

MASTER

In search for opportunities around the globe
using proven business cases from other sectors for business model innovation

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Award date:
2012

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Eindhoven, February 2012

**In search for opportunities around
the globe: using proven business
cases from other sectors for
Business Model Innovation**

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in partial fulfilment of the requirements for the degree of

**Master of Science
in Innovation Management**

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TUE. School of Industrial Engineering.
Series Master Theses Innovation Management

Subject headings: business model, innovation, analogy, cross industry, transfer, process

Management Summary

Firms have to constantly innovate their business models if they want to match the needs of the market, be unique and optimize the value delivered (Wirts et al, 2010). A business model is an articulation of: "the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering that value" (Teece, 2009). This means that business model innovation looks for ways to increase this value. There are numerous ways of achieving the latter. This research looks at one of these ways by showing how business model innovation can be achieved by looking at other sectors. From this, the following academic goal can be distilled:

How can proven business cases from other sectors be selected for use in business model innovation?

This question was addressed by means of case study research. A case, which solves business problems by means of the selection and transfer of proven business cases, was found in the form of a consultancy firm called Six Fingers. The process of Six Fingers and the proven business cases they use were analyzed, and the data extracted used to make a design which answers the research question. For ensuring the academic quality of this research, use was made of the reflective cycle by van Aken et al (2007).

From the diagnosis phase at Six Fingers it became clear that, in order to be able to select cases in a structured and systematic manner, some form of situation analysis and an abstraction of that situation are needed. This finding is consistent with the literature on analogical reasoning in management settings (Gavetti and Rivkin, 2005), which indicates the same steps. The practical translation of the latter is given shape by means of four steps:

- Defining and analyzing the situation by means of six questions;
- Translating the situation in to an abstract form by means of parameters;
- Recognizing opportunities and finding parameters which can make use of these opportunities;
- Choosing whether to set the value of the latter parameters extremely high or low.

The last step gives as output a number of extremely high or low parameters, which are the search criteria to be used in the search for proven business cases. An elaborated explanation of these steps can be found on the next page.

In order to achieve business model innovation the proven business cases found need to be translated or mapped on the target firm. However, this phase lies out of the scope of this study and further research will be needed how to optimally do this.

From problem definition to search criteria for selecting proven business cases in four steps

Situation analysis

First the situation needs to be analyzed. This is done by answering six questions::

Q1 How do we create value?:

Value proposition (What do we deliver), relationship (what bond do we have with our customer) and distribution (How do we get it to the customer).

Q2 Who do we create value for?: What does our customer segmentation look like.

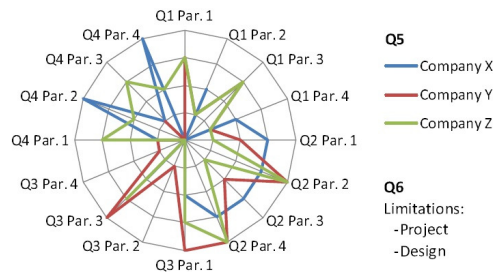
Q3 How do we make money?: What is the focus of our pricing scheme.

Q4 What is our source of competence?: How do we use people, knowledge, partners and physical goods.

Q5 How do we competitively position ourselves?: What does the situation of our competitors look like.

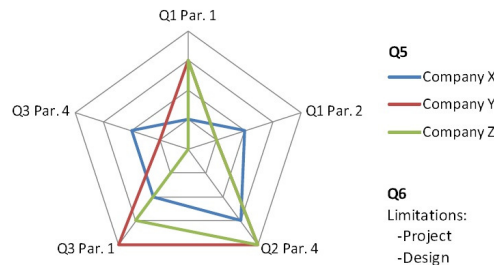
Q6 What are our time scope and size ambitions?: What are the limiting conditions for the project

Abstract situation



Secondly, the answers to the Q1 -Q4 in the situation analysis are made abstract by means of standardized parameters. Parameters are the “knobs” and “handles” used to change a business model. Q5 is answered by doing the same analysis for the competition and Q6 results into a list of limiting conditions set for the project

Opportunity recognition

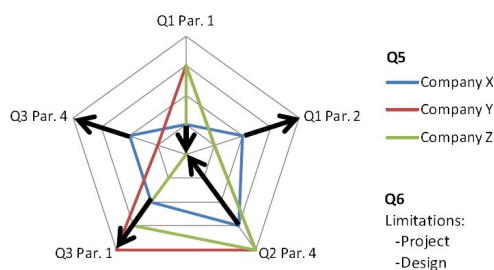


Thirdly, opportunities can be recognised by answering the following questions:

- To what degree do we fulfil the customer’s need?
- What else can we use our competences for?
- What can we learn from our competitors?
- Which trends can be used in this setting?

Answering these questions results in a set of parameters that can make use of these opportunities.

Selecting extremes



Finally, a decision needs to be made concerning the value the parameters need to be set at. Since the goal is breaking dominant logic, the choice is limited to setting the parameter extremely high or low. This final list of extremes are then the search criteria, which are used for finding proven business cases.

e.g. Selection criteria for the chart: Q1 Par 1 Low, Q1 Par 2 High, Q2 Par 4 Low, Q3 Par 1 High, Q3 Par 4 High

Preface

This master thesis is the final test for my Master in Innovation Management at the Eindhoven University of Technology. The research is an assignment from the School of Industrial Engineering and Innovation Sciences and Six Fingers.

In my second year, I asked Isabelle Reymen to be my 1st and Ksenia Podoyntsina as 2nd supervisor. To this day I am very glad with that decision. They have supported and coached me throughout the entire period. With their help I was able to overcome the scientific hurdles that come with graduating at a technical University. Even though my background lays in another field of expertise, which made writing a scholarly paper difficult, their help and advice made the report you see before you today possible. I would like to take this opportunity to thank them from the bottom of my heart for their advice and support.

Furthermore, I would like to thank all employees of Six Fingers who have supported me throughout the months I was doing my research. Their never ending encouragement and great lunches helped me through the difficult periods encountered in a graduation phase.

Finally, my thanks go out to my family and friends whom I have neglected throughout these last months. Everyone has shown great understanding and care. Especially my girlfriend who supported me when needed and never made a problem of the long hours that went into research instead of into social activities.

Willem Verstraten

January 2012

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1 Introduction

The importance of business model innovation has been stipulated by IBM's research: firms engaging in active business model innovation report significantly higher financial performance than their counterparts (IBM, 2009). This leads to an ever increasing need for differentiating business models. The advance and adoption of technological innovations offer a solution, for they have opened up countless possibilities in business model innovation (Zott and Amit, 2010).

This might be the reason for the growing interest in business model innovation by researchers. Even though business model innovation is a fairly new subject, some articles have been published on the process of business model innovation (Osterwalder et al, 2010., Mcgrath, 2009., Zott and Amit, 2010) and on barriers to business model innovation (Chesbrough, 2010).

Chesbrough (2010) , Mullins and Komisar (2009) have indicated the importance of taking different sectors into account during the business model innovation process. Firms can transfer knowledge from different sectors towards their own. Research by Gavetti et al (2009) indicated that during the transfer process of organizational knowledge between firms, it is imperative to follow a systematic procedure. However, on the level of business models it is unclear what such a systematic procedure should look like.

A similar gap has been found in practice at a consultancy firm named Six Fingers. Here the selection and transfer of business models is used in order to help clients solve their strategic, business model and organizational problems. Six Fingers faces a number of problems related to the selection of cases. This means that this study will try to solve a gap in the literature as well as improve the selection procedures at Six Fingers, which leads to the following research question:

How can proven business cases from other sectors be selected for use in business model innovation?

In order to guide this study the reflective cycle by van Aken et al (2007) will be used, which will affect the study itself as well as the lay-out of this report. For the structure of this report this means that first the theoretical background will be discussed, then the approach and methodology used in this project, subsequently the analysis of the problem and process, followed by the new design and as closure the discussion and conclusion.

2 Theoretical background

In order to answer the above research question, the current state of the literature concerning the subject is discussed. First the concept of a business model is defined. After that, two business model frameworks are given, which can be used to chart different business models and compare them. Next, general business model types with which classes of business models can be subdivided are discussed. Finally, attention will be paid to business model innovation and business model innovation via the selection and transfer of proven business cases from other sectors.

2.1 Definition

What exactly are business models? According to Teece (2009) "a business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering that value." This definition will also be used in the remainder of this paper.

Teece (2009) emphasizes that a business model is more a conceptual model than one focussed purely on finances. It incorporates costs and revenue, but only to come to the value created and captured. This also makes it more difficult to place business models in one area of research. Morris et al (2005) have analyzed thirty different definitions and concluded that all present some form of value delivered. However, definitions differ in which field this should be done. Their research has shown that there are three general categories that summarize all definitions: Economic, Operational and Strategic. This coincides with work from Amit and Zott (2001), which already stated that it is impossible to explain all value delivered and captured by a firm with just one theory. This means that a business model is more than just a revenue model or a strategy, but a combination of all value creating theories. A business model encompasses more detail than a strategy, but is not as specific as a full operational model. Next to that, the goal of a business model is twofold. It serves as a narrative tool for conveying and discussing the value of a firm and it is a calculative device for measuring performance (Daganova, 2009).

2.2 Business model frameworks

In order to make it easier to analyze and compare business models, they need to be coded according to a framework. To adhere to the definition of a business model by Teece (2009), as defined in the previous paragraph, a framework has to at least incorporate all points shown in Figure 1. Two different frameworks will be discussed that contain all these criteria. One based on the empirical study by Morris et al (2005) and the other on a framework which originates from the practice, by Osterwalder et al (2010).

2.2.1 Morris

As discussed in section 2.1, Morris et al (2005) analyzed over thirty different definitions of a business model. From this they deduced that a business model depicts all value created by a

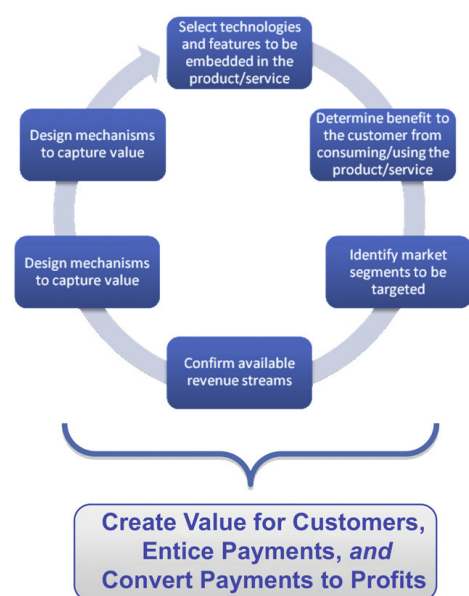


Figure 1 Elements of a business model (Teece, 2009)

firm and has three managerial purposes: Economic, Operational and Strategic. This in turn distilled into a framework with which business models can be coded. In order to reflect the managerial purposes, their framework analyses a business model on three levels. Next to that, they offer, per level, six questions. The combination of the levels and the questions leads to the matrix shown in Figure 2.

	Foundation	Proprietary	Operational
How to create value?	X	X	X
Who do we create value for?	X	X	X
What is our source of competence?	X	X	X
How do we competitively position ourselves?	X	X	X
How do we make money?	X	X	X
What are our time, scope and size ambitions?	X	X	X

Figure 2 Morris’ 2005 framework

The foundation level is a more generic level, which allows the general classification of business models. It helps to compare different models with a similar structure. Morris et al (2005) offer a fixed number of choices per question for this level. This leads to around 12.7 billion different business models, not taking into account that some options are mutually exclusive. Next, the proprietary level is used to obtain unique combinations. In this level the foundation components are applied, case specific, in order to find unique approaches and obtain competitive advantage.”It entails innovation unique to a particular venture” (Morris et al, 2005). All components in this level interact, which makes it extra hard for competitors to copy it partially.

Finally, the third level, or rules level, contains a basic set of operating rules. These guidelines make sure that the elements of the foundation and proprietary level are reflected in ongoing strategic actions. Rules and guidelines are important when using a

Customer segments: describes the different groups of people or organizations an enterprise aims to reach and serve;

Value propositions: describes the bundle of products and services that create value for a specific customer segment;

Channels: describes how a company communicates with and reaches its Customer Segments to deliver a value proposition;

Customer relationships: describes the types of relationships a company establishes with specific Customer Segments;

Revenue streams: describes the cash a company generates from each Customer Segment (costs must be subtracted from revenues to create earnings);

Key resources: describes the most important assets required to make a business model work;

Key activities: describes the most important things a company must do to make its business model work;

Key partnerships: describes the network of suppliers and partners that make the business model work;

Cost structure: describes all costs incurred to operate a business model.

Figure 3 Building blocks, as defined by Osterwalder et al (2010)

model in practice. “Consistent adherence to basic principles can distinguish two companies having otherwise similar models” (Morris et al, 2005).

2.2.2 Business Model Canvas

Alexander Osterwalder and Yves Pigneur wrote a blog in 2004 on the subject of business models. After some time they noticed that their model was being used more and more in practice, which made them decide to write a book. In order to get the support from the field they allowed everyone interested in the subject to co-author, which led to the book Business Model Generation, a joint effort of 470 consultants, entrepreneurs and managers (Osterwalder et al, 2005. Osterwalder et al, 2010).

According to Osterwalder et al (2010) a business model describes the rationale of how an organization creates, delivers and captures value. This definition coincides with the one discussed in 3.1. They state that a business covers four main areas: customers, offer, infrastructure and financial viability. In order to analyze the value present in a business they divided a business model into nine

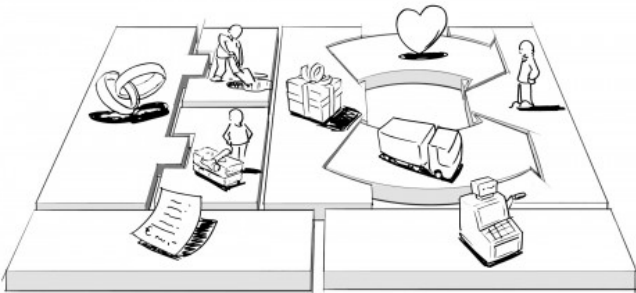


Figure 4 Business Model Canvas by Osterwalder et al (2010)

different building blocks, which in turn encompass the four main areas. These blocks are defined in Figure 3.

These nine building blocks were put together into a format, as shown in Figure 4. An additional strength of this framework is that it becomes very clear that all different blocks interact. Osterwalder et al (2010) have designed their model this way in order to make it a strong narrative tool.

2.2.3 Osterwalder vs. Morris

Both models try to explain the value generated and captured. Both seem to do this in a similar manner. In Figure 5 the building blocks of Osterwalder et al (2010) are compared to the questions by Morris (2005).

	<i>Osterwalder, et al 2010</i>	vs.	<i>Morris (2005)</i>
1	Key activities, Key resources, Key partners	vs.	How do we create value? What is our source of competence?
2	Customer segments	vs.	Who do we create value for?
3	Value proposition	vs.	How do we competitively position ourselves?
4	Cost structure, Revenue streams	vs.	How do we make money?

Figure 5 Comparison of two business model frameworks: Osterwalder et al 2010 vs. Morris (2005)

The final question in Morris, “What are our time, scope and size ambitions?” , does not appear in the model of Osterwalder et al (2010). There is no notion of a strategy for growth and exit. However, as can be seen above most of the information contained in one model is also in the other. This means that for these two models practice and science try to measure the same parameters, but apply a different segmentation to achieve this.

2.3 Different business model typologies

There are different approaches to how types of business models can be classified. Three have been identified: design themes (Zott and Amit, 2007), patterns (Osterwalder et al, 2010) and asset rights (Malone et al, 2006). They are discussed in this section.

Zott and Amit (2007) identified four commonly used design themes: efficiency, novelty, lock-in and complementary. They note that these are not mutually exclusive, meaning that a firm can have a novel theme with lock-in combined. Next to that, this list is not exhaustive. First, efficiency centred designs are focused on transaction efficiency. They try to reduce the transaction costs for all stakeholders and thus increase value. Secondly, novelty centred business models refer to “new ways of conducting economic exchanges among various participants” (Amit et al, 2007). Examples of this are by connecting previously unconnected parties, by linking transaction stakeholders in new ways, or by creating new transaction mechanisms. Thirdly, lock-in themes enhance the amount of repeat purchases and the incentives for strategic partners to maintain and improve their relationships with the firm. Finally, complementary oriented themes aim to package a bundle of value products/services together in order to gain more value than the sum of the individual products.

These design themes, led Zott and Amit (2007) to conduct research on which themes perform better in certain situations. Their 2007 work focused on the relationship between the performance of entrepreneurial firms and the design theme of their business models. The results revealed that novelty centred business model design has a positive effect on this relationship. Next to that, this positive effect was stable over time. Furthermore, important to note for the subject of this literature review, environmental differences also did not affect the relationship. Finally, they found indications that trying to add both efficiency- and novelty centred design elements into one

The concept of the “**unbundled**” corporation holds that there are three fundamentally different types of businesses: customer relationship business, product innovation businesses, and infrastructure businesses. Each type has different economic, competitive and cultural imperatives. The three types may co-exist within a single corporation, but ideally they are “unbundled: into separate entities in order to avoid conflicts or undesirable trade-offs.

Long tail business models are about selling less of more: they focus on offering a large number of niche products, each of which sells relatively infrequently. Aggregate sales of niche items can be as lucrative as the traditional model whereby a small number of bestsellers account for most revenues. Long tail business models require low inventory costs and strong platforms to make niche content readily available to interested buyers.

