fully foreseen, and thus theory-focused planning can be a way of building a business model. Also, positioning of the new business activities to implement these changes in to the current organization can be done in the following way.

O'Reilly & Tushman (2004) state in their article, that the key to making it possible for a firm to be able to manage the existing operations and exploratory activities simultaneously is to restructure its organization in a way that the exploiting and exploring activities are separated appropriately.

Four basic ways of restructuring such projects are described: functional designs, cross-functional teams, unsupported teams, and ambidextrous organizations. O'Reilly & Tushman (2004) strongly point out that the ambidextrous organization structure is clearly the most efficient structure for being able to search, develop and implement new opportunities, and for that reason, it concentrates mostly on ambidextrous organizations. Ambidextrous organization means that the activities are organized as structurally independent units, where each unit has its own processes and structures, but they are tightly integrated to the senior management hierarchy of the firm. The structure of ambidextrous organization allows using the firm's resources across the units, but prevents the contaminating effect of doing business as usual. Restructuring resources for a new business model by the guidelines of ambidextrous organization is one of the ways of controlling the cost structure of the business model.

The business problem in this study, therefore, is how to add services and increase customer satisfaction in goods-dominant business prospects to be able to differentiate and gain premium price, particularly in the two cases introduced in section 2.2.

The problem itself and the cases chosen together lead to a more specified research question, namely:

How to add customer value through technical pre-sales services in goods dominant business prospects?

The goal of this study is to define a business model to implement technical pre-sales services for improving the case company's competitive advantage and adding customer value in goods-dominant business prospects.

1.3 Scope of Research

This study first discusses theoretical background of the circumstances leading to the business problem. Then it continues by literature review of value creation, which is followed by the principles of business models and business model building. A proposal for a new business model is generated on the basis of existing knowledge on business models and findings from the brainstorming sessions with the case company's management. The scope is limited by the amount of the relevant literature found by the researcher and by the number of brainstorming sessions that were conducted.

1.4 Structure of the Thesis

The report presents the background for the need for a new business model, concepts of creating customer value, best practices of business modeling, and discusses service business, strategy, added value, differentiation, customer expectations and customer satisfaction, that all are closely related to improving competitive advantage and adding customer value. Also changing business from only goods-dominant to including value adding services is discussed. The study presents the known principles of business models and business model building, gathers data from the organization, analyzes the data, and proposes modified and more standardized business model for creating customer value.

2 Research Method and Material

The initiative for this research was to improve the customer value delivered by the case company in goods-dominant business prospects. Because of limited amount of relevant literature dealing with the particular business problem available, a case study method was chosen for this study to reveal the real-life implications for the case company.

2.1 Case Study Research Method

The case study research method is a qualitative research method for examining contemporary real-life situations and analyzing a limited number of conditions and their relationships. Yin (1984) defines case study method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context, answering questions of how or why. The research question presented in Chapter 1.2 fits this definition. This approach further divides the case study method into the following five steps that can be applied to any case study research:

- 1. Developing a research design
- 2. Preparing to collect data
- Collecting Data
- 4. Analyzing data
- 5. Composing the research report (Yin 1984).

The five steps below are general in nature, and this research follows these steps adjacently. According to Yin (1984), the case study method is one of the most difficult research methods, as the researcher has to know the subject of the research closely to be able to ask relevant questions and interpret the answers. The case study method can be *exploratory*, *descriptive*, *explanatory*, or *evaluative* (Yin 1984). This research is mostly exploratory in nature, as it attempts to find out a new way of delivering value instead of describing, explaining, or evaluating an existing business model. Yin (1984) also divides case study method into two categories, single case study and multiple case

study, and states that the results of multiple case study are generally more convincing and reliable. This research is a multiple case study, consisting of two cases.

Cunningham (1997) recognizes 9 different case study methods that are divided into three different categories. These categories are *intensive* case methods, *comparable* case methods, and *action research* case study. Intensive case methods are further divided into *narrative* case method, *tabulation* case method, *explanatory* case method, and *interpretive* case method. This research is closest to the narrative case method meaning that the results are mostly a synthesis of information gathered from multiple sources. Hirsjärvi et al. (2000) also describe the characteristics of a case study as researching detailed and intensive information from multiple aspects, and this definition also supports this research to be a case study research.

2.2 Research Design and Material

As mentioned in the previous section, case study research is divided into five steps from which the first is to develop a research design. At first two cases were selected for the case study in this Thesis:

- Testing or piloting at a customer, on-site services
- 2. Testing or piloting at a customer, phone/online support services

Choosing two cases make this research a multiple case study. There are two advisable ways of selecting multiple cases: either on the presumption that the results for one case can be applied to the other, or under the presumption that there will be differences (Yin 1984). For the latter case, the research should concentrate on the differences. In this study, the steps described above are selected under the presumption that the business model for both cases differs only partly. The differentiating part is presumed to be the delivery process of the services.

The second phase of a case study is preparing to collect the data. This was done by reviewing relevant literature beforehand in order to achieve adequate theoretical knowledge about the subject for presenting appropriate questions at the data collecting interviews. A guideline question form is composed based on the literature review for conducting the interviews, which functioned as a reminder note for the researcher.

Data collection is done by arranging brainstorming sessions with the top management and sales managers of the case company. Figure 2 presents the design of the research.

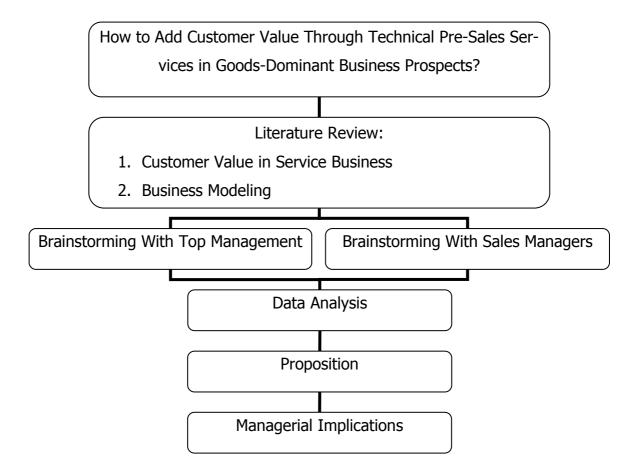


Figure 2. Research design model.

Figure 2 illustrates the model and work order of this study and the data collection is made in the brainstorming sessions shown in the figure. Brainstorming sessions were conducted with Acting Managing Director, Technical Director, Sales Director, and Portfolio Manager. The sessions with sales managers were conducted after brainstorming with the top management. All sessions took place in March 2011. The researcher took notes during the interviews to record the data. The guideline questionnaires were sent to the participants beforehand to prepare for the sessions.

The sessions with the top management aimed to clarify the current situation of the technical pre-sales services and find out the concerns, boundaries and goals that the top management has as for organizing technical pre-sales services. The sessions with

the sales managers aimed to articulate the identified need for the technical pre-sales services in practice. There were four brainstorming sessions held as is presented in Table 1.

Table 1. Brainstorming sessions.

Number	Duration	Number of Participants	Positions of Participants	Date
1	2 h	4	Top management	March 2011
2	1 h	3	Sales managers	March 2011
3	1 h	2	Sales managers	March 2011
4	1 h	3	Sales managers	March 2011

Table 1 presents a list of the brainstorming sessions that were held for gathering data from the case company. The first session was conducted as an open interview session with the top management of the case company. The session was recorded and notes were taken by the researcher. The rest of the brainstorming sessions were conducted as open interview sessions with the sales managers of the case company. These sessions were not recorded, but notes were taken by the researcher.

2.3 Reliability and Validity

There are three variables affecting the reliability and validity of qualitative research (Patton 1999):

- Data gathering methods
- Credibility of the researcher
- Philosophical belief in the value of qualitative inquiry

In this study, brainstorming sessions with top management and sales managers were used as data gathering method. The validity of the data gathered can be defended based of the following facts. First, the brainstorming sessions were designed to reveal the real-life situations leading to goods-dominant business prospects, including the most usual needs for technical pre-sales services from the sales personnel facing these customer situations in their everyday work, and the case company's general strategic boundaries for providing pre-sales services. Second, the quantity of observed customer situations and the experience gained from them is extensive compared to the situation if the data would have been collected directly from a selected group of customers. Third, the sales managers involved have a total of 5 members having different amounts of experience in the case company, being responsible for a considerable number of designated customer companies. Finally, the researcher himself has over six years' experience on the research subject.