Multi-sided platforms bring together two or more distinct but interdependent groups of customers. Such platforms are of value to one group of customers only if the other groups of customers are also present. The platform creates value by facilitating interactions between the different groups. A multi-sided platform grows in value to the extent that it attracts more users, a phenomenon known as the network effect.

In the **free** business model at least one substantial customer segment is able to continuously benefit from a free-of-charge offer. Different patterns make the free offer possible. Non-paying customers are financed by another part of the business model or by another customer segment.

Open business models can be used by companies to create and capture value by systematically collaborating with outside partners. This may happen from the “outside-in” by exploiting external ideas within the firm, or from the “inside-out” by providing external parties with ideas or assets lying idle within the firm.

Figure 6 Five patterns as defined by Osterwalder et al (2010)

business model may lead to counterproductive results. This research only applies to entrepreneurial settings, but is an indication that performance differences might affect other areas also. Further research will be needed to prove this.

Osterwalder et al (2010) use a similar concept: Patterns. These patterns describe business models with a similar arrangement of building blocks, as explained in 2.2.2. Business Model Canvas. In their book they discuss five different business model patterns often used in business literature: Unbundling Business Models, The Long Tail, Multi-Sided Platforms, FREE as a business model and Open Business Models. These five patterns are explained in Figure 6.

Malone et al (2006), in their working paper, defined four basic business models based on what kind of asset right is being sold:

- Creators: buy components and resources and then transforms or assemble them;
- Distributors: buys and sells products without adding anything to the product itself;
- Landlords: license an asset. This means that they sell only the right to use an asset for a set time. Under this basic model both physical as well as financial loans are counted;
- Brokers: are forms where the process between a buyer and a seller is mediated.

Within these four rights that are being sold, they also defined four types of assets:

- Financial assets: include cash and other assets like stocks, bonds and insurance policies;
- Physical assets: are durable items and nondurable items;
- Intangible assets: include legally protected intellectual property as well as other assets like knowledge goodwill and brand image;
- Human assets: includes people their time and effort.

By using this framework, which is depicted in Figure 7, 10.970 publicly traded US firms were classified. The business models in red represent a group which is most common. Another conclusion from the study is that there seems to be a consolidation in the amount of business models used. Firms are conforming to business model norms. Important for this study is the fact that some models perform better than others, finance wise. “Manufacturers and physical landlords have greater cash flow on assets and intellectual landlords have poorer Tobin’s Q, than physical distributors” (Malone et al, 2006).

		What Rights are being sold?			
		Creator	Distributor	Landlord	Broker
What type of asset is involved?	Financial	Entrepreneur	Financial Trader	Financial Landlord	Financial Broker
	Physical	Manufacturer	Wholesaler/ Retailer	Physical Landlord	Physical Broker
	Intangible	Inventor	IP Trader	Intellectual Landlord	IP Broker
	Human	Human Creator	Human Distributor	Contractor	HR Broker

Figure 7 The sixteen Business Models as defined by Malone et al 2006

Further research will be needed to see what the best object for transfer is: design themes (Zott and Amit, 2007), patterns (Osterwalder et al, 2010) and asset rights (Malone et al, 2006).

2.4 Business model innovation

“Business model innovation occurs when a firm adopts a novel approach to commercializing its underlying assets”(Gambardella et al, 2010). This is a process which has become a necessity for any firm. In order to survive, they have to constantly develop and adapt their business models in order to match the needs of the market, be unique and optimize the value delivered (Wirts et al, 2010). This is relevant , because as mentioned in the introduction, firms active in business model innovation achieve a better performance than their counterparts (IBM, 2009).

Three types of business model innovation can be identified: innovation in revenue models, industry models and enterprise models (IBM, 2009). Research by IBM (2009) found that each type can lead to success. However, older companies benefit more from innovation in enterprise models that focus on external collaboration and partnerships.

It is hard to get the correct business model in one try and multiple iterations and experiments are needed to come to an optimal solution (Chesbrough, 2010., Mullins et al, 2009., McGrath, 2009). This also goes for start ups. Mullins et al (2009) found that start-ups seldom achieve a break through with their “plan A”. In order to innovate, next to experimentation, Chesbrough (2010) found three other important facilitators: the use of mapping techniques for designing business models, the use of an

1. **Mobilize:** Assemble all the elements for successful business model design. Create awareness of the need for a new business model, describe the motivation behind the project, and establish a common language to describe, design and analyze and discuss business models;
2. **Understand:** You and the business model design team immerse yourselves in relevant knowledge: customers, technology and environment. You collect information, interview experts study potential customers and identify needs and problems;
3. **Design:** Transform the information and ideas from the previous phase into business model prototypes that can be explored and tested. After an intensive business model inquiry, select the most satisfactory business model design;
4. **Implement:** Implement the selected business model design;
5. **Manage:** Set up the management structures to continuously monitor evaluate and adapt or transform your business model.

overall structured guiding process and finding the right people/mindset for experimentation/business model change.

Mapping techniques were already discussed in 2.3. However these mappings also need a guiding process. Below such a general guiding process is discussed.

In order to guide the business model innovation and design process Osterwalder et al (2010) developed a five step guideline. For every step in this guideline they use different tools, which are described in their book and will not be added here. Before one starts with the steps Osterwalder et al (2010) first stress the importance of a design attitude, meaning that all “designers” involved must be willing to explore many possibilities and spend time and energy whilst doing so, without choosing one solution too quickly. The five steps are: Mobilize, Understand, Design, Implement and Manage. A detailed explanation can be found in Figure 8.

In their 2010 working paper, Zott and Amit (2010) list six questions that need to be answered during a business model innovation process:

Figure 8 Business Model Design process as defined by Osterwalder et al 2010

- What is the objective of the new business model?
- What novel activities are needed to satisfy the perceived needs?
- How are these activities linked to each other
- Who performs each of the activities that are part of the business model?
- How is value created through the (novel) business model for each of the partners?
- What focal firm revenue model allows it to appropriate part of the value created from the business model?

Another solution to the problem of innovation is effectuation, as researched by Sarasvathy (2001). The concept of effectuation is not focussed on business models, however Chesbrough (2010) suggests that it can be used in this context. Effectuation is the opposite of causation. When creating a firm it advocates an approach where one does not do an elaborate market research and plans out all details in advance, instead it offers an action oriented approach. Start small with a rudimentary idea and with every step new information becomes available and can be used to further refine the processes and ideas. Especially for start ups and firms with small budgets this method can offer a solution.

The third requirement for innovation was a culture and management that can facilitate innovation and experimentation. Mcgrath (2009) also found that, in the business model innovation by experimentation process, internal barriers need to be resolved first. In order to counter this problem, she designed the Discovery Driven Approach. The core of this approach is: that in an uncertain and complex world a management team should still feel free to experiment, whilst keeping the expenses in check. It also is an action based approach. By means of experiments more information becomes available and economic assumptions become explicit. In order to achieve this they define five disciplines which should be imposed on managers:

- Specification of the frame. It should be clear for everyone involved what the long term goals are. These goals should be communicated clearly and unambiguously;
- The discipline of competitive achievement and market reality. The benchmark parameters need to be defined in terms of the key performance indicators that are need to make the project succeed in a competitive environment;
- Specification of organizational deliverables. The goals and strategy need to be transformed to concrete operational implementable actions;
- Document, test, and revisit assumptions. Go back and re-check everything. Convert as many assumptions as possible to knowledge at a minimum cost;
- Planning to learn at key milestones. At every milestone more assumptions can be converted to knowledge. This also creates a more open milestone plan for employees. It is an incentive to learn from milestones instead of a point where mistakes need to be covered up.

In all these innovation processes some form of ideation is needed. The difference lies in the amount of detail put into this phase and the number of iterations used to get to an optimal solution. An option to fill this part of the innovation process is by means of borrowing and transferring ideas from other sectors, which is, as mentioned in the introduction, the focus of this study.

2.5 Business model innovation by means of selection and transfer

Only one article was found that directly relates to the selection and transfer of proven business cases for business model innovation , is research done by Kamprath (2010), however this paper has not yet been published. Kamprath (2010) suggests that the process of business model innovation by means

of analogies can be divided into two halves, which is displayed in Figure 9. The first half is the “Market and Business Model identification” and the second the “Business Model innovation through identification and transfer”. Both involve an analogy transfer. “The first transfer is the identification of similarities between sectors as well as companies (Gavetti & Rivkin, 2005). The second analogy transfer is related to the identification of best practises and the final implementation/adoption of the business model inspiration (Enkel & Dürmüller, 2008; Kalogerakis et al., 2005; Kalogerakis et al., 2010). Therefore one can speak of a double-analogy cross-industry process for business model innovation.”

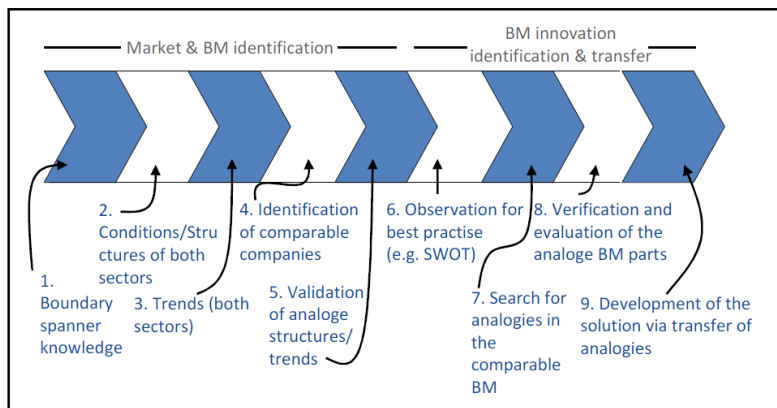


Figure 9 Analogy process by Kamprath 2010

In order to offer a wider view, selection and transfer methods were found in a few other areas of research: Analogical reasoning, Case based reasoning, Best practice transfer, Cross industry innovation and TRIZ. The proven processes and models discussed below could be used to find the optimal process for the business model innovation process via selection and transfer.

2.5.1 Analogical reasoning

Analogical reasoning is the “process of mapping from a source context of prior experience to the current, ‘target’ context (Gavetti et al, 2005).” Since it is a psychological process it can be used for any subject matter. This also means that, analogical reasoning can function as tool to discover effective competitive positions or business models.

Gavetti et al (2005) show that the following steps are taken during the analogical reasoning process: “When reasoning by analogy, an individual starts with a situation to be handled—the target problem. The actor develops a mental representation of the target problem, a lowerdimensional sketch that, in the actor’s view, captures the salient characteristics of the situation. She then uses some computational procedure to scour other settings with which she is familiar, due to either direct or vicarious experience, and identifies a setting that displays similar salient characteristics. This setting serves as a source of a candidate solution. The individual then transfers the candidate solution and applies it to the target problem”(Gavetti et al, 2005). When using analogical reasoning one focuses on the relationships between objects and does not consider the objects themselves (Tsoukas, 1993). In other words keep the structure, but loose the content.

Research by Gavetti et al (2005) has found a few drivers that can improve the use of analogical reasoning in management/business settings. The most important step in this process is to have a good representation of the target environment. The user of analogical reasoning needs to know exactly what drives the environment and this also goes for the environment to which the analogy is made. If one makes an analogy and fails to discover the value drivers there is a large chance of failure. When a valid system for categorizing environments and analyzing lessons learned is used, performance goes up. Only if this base is covered the breadth and depth of experience the user has starts to play a role. The effect of the depth of experience is minimal, beyond a modest level. The breadth however shows performance gain. In the context of this study this would mean that it is important to know of a lot of different industries superficially, on which the analogical reasoning will be based. Only during the process extra detail is needed in order to make the correct representation of the environment mentioned above. Finally, it is better to learn from some kind of source, even a bad one, than to just start randomly changing ones configuration of an organization.

2.5.2 Case based reasoning

Case based reasoning, according to van Aken et al (2007), is the search for similar already realized and well documented cases and use these to predict the performance of the new object on the basis of a comparison. Case Based Reasoning is a technique which is most commonly used in the fields of information technology, artificial intelligence, architecture and R&D.

In essence Case Based Reasoning is a problem solving method. “Instead of relying solely on general knowledge of a problem domain, or making associations along generalized relationships between problem descriptors and conclusions, cased based reasoning is able to utilize the *specific* knowledge of previously experienced, concrete problem situations (cases)” (Aamodt et al, 1994). In other words, it is a form of incremental learning. Every time a problem is solved it is remembered/retained and can be used to solve similar cases. This is depicted in Figure 10.

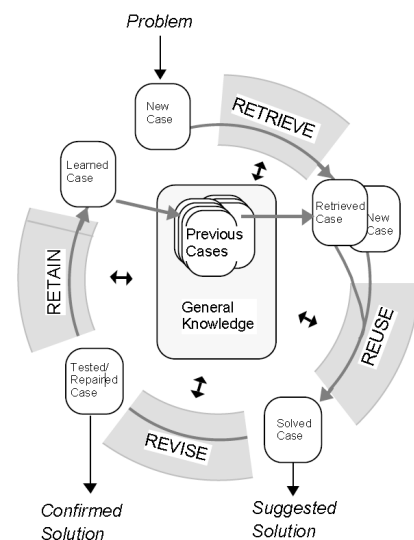


Figure 10 Case based reasoning model by Aamodt et al (1994)

2.5.3 Best practice transfer

There is a large body of knowledge on the transfer of knowledge and best practice transfer (Szulanski, 1996., Jensen et al, 2004., Done et al, 2011). However, most of this work focuses on the transfer between departments and business units, in other words intra-firm transfer. This transfer has been proven to be a significant factor in competitive advantage (Jensen et al, 2004). Szulanski (1996) found four steps which are taken in this process: initiation, implementation, ramp-up, integration.

Next to designing a framework, Szulanski (1996) also did research on the barriers that occur during the transfer process. Their research shows that barriers mostly originate from the characteristics of the practice, such as comparability with the original, motivational factors or environmental factors or

of a lesser influence. The three barriers with the highest influence are: causal ambiguity, absorptive capacity of the recipient and arduous relationships.

Follow up research by Jensen and Szulanski (2004) suggests another important finding for transfer. Previous research has shown the importance of fitting the best practice with the local environment. However, their results indicate that the adaption of the best practice should be done after the practice has been transferred and implemented.

2.5.4 Cross industry innovation

The main literature stream for Cross Industry Innovation focuses on product innovation. In line with this research, Brunswicker et al (2010), developed a cross industry searching strategy. Within this strategy there are four dimensions that guide managerial actions and interventions. The dimensions should not be treated independently, since they interact and influence each other.

- Search field (Where to open): the search field describes the market and technology dimension of innovation. Market trends need to be described, including potential value propositions, and linked with the firm its technological competencies.
- Search domain (Where to search): This domain describes potential solvers of a distant industry, which have a relationship with the seeker. Brunswicker et al (2010) advice the use of system and functional analysis for the identification of abstract functional relationships.
- Search objective (What to search): In order to ensure an efficient search process, it is imperative to know exactly what one wants to find. Is the goal: a large amount of raw ideas or a few elaborated invention principles.
- Search method (How to search): The final dimension deals with how the innovations can be found. "Search methods can be classified along a continuum of search among group of unknown outsiders in small networks with close interactions" (Brunswicker et al, 2010).

2.5.5 Framework based on transfer - TRIZ

TRIZ is, a framework for problem solving and analysis, totally based on knowledge transfer and abstraction. In order to explore the possibilities for using TRIZ in the business model innovation by transfer process, an overview of the literature on TRIZ is given below. However, not much scientific valid research is available on this subject. A possible reason for this is given by Souchkov (1999): "TRIZ uses a great diversity of inexact knowledge categories, which makes finding empirical evidence difficult (Souchkov, 1999)."

	Weight of moving object	Weight of immobile object	Length of moving object	Length of immobile object	Area of moving object	Area of immobile object	Volume of moving object	Volume of immobile object	Speed	Force	
	1	2	3	4	5	6	7	8	9	10	
1	Weight of moving object	-	15, 8, 29, 34	-	29, 17, 38, 34	-	29, 2, 40, 28	-	2, 8, 15, 38	8, 10, 18, 37	
2	Weight of immobile object	+	-	10, 1, 29, 35	-	35, 30, 13, 2	-	5, 35, 14, 2	-	8, 10, 19, 35	
3	Length of moving object	8, 15, 29, 34	-	+	-	15, 17, 4	-	7, 17, 4, 35	-	13, 4, 8, 17, 10, 4	
4	Length of immobile object	35, 28, 40, 29	-	+	-	17, 7, 10, 40	-	35, 8, 2, 14	-	28, 10	
5	Area of moving object	2, 17, 29, 4	-	14, 15, 18, 4	-	+	-	7, 14, 17, 4	-	29, 30, 4, 19, 30, 35, 2	
6	Area of immobile object	-	30, 2, 14, 18	-	26, 7, 9, 39	-	+	-	-	1, 18, 35, 36	
7	Volume of moving object	2, 26, 29, 40	-	1, 7, 4, 35	-	1, 7, 4, 17	-	+	-	29, 4, 38, 34, 15, 35, 36, 37	
8	Volume of immobile object	-	35, 10, 19, 14	19, 14	35, 8, 2, 14	-	-	+	-	2, 18, 37	
9	Speed	2, 28, 13, 38	-	13, 14, 8	-	29, 30, 34	-	7, 29, 34	-	+	13, 28, 15, 19
10	Force	8, 1, 37, 18	18, 13, 1, 28	17, 19, 9, 36	28, 10	19, 10, 15	1, 18, 36, 37	15, 9, 12, 2, 36, 18, 37	13, 28, 15, 12	+	

Figure 11 Part of the contradiction matrix by Altshuller

TRIZ is a Russian abbreviation which, translated, stands for Theory of Inventive Problem Solving. It is a design methodology which was developed in 1946 by G. Altschuller. The underlying idea and starting point of TRIZ was that inventions/innovation can be determined and guided by more than just luck and creativity. Altschuller came to the conclusion that invention is nothing more than the removal of technical contradiction based on certain principles. In order to find these contradiction and principles Altschuller analyzed over 40.000 patents and sorted them, based on patterns of design and the principles in these innovations. This analysis resulted in 1500 contradictions, based on 39 parameters and solvable with 40 principles. These principles are on such an abstraction level that they can be transferred to any technical problem area. With this data Altschuller devised a contradiction matrix (Mann, 2007). Part of this matrix is shown in Figure 11. In order to use TRIZ one has to go through the following steps:

1. Clearly define the true problem. Important in the TRIZ method is that this is done without compromises. In other words, as AND and not in OR. The goal of this is that problems that are seen by others as fundamental are challenged;
2. Determine the contradictions. What do you want to achieve and what is stopping you;
3. Find the corresponding cell in the contradiction matrix and list all inventive principles;
4. Use these principles for ideation and problem solving.

In short this means that one goes from a specific problem to a generic problem, the process of abstraction, come to a generic solution and translate this to a specific solution. Another very important principle in order to use TRIZ correctly is the principle of ideality (Mann, 2007). The basis of this concept is that during any problem solving process one should try to work towards the ideal solution, in other words search for a super system. What kind of product would the customer of a detergent firm really want? A normal response would be: a product which can clean all stains. However, TRIZ forces the user to think about the ideal system: clothes that do not get dirty. This reasoning can also be used in management/business. Customers want a business model which delivers a product/service that is perfect, free and available now (Mann, 2007).

TRIZ found a large foothold among Russian scientist and was brought abroad before Altschuller his death. However, in order to keep up with innovation Altschuller et al and later Mann et al kept adding more patents leading to 48 standards in 2003 (Mann, 2007). This also meant that TRIZ was and is being changed by a large number of consultants and researchers. The result of this is an enormous amount of TRIZ tools and different forms of TRIZ.

2.5.5.1 TRIZ in engineering

Moehrle (2005) found 40 different applications of TRIZ in his research. This means that hardly one firm ever uses TRIZ in the same manner. Since TRIZ is comprised of an ever increasing set of tools, firms match and meet them to their requirements. Moehrle (2005) looks at 16 different TRIZ tools which can be traced back to the original TRIZ. All these tools can be divided into five different classes that separate the TRIZ process:

- “Current state: What does the current situation look like?”
- Resources: Which resources are available?

- Goals: Which goals need to be fulfilled?
- Intended state: What is the future situation supposed to look like?
- Transformation: In which way can the current state be transferred into the intended state? (Moehrle, 2005)”

Every class needs to be filled to some degree for any inventive/innovation process. However, with which tools and to what degree can differ. In order to analyze the differences between firms Moehrle (2005) used a cluster analysis. This analysis shows that there are three subsets which are being used:

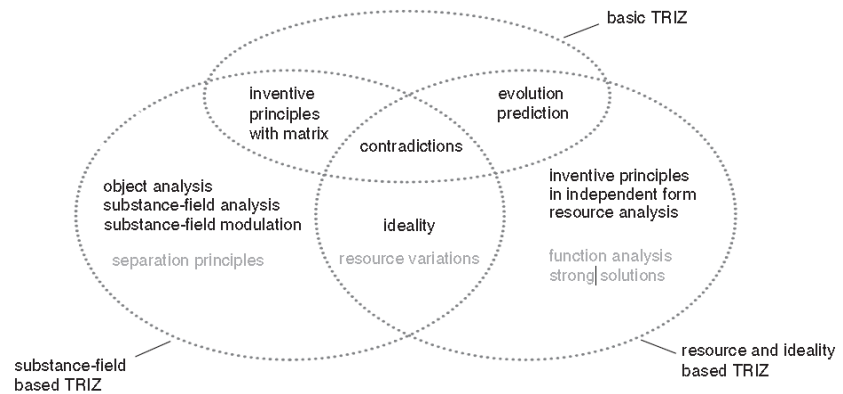


Figure 12 The three sub-sets of TRIZ tools as defined by Moehrle 2005

- **Basic TRIZ:** Consists of the basic TRIZ concept, namely thinking in contradictions and using the inventive principles;
- **Resource and ideality based TRIZ:** the same as with the basic version (however the principles are used without the matrix), but added to this is thinking in ideal forms (super-systems), evolution based reasoning and resource thinking (analyzing substances, fields, space, time, informational, and functional resources);
- **Substance field based TRIZ:** Again the same as basic TRIZ, plus substance field analysis and modulation.

This has been depicted in Figure 12. Sequential analysis did not reveal a pattern in the usage across industries. Moehrle (2005) suggests that the choice of which subset to use is dependent on the state of the firm: new to TRIZ, experienced etc.

No scientific published research on this matter has been found in the field of management, especially business models. This research by Moehrle (2005) is an important indication that also in the latter field further research might be valuable and that the selection of TRIZ tools might be situation dependent.

2.5.5.2 TRIZ in management

The above shows the use in engineering; however this study has a business model innovation focus. Mann (2007) came to the conclusion, in the mid nineties, that the patterns in product innovation could also be seen across disciplines, thus also in business and management. Yearly around 1800 management texts are published. So in order to prove his beliefs Mann analyzed one year’s worth of published texts. In order to analyze a firm he split it into five main areas: R&D, Production, Supply, Support and a large cluster of things relating to the customer. These were then subdivided into 31 parameters. This combination of the 40 original inventive principles and the 31 parameters, leads to a new contradiction matrix for business and management. Were the contradictions are linked to the

inventive principles based on the management texts rather than patents. The process for this new form of TRIZ is the same as discussed previously in this chapter. However, nothing was found linking this process directly to business models, but can be used to solve business problems.

2.6 Barriers to selection and transfer

When selecting and transferring business models, internal and external barriers can influence the process. These are discussed below.

No literature was found directly related to barriers that affect the selection and transfer process. In order to give a sketch of the current literature, the barriers to normal business model innovation and innovation in organizations and strategies were considered. Chesbrough (2010) gives an overview of internal barriers to business model innovation in general: the inability to choose the right business model and the inability of applying the new business model to the current situation. Both caused by the dominant design/identity trap set into place due to the experience with the existing business model. If these internal barriers are exactly the same for selecting and transferring existing business models from other sectors will need to be the subject of further research.

Externally, however, less is known. In the field of strategic and organizational change the influence of environmental characteristics has been researched (Boulton et al, 1982. Osborn et al, 1974). This has yet to be translated to business model knowledge. Osterwalder et al (2010) suggests a model with environmental characteristics that influence the business model design process. However, this has not been proven scientifically, let alone for the selection and transfer process of existing business models.

Finally, indications for the importance of network externalities (Xie et al, 1995), dominant designs (Utterback et al, 1995. Prahalad et al, 1995) and uncertainty/hostility/dynamism (Borneman et al, 2008) were found in different papers. All these factors might be important to take into account when selecting and transferring a proven business case to another sector. But further research will be needed to confirm this.

2.7 Discussion and conclusion of the literature

The goal of this chapter was giving an overview of the state of the literature regarding the chosen research question. There is a clear definition of what business models are and how they can be analyzed with the help of frameworks (Morris et al,2005. Osterwalder et al, 2010). Next to that, a number of ways to classify business models, with the help of different typologies, were found (Zott and Amit, 2007. Malone et al 2006. Osterwalder et al, 2010). Finally, the need for experimentation and the importance of: mapping techniques for designing business models, the use of an overall structured guiding process and finding the right people/mindset for experimentation/business model change during the business model innovation process has been stipulated (Chesbrough, 2010). In other words, business models and business model innovation have a foundation in literature. Knowledge from this can be applied to research question.

Some models were found on the selection and transfer of knowledge, however all published models that work with domain to domain transfer are not focused on business models. Next to that, they are also not focused on inter-firm transfer. Both Best Practice Transfer (Szulanski,1996) and Cased Based Reasoning (Aamodt et al, 1994) are used in intra-firm settings, i.e. knowledge within a firm or within

business units. The elements of these models might still serve as inspiration/guide lines of what such a process should look like. The different steps in all the models, i.e. Osterwalder et al their Business Model Innovation steps, best practice transfer, and case based reasoning, show quite some similarities. There is however one major difference between intra-firm transfer and inter-firm: the need to take the external into account. This means that not only the underlying resources on which the employed business model is build and the dominant logic present might be influential factors, but also environmental factors like dynamism, hostility, network effects etc. One unpublished model, however, was found which directly relates cross industry innovation to Business Models by Kamprath (2010). This means that there is a gap in the literature on Business Model innovation via the selection and transfer of proven business cases from other sectors.

3 Project approach

This chapter provides an overview of how the earlier stated research question was addressed. The core of the approach is a qualitative case study. A qualitative method was chosen, because of its ability to find the properties of processes (van Aken et al, 2007). These types of methods are oriented at the discovery of the qualities of things, i.e. the properties of objects, phenomena, situations, people, meanings and events.

“The use of qualitative research methods are particularly important if one intends to study people, groups, organizations and societies. For example, if you want to learn how people interpret their own situation, what their goals in life and work are, and what strategies they employ to reach those goals”(van Aken 2007). This is exactly what needs to be achieved, finding the strategies used to select a proven business case.

3.1 Case selection

In order to conduct case study research, first a case needs to be found. For this research, this means a case which also practices the selection of cases. A case was found in the form of a firm called Six Fingers. This firm uses the selection and transfer cases, in a consultancy setting, as their core business. With the help of the latter process, they can deliver innovative and differentiating propositions for marketing/strategic change. Within this case two objects of analysis were used: the entire process as one object and all the clients and proven business cases found at Six Fingers as another.

Six Fingers is a young and small firm founded in 2006, by the CEO Mr. Adams. The core business of Six Fingers is marketing/strategy advice and consultancy. This also means that the orders vary widely from product innovation to pure strategic consultancy. Currently Six Fingers has four full time employees. The firm was started from the private capital of the CEO, meaning that he is also 100% shareholder and that there are no other creditors that can limit or influence the direction the firm is going. Six Fingers, however, is a limited entity.

The services of Six Fingers focus on ideation and inspiration for their customers. Most assignments focus around repositioning of the customer, in order for them to differentiate from the competition. The focus lies on the front end of the process. This means that the execution of new ideas and plans is done by third parties. In order to accomplish this, the CEO developed a new theory/method named

Branchmarking®. Branchmarking, at its core, is the realization that everything has already been invented. For the process this means that, after analyzing a problem, one should look at other sectors for organizations that have tackled a similar problem. The solutions used by these firms are used as input for a brainstorm session with the customer. The ideas that arise from this session are then worked out and presented to the customer.

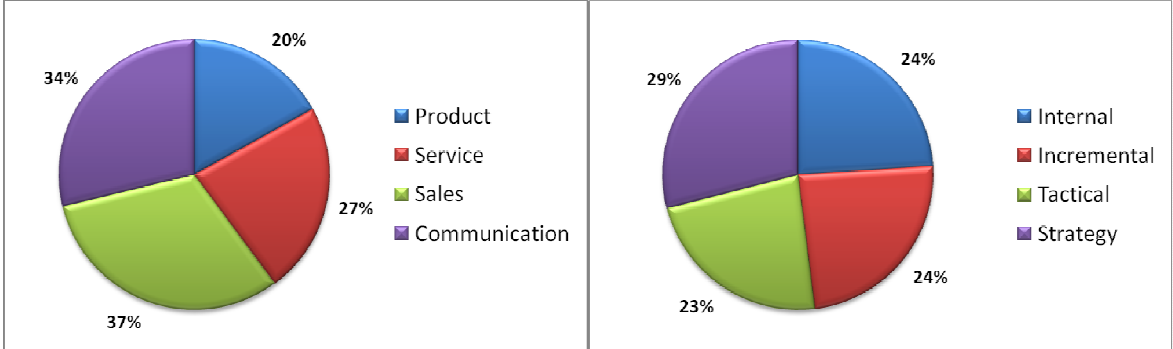


Figure 13 Concept by subject version 31-08

In order to prevent having to scan the entire world for cases every time a new order is won, a database was developed. This database is constantly updated in order to increase the number of proven business cases available and enrich cases already present. The enrichment of current proven business cases entails adding more info on sales, customer satisfaction, implementation etc. A proven business case focuses on a certain change/innovation and not directly on the firm involved. This also means that one firm can be in the database multiple times. This is needed to keep track of multiple changes which happen over time in a single firm. Currently it incorporates 710 proven business cases. The charts in Figure 13 are an indication of how the concepts are divided over different subjects.

The fact that Six Fingers is a young firm has a great impact on this process and the value proposition. Within the firm there is a strong believe in the Branchmarking methodology, however the process around this is still being fine tuned. This has a result that changes are made regularly and that the focus tends to switch.

Next to the Branchmarking process, marketing is also an important subject within the firm. Constantly new solutions are sought in order to reach more prospects and find new ways in order to convince these prospects of the added value of Branchmarking.

3.2 Method

The reflective cycle by van Aken et al (2007), as shown in Figure 14, was used in order to secure the academic quality and outcome of this research. The basis of the reflective cycle is the regulative cycle, by van Strien (1986) used for business problem solving activities. This entails the first five steps shown in Figure 14. The extra steps taken are for reflective purposes, which help to distil general knowledge. In

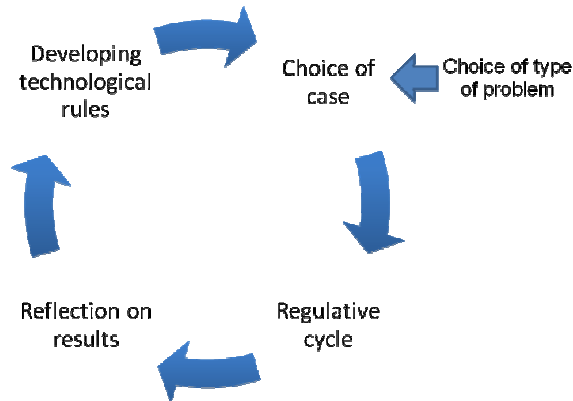


Figure 14 Reflective cycle van Aken et al (2007)

means, discovering at Six Fingers how proven business cases can be selected for business model innovation at Six Fingers and, subsequently, subtracting all Six Fingers specific elements. This leaves only generalized knowledge, which can be used for solving similar problems.

3.2.1 Problem oriented data collection and analysis

The first step taken is the analysis of the problems present at Six Fingers, with the goal of discovering the underlying relationships between the different problems.

Data collection

The data collection for the problem oriented analysis was done by means of interviews with the employees involved with the Branchmarking process. These all have different areas of expertise and different responsibilities, which makes their different viewpoints interesting:

- Rob Adams: Owner of Six Fingers and the inventor of the Branchmarking® method and all processes used to commercialize it;
- Bart van Leeuwen: Main user of the case database. Next to that, responsible for finding new proven business cases and elaborating upon them so that they can be entered into the database;
- Laurie Scholten: Responsible for the innovation and scientific grounding of the method.

Data analysis

The results from the interviews were analyzed afterwards. From this all problems were extracted and reordered based on the impact of the problem. Next to that, the problems were linked with the help of a cause and effect diagram. Finally, the focus of the research was chosen. In other words, which of

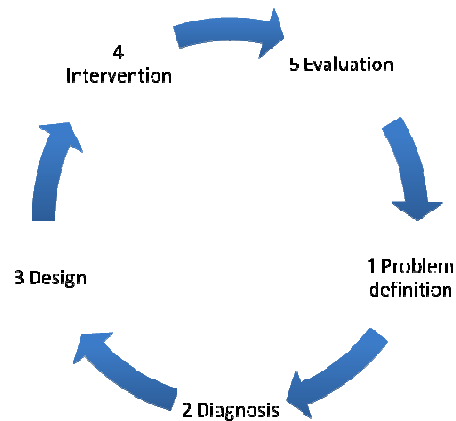


Figure 15 Regulative cycle by van Strien (1986)

other words, “The reflective cycle consists of choosing a type of business problem, solving that problem through the regulative cycle, reflecting on the results with the aim of learning from this project for similar projects, establishing preliminary technological rules, and then starting a new project dealing with the same type of problem”(van Aken et al, 2007). Practically this

the problems, that have the highest effect on the overarching problems, can be influenced/improved in a reasonable time- and budget-scale by the researcher.

3.2.2 Process oriented data collection and analysis

After an analysis of the problems, a full process analysis was done. This is essential to uncover all underlying problems and bottlenecks, which were not initially mentioned by the employees during the problem oriented analysis. During this analysis, attention was paid to the difference between the official process and the one that is actually used. Next to that, the internal requirements for the design needs to become clear. Finally, the evolution of the system will be taken into account. Meaning that Six Fingers tends to change their processes on a regular basis in order to improve their output. These changes were considered.