3 Customer Value in Service Business

This section discusses the fundamentals of adding customer value in service business from different aspects that are evident in the case company's operations.

Vargo & Lusch (2004) suggest that traditional goods-centered dominant logic considers the primary unit of exchange being goods. The goods are obviously operand resources that are marketed by changing the form, place, time and possession of the goods. In the service-centered dominant logic specialized competences or services are exchanged. These operand resources are transmitted through goods, which are functioning as intermediate products in order to create value for the customer.

The role of the customer in goods-centered dominant logic is to be a recipient of the goods. Marketers promote the goods to the customers who then act corresponding to the marketing activities of the marketer. In this model, the producer of the goods determines the value, and it is embedded in the goods. On the contrary, service-centered dominant logic sees the customer as a co-producer of the service. The customer starts the process by expressing their needs or demands and the service is then produced together to serve the customer best. The marketer can only make value propositions, and the customer is the one to determine the actual value.

An interaction between the firm and the customer also varies between the goods- and service-centered views of dominant logic. In the goods-centered logic, the customers are acted on in order to exchange resources. Wealth is considered to be ownership, control and production of tangible goods. Customers are participants in the exchange process and production in the service-centered logic. Wealth is seen as an exchange of intangibles such as specialized knowledge and skills.

In the past decades, the structure of the whole economy has changed vastly in, and it is still changing at an accelerating pace, as Karmarkar (2004) notices in his article. This change is being redirected from goods manufacturing to the services sector. Companies are offshoring and outsourcing many of their services-related activities, as they have been doing with manufacturing earlier. The key driver for this change is technology that is developing faster than ever, enabling new ways of offering products and services. This allows for industrialization of information in the same way as manufac-

turing has been industrialized. With the new technology, information can be manufactured efficiently, and the processes can be standardized. Companies must be able to industrialize information and tailor their industrialization strategy according to the complexity of the processes and the level of standardization of the service they offer. The more standardized the service and the simpler the process are, the more offshorable and outsouceable the service is will be. On the contrary, more customized services and complex processes are to be mostly in-sourced and onshored.

The key to success in such economy is to understand the customer behavior and to develop specific services for niche customers (Karmarkar 2004). In order to meet the customer specific demands, firms have to be able to adjust their strategies, processes, and organization structures accordingly. This can be done by changing existing business models or implementing the new ones.

Gulati & Kletter (2005) believe that the capital of companies is taking new forms, not only financial, and that firms need to consider their customers, suppliers, alliances, and internal units as their main capital. This is the kind of capital that is unique and hard to imitate, which makes relational capital a source of sustainable competitive advantage. A unique business model can be seen as a relational capital when it is intangible and not easily imitated.

O'Reilly and Tushman (2004) suggest that the key for obtaining and maintaining sustainable competitive advantage lies in the structuring of the company in such a way that new opportunities can be explored efficiently, while the existing resources can still be exploited intensively. (Edvardsson et al. 2008) propose that the change from goods-selling to service-selling requires a new way of thinking in acquiring new customers and in fostering existing customers, as it is not the goods but the services that generate the customer value.

Value creation, customer expectations, strategy, competitive advantage, and differentiation strategy are discussed in the following sections.

3.1 Strategic View of Creating Customer Value

Competitive strategy can be determined as a search for a profitable and sustainable position against the competition within an industry (Porter 1985). Competitive ad-

vantage against competition can be achieved by creating customer value that exceeds the cost of creating it. Porter suggests that there are three basic strategies for achieving competitive advantage: cost leadership, differentiation, and focus. The first two seek competitive advantage in a broad range of industry segments, whereas the latter focuses on a narrow segment. The focus strategy is further divided into *cost focus* and *cost differentiation* strategies (Porter 1985). The case company's management has chosen a focus differentiation strategy for its principle strategy, and it offers value added products and services with a premium price to chosen industry segments. The focus differentiation strategy is introduced in the following section.

A focus differentiation strategy means that the company selects a segment or a group of segments, in the industry and focuses on the selected ones (Porter 1985). Being a differentiation strategy, it also means that the company seeks to be unique in the selected segments and offer its customers' unique value with a premium price. This value can be achieved by many different means. In the enterprise mobility industry, the case company has already recognized that it can be the product itself, the delivery process, the production process, the marketing approach, or the sales approach. Unique services bundled to the products, after sale services and pre-sales services, can be profitable means for differentiating the offering. The risks of focus differentiation strategy are imitation by competitors and the loss of importance of the differentiation for the customers. Companies executing a focus differentiation strategy must be constantly developing and renewing their strategies to be able to sustain the unique value they provide for their customers. Technical consulting services as pre-sales service, bundled to the products can be a way to create unique value in the sales approach stage. The basics of technical consulting services are discussed in the following section.

The offering of technical consulting services has increased constantly in goods-dominant industries and the companies in goods-dominant businesses have been categorizing themselves into service providers instead of hardware vendors. The companies categorized as vendors can often increase customer value only by offering lower price compared to competitors and thus end up losing profitability (Wayne & Brown 2005).

Furthermore, the customers' perceived value of the added services is increased by the complexity of the offered product. The purchasing and implementation of specialized and complex products usually requires know-how. Maintaining the know-how is time-

consuming and expensive, and may not be related to the company's core businesses. For that reason, companies want to minimize their risks by buying a functional solution instead of separate components (Oliva & Kallenberg 2003).

Oliva & Kallenberg (2003) also state that offering services in addition with goods is a way to differentiate the goods from the competitors. They also suggest that imitation of services is more difficult than imitation of goods. Thus, offering additional services may be a means for gaining a premium price, even for the exact same product that competitors are offering.

To be able to create unique customer value such technical consulting services have to be successfully included into a company's strategy. Strategy design and value creation are further discussed in the next section.

Strategy is often considered as an art of creating value by defining a company's business, linking the company's knowledge and relationships together to delivering that value to the customer at a profit, as is stated in the article by Normann et al. (2000). The ways of dealing with value creation has to be changed from the traditional industrial-economy based value chain thinking to more service-oriented and complex value constellation concept. Companies no longer have to position themselves into a fixed place in a constant value chain but to build strategies to affect the value-creation system itself. This means managing the network of suppliers, business partners, allies, and customers to co-produce value instead of every participant just adding their portion of the value in the chain individually. Managing to do so requires managing of continuous design and redesign of increasingly complex business systems and constant redefining of the roles, relationships, and organizational practices. The goal of the strategy is to create an integrated business system that invents value by matching the capabilities of participants effectively in the changing environment. The best companies can invent value by enabling customer's own value-creating activities and by doing so including the end customer to the value-creating process.

3.2 Creating Customer Value by Meeting Customer Expectations

It is a generally accepted fact that the key to good service quality lies in meeting or exceeding customer expectations of the service provided Calvert (2001) and the most accepted definition for service quality is the discrepancy between customer's expectations and their perceptions of the service provided. This definition is based on the expectancy disconfirmation theory Zeithaml et al. (1990) or expectance confirmation theory Chea & Luo (2006), which are one of the psychological theories available in the area of consumer behavior in service marketing.

Zeithaml et al. (1990) have found four critical precursors of customer expectations that influence the experience the customers get from the service. These are word-of mouth communication between customers, the personal needs of customers, past experiences of customers, and the external communications from service providers. It has been stated by Lilley & Usherwood (2000) that the most important of these four precursors is the past experience of the customers. It is the past experiences that have the most significant impact on perceptions and subsequent expectations that are formed as a result of the experience. A series of these experiences will ultimately form the customer's expectations of service quality. It has been presumed by Calvert (2001) that word-of-mouth communication is a by-product of personal experiences in the past.

Considering this information on customer satisfaction it is important for the case company to be able to exceed the customer expectations for gaining competitive advantage and differentiate from the competition. Wrapping the services that enable customer services to the physical goods is discussed next.

3.3 Creating Value by Wrapping Services around Physical Goods

In an economy founded on the new logic of value, the knowledge and relationships of a company really matter, as is described in the article by Normann et al. (2000). Knowledge is for example technologies, expertise, processes, and techniques that a company has learned over time. The most important bunch of relationships is the customer base, but relationships with suppliers and other business partners are also important in creating new knowledge and competences.