Data collection

In order to achieve the above, data was gathered in the following manners:

- Internal interviews were held with:
 - Rob Adams: Owner of Six Fingers and the inventor of Branchmarking and all processes used to commercialize it. This interview is important to find all the reasons behind all design choices in the current process;
 - Bart van Leeuwen: Main user of the case database. Responsible for finding problems to fill the database, enriching them and for solving problems. Of importance is the difference between the official process via the database and the one actually being used.
- Internal documentation was read: Six Fingers has invested in customer satisfaction and process effectiveness over the years. These reports are all available and form a rich resource for studying the quality of the process.
- Observation of two selection procedures for two different clients was done. All steps taken during the process were noted.
- The old Six Finger client cases were mapped. This was done in twofold:
 - The old client cases of Six Fingers were coded. The following variables were charted per client: Client Name, assignment date, related to an differentiation problem (yes or no), problem statement and the cases used.
 - For a number of clients Six Fingers has subdivided all ideas generated during a brainstorm session into overarching subjects and has linked the subjects back to the cases used for them. For all the clients where this was the case the following variables were coded: Client Name, overarching subject, number of ideas created and the cases used per overarching subject.

Data analysis

Firstly, the formal process of Six Fingers was mapped with the help of the interviews and internal documentation on processes available. Secondly, the actual practical implementation of the latter was situated. By doing this the discrepancy between the two could be analyzed. The analysis of the practical execution consists of a qualitative and quantitative part.

Qualitative

The interviews are firstly used to correctly chart the entire Six Finger process and then primarily analyzed on the problems directly underlying the process and inconsistencies found. Next to that, the internal documents are used for comments of the clients of Six Fingers on the process.

The next step is analyzing exactly how cases are selected. This was done by ordering the results from the interviews and comparing the different outcomes. These were then translated to a flowchart which details the entire process, including the transfer of the cases. Subsequently, the observations of the selection procedures were used to verify the latter. Next to that, they were used to find the subconscious steps taken by the users of the process.

Quantitative

The data gathered on the old Six Fingers clients has undergone a quantitative analysis. The following variables are of interest here:

- How often has a case been used? In other words, is there a tendency to overuse a number of cases.
- Is the case usage different between different types of assignments?

The problem- and process analysis are then used to create an overview of the most important problems encountered

3.2.3 Design oriented data collection and analysis

This section contains three subsections: first the data collection is discussed, secondly the design and finally how the developed selection processes were tested.

Data collection

In order to design the selection process new data input is needed. The focus of the data collection is on historical data, i.e. client cases from the past. Real-time observations would have been better than historical ones (Poole et al, 2000). However, because of the size of Six Fingers it would be difficult to get sufficient number of cases. Historical data has one large advantage: the bigger picture is already known and more information is available on what worked and what did not (Poole et al, 2000). Some real-time observations have been done, where possible, and used as extra input, but not for the main body of data.

Four sources were used for data extraction:

- Re-use of the data from the process analysis of the old Six Fingers clients. Where the TRIZ methodology was used, this data was also extracted;
- The 137 cases from the Six Finger case database that have been worked up into a presentable form were coded on the parameters that are available within them.
- The parameters used in the Six Fingers Strategy canvases and 75 strategy canvases from random firms were extracted;
- TRIZ workshop: Gertjan Otto: Part of the Six Fingers process is involved with TRIZ. Mr. Otto is a TRIZ expert and was consulted for the efficiency and effectivity in the way Six Fingers is currently incorporating TRIZ in their process.

Next to data, scholarly literature was also gathered. Existing literature can and was used as a source of inspiration. The following fields were studied:

- Business Model (innovation): The different frameworks, typologies etc were reviewed in order to find any possible added value for the selection processes.
- Cross industry innovation: A stream of literature focussed on product innovation, but is also involved with analogy based reasoning.
- TRIZ: The foundation of TRIZ is the reasoning by analogy, also for products.

Data analysis & design

The first step of the analysis is a translation of the problems found in the Six Fingers process into requirements. These give a guideline to which the design has to adhere. In order to do this in an orderly manner the requirements have been split up into: functional, boundary, user and design requirements, as suggested by van Aken et al (2007).

Two approaches were taken to come to a design: a top down and bottom up approach. The goal for both of the approaches is to find all the abstraction levels or layers that have to be taken to go from problem to case.

The top down approach starts at the problem side and goes deeper layer by layer. The literature and process as described in the process analysis will be used to find the rough and most abstract steps needed to select proven business models from other sectors. These are the steps that have to be given shape somewhere in the design.

The bottom up approach starts at the cases from the database. Here, the data on the parameters within the elaborated cases and the strategy canvases was used. All these parameters were ordered in order to find the overarching layer and the subdivision within that layer. From this the layers towards the input problem were derived.

Next to these approaches, the TRIZ workshop and the TRIZ literature were analyzed on possibilities of integrating TRIZ into the Branchmarking method, as per user request. The TRIZ method was split up into multiple steps, so that individual steps can be integrated into the larger design if desired.

In order to come to a usable design, sub-designs were presented and discussed during brainstorm sessions. With the help of these sessions multiple creative iterations were done to come to a workable design.

The design chapter ends with an analysis of the design. This is done with the help of two tools: a comparison between the design and the requirements and a SWOT-Analysis.

3.2.4 Testing

The testing was done in two-fold. First by means of user tests and secondly with a company test.

User test

The user test were at Six Fingers with the users present. Multiple user tests were organized in different forms during the design:

- Presentations: All sub-steps were presented to the users throughout the process, in order to check for validity and completeness;
- Brainstorm sessions: During the design phase multiple brainstorm sessions were held with some of the users for creation purposes.

Tests after the design:

- Case testing: All 137 proven business cases that have been worked up into detail were put through the system to test again for the completeness and coverage of the design. This was also done in fast succession in order to test the robustness of the design.
- Problem testing: Next to cases, problems were put through the design. This was done for five old client problems and two new ones that arrived during the testing phase. Attention was paid to the ease of use and completeness of the design.

3.2.5 Implementation plan

Since the actual implementation is not a part of this research, an implementation plan was written using the guidelines set in van Aken et al (2007). These guidelines suggest two phases: A preparation phase, which discusses the change analysis, the resistance analysis and the intervention strategies that need to be taken to counteract the resistances. The second phase is the action plan in which all actions needed to come to the desired changes were discussed.

3.3 Generating general knowledge

In order to generate general knowledge, the design needs to be analyzed based on which gaps it fills in the existing literature. As mentioned before, the reflective cycle by van Aken et al (2007) to guard the academic quality and output. This cycle suggests extracting design principles. However, since it is difficult to derive design principles from this type of research/ design the derived knowledge was not put into a standardized Design Principle format. This does however not change the steps in the process. From the practical field at Six Fingers Design solutions was drawn as discussed in the previous paragraphs. With this design it becomes possible to make an abstract of what has been learned towards the general. In other words general knowledge that can be applied generally and not only in a very specific case.

4 Analysis

This chapter contains the two forms of analysis: first the problem analysis and then the process analysis. Next to that, the problems and bottlenecks found by means of the analyses are put forward.

4.1 Problem oriented analysis

The problem definition is the first step in the regulative cycle. As mentioned previously Six Fingers faces many issues. Any firm always faces a large amount of interconnected problems. Exactly this is why problem definition is important, focus is needed in order to come to concrete solutions. In order to make a sketch of the problems present at Six Fingers interviews are held and the situation observed. With the help of the gathered data the cause and effect diagram is formulated and shown in Figure 16.

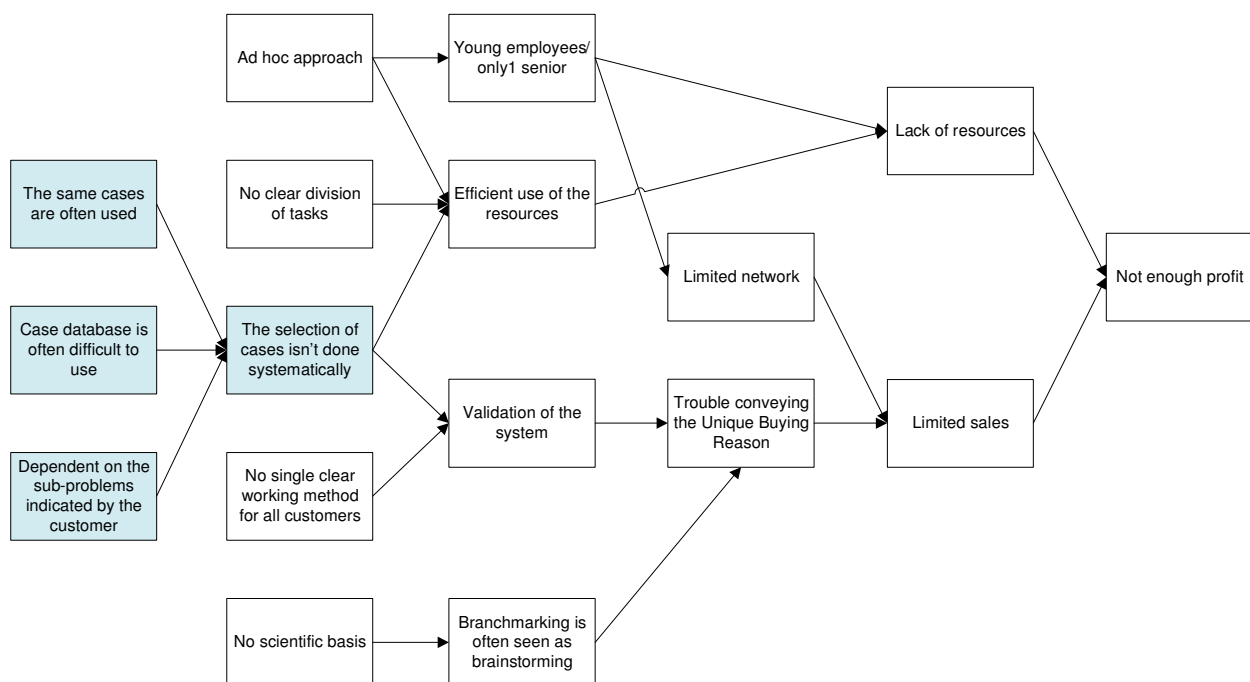


Figure 16 Cause and effect diagram: relationship between the research question and the broader problems faced by Six Fingers

Six Fingers is looking for paths to grow, however profit is needed to achieve this. Two reasons were found which limit the profit: there is a lack of resources to undertake more and larger projects and secondly the limited sales. The lack of resources originates from, again, two sources: Six Fingers being a young firm with young employees and not making effective use of these employees. This all leads to an ad hoc approach, problems are solved as orders are received and tasks are set to the employee that currently has time. The team also effects the sale capabilities, since the average available network per employee is small. Next to that, it is difficult to convey the advantage and uniqueness of the Branchmarking approach.

Six Fingers is having a hard time to sell their product, because it is difficult to prove the added value. However, after experiencing the Branchmarking process the clients are almost always very positive

and enthusiastic. This has led to a search for validation. Branchmarking works by means of a brainstorm-session, but it is much more than that. The method helps clients to break through their dominant logic and creates detailed ideas for implementation. The problem lies in getting the latter message across. One of the found reasons for this is the lack of validation and scientific proof that the method brings advantages over other similar methods. Next to that, because the system is not validated it is constantly subject to change. For every client the process is adapted. This is not bad in itself, but it means that for the sake of communication the right abstraction level to convey Branchmarking has not yet been found.

Next to that, the employees feel that even though the database has 710 cases, often the same cases are chosen for different clients/problems. The choice of case is often done on the basis of a gut-feeling. A number of these cases are then presented to the client who refines and limits this choice to a certain number. This means that there are possibly a large number of valuable and useful cases, which are never used, because they are not in the mindset of the decision maker. There is no structured or validated method for choosing the proven business cases.

The previous problem also has to do with the use of the database. The search terms are thought up by previous graduation students, who decided on these by means of gut-feeling. This means that it becomes difficult to find the right cases if one is not familiar with the database. Next to that, it heightens the problem of not using all cases available.

Finally, after a selection is made there is the problem of limiting the choice. Usually three cases are presented at the client, however way more can arise from the database. This refinement is again based on a judgment call and expertise insight. Explaining these choices would be desired from a client as well as the Six Fingers perspective.

The focus in this research lies on these last problems focussed around the selection of cases, as indicated in blue in Figure 10. Because, this can be influenced/improved in a reasonable time- and budget-scale by the researcher. Next to that, it is a problem that lies in the field of influence of the entrepreneur and therefore has a reasonable certainty of implementation.

4.2 Process Analysis

In order to analyze the Six Fingers process the formal and actual approaches are discussed in this section. Afterwards these two are compared.

Formal approach

In Figure 17 the Branchmarking approach is mapped. It reasons that a lot of people, in an innovation setting, try to go from their specific situation directly to their specific solution. By this manner of reasoning nobody would escape their own dominant logic, because all solutions are designed within it. Hence, no truly new designs would come to pass. This is depicted by the red

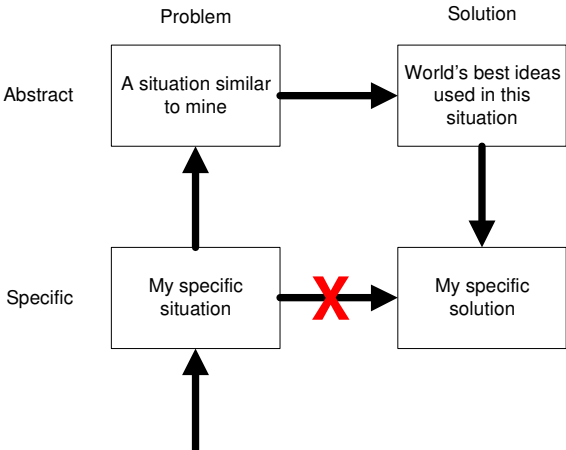


Figure 17 Formal Branchmarking approach

cross in Figure 17. Next to that, most problems have already been solved by other people. Therefore, to circumvent these problems, Branchmarking advocates another approach. It always starts with the specific situation of the client. In other words, defining the current situation and discovering the underlying problems. Then an abstract situation is defined with the goal of making a rational base for an opportunity search. The abstract form lies farther away from the normal logic one is in and helps a client to work around his/her normal thought patterns. Next to that, with the help of this abstract situation the search for cases can be done. These cases are then used to inspire the client and guide their ideation process in the search for new ideas. The ideas that originate from this are then elaborated upon and presented to the client (Adams, 2011).

Actual approach

In order to accomplish all this in a practical setting, the service is subdivided in three phases (see Figure 18):

- Exploration phase: A session at the client during which the true problems underlying the initial problem statement are uncovered. Next to that, all the requirements and ideas/solutions present are mapped.
- Development phase: With the help of the requirements and problems formulated during the previous phase, proven business cases are chosen and presented to the client. These cases are then transferred during an ideation session with the client to come to a number of solutions/ideas for the problem at hand.
- Enrichment phase: During the last phase, the ideas and solutions are enriched. This means that extra steps are taken to make a solution specific enough for implementation. These solutions are then presented to the client. In some cases an extra validation step is added, in order to verify the effectiveness of the solutions.

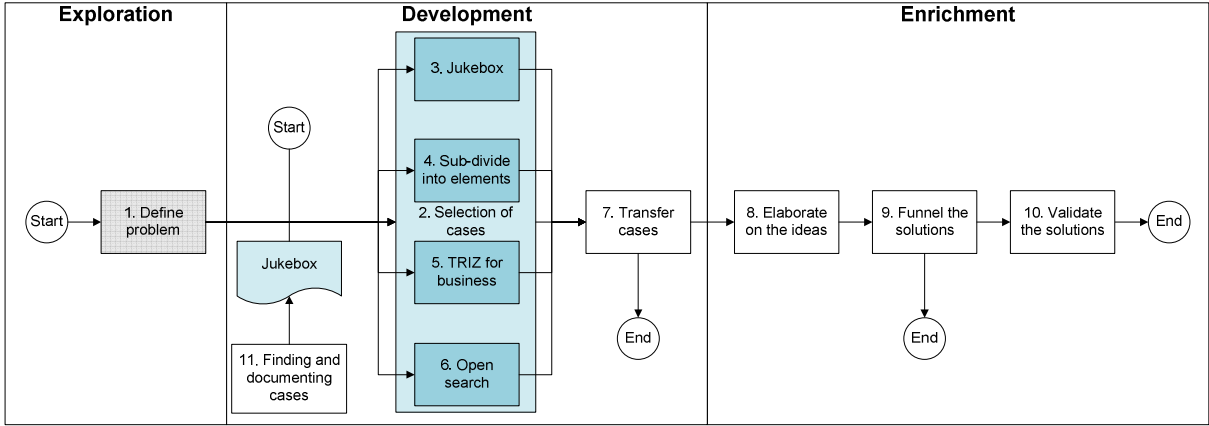


Figure 18 Full Six Fingers process

These phases can then be subdivided with the help of a number of steps. Within the steps there is a modular setup, meaning that multiple steps are optional, which has been indicated by means of the different beginnings and endings shown in Figure 18. The remainder of this section gives an explanation of these steps. However, since this study focuses on the selection of proven business cases, the steps involved with this are shown in blue, and have received extra attention. The same goes for the steps in grey, which are used as input for the selection of proven business cases.

Phase 1. Exploration

Step 1. the problem definition entails all procedures discussed above in the exploration phase. A number of actions are usually taken within this step:

- Interviews with customers of the client;
- Interviews internally at the client;
- Interviews with experts;
- Desk research, which often includes a search for cases which might directly help with the search for opportunities;
- A session, which varies widely in its content, at the client to find the correct direction to steer further sessions towards. In some situations cases are already used in this phase to come to a concrete focus for the rest of the project.

The main goal of this phase is ensuring support at the client by restating and confirming the problem. For assignments which are as general as “we want to differentiate from our competitors” this is an extremely important phase. Especially since it is also the input for the selection of the cases. The quality of the choice greatly influences the result from the creative brainstorm-sessions where the ideas are generated. In order to find opportunities often use is made of the Strategy Canvas by Kim et al (2005), shown in Figure 19, also known as the search for a blue ocean. In such a canvas the most important strategic variables are chosen and plotted in a model. Subsequently, the firm and its direct competitors are assessed on how well they score on these variables. Through comparing the results of this chart niche markets can be found where nobody is active.

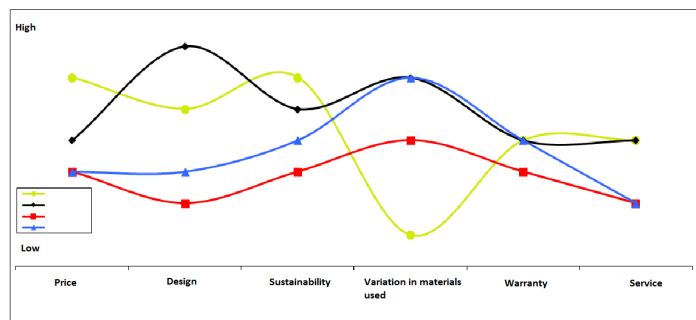


Figure 19 Example of a Strategic Canvas

Phase 2. Development

When a firm already has a clear problem definition and focus or budgetary limitations the problem definition step is skipped. However, the selection of cases always needs a clearly defined assignment as input. If this is not the case it becomes very difficult to select cases, because the number of proven business cases to consider is large. An example of a clearly defined direction for innovation could be: “We want to differentiate by connecting with our customers by means of social media”. With the direction chosen, the selection of the cases can begin with step 2. up to 7., which are the core of the current Six Fingers process. The selection of the cases happens in several manners. However, every selection procedure ends with a search in the database. Therefore, the database is discussed before moving on to how the actual selection is done

Phase 2. Development - The case database/The Jukebox

At Six Fingers Mr. Van Leeuwen is responsible for the collection of proven business cases for the database, which is named the Jukebox and will from now on be referred to as such. A screenshot of the Jukebox is shown in Figure 20. The Six Fingers Jukebox already has 710 cases available from around the globe. These cases are found via data mining, via the internet, but also from a large range of books and magazines. All cases from the random search are accepted and entered into the Jukebox.

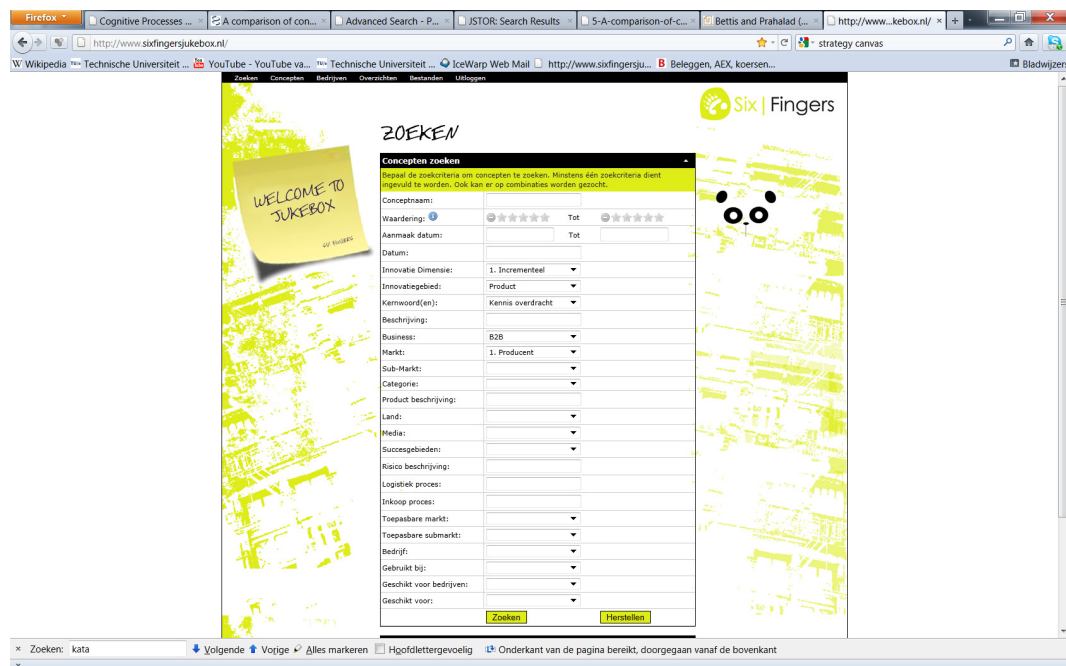


Figure 20 The Jukebox

As mentioned above, the Jukebox contains 710 cases, at the moment of writing (Jan. 2012) 137 of the 710 cases have been worked up in a detailed presentable form and are “directly” usable. This means that information is available concerning the problem, the intervention and the outcome of a certain case. Between 2007 and 2011 Q2 Six Fingers has had 29 clients that have had a Branchmarking session. The simple inspiration assignments and seminars are left out. On average 3.89 cases have been used per client and an used case is reused on average 1.8 times. This is a total of 114 cases of which 61 are unique.

Of these 29 clients, 14 had a problem which directly relates to a need for differentiation. Since this is the most important product of Six Fingers and most of the times also the largest assignments the cases used here were researched separately. For these 14 clients 61, 49 unique, cases have been used, which comes to an average of 4.35 per client. Also for this type of client, an used case is reused on average 1.8 times. Figure 21 is a representation of the times a case has been used in both types of assignments.

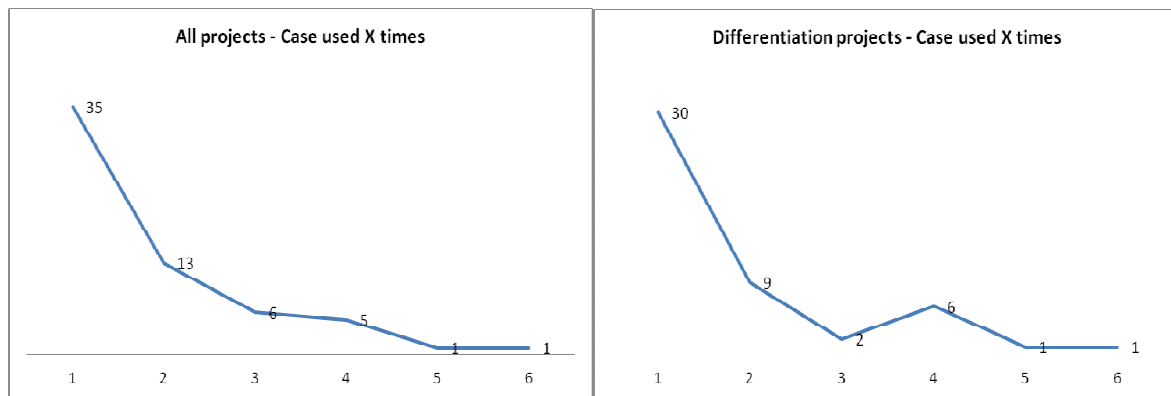


Figure 21 Number of times a case has been used at a client

A few more statistics: the database contains 50 Business to Business (B2B)+Business to Consumer (B2C), 59 B2B and 601 B2C cases, which is an indication for a preference for B2C firms. This can be explained with the marketing background of the employees and the fact that most past and current clients are B2C oriented. During the observation of a selection procedure for a B2B client it became apparent that it is more difficult to use B2C, instead of B2B cases in a B2B setting than B2B cases.

Phase 2. Development - Selection methods

The method used for selecting proven business cases varies regularly. As can be seen in Figure 18 step 3. up to 6. use different methods for selecting cases. The official method is taking the problem statement and putting it as such in the database with the variables available. All the Jukebox selection variables and a description are added in Appendix I. However, selection via this manner is difficult, because the output of the exploration phase cannot be directly linked to the Jukebox. In other words, the output of the exploration phase does not fit as input for the development phase. This means that after each exploration phase a reinterpretation of the output needs to be made in order to come to terms usable for the search.

For a large number of clients an unstructured selection method is used. In these cases a brainstorm is held by the Six Fingers employees. During this brainstorm an reinterpretation of the data gathered in the previous phase is done. All people present supply the group with proven business cases which show an analogy with the client problem at hand. If this fails all the worked up cases in the Jukebox are considered one at a time, until an analogy is found. If even this fails completely new proven business cases are sought and added to the Jukebox. During the observations, this appeared to be a very time consuming and frustrating process with an uncertain outcome.

“Once I was asked to recite all the cases in the Jukebox via the phone in order to come to a selection, whilst in the car to a client.” L. Scholten.

For this reason, new methods are being developed on a regular basis. Two of these are described below:

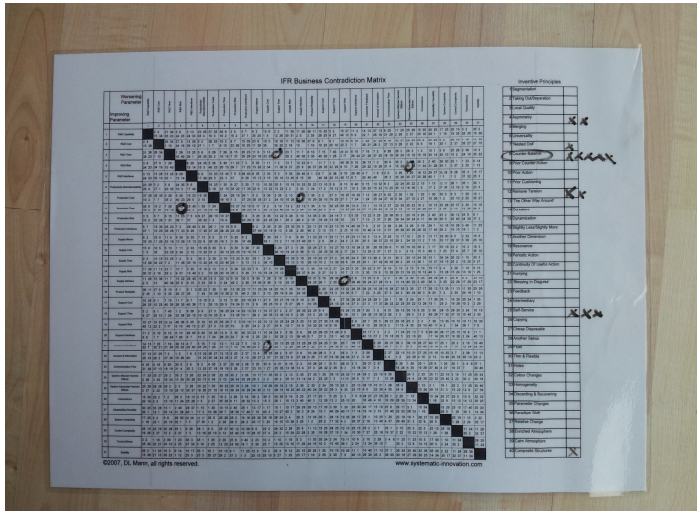


Figure 22 TRIZ matrix by Mann (2007)

The first method employed uses the business TRIZ model designed by Mann (2007), but then adapted in order to be able to come to a limited set of proven business cases. As can be seen in Figure 22, from the problem statement contradictions are derived and denoted in the matrix. Then the principles that correspond with the contradictions are noted. The principle that is suggested the most by the contradictions is then used as a guideline for selecting new cases. For example, when the “winning” principle is “prior action” cases are

sought which have done something similar. Finding cases via this manner is difficult, because most of the inventive principles are in technical terms and the principles have not been linked to the Jukebox.

The second method used takes a different approach, as can be seen in Figure 23. First the specific problem statement of the client is sub-divided into elements. For every element cases are sought, which deal with the element at hand. Elements are all variables, which might influence the problem at hand positively. Then a matrix is made, since one case often covers multiple elements. From this matrix the cases are chosen that cover the most and the most important elements. This approach helps with a structured search. However, it is very time consuming. There is no fixed list of elements, which means that they have to be reinvented for every single case. Next to time consuming, this also leads to a wide variety of elements, in different abstraction levels: i.e. there are strategic, operational and marketing elements.

The method choice varies a lot and is also often based on the time and people available.

After mapping the above processes, more interviews and observation sessions were held in order to find all the variables used for selecting proven business cases.

During the interviews it became clear that the employees have a hard time consciously indicating exactly which variables they use for the selection and which steps are taken. The closest to exact guidelines comes from Mr. Adams. He indicates that two steps needs to be taken. First the problem needs to be specified. This means going from an abstract problem statement like: “I want to differentiate from my competitors” to: “I want to differentiate from my competitors, by means of making use of extra forms of communication”. The second step, is searching for cases that do the

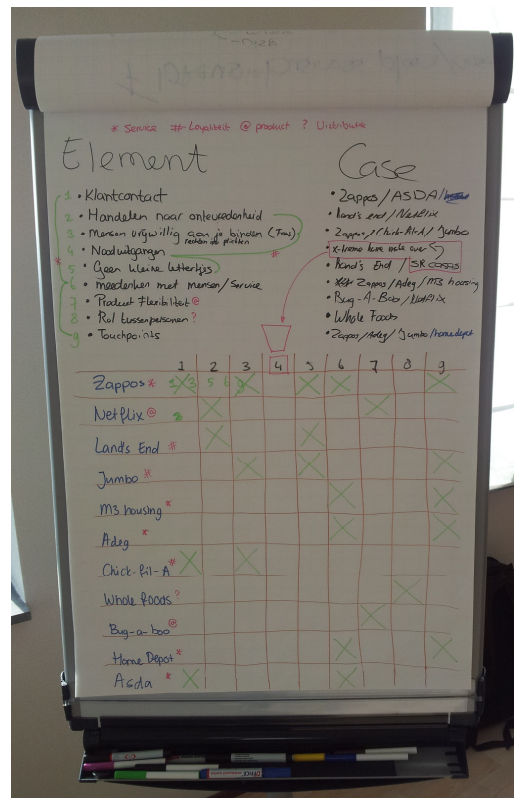


Figure 23 The element approach

latter. During the observations at Six Fingers this was confirmed. It can even be restated in a more extreme sense, the quality of the redefined problem statement is directly related to the ease with which a case can be found. For one observation this was not clear, which immediately led to a disorganised search procedure. Ending in a case by case consideration of the entire Jukebox.

In the internal documentation available at Six Fingers on customer satisfaction no negative comments were found related to the selection of cases or the cases presented at a session. All comments regarding the latter were positive. These documentations however gives no insight in the effectiveness of the system. No research by Six Fingers has been done concerning the optimal selection of proven business cases.

Phase 2. Development - Transfer

Once the cases have been chosen the process moves on to step 7. transfer, or in Six Finger terms: the Branchmark session. The chosen cases are presented at the client. Dependent on the information available five to twenty slides are used to present a single case. After every case all participants brainstorm for possible solutions. The reason for this is that if the brainstorm is done after all cases are presented to many details are already lost, whilst if brainstorms are done after sub-parts of a case the participants tend to make literal transfers and lose the desired abstraction level. The output of a transfer session is however dependent on a large number of variables:

- Cases selected;
- Type of participants present (thought patterns);
- Number of participants present;
- Time of the day/ day of the week;
- Opportunity vs. Problem.

“There is a large difference between a rainy Monday afternoon, compared to a sunny Friday morning.” R. Adams.

This makes it for Six Fingers difficult to assess the outcome of a session beforehand. Also for this reason they find it hard to prove that the Branchmarking method is better then comparable methods.

After this step the development phase ends. This also means that there are clients who decide to exit at this point. They take the generated ideas and work them out themselves.

Phase 3. Enrichment

For all other clients step 8. is initiated. Here Six Fingers elaborates upon the generated ideas and finally presents these at the client. At this session the number of ideas is funnelled (step 9.) and the client is helped with funnelling the ideas towards a number worth implementing.

This is where the services of Six Fingers stop. However, in cooperation with a marketing firm named Branddoctors the ideas are validated in the market by means of market-research if the client is willing to pay for the extra risk-coverage. Considering the focus of the study this will not be elaborated upon further.

Comparison of the Formal vs. Actual approach

Some differences can be distilled by comparing the previous two approaches:

- Situation analysis: The formal approach indicates a charting of the situation. However, the exploration phase does not incorporate it as such. Most of the data gathering for a situation analysis is done. But, the data is only used to restate the problem and create awareness.
- Abstract situation: Not for all clients an abstract situation is mapped. In some cases use is made of the Strategy canvas, but not for all.

4.3 Problems and bottlenecks encountered

This section gives an overview of the most important problems found in the problem and process analysis, which can be influenced with the design. A complete overview of the problems encountered can be found in Figure 24. The explanation of the latter problems has been added in Appendix II.

Steps	Problems			
1 Prob definition	a. Lack of information	b. Link between step 1. en 2. is missing	c. No direct situation analysis	
2 Selection in general	a. No standard procedure	b. No abstraction is made	c. Tendency to use familiar cases	d. Always limited by the time available
3 Jukebox	a. Large amount of undefined variables	b. Partially in Dutch Partially in English	c. Not all search terms are used	d. Different levels of abstraction under one variable
4 Sub-divide into elements	a. Elements are thought up for every client	b. Different output per employee/search		
5 TRIZ for business	a. Inventive principles are tech based	b. Contradictions should be linked to cases.	c. Hard to get scientifically correct	
6 Open search	a. Cases are found which still need to be worked up	b. Uncertain output	c. Difficult to validate	
7 Transfer	a. Large number of variables, which cannot be influenced			
8 Elaborating	a. No feedback on the method used			
9 Solution Funnel				
10 Validation of the solution	a. High costs	b. Hard to control or influence		
11 Finding and documenting cases	a. No standard format for the content	b. Land vs. Continent B2B vs. B2C		
Others	a. Standard process changes on a regular basis	b. Only a small amount of the cases are worked up in detail	c. Difficult to retrace the taken steps	

Figure 24 Problems encountered

The initial focus of the study was on the direct selection of cases. However, from the analysis it has become clear that the most important problem lies in the fact that there is no link between the problem definition and the selection of cases. It is impossible to select a proven business case without good input. The input in for the selection step is as important as the selection itself.