The new logic of value sees a product or a service as a result of a complicated set of activities. This set includes economic transactions, agreements among suppliers and customers, collaboration between employees and managers and so on. This leads to the phenomenon that the distinction between physical products and intangible services is breaking down. Currently offerings of a company are increasingly consisting of a combination of physical goods and services wrapped around them. The value is created by the combination and neither the physical goods nor the services can create value by itself.

There are three strategic implications of the new logic of value creation described in the article by Normann et al. (2000). First, the goal of business needs to be steered more towards offerings that enable the customers to create value for themselves instead of offering value that the customers then can take advantage of. Secondly as the offerings are becoming more and more complex, so is the business network used to create the offerings. This is why managers have to understand that it is the first priority to manage and reconfigure the company's relationships and business systems because the company can rarely produce everything by itself. Third the only way of gaining competitive advantage founded on the new logic of value is the ability to conceive the whole entire value-creating system and make it work. To do that the company has to plan the whole process and train and supervise other participants to play along. Companies also have to be able to continuously reassess and redesign their competencies and have constant dialogue with their customers to make the competitive advantages sustainable.

To be able to sustain competitive advantages in value-creation, processes, current relationships, and other structures require constant re-evaluation. Also reliable and accurate measuring of performance is needed. Measuring performance in services business is considerably different compared to measuring manufacturing activities as is explained in the following section.

In today's economy, companies have to change the way of measuring overall performance as services are becoming an ever larger part of the offerings as is explained in the article by Harmon et al. (2006). The performance measurement of services differs vastly from the performance measurement of production for example. Measuring services performance is harder as services are more customizable regarding of customers,

activities, agreements, and skills and motivation of people. Albeit measuring of services performance may seem hard it can and has to be done to being able to improve delivery process, enable proper pricing, and improve sales and marketing. Thus measuring and monitoring performance is a fundamental prerequisite for identifying best practices and spreading them to the whole organization. Measuring and monitoring can also reveal ineffectiveness and hence enable quick action to improvement.

Summing up, service companies need to compare themselves against their own performance and measure their financial costs and the root causes of expenses very carefully. Therefore service companies need to set up cost-measurement systems to be able to make constant measurement and have comparable results in the long term.

The principles of service measurement are using internal benchmarks rather than comparison to the competition, measuring the underlying cost drivers, and measuring performance deep and broad, according to the article by Harmon et al. (2006).

By building up solid value constellation, renewing operations in changing environment constantly, and measuring performance to detect need for change the organization can achieve sustainable competitive advantage and solid ground for growth.

4 Best Practices of Business Modeling

The development of a business model is a complex task and there are multiple variables that have to be taken into account. Casadesus-Masanell & Ricart (2011) suggest that there are three fundamental characteristics of a good business model, namely alignment with company goals, self-reinforcement, and robustness. Alignment with the company goals means that the business model has to support the goals set in the company's strategy. Self-reinforcement means that this business model should consist of components that complement each other. Finally, robustness stands for the business model ability to defend itself from imitation, holdup, slack, and substitution.

According to Johnson et al. (2008), developing a new business model, or re-inventing an existing business model, can be divided into three main steps. It starts by thinking about how to satisfy a real customer that needs a job done, instead of thinking about the business model itself. The second step is to build a blueprint laying of how the customer could be satisfied at a profit. The last step is to compare the blueprint to the existing business model and assess how much has to be changed to capture the opportunity.

The components of the blueprint laying or a whole business model are discussed widely in many publications. Common components comprise of chosen customers, customer value, delivery methods for the value, and choices that executives make about the operation of the organization. Johnson et al. (2008) divide the building of an effective blueprint for a business model into four components. The four components are: customer value proposition, profit Formula, key resources and key processes. These four components of a business model can be used as building blocks for any business and creating competitive advantage is done by integrating these four elements to produce value for both the customer and the company Johnson et al. (2008) Eyring et al. (2011). The CVP and profit formula define value for the customer and the company itself. Key resources and processes define how value is delivered to both the customer and the company. Table 2 presents the combination of the business model components.

Table 2. Components of a business model.

Customer Value Proposition	Key Resources
Key Processes	Profit Formula

Business models consist of four main components, as illustrated in the table. Eyring et al. (2011) propose that developing a new business model always starts by devising a new CVP. Companies competing by differentiation strategy next establish the processes and resources needed to deliver the CVP which together define the cost structure of the business model and thus sets the price required in the profit formula. Companies competing by price proceed in the opposite way, first setting the price and cost structure, and then developing the processes and resources required. CVP and the other components of a business model are discussed more in the following sections.

4.1 Customer Value Proposition

Customer value proposition (CVP) can be defined as a ratio explaining your solution's superiority compared to existing solutions to a customer's fundamental problem Johnson et al. (2008). The better the solution compared to others and the lower the price, the greater the CVP. The best CVPs are usually generated when the existing solutions are not designed with the real job in mind and you can design an offering solving precisely and only the particular job at hand. There are three constituent parts that have to be identified when reinventing a CVP: target customer, job to be done, and offering. Eyring et al. (2011) present four ways to uncover unmet needs to help devising the CVP: studying what the current customers are really doing with the products, studying the alternatives to your offerings carefully, discovering what jobs your offering is satisfying poorly, and digging out the root causes or the customers' behavior. Frei (2008) suggests that the best offerings excel at some areas and intentionally perform badly at others. The idea is that if the offering excels at all areas, a service or a product will become too much more expensive compared to the competition and the target customers will not purchase it. The article states that the fields that the offering serves poorly are actually funding the ones that the offering excels at. This way the offering can differentiate from the competition at a reasonably higher price. When building a new business model it is essential to choose determine which attributes to target for excellence and which target for poorer performance.

Anderson et al. (2006) divide CVPs in three categories: all benefits, favorable points of difference, and resonating focus, wherefrom the resonating focus is described as the best option in general. All benefits intend to list all the benefits that the offering might deliver to the target customers. More is better in all benefits CVP. Downsides of all benefits CVP are benefit assertion and the listed benefits being points of parity with competing alternatives, diluting the effect of the genuine points of difference. By benefit assertion Anderson et al. (2006) mean benefits that create no actual value to the specific customer in question. Favorable points of difference CVP recognizes that the customer has alternatives and differentiates from these. Differentiating from the alternatives requires detailed knowledge of the competing alternatives and totally different ways of solving the customers' problem if these exist. Favorable points of difference CPV articulates the points of difference compared to alternatives, but does not emphasize the value of the differences to the customers. The downside of the favorable points of difference CVP is that the CPV does not clearly stress points of difference that have the greatest value to the target customers. That is called value presumption meaning that the supplier is assuming that the favorable points of difference are valuable to the target customers. Resonating focus CVP is seen the best alternative of the three by Anderson et al. (2006). Resonating focus CVP is a simplified CVP by making the offering superior on the few elements that create the most value for the target customer. The customer value is also documented and communicated in a way that conveys a solid understanding of the customer's business priorities. The resonating focus CVP differs from the favorable points of difference CVP in two ways. First, the resonating focus CVP focuses on the few most important points of difference instead of listing them all and thus moving the customer's focus off of the core of the CVP. Second, the resonating focus CVP may contain points of parity with the competing alternatives. This occurs either when the point of parity is a requisite for the target customer to even consider the offering or when the customer has mistaken perceptions that a particular value element is a point of difference in favor of a competitor's offering. Table 3 presents the three different CVP models and their qualities.

Table 3. CVP models.

CVP	ALL BENEFITS	FAVORABLE POINTS OF BENE- FIT	RESONATING FO- CUS
Consists of:	All benefits that customers receive from a market of- fering	All favorable points of difference	The most value creating points of difference and points of parity
Answers the question:	"Why should our firm purchase your offering?"	"Why should our firm purchase your offering instead of competitor's?"	worthwhile for our
Requires:	Knowledge of own market offering	Knowledge of own market offering and alternatives	Knowledge of how own market offer- ing delivers superior customer value compared to alter- natives
Has the potential pitfall:	Benefit assertion	Value presumption	Requires customer value research

Table 3 presents the three different CVP models and lists the requirements, the potential pitfall, the constitution, and the question that each of the CVP models answer to. This table is a tool for choosing, which of the CVP model should be considered when building a new business model.

4.2 Profit Formula

Johnson et al. (2008) define profit formula as the calculation of how the company is able to make profit itself while providing value for the customer. Profit formula consists of revenue model (price x volume), cost structure, margin model, and resource velocity. Resource velocity describes how well resources need to be utilized for achieving the desired profits. Frei (2008) suggests that there are four different funding mechanisms for a superior service. First, charging the customer in a palatable way, meaning that

the payment for the extra service should be formed less objectionable for the target customers. This can be done by considering what feels fair to the customers and usually not charging more for the particular service adding value to the customer. Another way of funding superior service is to create a win-win between operational savings and value-added services. Offering free or inexpensive pre-sales services and thus avoiding costly and time-consuming corrective actions after deployment can do this. Third way of funding superior performance is spend now and save later meaning that pre-sales services could be offered free when deploying new business model or products and then collecting data from the service requests. This data can then be used as a tool for product development, ultimately leading to fewer service requests and thus funding the initial costs in the long run. The fourth way of funding superior service is having the customer do the work. This means that the customer could have self-service for example via internet. Usually self-service is not seen as superior service, but if it can be flavored with added value, such as faster response time or additional information self-service might lead to a better customer experience.

4.3 Key Resources

Johnson et al. (2008) define key resources as assets like people, technology, know-how, information, products, facilities, equipment, channels, and brand required for delivering the CVP. The focus in developing business model is in key resources needed for delivering the customer value proposition profitably. The most important resources to consider from technical pre-sales services view are people, organization, information, know-how, and technology.

4.4 Key Processes

Johnson et al. (2008) define key processes as either operational or managerial processes that also include rules, metrics, and norms. The actual processes might include design, product development, sourcing, sales, manufacturing, delivery, marketing, hiring, training, and IT. Rules and metrics might include margin requirements for investment, credit terms, lead times, and supplier terms. Norms might include opportunity size needed for investment and approach to customers and channels. These processes, rules metrics, and norms should allow the company to deliver value in a way that can be repeated and increased in scale.

4.5 Synthesis of Business modeling

The components of building a business model create a basis for the issues that should be discussed in the brainstorming sessions to help develop a new business model for technical pre-sales services. The selected business model components are shown in Table 4.

Table 4. Chosen components for a pre-sales service business model.

CVP:	Resources:
Job to be done	People and organization
Target customers	Technology
Offering	Information
CVP model	Know-how
Processes:	Profit Formula:
Sales process	Revenue model
Support delivery process	Funding mechanism
	Cost structure
	Margin model
	Resource velocity

Using Table 4, the following guideline questions were formed for the brainstorming sessions, considering the scope of this study and emphasizing the importance of the most important business model component, CVP.

Table 5. Guideline questions for the brainstorming sessions.

How is the customer value proposition devised?	What is the actual job to be done? What is needed to meet or exceed customer expectations?
What are the target customers?	Big or small potential?
What is the offering?	What kind of special knowledge or skills can be delivered?
	Can services be effectively productized?
	Differentiation or cost leadership? How are pre-sales services wrapped to the physical goods?
What is the CVP model chosen?	All benefits
	Favorable points of benefit
	Resonating focus
How is the profit formula generated?	Revenue model
	Funding mechanism
	Cost structure
	Margin Model
	Resource Velocity
What are the key resources needed?	People and organization
	Technology
	Information
	Know-how
What are the key processes needed?	Sales process
	Support delivery process

The guideline questions, presented in Table 5, were derived from the synthesis of business modeling, and used as notes for the researcher to guide the brainstorming sessions. The chosen questions include all of the components that are used in building a new business model.

5 Findings from Brainstorming Sessions

This chapter presents the findings from the brainstorming sessions held in March 2011 with the management of the case company. These brainstorming sessions were based on by the ideas from the business model literature review presented in Chapter 4.5.

5.1 Customer Value Proposition

The interviewees mentioned that the actual purpose of the business model for technical pre-sales services is to deliver added value to the customers before their decision to purchase is made, which from the case company point of view, should help the sales of the case company win more deals. Customer value can be delivered by offering pre-sales services that can save customers' time in their evaluation process, when comparing alternative solutions that are offered by possible suppliers, and increasing the customer's loyalty and trust in the case company know-how. Other desired outcomes for the customer value proposition are disposing of barriers and uncertainties in the customers' minds as for why not to purchase the case company offering, and speeding up the customers' evaluation process and purchase decisions. The decisionmaking can also be made easier for the customer, if the offering can be proved in advance as a working solution for the customers challenge. The more complex the challenge and the solution are, the more uncertainties there usually are in the heads of the buyers. Thus, the technical pre-sales services are most likely to be more beneficial for the customer, when the offering is complex and the customer do not have sufficient know-how for implementing the solution by themselves. Situations have also been reported in which the customers have complained to the sales personnel of the case company that they have all the needed know-how for implementing the solution, for its piloting or test use, but then it turned out that they have not succeeded in the implementation. This has often resulted in losing the sales or requiring a lot of extra support when helping the customer on the implementation at a later point.

The interviewees told that the customer value proposition should also add customer value and help sales by exceeding customer expectations through utilizing technical pre-sales services. Presenting information of the different aspects, issues and possible threats that might have impact on the solution could help the customer to make the

right decisions. Customer expectations can be exceeded in many cases by helping the customers to avoid faulty decisions, which might lead to expensive corrective actions and time loss. Currently, the sales professionals commonly answer to only the issues and questions that the customer has taken up, but fail to suggest additional facts that have significance for the customer's decision making.

5.1.1 Target Customers

The management of the case company told that the target customers of the business model should be customers that have potential for the case company in the long run. Presumably, the target customers are not in the small business sector, because the technical pre-sales services are more beneficial for the customer when the offering is more complex. Complex solutions are seldom offered to small businesses because of the higher price of complex systems, although exceptions exist. Thus, it might be difficult to set explicit definition for the target customers and it may be that the evaluation whether to offer technical pre-sales services to a certain customer might have to be done case by case. In any case it is not possible for the case company to offer technical pre-sales services in every business prospect for all customers due to limited technical pre-sales support resources.

5.1.2 Offering

The interviewees stated that the offering is to cut out unnecessary work from the customer by means of technical pre-sales services when the customer is considering an investment. The offering consists of deep knowledge of the offered products themselves and ability to help the customer to integrate the offered products to their existing infrastructure. The latter requires a lot of knowledge resources about general IT standards and IT systems, including operating systems and servers, but allows high differentiation against competition. Offering technical pre-sales services with goods is founded on a differentiation strategy instead of competing with price. The goal and CVP for this offering is to make customer experience of the implementation as easy and effortless as possible. Reaching the goal also requires fast enough service availability and socially capable service personnel.

The technical pre-sales services should be effectively productized for achieving fast availability and helping sales personnel to offer the services to the customers whenever seen necessary. There were several different product ideas expressed in the brain-storming sessions. These are:

- 1. WLAN site survey
- 2. Data security site survey
- 3. Test use or pilot system implementation

The test use or pilot system implementation service could be a comprehensive service including one or both of the WLAN site survey and data security site survey services. It was seen in the brainstorming sessions that all of these service products must be designed so that they can be offered for all target customers as such with no need for tailoring. The products must also be specifically described and documented so that the customers know what they are purchasing.

Wrapping and hiding the price of the technical pre-sales services with the goods is not easily done because of the nature of pre-sales services. Pre-sales services are offered before the actual sale so wrapping the price to the goods might lead to a situation where the case company offers free pre-sales services and the customer could then buy the actual goods from a competitor offering lower product prices. This would be an identical situation compared to consumer goods business where the customers can go to a physical store to discuss with expert sales personnel to acquire information on the products. When the customer has all the information needed to make the purchase decision he or she could then buy the goods from a web shop with cheaper price because the web shop owner does not have the personnel expenses of a physical store with expert sales personnel.

The interviewees mentioned that the CVP model chosen for the technical pre-sales services should be close to the resonating focus discussed in the literature part. This approach is very close to all the other CVP models the case company is offering currently. The resonating focus approach requires a lot of knowledge of the customer's current IT infrastructure and the competitors' offerings. This means that the sales personnel have to do a good job finding out the basics of the customer's IT infrastructure

before the expert pre-sales services are offered. Also continuous research of the competitors' offering has to be done.