In Branchmarking one firstly defines the current situation. Afterwards an abstract situation of the latter is made, based on which a proven business case is selected. However, when the process is used in practice, with the search methods currently employed, no abstract situation is formulated. This leads to the third and final focus of the study. This has been depicted in Figure 25. The importance of

this has also been stipulated by Gavetti and Rivkin (2005). They note that when making an analogy in a business setting it is imperative to first have a good representation of the target environment and find the key value drivers for that environment. Next to that, their research indicates that the performance of an analogy goes up when a system for categorizing environments is used, i.e. having a structured system for formulating abstracted situations. These abstracted value drivers are then used to consider other similar settings.

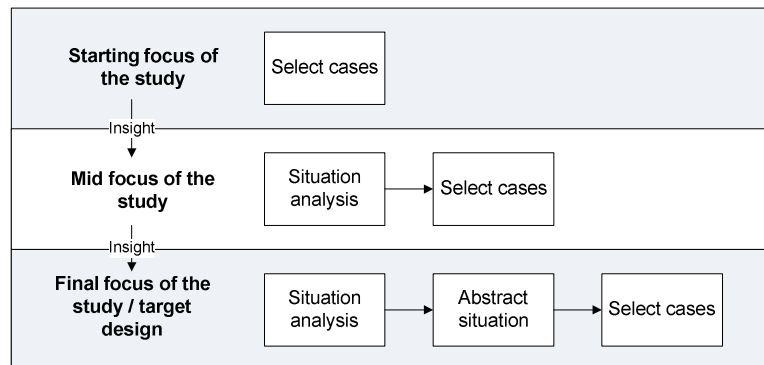


Figure 25 The three problem statements

If the output of the first stages can be brought back to a standardized form, then this form can also be used to structure the Jukebox or the other way around. This will also remove all the redundant variables currently in the Jukebox. Next to that, it will produce one clear guideline for selection which makes the process uniform per employee.

By solving the research question by means of the final focus, a large amount of the other problems are also solved. Steps four to six of the process disappear and can be replaced by one uniform process as mentioned above. Next to that, the design helps with explaining all the steps taken in retrospect. Next to that, the fear of the employees that always the same cases are used has already been dissolved by means of the of the analysis of the cases in the process analysis.

5 Design, testing and implementation

This chapter discusses four items: the requirements to be fulfilled in the design, the design itself, the testing of the design and the implementation plan for the design at Six Fingers.

5.1 Requirements

Requirements were formulated which need to be taken into account when designing a selection process for proven business models. These have been subdivided under functional, user, boundary and design requirements as indicated by van Aken et al (2007).

Functional

The functional requirements entail all the performance demands on the design.

All possible business cases need to fit in the new design: No gaps in the coverage of the parameter are to be allowed. This means that marketing and business model cases need to fit into the design. Otherwise cases would be lost.

User

The user requirements contain all specific requirements from the viewpoint of the user

The process should be self-explanatory : In the current process there is a lot of ambiguity around the variables which can be used in the Jukebox. This means that it becomes hard to translate a problem into a set of variables within the Jukebox, since it is not clear what these variables entail. In other words, the requirement is then that the variables need to be clear or a short description needs to be added.

Budget and implementation time-frame (limiting factors): Practical situations compared to ideal ones are often plagued by chronological and budget related restrictions. If one is looking for cases which are implementable within a short time period this should be possible. For a firm in need it would be bad practice to engage in a ten year plan. The same goes for the financial perspective. Therefore, the selection process needs to be able to incorporate these options.

Layers need to be optional: The scope of the assignments differs significantly from very general to very specific. In other words, there are strategic, business model, operational etc assignments. This also involves the detail and transferability of the case selected, i.e. marketing campaigns or communication forms can be copied directly, whilst this is impossible for a general notion as wanting to increase customer loyalty.

Boundary

The boundary requirements list all the conditions to be met unconditionally

Every design has to be able to explain all the value created: A business model articulates how a firm creates and captures value, according to the used definition by Teece (2009). Therefore, this will also be the starting point of any selection process.

Breadth over depth: In order to gain the best results it is important to always come to a point where the system offers breadth in cases over depth. A lot of broad experiences improve performance better than a few in depth cases (Gavetti, 2005)

Part of the solution needs to consist of variables: Six Fingers already makes use of their case database and has spend a lot of energy into building it. This means that they want to keep the database, but that the search method within it may be changed. In other words when designing the process for selecting cases, part of the process will need to be a database with different variables for finding the optimal case.

The exploration phase needs to be linked to the development phase: In order to come to a structured process, a link be between the exploration and development phase is needed. Every phase needs to deliver output, which can be used as input in the next phase.

Search process needs to start with a clearly defined sub-problem and goal: The process needs to include a description of the amount of information that is needed to actually start the selection process.

An abstract situation needs to be formulated before the selection: In order to correctly follow the Branchmarking procedure and come unbiased to a correct case, an abstract situation needs to be formulated after the situation analysis and before the case selection. An abstraction allows the connection between the ones supposedly unique situation and a generalized situation that someone has already found solutions for (Mann, 2007, Gavetti et al, 2005).

Design

The design requirements are those that would preferably end up in the design.

The possibilities for using TRIZ need to be evaluated: In the current methodology use is made of a part of the TRIZ methodology, which makes selling the Six Finger story easier. Therefore, the possibilities for integrating TRIZ into the selection of cases need to be considered.

The design should look at the entire process: At Six Fingers the focus lies at selecting the cases via the Jukebox. However, from a scientific standpoint, when one looks at the gaps in the literature, the entire selection process is of interest and thus needs to be looked at.

The design needs to help explain the value created during the process: In order to prove to outsiders and clients that the Branchmarking method is beneficial, options need to be considered which help to explain the value of the entire process.

5.2 Design

The design section is split up in four parts. First, an overview of the translation of the target to the solution design is given. Secondly, the solution steps are transferred to the regulative cycle of van Strien (1986) in order to see how it functions in a complete problem solving in organizations process. Thirdly, the effect of these steps on the process of Six Fingers are discussed. Finally, an evaluation of the design is done.

5.2.1 The solution design

Section 4.3. ended with the following steps which the design should link:

How to go from a situation analysis, to an abstract situation and use this to select proven business cases.

Figure 26 shows the translation of the target design to the solution design, which links all the above steps in a practical manner. By means of this translation the Branchmarking steps as well as the steps needed for reasoning by analogy, as indicated by Gavetti and Rivkin (2005), have been incorporated in the design. In the remainder of this section the steps used in the solution design are discussed.

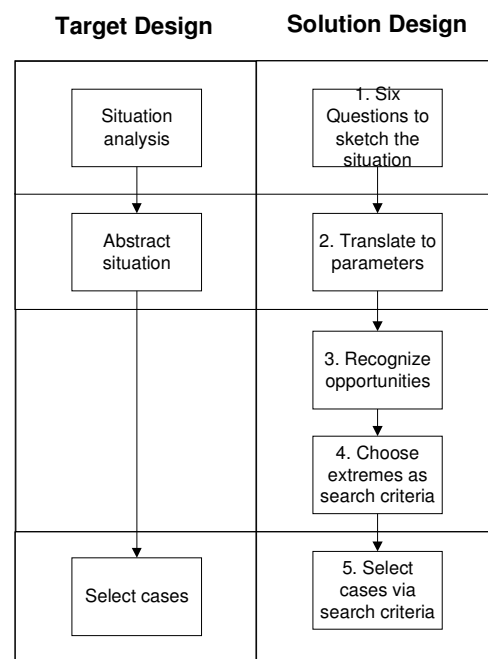


Figure 26 Target design vs. Solution design

1. The situation analysis

The first solution step in the selection process is defining the current situation, with the goal of giving a basis to build the rest of the solution upon and redefining/confirming the problem definition. This research is focused on business model innovation, which means that the value captured and delivered to the customer needs to be explained in the situation analysis according to the definition chosen (Teece, 2009). In order to achieve this, multiple options were considered. Firstly, already existing business model frameworks were analyzed, but most were too difficult or abstract to use in a consultancy setting. Next, based on the Six Fingers cases and literature, a new taxonomy for Business Models was made to fit the Branchmarking approach. However, further analysis showed that the differences between all new designs were minimal. For this reason the ease of communication and fit with the firm was used as criterion. In this respect the six questions by Morris et al (2005) are the best choice. These questions cover all aspects of a business model. Next to that, they use informal and clear language, which is a must for Six Fingers since they must convey these questions to their clients. Furthermore, the “playful” style of questioning fits with the Six Finger strategy, which usually keeps away from stiff models. However, some changes were made in order to improve the usage and coverage. This means that some were adjusted or split up in order to structure the process further. The reformulated questions have been added to Figure 27. These questions incorporate all the elements Teece (2009) defined as required for evaluating the value created and captured by a firm.

Questions		Description
Q1.	How do we create value?	This question addresses all subjects that explain the value offering. This is a combination of what type of product/service is offered, where it is offered and what kind of relationship a firm wants with its customers. Since this is a major part of the entire situation analysis, this question has been subdivided into three steps. For these three the building blocks, by Osterwalder et al (2010), were chosen: 1. Value proposition: What are the goods and services delivered to the customer and what are their properties; 2. Customer relationship: What is the type of relationship we want with our customer; 3. Distribution channel: How do we get the value to the customer. This includes the build-up of stores, websites etc.
Q2.	Who do we create value for?	This relates to the customer segmentation, i.e. the size and the number of customer segments addressed.
Q3.	How do we make money?	This question gives an overview of the pricing scheme: e.g. are customers financially bound, is the pricing focused on the mass or on exclusiveness etc.
Q4.	What is our source of competence?	Here it needs to become clear why the firm under study is capable of delivering the above. Competences are defined as the people, knowledge, partners and key resources, which make the firm capable.
Q5.	How do we competitively position ourselves?	Two steps are needed for answering this question. Firstly, finding the most important competitors. Secondly, the above questions need to be answered for these competitors. Afterwards an analysis can show the differences between all firms involved.
Q6.	What are our time scope and size ambitions?	A set of limiting conditions subdivided under: Limiting conditions for the project: how much time do is there, who are present etc. Limiting conditions for the design: short vs. long term solutions, the budget available, part of the business model that may be changed etc.

Figure 27 Questions for a situation analysis based on Morris et al, 2005

2. Translation to parameters

After analyzing the situation, the next solution step is to make a translation of the situation into an abstract form. The goal of this is taking the first step towards breaking the dominant logic. It gives an abstract representation of the current situation used for facilitating the discussion. Next to that, it is a tool for categorizing environments, which is needed for coming to the correct analogy (Gavetti and Rivkin, 2005). To structure the process

further, questions 1 - 4, as defined in Figure 27, were split up into parameters. Parameters, in this case, are the “knobs and handles” with which a business model can be designed. As with any knob they range between two extremes. An example of sketching an abstracted situation in this manner is depicted in Figure 28. All the different parameters are at a certain value, which creates a web. The other two webs represent the abstracted situation for two competitors.

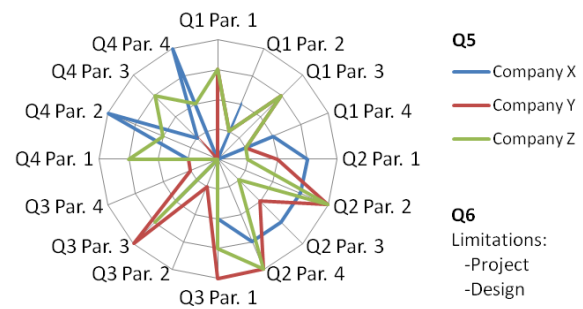


Figure 28 Example of an abstracted situation

The idea for the usage of parameters lies in a combination of TRIZ and Blue Ocean thinking. TRIZ translates problems to contradictions in order to make them abstract. Parameters in this sense do the same. Next to that, they function as the strategic variables in a Blue Ocean strategy canvas. These variables also range between two extremes by which a strategy can be sketched.

The Six Finger specific parameters together with an example case can be found in Appendix III. In Appendix IV the parameters are again detailed, only then with a short description per parameter. A few examples: a parameter under Customer relationship is Buying experience, which ranges from a functional to an emotional experience or a parameter under Value offering is the Quality of the product ranging from low to high. How these changes to the parameters are made practical has not been standardized. As also noted by Morris et al (2005) these are the steps that make the firm unique.

3. Recognizing opportunities

As for any innovative process, recognizing an opportunity is imperative. “One needs to distill fundamental truths about customer desires, customer assessments, the nature and likely future behavior of costs, and the capabilities of competitors when designing a commercially viable business model”(Teece, 2010). Teece (2010) notes that to achieve the latter one should look at unarticulated needs, trends and the use of changes in particular organizational forms or technological solutions, which can be used on earlier defined needs. The data gained via the abstracted situation analysis can now be used for detecting opportunities. From the setup of the questions, as defined in Figure 27, four areas of inspection are defined, which can result in different opportunities. These areas incorporate the elements mentioned by Teece (2010) and the elements in a business model where Six Fingers usually finds the opportunities for their clients. Figure 29 shows the link between the opportunity recognition areas and the questions from the situation analysis. Baron (2002) indicates that during the opportunity recognition the individual (motives, skills etc) and interpersonal (support, social norms, size of the social network etc) factors of the people present also play an important role. However, since Six Fingers has no influence on this, these factors have not been taken into account.

Opportunity recognition	Origin	
To what degree do we fulfil the needs of our customers?	Q 1	How do we create value?
	Q 2	Who do we create value for?
	Q 3	How do we make money?
What else can we use our competences for?	Q 4	What is our source of competence?
What can we learn from our competitors?	Q 5	What are our time scope and size ambitions?
Which trends can be used in this setting?	Expertise	What trends have we seen in the environment which can be used in this setting.

Figure 29 Questions for opportunity recognition

To what degree do we fulfil the needs of our customers?

By having answered questions 1 through 3 of the situation analysis evidence is given of how the firm creates and delivers value to its customers. The next question is then: is this the optimal value the customer is asking for. In other words, to what degree do we fulfil the need of the customers? Mann (2007) suggests a tool for answering this question: Function thinking. By means of this reasoning one tries to discover the underlying functions of the product, i.e. what needs are we truly trying to fulfil. Next to that, Mann (2007) reasons that a customer ultimately wants his products: free, perfect and now. An example of this is given by means of clothing detergent firms. The function of these firms is helping their customers with having clean clothes. However, the ultimate client desire is having clothes which do not get dirty at all. When that underlying function is fulfilled the entire detergent market would disappear. This manner of thinking can be used to uncover opportunities for better fulfilling the needs of customer.

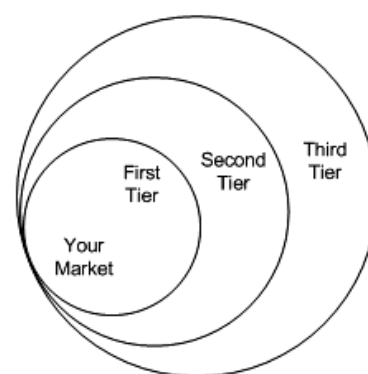
All forms of business model innovation can lead to success (IBM, 2009), which means that no source for opportunities is preferable over the others. In other words, all parameters or elements of a business model should be considered equally.

What else can we use our competences for?

The previous source for opportunities focussed on existing customers. However, Kim et al (2005) suggests to also look beyond existing demand, i.e. looking at the “non-customers”. They describe three tiers of non-customers to look at, as indicated in Figure 30:

- First-tier: The first tier consists of the normal prospects. A group which can be fairly easily convinced. This group has already been considered in the previous question and needs no further attention.
- Second-tier: The customers in this tier are “refusing” non-customers. They do not use or cannot afford to use the current value offering. An example of making use of the second tier is given by Callaway Golf.

The Three Tiers of Noncustomers



First Tier: "Soon-to-be" noncustomers who are on the edge of your market, waiting to jump ship.
 Second Tier: "Refusing" noncustomers who consciously choose against your market.
 Third Tier: "Unexplored" noncustomers who are in the markets distant from yours.

Figure 30 The three tiers of non-customers by Kim et al, 2005

A firm which has made golf accessible by means of designing an easier to use golf club and making golf a more affordable main stream sport for the less fortunate.

- Third-tier: The third tier exists of customers, which are in other markets than previously targeted. An example of this is Bol.com a book-webshop who have used their competences gained by selling books, to enter the toy retail market.

Multiple competences can be used to come to opportunities. The sources of competence mostly used by Six Fingers are people, knowledge, physical goods and partners. These sources coincide with the ones mentioned by Osterwalder et al (2010) in their business model canvas, under de building blocks Key Partners and Key Resources. They however also add financial goods as a source for opportunity. An example of making use of the third tier by means of is the technology used in a ballpoint pen, which has been copied to the hygiene market in order to design the deodorant roller.

What can we learn from our competitors?

After completing the strategy canvas as mentioned above it can be used to find properties of the competitors that one wants or especially does not want to copy. This can also mean choosing something a competitor is already doing and using that for finding ways to do it even better or more extreme.

Which trends can be used in this setting?

Trends are also an important source of information for creating a viable business model as noted by Teece (2010). In the area of new product development, Goldenberg et al (1999) confirm that trends are an important source for finding opportunities. These trends primarily come from the expertise of Six Fingers, which they have built up at other customers and by studying the cases which are regularly entered into the Jukebox. Examples of trends are the focus on sustainability or the digitalization of the office.