5.2 Profit Formula

The participants came up with the following ideas that the current funding mechanism of the technical pre-sales support is based on palatable charging model. The price of the service is added to the price of the goods. This funding mechanism allows the customer to pay for the service only after the purchasing decision is made which is good in a sense that not many customers decline having free services in an early stage of the process. The downside of this model is that it has no clear CVP for the customer as there are no concrete products that the customer is receiving. In the brainstorming sessions it was agreed that the product price should include only services related to the sales personnel but not the actual technical pre-sales services. This allows more versatile pricing where the goods with no additional services could be cheaper to buy than the same goods with piloting and installation services for example. The mean of funding the services could be placing a price tag for all of the productized technical pre-sales services and charging them immediately after delivery. This model should result in a win-win situation where the case company gets paid for the additional services and the customer would receive reimbursement from the time it saves with no need of using its own resources for studying new devices and how they are installed to existing systems. There could also be some *refunding incentives* for the customer so that there would be a partial refund from the already billed services if the customer buys also the goods from the case company. This could be a good way of leading the customer to purchasing the whole solution from the case company instead of running after the cheapest option for every part of the whole solution.

A self-service internet portal could also be an effective way of serving small customers that are not willing to pay extra for the pre-sales services and are willing to use their own resources for making things right. This could be a free of charge service, as this operation needs no continuous resources from the case company. This kind of online service could also benefit after-sales services and thus reduce workload from the after-sales services personnel.

The cost structure of the technical pre-sales services consists of human resources, travelling expenses, demo units of the devices, and training of the personnel. Additional costs are also comprised from extra back office work including preparing questionnaires and pre researching of the customer's existing IT infrastructure and other preparative work.

The margin model is to be set so that the billing of the technical pre-sales services cover the costs comprised directly from the services sold. The case company has no intention of making any operating profit from the technical pre-sales services. The one and only purpose is to increase the sales of the goods, and customer satisfaction.

The resource velocity has to be near 100% in order to keeping the costs reasonable. At first this can be achieved by utilizing the human resources that are currently working in after-sales services and device repairing operations. The key resources are discussed more in the following section.

5.3 Key Resources

It was mentioned in the interviews that the number of human resources needed for offering technical pre-sales services depends highly on the sales personnel's capability and boundaries to sell these services to the customers. Thus, it is essential to ensure sufficient training for the sales personnel also, which will increase the cost of the presales services. In the brainstorming sessions it was considered that the human resources, already working in the after-sales and customer service department, could be used for technical pre-sales services too. This would be an effective way of starting to offer new services as the dedicated personnel in the after-sales department already have all the needed know-how for the work. The only downside of this approach could be the possibly slow delivery time of the pre-sales services, as the human resources could be committed to previously appointed after-sales work for some period of time. On the other hand, the risks related to the costs of the new business model would be almost non-existent, as no new resources are needed in the beginning. Later, when the sales of the pre-sales services begin to accelerate, it could be appropriate allocate dedicated pre-sales support personnel for achieving better service quality and availability.

Technology resources and know-how also already exists, as no difference in the technology resources and know-how needed for already existing after-sales and pre-sales services exist. The most important technology would be the tools needed for delivering remote technical pre-sales support via Internet connection. This could be the only way of making it possible for the case company to deliver technical pre-sales support to all of its market segments geographically. This approach could even diminish technology costs per function as the costs could be divided to after-sales and pre-sales activities and thus increase the utilization rate of the technology.

Information needed for the business model for technical pre-sales services is directed mostly to the information on the customer's existing IT systems. It was agreed in the brainstorming sessions that sales personnel must have efficient tools for gathering sufficient information from the customers that enables decision making on what kind of technical pre-sales services could and should be offered to a specific customer. The method for the sales personnel for the information gathering could be to construct a process chart containing all the common issues and cases that need to be taken into consideration. This chart would act as a checklist for the sales personnel so that they remember to determine all the needed information at sufficiently early stage in the sale process. The chart should consist of at least information on the customer's existing IT systems such as ERPs, databases, interfaces, and WLAN security requirements. The constructing of this process chart would be included in the cost of the extra back office work described in the section discussing cost structure.

5.4 Key Processes

The interviewees agreed that the key processes needed for implementing business model for technical pre-sales services are processes related to sales, and processes related to the delivery of the pre-sales services. The sales processes are important for the case company to recognize the customer cases where pre-sales services are needed and for them to be effectively sold. The sales processes are discussed next in more detail.

5.4.1 Sales Process

The most important thing to keep in mind when designing a sales process for technical pre-sales services is to make the process such that sales personnel can focus on sales only. Also all unnecessary information seeking work should be excluded from the duties of the sales personnel, which can be done by proper productization of the services. When the products are clear, the sales personnel can have the opportunity to easily start offering these products to the customers. The management has to set strict instructions and quidelines to when these services can be offered to the customers. The most important guiding facts are the size of the potential business and the pricing model of the services. If the services are invoiced independently, then they can be offered more widely, but still restrictions would exist due to the limited human resources at pre-sales services. Another important thing to consider is that the technical pre-sales services will exist only for accelerating device sales, not for making profit out of the services themselves. The sales process and the limitations have to be set so that the most important and bigger customers always receive the technical pre-sales services at acceptable time. It was considered at the brainstorming sessions that a monetary limit for the potential business should be set, at least in the beginning, to ensure resource sufficiency. This limit has to be set by the sales management together with the management of the organization responsible for the pre-sales services personnel. Then the decision of whether to use the pre-sales support recourses can be made independently in the sales organization leading to a condition where the pre-sales support resources are not used excessively.

The price level for the services in the sales process can be done by setting an internal cost for the services and pricing the service products either on hourly basis or by the service. The hourly basis pricing is more riskless for the case company but not all the customers are willing to take the risk for themselves. Buyers often favor lump sum investments for their predictability. The sales personnel could then have the opportunity to offer services by a lump sum being based on a workload estimate discussed beforehand with the pre-sales service personnel.

Selling these services and *invoicing* them as such would be better incentive for the sales personnel compared to free services as sales personnel could earn commissions from the sold services even if the target business does not realize. This incentive would

probably increase the utilization of the pre-sales services and thereby improve overall customer satisfaction.

Another part of the sales process is *to inform* the technical pre-sales services personnel of a potential business case in an appropriate stage of the sales process. This informing should be done after the decision whether to offer the customer technical pre-sales services or not and also assessing the actual realizing probability of the case. If all these criteria are fulfilled then the information of the case may be passed across organizations for estimating the amount of work needed for the particular case. This is only if the case is not predetermined by service productization. The goal should be to determine all common pre-sales support cases and productize the services so that the need for workload assessment in other than special cases, do not occur. It is then important to have a standardized delivery process also, after the information of a sold technical pre-sales support service is passed to the service organization. The delivery process is discussed next.

5.4.2 Technical Pre-sales Support Delivery Process

It the brainstorming sessions the management of the case company set the availability time goal to three weeks from the date of order. It was also stated that there has to be a standardized processes for delivering the needed support after the technical presales support is sold to a customer. Different processes have to be set for all support processes, including on-site and remote support. The on-site support can only be arranged by traveling to the customer, which always creates travel expenses. This is why remote services can be an effective way of delivering sufficient pre-sales support to the customers, especially if the distance between the case company's premises and the customer is comparably long. The delivery process should include ground survey of the customer's need, delivering the service, measuring service performance, and gathering feedback from the customers.

6 Proposition for a New Business Model

The proposition for a new business model is based on the relevant literature review and the results of the brainstorming sessions with the management of the case company. The proposition aims to set the ground for the business model without defining the details, which are planned to be defined after implementation of the business model. The objective of the proposition is to create an effective model that can be implemented in real life business.

6.1 Customer Value Proposition

The aim of the new business model is easy and effortless implementation or piloting of a new technology. The reason behind it is to save customers' own resources, while considering usage of new technologies, which would generate the reimbursement for the customers. In addition, the customers can also benefit by acquiring new knowhow and information on the technologies in question.

The proposed offering is technical on-site and remote implementation and piloting services, which can be offered to produce more beneficial sales meetings and help the customers evaluate the benefits gained from utilizing new technologies. These services can reveal if the technology in question is suitable for the customer's existing systems.

The target customers are all customers with sufficient business potential for the case company in the future. The specific monetary limit should be set when implementing the business model and then revised after having actual experience on the resource velocity accomplished by the initial value. The responsibility of evaluating the monetary potential should be given to sales managers, because they possess experience and knowledge of the case company's customer base.

The CVP model used in the quotations should be resonating focus CVP. This ensures that the most important benefits from the service offered are emphasized. Knowledge on the competitors' offerings can also be utilized when using the resonating focus CVP model in the quotations. A composition of the CVP for the new business model proposed is presented in Table 6.

Table 6. Customer value proposition of the new business model.

JOB TO BE DONE	TARGET CUSTOMERS
Easy and time saving implementation of piloting of new technology	Customers with sufficient business potential
ogy	Evaluated by sales managers
OFFERING	CVP MODEL
Technical on-site and remote im- plementation and piloting services	Resonating focus

Table 6 illustrates the four components and their subcomponents chosen for the CVP of the new business model. The chosen components are the job to be done, the target customers, the offering, and the CVP model.

6.2 Profit Formula

The funding of the new business model is arranged by charging the customers directly for the services they need. Thus, the pricing of the goods will become more versatile. The price of the services can be charged on an hourly basis or at a lump sum, depending on the customer case. The lump sum pricing is recommended if the required work load can be estimated.

The cost for the services consist of *the direct costs* resulted from the actual delivery of the service and *the indirect costs* derived from sustaining knowhow and technology, thus making the service delivery possible. *The indirect costs* can be divided between pre-sales and after-sales services. If the pre-sales services and after-sales services are provided by the same organization, with no extra personnel, the indirect costs will not increase significantly. This will probably not be the case in the long run, if the utilization of pre-sales services expands. Then, indirect costs have to be added to the profit formula. At first, it will be easier to consider only the direct costs, as these will be the majority of the total cost.

The margin should be set so that the all the costs from the resources used for the delivery of the services are covered, but no margin is left for the case company. The profit then comes from the increased device sales, gained from the improved customer experience and diminished risks for the customer. The case company has already determined the needed price per hour to cover the costs.

Resource velocity can be set to 100% by utilizing the same human resources as are used for the after-sales services at the moment. The downside of this approach can be a possibly long delivery time of the pre-sales services. The delivery time can be adjusted by the monetary value limit, set for the customer business potential. A composition of the profit formula for the new business model proposed is presented in Table 7.

Table 7. Profit formula of the new business model.

FUNDING MECHANISM	REVENUE AND MARGIN
Direct invoicing per service	Target is to cover the cost
COST STRUCTURE	RESOURCE VELOCITY
Direct cost from the service delivery	100% by combining after-sales service and pre-sales service re-
Work time and traveling	sources

Table 7 illustrates the four components and their subcomponents chosen for the profit formula of the new business model. The chosen components are the funding mechanism, revenue and margin, the cost structure, and resource velocity.

6.3 Key Resources

The key resources needed to implement technical pre-sales support services are a) human resources in service and sales, b) technology resources, and c) information gathering resources.

The human resources needed in sales consist of training sales personnel to sell the services and revising the sales process in general so that the possibility of using technical pre-sales services is available. The human resources in the service personnel can utilize the personnel used for after-sales services at the present. In the implementation phase of the technical pre-sales services there is no need for hiring new personnel to do the job. Only after it is proven that the CVP really actualizes, then more human resources can be considered to accelerate the positive effects and results of the new business model.

The technology resources needed for delivering technical pre-sales services effectively already exist due to its similarity to the technology needed for delivering after-sales services. The most important technology used is the remote software used for remote services.

The information gathering resources require new resources in the initial stage when implementing the new business model. A check list for the sales personnel have to be generated for gathering basic information on the customer's IT infrastructure and data security requirements. Also much more detailed questionnaire must be constituted for the service personnel's use, when planning a service delivery. A composition of the key resources for the new business model proposed is presented in Table 8.

Table 8. Key resources of the new business model.

HUMAN RESOURCES IN SALES	HUMAN RESOURCES IN SERVICE
Training of the sales personnel for selling the pre-sales services	After-sales services personnel is used at the initial stage of imple- menting the business model
TECHNOLOGY RESOURCES	INFORMATION GATHERING RESOURCES
Existing remote service software	Formation of a checklist for the sales personnel
	Formation of a detailed question- naire for the service personnel

Table 8 illustrates the four components and their subcomponents chosen for the resources of the new business model. The chosen components are the human resources in sales department, the human resources in service department, the technology resources, and the information gathering resources.

6.4 Key Processes

The key processes for the new business model are *sales process* and *service delivery process*. It is essential to combine these processes conveniently, so that the case company's different organizations do not seem too unattached, from the customer's point of view.

The sales process needs only fine-tuning of the existing sales process. The existing process is enhanced by recognition of need for technical pre-sales support, filling the checklist to gather basic information on the customer's existing IT infrastructure, and quoting the services. The recognition of the need for the technical pre-sales support is timed after the prospect is identified as a goods-dominant sales prospect and before the solution is quoted. After the need is recognized the sales personnel should be able to quote the needed services to the customer. If the customer case is more complex than usual and the customer accepts only a lump sum quotation, then a discussion with the service personnel must take place before the quotation can be presented. In the majority of the customer cases, the responsibility transfers from sales organization to service organization after the customer has officially ordered the quoted services.

The service delivery process consists of sending and receiving the questionnaire on the customer's existing IT infrastructure, and delivering the services either onsite or remotely. The delivery of the questionnaire is to take place simultaneously with the confirmation of order. The confirmation of order should also include the estimated time of delivery and the requested time of returning the questionnaire for the company to make the service delivery on time. If the delivery is made onsite, the service personnel travel to the customer by agreed means. If the service is delivered remotely, the delivery can be made from the premises of the case company saving the traveling costs. The downside of remote delivery is that not all issues can be solved remotely. The service personnel should make of the presence of at least one competent IT person with

all the needed accesses to the IT systems available at the customer's site, when the delivery is made remotely. A composition of the key processes for the new business model proposed is presented in Table 9.

Table 9. Key processes of the new business model.

SALES PROCESS

- Recognition of the need
- Filling the checklist of the customer's existing IT infrastructure
- Quoting the services

SERVICE DELIVERY PROCESS

- Sending the questionnaire of the customer's existing IT infrastructure
- Receiving the questionnaire of the customer's existing It infrastructure
- Delivery of the service on-site or remotely

Table 9 illustrates the two components and their subcomponents chosen for the processes of the new business model. The chosen components are the sales process, and the service delivery process.

6.5 Synthesis of the New Business Model

The new business model enables offering of technical on-site and remote implementation and piloting services to the customers with sufficient business potential for saving customer's own resources when considering procurement of new technology. The business model consists of components shown in Table 10.

Table 10. Synthesis of the new business model.

CVP

- Time savings when implementing or piloting new technology
- Easy proof of concept
- Target customers are the customers with sufficient business potential
- Offering is technical on-site and remote implementation and piloting services
- CVP model is resonating focus (the most important points of value for the customer that differ from the competition)

PROFIT FORMULA

- Funding mechanism is direct invoicing per service
- Revenue and margin target is set to cover the cost
- Costs consist of direct costs from the service delivery (work time and traveling)
- Resource velocity is 100% by combining after-sales services resources and pre-sales services resources

KEY PROCESSES

- Sales Process
 - a. Recognition of the need
 - b. Filling the checklist of the customer's existing It infrastructure
 - c. Quoting the services
- Service Delivery Process
 - a. Sending the questionnaire of the customer's existing IT infrastructure
 - b. Receiving the questionnaire of the customer's existing IT infrastructure
 - c. Delivery of the services onsite or remotely

KEY RESOURCES

- Sales personnel need training for selling the technical pre-sales services
- After-sales services personnel is used
- Technology resources exist (remote service software)
- Formation of a checklist for the sales personnel
- Formation of a detailed questionnaire for the service personnel

Table 10 illustrates the compilation of the new business model and its key segments. The compilation is built by combining information gathered from existing literature on business modeling, and the findings from the brainstorming sessions conducted with the managers of the case company. The new business model for technical pre-sales services does not require major changes to the case company's existing resources or processes. This makes the new business model easy to implement and diminishes the risks of generating new fixed costs and thus losing profitability. The new business model utilizes existing resources and changes processes in a way that the new type of services can be delivered. The practical process of the new business model in the predefined two cases can be presented as processes, which are discussed next.