The parameters not only depict the current situation, but also offer the tools to change a business model, in other words the parameters represent the “knobs and handles” that can be used to change a business model. Every change in the value of a parameter leads to a change in the business model. Therefore, the opportunities need to be translated to parameters that can make use these opportunities. For opportunities found through the parameters this can be done directly. However, for some opportunities a translation step is needed. As an example, if the opportunity lies in binding customers via loyalty the corresponding parameters would need to be found and sometimes another choice within these parameters needs to be made. For the latter parameters like: service, the amount of customer involvement, the number of contact moments etc could be used.

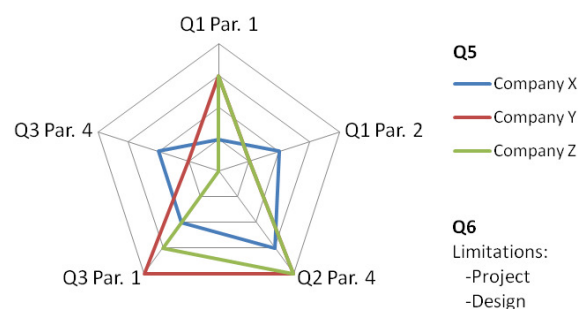


Figure 31 Example of selecting parameters based on opportunities

After this is done a picture as shown in Figure 31, can be drawn. Of all the parameters used for the situation analysis only a few remain.

4. Choose extremes as search criteria

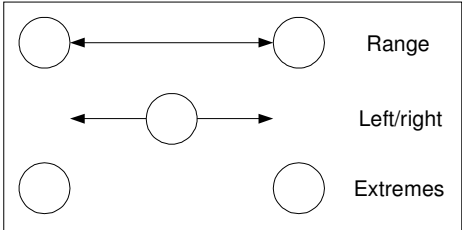


Figure 32 Three parameter options

After the last solution step a list of parameters is given. Changing the value of these parameters has a direct influence on the opportunities found. This means that a choice still has to be made concerning the value to set the parameter at, which is also immediately the link to the proven business cases. Three options were considered here, which are depicted in Figure 32: making a range of different values, a more or less value option or only the two extreme values.

The range option does not work, since it is difficult to define what a step more in, for example, buying experience is. The goal of this design is breaking dominant logic. In order to achieve this Six Fingers presents cases that did this in an extreme manner. Therefore, the analogy between the parameter and a case is easier made via extremes than the more or less option. This means that within each parameter selected for making use of the opportunity a choice for an extreme needs to be made. These extremes can then be used as search criteria, as indicated in Figure 33.

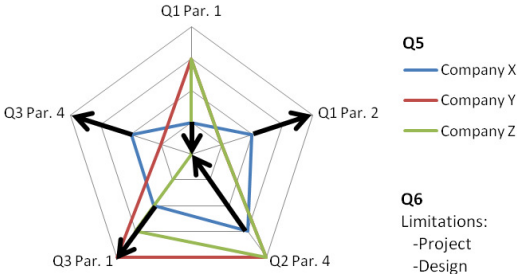


Figure 33 Example of selecting the extremes

5. Select cases based on the search criteria

The extremes, chosen in the previous solution step, form an analogical link with the proven business cases. In other words, they are the search criteria for selecting a case. Cases need to be sought or selected from the Jukebox which make use of the extreme. An advantage of the extremes over standardized business models by Osterwalder et al (2010) or Malone et al (2006) is that they cover a larger amount of different possible outcomes and combinations. With extremes it is possible to do a very broad search, by using only one parameter or do a specified search by using a combination of extremes, e.g. searching for proven business cases that deliver high quality vs. ones that use high quality, low service and focus on a very broad segment.

Finally a short example of all these steps used for an imaginary case is given: Company X wants to increase the value they deliver to their customers. From the abstract situation they realize that there lies an opportunity, not on the product side, but always solving the customers problems. This means making a change in the service parameter and turning it extremely high. The search for -service, high- has an analogy with a firm called Zappos. This is a normal online shoe retailer, which differentiates by offering extreme service. Zappos puts the latter into practice, i.e. makes it operational: by having a 24/7 manned help-desk, knowing their customers, setting bonuses focussed the quality of the calls instead of the quantity etc. These "principles" used by a proven business case form the input for the operational changes that need to be designed by company X to make use of their opportunity.

5.2.2 Full process design

The solution design only focused on the steps directly needed for dealing with the problem statement. This section looks at how the steps from the solution design fit in an organizational problem solving process.

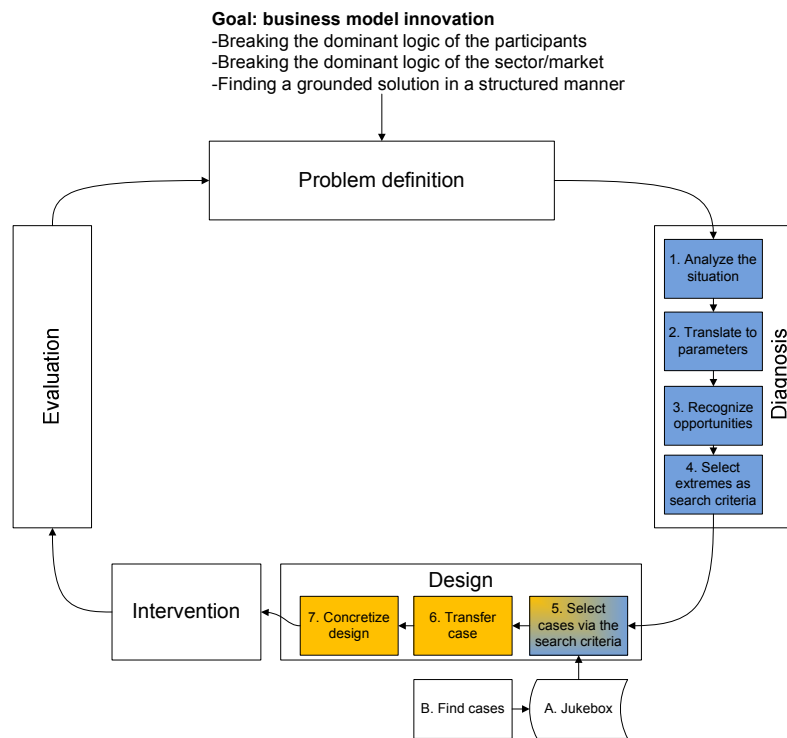


Figure 34 Mapping of the new design to the regulative cycle by van Strien (1986)

In order to do the above, the steps have been transferred into the regulative cycle by van Strien (1986). This shows that in essence the process does not differ from any other organizational problem solving model. This has been depicted in Figure 34. All the extra steps and changes made to the old process are in the diagnosis phase. The steps shown in the Design phase have not been changed just transferred. Here it becomes clear again that the process for Six Fingers stops just before the actual intervention. But, this also means that the process for a customer does not stop. The concretized design from step 7. needs to be implemented and after a while evaluated. Next to that, it also shows that the design also follows the Business Model innovation steps as defined by Osterwalder et al (2010): Mobilize, Understand, Design, Implement and Manage.

5.2.3 Incorporation into the Six Fingers process

The final step is placing the solution design into the Six Fingers process as was detailed in Section 4.2. This redesign of the process has been depicted in Figure 35.

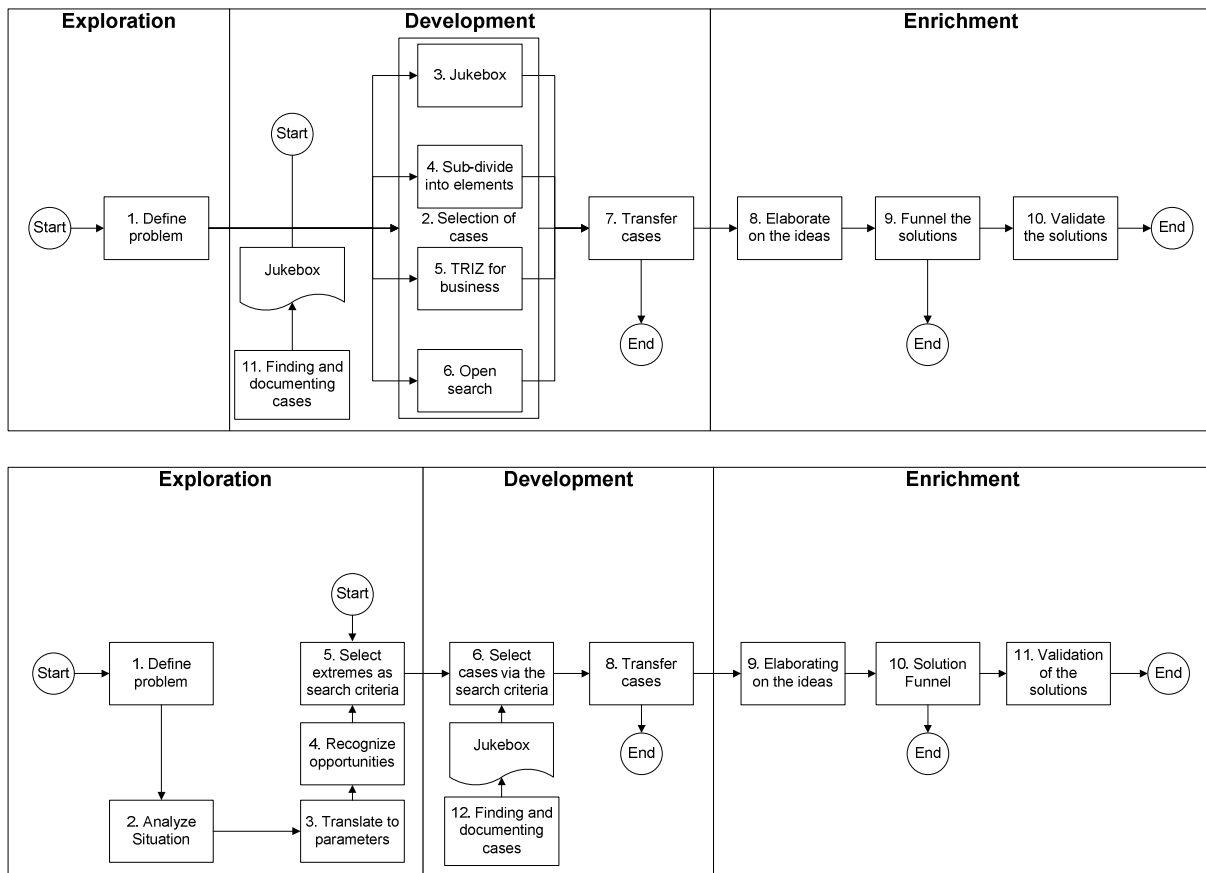


Figure 35 Top: Actual Six Fingers process. Bottom: redesigned Six Fingers process

Even though the problem statement aims at a change in the Development phase, the focus of intervention lies at the exploration phase. In order to achieve a more efficient Development phase, extra steps are needed in the Exploration phase. The exploration phase was initially, primarily, used to confirm the problem and create basis of support for all sequential steps. It will not lose that function, however, with the help of the steps 2 - 5 clear input for the development phase is also generated. In the old design the manner in which the actual case was chosen depended on the person making the choice and the problem statement to be addressed. In the new design the extremes chosen as search criteria can be entered directly entered into the Jukebox. This leaves the user with an X number of cases, which are then reduced to the desired number by means of expert opinion. A small change was brought into step 12. of Figure 35. The search for cases was unguided with only the goal of finding any case, which might be inspirational. However, by adding the parameters and extremes a more focussed search can be done. For every extreme a set of good cases is needed. This should then also be the goal of the search process.

The enrichment phase in itself was out of the scope of the project and thus left untouched. However, the structure build into the process by adding the previously mentioned steps to the Exploration phase also partially transfers into the last phase. The abstracted situation can now not only be used

in the exploration phase, but as a guide throughout the entire process. It serves feedback tool on what the solutions generated by the process might have for an effect on the client. Furthermore, it helps to explain to the client at the end of the process exactly which steps were taken.

However, as became clear in the previous section, the process for a client does not stop after the enrichment phase. Since the Six Fingers process stops at the delivery of finalized ideas, they have no idea how well and to what degree the ideas are implemented. Therefore, in order to make a full regulative cycle a feedback step is needed. Practically this will entail a contact moment with the client one year after the end of the project. The advantage of this is threefold:

- Feedback on the quality of the idea generated during the process;
- Staying top of mind with the customer;
- Creating another opening to restart the cycle with a new project or continuing with the old cycle making the earlier created ideas further operational.

5.2.4 Analysis of the design

In this section an analysis of the design is done. This is done with the help of two tools: A comparison between the design and the requirements and a SWOT-Analysis.

Comparison with the requirements

Earlier the requirements were formulated. These will now be compared to the actual design. The combination of grading and requirement is shown in Figure 36. All requirements are scored low, medium or high, dependent on how well the design meets them.

Requirements	Low	Medium	High
Functional			
All possible proven business cases need to fit in the new design	x		
User			
The process should be self-explanatory		x	
Budget and implementation time-frame (limiting factors)		x	
Layers need to be optional		x	
Boundary			
Every design has to be able to explain all the value created			x
Breadth over depth			x
Part of the solution needs to consist of variables			x
Search process needs to start with a clearly defined sub-problem and goal		x	
The exploration phase needs to be linked to the development phase		x	
An abstract situation needs to be formulated before the selection			x
Design			
The possibilities for using TRIZ need to be evaluated		x	
The design should look at the entire process			x
The design needs to help explain the value created during the process			x

Figure 36 Assessment of the requirements

As can be seen in the table, most of the requirements are reasonably met. The largest lack lies in the fact the range of business problems that need to be solved with it differs to such a degree that the tools used need to change often. This means that the process is self-explanatory, but that it needs to be implemented in a different way for a large number of assignments. Next to that, in a number of steps within the design the expertise from the user is addressed. These steps are imperative in order to ensure creativity and novelty. However, this makes it more difficult to get the system across to a new practitioner.

Next to that, it was impossible to fit all the Six Finger cases into the Design. Reason for this is the large gap between the Strategy/Business Model cases in the Jukebox and the purely Marketing cases. This is not seen as a negative outcome by both the researcher as well as Six Fingers. Both types of proven business cases are needed in order to fulfil all different types of projects. In order to avoid this problem the Jukebox will be split in two parts: one for the Strategic/Business Model proven business cases with the parameters as discussed in the design and one for the Marketing/Operational proven business cases. The list of parameters needed for the Marketing/Operational assignments lies out of the scope of this research and will thus not be discussed further.

SWOT-Analysis

In Figure 37 an overview of the SWOT-analysis for the design is depicted.

<p>Strengths: Structured Firm BM base Modularity of the system</p>	<p>Weaknesses: Builds upon the expertise of the user Outcome cannot be guaranteed Unfit for SME</p>
<p>Opportunities: New market with Dominant Logic. Validation of every step</p>	<p>Threats: Difficult to prove beforehand Large process (higher costs) Marketing focus of the parameters</p>

Figure 37 SWOT analysis

The main strength of the design is that it is structured to a high degree. This means that it is fairly accessible to anyone and it is easy to explain the value generated during the process in retrospect. Next to that, it has a firm basis in Business Models. All elements needed for Business Model thinking/innovation/analysis are incorporated. For this reason, the spectrum of different assignments it can be used for is broad. Furthermore, because of the structuring of the design, it can also be used modularly. For instance, if a user has already determined an opportunity, the design can just as well start at the translation of opportunities to parameters. An opportunity lies in the fact that the entire design can now be sold as a Dominant Logic breaking entity. All steps in the design are focused on achieving this and not just the transfer of the cases.

At several steps the design build upon the expertise of the user is required. This means that when the need arises to put a large amount of cases through the design the bottleneck lies at the experts. In other words, the robustness of the design has its limits. Next to that, the quality can also be influenced by the experts chosen during certain steps. The creativity, experience and expertise of the experts is decisive for the quality of the output. This also leads to the second weakness, there is no way to guarantee the outcome of the process. Also, because no way was found to circumvent the

limiting factors placed upon each assignment. Both the old and the re-design are less usable for small and medium enterprises. The process has the tendency to deliver a large amount of ideas as output. Selecting the "best" one and implementation are not guided by the design. A disadvantage of the new design is that more steps need to be taken in order to get to the selection. For most cases this will shorten the time needed. However, for some of the simpler cases this might lead to an increase in the time needed for selection.

Another important weakness to discuss lies in the parameters. The parameters were based on the problems and cases encountered at Six Fingers. This means that they are build upon primarily B2C and on cases that create a lot of publicity . The parameters have no basis in the fields of:

- Internal innovation: logistical and production processes;
- Industrial environments;

5.3 Testing

The testing is split up between a user and company test. The latter was not executed, but a guide to this testing is added in this section.

User test

The design was created by means of both a bottom up and top down approach. It will be tested in the same manner. Firstly, the top down approach of the user tests turned out positive. From a problem oriented perspective the design is easy to use. Meaning that, with a concrete problem and a good assessment of the current situation, the abstracted version can be easily linked to the Jukebox. The logic of splitting up a business model into a number of subsets seems to work for all users. However, some of the parameters still need to settle in the dominant logic of the employees. Most have a marketing background, which makes it difficult to incorporate a large amount of strategic/business model related jargon. During the tests it became clear that the users often had to make an extra step to get to the correct terminology. After multiple sessions this did get better. However, in order to safeguard the use of the system a number of parameters were added and adapted so that they will fit better with the dominant logic of the main users.