The process in the case of on-site support in test use / piloting requires the recognition of the customer need by the sales representative responsible for the customer. After recognition of the need the sales representative fills the checklist of the existing IT infrastructure together with the customer. The checklist is then delivered to the service organization and the technical pre-sales services are quoted to the customer. The responsibility of the delivery is passed from sales to the service organization, after receiving the PO from the customer. The service organization then sends the detailed questionnaire to the customer and proposes delivery time. When the delivery time is agreed the service can be delivered to the customer as quoted. Figure 3 illustrates the progression of the process and the responsibility forwarding inside the case company.

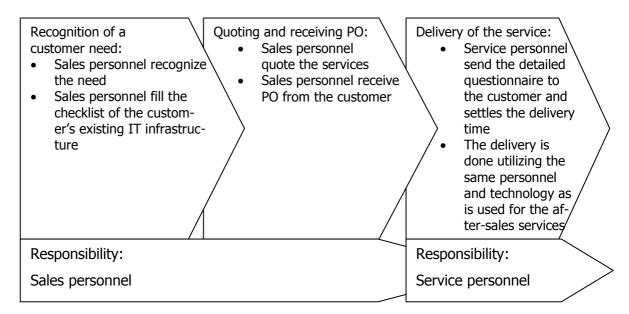


Figure 3. Practical process of the new business model.

Figure 3 illustrates the process flow of the pre-sales service delivery. The point of responsibility change from the sales personnel to the service personnel is also illustrated in Figure 3.

The process in the case of remote support in test use / piloting is almost identical to the on-site support from the sales processes perspective. The only difference is in the delivery phase of the process as the services are delivered utilizing remote connection to the customer through internet instead of traveling on the spot.

7 Discussion and Conclusions

7.1 Summary

Recently general atmosphere in business has emphasized the importance of services. The proposed business model can take the business of the case company towards more service-centered marketing, even if the core of the business remains to be built on hardware goods. The new business model enables offering of technical on-site and remote implementation and piloting services to the customers for saving customer's own resources when implementing new technology.

Offering customers better pre-sales services in hardware oriented business prospects is an issue that all interviewed employees working in the case company agrees on. The greatest benefit gained for improving this service is better customer satisfaction and the various derivatives from it. Improved customer value proposition, winning more cases, and earning higher prices than the competitive companies, would be among the most important derivatives gained.

Achieving improved customer satisfaction through technical pre-sales services is not a complicated task, but it needs altering the current business model to build up the necessary CVP, profit formula, resources, and processes for the job. The suggested new business model is designed to be fast and inexpensive to implement. This diminishes the risks involved with implementation of a new business model, such as hiring redundant human resources or procurement of unnecessary technologies. An easy implementation also allows fast proof of concept by offering new services to a selected group of customers in the first place. Proof on concept approach can reveal the true benefits from the suggested business model and allow the case company to further improve the model before starting to offer the services to all of the target customers.

By implementing the proposed business model, the case company can be able to divide its business prospects into two different categories and obtain an opportunity to utilize different business models for different customer needs. The case company can continue growing its leadership in turnkey business prospects and winning market share in the goods-dominant prospects. Excelling in both of these businesses can be a powerful means to gain and sustain market leadership, leaving the competitors far behind.

It was noticed that delivering new services to customers requires multiple changes and adjustments in the existing organization. The changes will not necessarily have to be large but they must be done in order to deliver new services in good quality and with profit. It was discovered that it mostly requires tuning the existing CVP and processes, instead of allocating new resources for delivering technical pre-sales services by the case company. This allows the case company to start offering the new services quickly with no major investments.

The conclusion for adding customer value through technical pre-sales services is that a new business model has to be implemented. The major change in the operations will be utilizing two parallel business models for two different kinds of customer prospects, one for turkey prospects and one for goods-dominant prospects.

The concise new business model consists of four main components: CVP, profit formula, key resources, and key processes. The new business model can be presented in table form as is illustrated in Table 10, which illustrates the four main components of the new business model and the chosen subcomponents inside them.

The biggest change in the whole offering is that sales will have to first identify the prospect to either of the two categories. The case company can utilize proper business model for the customer's need after the identification.

The benefits for the new business model for the case company lies in improved customer value and experience, which will generate more won customer cases and more satisfied customers. The brand of the case company will also improve for more service oriented offerings towards becoming marked as a business partner instead of a goods vendor.

7.2 Managerial Implications

The recommended actions for the managers of the case company would be, first, to name a project manager responsible for leading the change to implement the proposed business model. By appointing an owner for the change project, the project will get finalized even if the managers' resources are limited, and excess time does not exist for business development projects, such as this is.

The four most critical things to be taken care by the project manager are:

- 1. Forming the checklist for the sales personnel
- 2. Forming the detailed questionnaire for the service personnel
- 3. Training the sales for selling the CVP and pricing the services
- 4. Training the service personnel for delivering the services

The case company can start offering new value added services by a new business model by ensuring that these four things are implemented. After these essential steps, the case company can select few pilot customers to whom the services are offered first. By piloting the business model itself the case company can start collecting experience of how the services are taken in by the customers and ask for customer feedback after successful cases. The business model can be further developed before starting broader marketing by doing a piloting phase for the model.

If the model services are accepted by the customers and the case company gain more satisfied customers, the managers may also consider offering the services to smaller prospects too.

7.3 Evaluation

The results of the study are strictly aligned with the goal set of the beginning of the research work. This goal was to create a business model based on two cases chosen, and the goal seems to be perfectly fulfilled. At the beginning of the project, even more radical changes in the existing model were considered, but in the brainstorming sessions it turned out that they were not in alignment with the case company's strategy, and thus were, not applicable. The researcher is satisfied with the results and even surprised to notice how marginal changes can create new business.

The reliability and validity assumptions discussed in Chapter 2.3 were adhered to. The results can be strongly defended by the argument that the business model is composed based on a broad literature review, and the data collected from the case com-

pany are the best knowledge available on these particular cases. The re-searcher himself is confident that all of the choices made, when composing the business model, are made based on the best possible information available. These factors make it fair for the researcher to genuinely recommend implementing the suggested business model and continue to further develop it in the endlessly changing economy.

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Brainstorming Sessions Notes Abstract

How is the customer value proposition devised?

What is the actual job to be done?

1. What is needed to meet or exceed customer expectations?

Kaupan esteet ovat sitä suuremmat, mitä monimutkaisempi kokonaisuus on -> tarvitaan enemmän vakuuttamista, että kauppa toteutuu -> myös kaupat ovat tällöin useasti suurempia

Tietoturva, WLAN, konfiguraatio, viivakoodi/RFID luenta.

Usein myyjä kuuntele, mutta ei ehdota lisää huomioitavia asioita. Tällä hetkellä vain pyritään täyttämään asiakkaan esittämät vaatimukset. Parempi olisi huomioida heti kaikki oleelliset asiat ja kertoa asiakkaille niistä. Näin kaupan kokoa saadaan kasvatettua ja samalla asiakastyytyväisyys paranee, kun ratkaisu toimii ensi yrittämällä.

Asiakkaan ajan säästö. Joskus asiakkaat sanovat, että heillä on osaaminen, vaikka oikeasti näin ei ole. Myyjä ei kyseenalaista tätä useinkaan vaan tyytyy "helppoon" laitekauppaan. Myöhemmin tulee kuormittavia puheluita tekniseen tukeen nopealla aikatauluvaateella -> huono palvelukokemus ja kuormitusta teknisille palveluille. Asiakastyytyväisyys heikkenee vaikka vika ei varsinaisesti ole laite- tai palvelutoimittajassa.

Kilpailutilanteessa palvelun nopeuden vaade on usein kova.

Asiakkaalta voi kysyä tyyliin: Haluatko laitteet, vai laitteet toimivina Teidän järjestelmäympäristössänne?

Esimerkkinä asiakas x: Myytiin paljon palveluita ja lopputuloksena asiakaspalaute oli erinomainen. Osattiin myydä riittävästi pre-sales palveluita. Laitteet + palvelut hinnoiteltu erikseen, jolloin asiakas myös maksaa palveluista saadessaan niistä lisäarvoa.

Asiakkaat esim. terveydenhuollossa eivät ole kiinnostuneita laitteesta vaan lopputuloksesta (esim. tarra) ja että kokonaisuus toimii. Tällä toimialalla myös myynti tekee pre-sales tukea, sillä tarpeet ovat usein helppoja.

Jos tuoteportfoliossa olisi erilaisia pre-sales tuen tasoja, niin olisi helpompi myydä palvelua. Myyjän täytyy tässäkin tapauksessa osata myydä arvolupaus.

Luottamus ostettavaan asiaan pitää olla. Ammattitaidon vakuuttaminen pre-sales palveluiden avulla (uskottavuuden lisääminen toimittajana).

Useita funktioita (myynnillinen, asiakashyöty) ja useita toteutustapoja (konsultointi, koekäytöt, tuotekoulutukset jne..)

Tietoturvakartoitus, RFID-mittaus, WLAN-mittaus (ilmentymät)

Ostamisen esteiden poistamista = luottamus (osoittaa asian helppous tai ratkaista vaikeat tekniset asiat asiakkaan puolesta)

Aiemmin ollaan oltu pää pensaassa huomioitavien asioiden suhteen, mikäli asiakas ei itse osaa kysyä. Parempi tie voisi olla ottaa itse asiat esiin ja tarjota niihin ratkaisua.

Tällöin asiakas kokee, että eivät itse olisi osanneet huomioida kyseistä asiaa, jolloin tuotetaan uutta lisäarvoa asiakkaalle.

2. What are the target customers?

Kannattavimmat asiakkaat?

Rajaa ei ole helppo määritellä, mutta käytännössä potentiaalisille asiakkaille kannattaa tarjota.

Erikokoiset pre-sales tuki paketit.

Myynnin ohjaus kannattaviin aiakkaisiin on tärkeää

Vaihtoehtona hinnoittelu, jolloin voisi tarjota kaikille asiakkaille. Johdon näkemys kuitenkin, että ei haluta myydä pelkkää "hikeä" vaan taustalla täytyy olla mahdollisuus muusta kaupasta, kuten laitteista tai ohjelmistoista.

Ostava/uusi asiakas?

Tuotanto pullonkaulana, jos myydään henkilöresurssia / halutaanko myydä pelkkää palvelua? Ei johdon mielestä, myyntipäälliköille tämä sopisi hyvin.

Käytännössä täytyy olla muutakin potentiaalia riittävästi.

Liikevaihtoa täytyy saada lisää ilman, että henkilöresurssit kasvavat samassa suhteessa.

Henkiölresurssit ovat edistämässä laitemyyntiä.

Palveluiden monistettavuus pitää olla hyvä, jotta henkilöresurssit eivät paisu suhteettomasti.

- 3. What is the offering?
- 4. What kind of special knowledge or skills can be delivered?

Asiakkaan olemassa olevan infran ja tarjoomassa olevien laitteiden yhteensovittaminen

Tarjoomassa olevien laitteiden tuntemus

Käyttöönoton käyttäjäkokemus tehdään äärimmäisen helpoksi

Filosofian muuttaminen: laite -> laite ja softa -> laite, softa ja konsultointi -> ratkaisu

Jopa käyttö voidaan tuotteistaa ja myydä, jolloin asiakkaan potentiaali on suurempi (yleensä isommat asiakkaat haluavat näitä palveluita)

5. Can services be effectively productized?

WLAN-mittaus

Tietoturvamittaus

Koekäyttöasennus (pilotointi), huolehdittava, että myyjä ei ala ostamaan

Pitää voida kuvata mitä tuote pitää sisällään

Kuvataan lopputulos

Hinnoittelu

Monistettavuus (pitää sopia useille asiakkaille)

6. Differentiation or cost leadership?

differentiation

7. How are pre-sales services wrapped to the physical goods?

Pre-sales tapauksissa on vaikeaa paketoida palvelua laitteisiin

8. What is the CVP model chosen?

All benefits

Favorable points of benefit

Resonating focus

Tuntuma, että yleensä asiakkaan päätösportaissa ei jakseta lukea pitkiä listoja, vaan keskittyminen on tärkeää. Tarjouksissa on jo nyt usein valittu tämä linja.

9. How is the profit formula generated?

Revenue model?

Funding mechanism?

Palatable charging

Hinta tuotteessa (tämä malli tällä hetkellä käytössä, mikä ei ole asiakkaalle konkreettinen lupaus mistään) Laitteen hinta voisi sisältää pre-sales palvelut ainakin myyjän osalta. Asiakaslupauksena hyvä palvelu ja käyttöönoton ja proof of conceptin helppous. (Laite + pilottiasennus kalliimpi kuin pelkkä laite?)

Win-win

Asiakkaan ajansäästö, jolloin kannattaa maksaa toimittajalle palvelusta.

Spend now save later

Ei varmaankaan tule takaisinmaksua? Kannattaako esim. laittaa kaikki kaapelit heti mukaan? Palvelun volyymi nousee erittäin voimakkaasti, jos toimitaan näin. Ei riittävästi resursseja.

Self-service

pienet asiakkaat? Nopeus?

10. Cost structure?

Henkilöresurssit, matkakulut, tarvittavat laitteet (demolaitteet), osaamisen ylläpito, koulutus (10% kuluista) Jakaantuu muuallekin kuin pre-sales funktiolle. Pre-sales tuki vaatii kuitenkin myös omaa panostusta mm. kyselykaavakkeet, ennakkoselvittelyt asiakkaan infrasta ja muu valmistautuminen.

11. Margin Model?

Tarkoitus on edistää laitekauppaa, eli varsinaisesti tekniset palvelut ei tee voittoa. Tarkoitus on kattaa kulut, mutta ei varsinaisesti tehdä voittoa suoraan palvelumyynnillä.

12. Resource Velocity?

Tekniset tukiresurssit tekevät huoltotyötä ja "ylijäämäajalla" pre-sales tukea tällä hetkellä.

13. What resources are needed?

People and organization?

Dedikoidut resurssit parantavat laatua, esimerkiksi myyjien kyvyt eivät riitä tekniseen tukeen vaan heidän on osattava myydä. Mm. konsultoiva myynti, jolloin myyjän on osattava olla proaktiivinen myös teknisessä mielessä vai onko tämä sittenkin teknisten palveluiden osaamista? Tällöin pitää olla pre-sales tuki mukana -> mahdollistaa paremman asiakaskokmuksen ja jopa lisäkauppaa, kun osataan ottaa huomioon en-

emmän asioita. Tämä voisi olla jopa talon sisällä tehtävää työtä tarjouksen tekovaiheessa.

14. Technology?

Etätukeen on olemassa teknologia (teamviewer) ollut jo pari vuotta käytössä sekä presales, että jälkimarkkinafunktioissa. Varsinkin, jos asiakas on kaukana, tehostaa toimintaa. Pieni kulu kohdeyritykselle.

15. Information?

Voisi olla hyödyllistä tehdä "prosessikuva" ratkaisusta, jossa olisi kuvattuna kaikki huomioitavat asiat ikään kuin muistilistana.

Mobiilistrategia esimerkiksi (vaatimusmäärittely)

Tietoturva?

16. Know-how?

Ylläpidetään teknisten palveluiden toimista jo nyt

17. What key processes are needed?

Sales process?

Miten ohjata myynti käyttämään resursseja oikein? Asetettava selkeät rajat, nyt 5000 EUR.

Sisäisesti ostettavat palvelut (sis. kustannus + myyjän oman ajan sis. kustannus?)

Myynti ei luota omaan myyntiosaamiseensa ja ei haluta käyttää maksullista palvelua talon sisällä, koska ei ehkä uskota kaupan toteutumiseen

Myyjän keskittyminen ostamaan?

Myyjän on ymmärrettävä oma roolinsa (myynti). Prosessin tulee olla tähän ohjaava.

Myyjän olisi tiedotettava koekäytöistä teknisiä palveluita, jotta osataan varautua palvelupyyntöihin (tuote, jossa puhelintuki, puhelintuki etänä, on-site tuki, puhelinvalmius)