Not only the problem oriented approach was tested, but also the case oriented one. That is, the bottom up approach. In other words, can the cases be processed backwards through the design. The minor difficulties experienced by the jargon in the previous test are more of a problem in this area. Matching the cases to the parameters still leads to conflicts. One of the reasons for this is the fact that the new design is based on extremes. Meaning that only the extremes need to be extracted from the cases and different views on a case can result in different extremes. As an example, almost every case has something to do with a change in segmentation. But, only a few cases have a change in segmentation as core in an extreme manner.

During the case oriented testing it became clear that a large amount of the cases are purely marketing like. In other words, cases fit to take a company more in depth, but not fit for breaking dominant logic and changing business models. This has as a consequence that a separate set of parameters needs to be formulated for marketing specific cases. However, this will not be part of this research. Next to that, from the user testing it became apparent that an internal list of parameters is

also needed. A beginning has been made for the compilation of this list. However, since it falls out of the scope of this research and not enough internally oriented cases were present it was not finished.

After inserting all the 137 elaborated proven business cases the spread amongst the different extremes was analyzed. There are 6 – 20 proven business cases per parameter, with an average of 11.0. The price related parameters have the least cases appointed to them with an average of 7.5. For the design this means, that all parameters and the questions on top of them are of importance. However, the parameters still change to a minor degree every time a large amount of cases are added. For this reason, the Jukebox will need a Content management system. With the help of this system the users will be able to change parameters if the need were ever to arise.

Company test

The company testing could not be done within the scope of this research. Not enough clients have presented themselves, timely, where the design could be tested. Next to that, in order to test the design, a large amount of recoded cases are needed. This means that the new system needs to be incorporated with the old cases. After a search in the Jukebox is done, with the new design, an x number of cases remain to be chosen by an expert. When only a small number of cases were to be translated the final choice of cases is extremely biased and forced into a certain direction. In other words, it will only be possible to compare the old design with the new one without too much bias when the recoding has been completed. However, the steps needed are discussed below and the action itself is added to the action plan. This way the method can be validated in retrospect by Six Fingers.

The company test entails the test of the design at real clients. In order to compare the old design with the new, “re-buys” need to be used. In other words, clients that have experienced the old system and now enter the same process with the new design. An interview with these clients needs to be held, focussed on the difference in satisfaction between the two designs. A year after the end of the project another interview will be held, concerning the satisfaction with the actual implementation. For solutions were the performance can be directly related to the implementation of the design another analysis needs to be done.

Furthermore, the speed and efficiency of the new selection method needs to be measured internally. This again should be done via a comparison of the old and the redesign. Two variables need to be measured here: the time needed to select cases and the time needed to prepare the first session. The goal here is a reduction in the lead time for both cases.

5.4 Implementation plan

This chapter is a guide for the implementation of the design discussed in the previous section at Six Fingers. Van Aken et al (2007) have defined steps for the implementation during organizational problem solving. These will be followed.

5.4.1 Preparation

The following three sub-sections contain the preparation steps leading up to the actual implementation. The preparation entails a delta/change analysis, resistance analysis and possible countermeasures for the resistances found.

5.4.1.1 Delta analysis

The delta analysis entails an analysis of all the major differences between the current design and the redesign. The major changes can be used as a guideline for the actions to be taken.

The two major items needed for redesign, which can also be seen in Figure 35, are:

- Redesign of the exploration phase: This entails incorporating the situation analysis, the abstraction, opportunity recognition and the use of extreme parameters into the exploration phase and the sessions held at clients;
- Introduction of a new search method: All changes concerned with Jukebox, proven business cases and the selection in general.

5.4.1.2 Resistance analysis

Before the actual change plan it is important that an analysis is done of the different forms of resistance that might hamper the implementation (van Aken et al, 2007). In order to achieve this, firstly the key elements of the proposed change need to be identified, as is done in the previous subsection. Subsequently each of these key elements needs to be assessed on five different forms of resistance as formulated by van Aken et al (2007):

1. Lack of understanding
2. Differences in opinion
3. Lack of trust
4. Low willingness to change
5. Conflicts of interest

A major advantage, resistance wise, is the fact that of the four full time employees present at Six Fingers, three were taken along in the design process. This means that a large amount of support already has been created. The largest form of resistance is due to employees who have just been hired and have not been part of the process. Another advantage is that the current employees are used to change. As mentioned in the paragraph on process analysis, the processes within Six Fingers change at a rapid pace. As soon as a better method is discovered it is often implemented for the next project becomes order.

During the testing phase a clear form of Lack of understanding resistance became apparent. The parameters were formulated by the researcher who has a business administration/business model

background. The employees, however, have a marketing background, which makes it difficult to instantly link the cases to the parameters for them.

The largest mass of resistance lies in the element of testing. This is not a key element of change, but will still need to be done by the employees in the future. The main issue with this is the possible lack of interest and understanding. In practical terms, even if there is commitment now the testing will fall in priority as soon as new orders fill the queue. In order to safeguard against this, a plan for testing is given in the next paragraph.

5.4.1.3 Intervention strategies

Countermeasures are taken to influence the resistances by means of intervention strategies. Three types of intervention strategies can be used: technological (literally set down rules), political (politically/hierarchically enforced interventions) and cultural (intervention achieved through participation) interventions.

A large amount of cultural interventions have been used throughout the research, as can be seen in the paragraph. By letting the users involved with the selection procedures participate with the design support has already been ensured and the chance of implementation increased.

The first resistance found deals with the design are the newly hired employees. To counteract this a technical intervention has already been given shape by means of this report. This helps to circumvent the problem with the ambiguity concerning the parameters, example cases were added for all extremes within the parameters. These help to explain the exact meaning of the parameters. Next to that, a short description is added per parameter.

The resistances concerning the testing are a bit harder to address. For this multiple intervention strategies were used. First a technical intervention was used, again within this report. The steps that need to be taken and variables that need to be measured for testing have been detailed. Next to that, testing is been added to the action plan. Secondly, a political intervention was used by making someone internally responsible for the testing and validation of the model. Thirdly a cultural intervention is used by putting effort in conveying the importance of testing. This will be done by the researcher during his time at Six Fingers. Emphasis will be put into explaining the importance of testing in order to improve the sales pitch.

5.4.2 Action plan

This paragraph discusses the action plan, which involves: the actions to be taken, the time needed, the urgency of the different actions and the person responsible. Six actions have been defined that are needed to come to the changes as defined in the delta analysis.

- **Recoding the Jukebox:** The entire Jukebox needs to be re-coded in order to incorporate the new set parameters. Multiple layers need to be added and the possibility to select multiple parameters simultaneously. The variables needed within this recoded Jukebox are added to Appendix V.
- **The set of marketing and internal parameters still needs to be finished.** For this a large amount of extra cases are needed with a focus on the latter two.
- **Translating cases:** All the cases need to be translated to an uniform format: one clear language and multiple standardized subjects.

- Linking parameters: All cases need to be divided into extremes and then linked to the parameters, before they can become usable in the Jukebox
- Translation of the new diagnosis method: Tools need to be developed or selected, from the already existing ones, that cover all the questions, which are used for the situation analysis. Different tools are needed for the different assignments.
- Aligning the method: This research focussed on the first half of the process, namely the selection procedure.
- Selecting parameters for marketing: the focus of this research were business models. This means that only for business models Parameters were formulated. As mentioned above, strategic/business model cases have been set apart from marketing/operational cases. Parameters for marketing related cases still need to be defined.
- Testing the Design in practice: the design has only undergone a user that, company testing still needs to be done. How this should be done is detailed in 5.3 Testing.

The actions to be taken, time needed, urgency and the employees responsible are depicted in Figure 38. It is difficult to make an assessment of the hours needed for recoding the Jukebox. This can only be done by ICT experts, which means that only they can make an estimation of the time and costs related to this. The amount of time is needed to translate the cases. There are around 700 cases that need to be translated and put into a uniform format. It is advisable to lead a intern address this issue. The top three actions have a high urgency, because without them the new design cannot be used. Next to that, without these three actions the testing of the design cannot be done. The other actions increased the value of the design, but are not directly necessary to use it in practice.

Actions to be taken	Time needed (hrs)	Urgency	Responsible employee
Recoding the Jukebox	100	High	External ICT firm
Linking parameters	60	High	Intern
Marketing/internal parameters	20	Medium	All
Translating cases	350	High	Intern
Translation of the new diagnosis method	40	Medium	All
Aligning the method	20	Medium	All
Setting parameters for marketing	40	High	Rob
Testing the Design in practice	20	High	Laurie

Figure 38 Action list

6 Discussion and conclusion

This chapter is split into three parts. First, a reflection on the research question is made. Secondly, the general contribution to literature and practice was discussed. Finally, this chapter ends with an overview of the limitations and areas for further research.

In the introduction the following research question was stipulated:

How can proven business cases from other sectors be selected for use in business model innovation?

In order to achieve business model innovation a structured process is needed (Chesbrough, 2010). During business model innovation by selecting proven business cases the same is true. The phases of the reflective cycle by van Strien (1986) offer guidance also in this type of innovation process. Without structure the selection of the cases turns into a random search for analogies. With the sheer number of cases available in the world this would result into an inefficient uncontrollable event. In this research a way to structure the process has been found by means of: defining the current situation, abstracting it to parameters, finding opportunities, determining the parameters to be changed in order to make use of the opportunity, choosing the extreme value to which the parameter should be set and finally selecting cases by means of the extremes.

6.1 Contribution to literature

First of all, this research is an indication that the ideas established by Gavetti & Rivkin (2005), concerning the use of analogies in strategic innovation, also apply to business models.

Next to that, this research contributes to the business model literature as a reconfirmation of the already presented models. After gathering and analyzing most of the data and trying a few new designs, the result was always some form of Osterwalder et al (2010) or Morris et al (2005) their models. It was found though that in order to make a complete situational analysis that both these models lack in internal factors.

Furthermore, the parameters found are an indication that there is a limited set underlying the already found building blocks of a business model. Parameters that are more detailed than the latter but more abstract than the ones that make a firm unique. The parameters used by Morris et al (2005) did not cover all aspects or on different levels of abstraction.

Moreover, the found parameters can be used as an extension for the Blue Ocean Strategy Canvas (Kim et al, 2005). Kim et al their Strategy Canvas is a widely used tool, however they never defined a fixed set of variables to be entered into the canvas. During the analysis of strategy canvasses it became clear that many different variables are used over a multitude of abstraction levels. Ranging from the sourness of a wine to the general segmentation of certain products. With a fixed set of parameters the canvas can be used more objectively. Furthermore, the parameters used in this situation are based on business models. This is an indication that the Strategy Canvas might also be used for Business models.

Within the cross industry innovation literature two models were found: one related directly to business model cross industry innovation and the other to product/organisational innovation. Below the new design will be compared to these two models.

The redesigned process differs greatly from the one presented by Kamprath (2010). The latter process entails a double analogy. One for finding similarities between sectors and the second for the identification of best practices. The redesigned process only makes one analogy step. This is because, if one were to do a double analogy the sector from which one would want to learn would need to be chosen beforehand. This can also be seen in the model by Kamprath (2010) the first step undertaken is finding a comparable sector, while in the redesigned process this is defining the problem and the current situation and work from there. The results of this study however indicate that the sector a proven business case originates from does not directly matter for idea generation. Next to that, the redesigned process looks broadly, but not all to in-depth for opportunities, while the model by Kamprath (2010) goes into detail on only a few focus points. Gavetti & Rivkin (2005) also note that the breadth is more important than the depth.

Next a comparison is made with the search strategy developed by Brunswicker et al (2010). This strategy entails four dimensions, as discussed in the theoretical background. The new design contains all four of these dimensions: opportunity recognition, identification of abstract functional relationships (parameters), search goal (limitations) and how to search (Jukebox). The only gap lies in the last dimension. This dimension also describes how and where to search for cases, which was out of the scope of this research. The similar structure in both designs is an indication that the cross industry product innovation processes, might also be used in a business model setting.

6.2 Contribution to practice

First of all, this research contributes to the processes of Six Fingers. It offers a more structured process, which lengthens the exploration phase but greatly shortens the selection time during the development phase and helps to explain the value created throughout the process.

Next to that, consultancy firms focussed on innovation will benefit from this research. They can use the process to break the dominant logic of their clients. Practically, the process of innovation by means of selecting and transferring proven business models to other sectors can be copied by other parties. With the help of the split up of the diagnosis phase a user can go through the process step by step and has a higher assurance for an outcome. A few things need to be considered when using the aforementioned process. Six Fingers can easily use this process, since they have numerous detailed cases in their Jukebox ready to be selected. For someone using the process in practice this would mean that, after selecting all the parameters and extremes, a more elaborate search would be needed. One of the reasons the Jukebox is used in such a strict manner is to keep the selection fairly unbiased. The new user would need to do a search in the hope for cases that discuss the same parameters as chosen in the Exploration phase.

Next to that, the found questions and parameters can help a firm to break down their current situation. This manner of situation analysis and the comparison of solutions can be used in any Business Model innovation process. The latter is important, the parameters found, and basis of this entire process, are based on business models and not directly strategically or organisationally oriented. There is, however, also an advantage a non-consultancy user has. They have the possibility to do multiple iterations and re-try if a number of cases are the wrong ones for breaking the dominant logic. There is for these type of users no limitation regarding the number of sessions. When a firm uses the process for its own problems a problem arises. Cases are used to break

dominant logic. At the moment one selects a case for his/her own problem this is done within that Dominant Logic. Therefore, emphasis needs to be put on forming an abstract situation and from there selecting parameters/extremes, which lead to proven business cases.

6.3 Further research/limitations

The first and most important limitation is the fact that full testing has not yet been done. This is then immediately also the first subject for further research. In other words, in order to prove the output of the design full testing needs to be conducted.

The focus of this research was on the selection procedure, which goes from problem statement to the actual selection of a case. This means that research still is needed for the second part of the process: from the transfer of a case up to the evaluation of the implementation.

All the research was done at Six Fingers, which results in a few limitations. The focus of Six Fingers is on larger firms. Next to that, most clients are active in: consumer and financial goods and mostly business to consumer. This affects the cases in the database, the client cases available and the dominant logic of the employees. Most of the redesigned process is based on that data. In other words, more research will be needed to confirm consistency in other sectors and for SME firms.

Furthermore, the proven business cases used to find the parameters were also the ones used to control for coverage during the testing phase. This was done with a large dataset, but still a bias in that part of the testing should be looked for. In order to minimize this bias the testing was done with two employees which were not part of the data analysis. In order to remove this bias completely a re-testing needs to be done with new random data sets.

The business model innovation by means of the selection and transfer of proven business cases from other sectors has shown to be a structured innovation tool, that is capable of breaking down dominant logic, however further research will be needed to prove performance gain over other methods.

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Appendix I Current Jukebox Design

The table below gives an overview of all the search fields available in the Jukebox

Variable	Description
Concept name	Name of the concept. Note not the name of the firm
Rating	Rating of the concept by Six Fingers
Creation date	Date the concept was entered into the database
Date	Date the concept was initiated
Innovation dimension	Incremental, tactical, strategic, internal
Innovation area	Variables: Communication, service, product, sales/distribution
Core words	Experience, target group approach, Optimize, Blue Ocean, exclusivity, image, action, knowledge transfer, lock in, loyalty, brand awareness, niche, new product/service, new market, personnel, price, process optimization, storytelling, cooperation, specific target group, expand services, sales optimization, personalize, surprise/alienate, simplify/make transparant
Description	Description and explanation of the concept
Business	B2B, B2B+B2C, B2C
Market	producer, distributive trade, service provider
Product Description	The product or service the concept is aimed at
Country	Country or continent the concept is applied in
Media	Variables: Billboard, community, paper, event, games, mobile, pod casting, radio, television, magazine, user generated content, trade journal
Areas of success	Variables: Image, brand awareness, sales profit
Risk description	Risks involved with the concept
Logistics	Whether or not a logistical process is involved
Purchase process	Whether or not a purchase process is involved
Applicable market	producer, distributive trade, service provider
Applicable sub-market	Industry the concept is active in
Firm	Firm name
Used by	Firms using the concept
Suitable for firms	For which firms the concept is suitable
Suitable for	Not in use

Appendix II Elaborated problems

Overview and explanation of all the problems found during the problem and process analysis:

1a: The one doing the initial briefing with the client often isn't the same as the one having the pick the cases. This means that cases are sought with a lack of information and leads to increased search times and having to redo the process sometimes.

1b: During the problem definition phase the client is confronted with a search for the real underlying problems. However, the output of this phase cannot be directly linked to the selection of cases. Meaning that for the selection phase another translation of the information is done by Six Fingers in order to be able to select the cases. This results in extra time needed and the possibility of making incorrect translations.

1c: Even though the formal Branchmarking process advocates a situation analysis this is not always done during sessions.

2a: There is no standard procedure for selecting the cases. As discussed there is a multitude of manners by which cases are chosen. Every user of the system uses his/her own method. Because of this, it is impossible to explain a structured process to the client.

2b: Only a small amount of the cases are worked up in detail: of the 710 cases in the jukebox around 135 have been worked out in detail. This makes it easier for the user to select one of the latter. Next to that, more time is needed to prepare for a development session.

2c: At Six Fingers there is a tendency to use familiar cases: because of the lack of a systematic and structured process for selection familiar cases are easily chosen. The cases are chosen based on what is top of mind in the head of the user

2d: Always limited by the time available (number of cases level of detail):

3a: Large amount of undefined variables: in the jukebox dialogue of variables that are not being linked to cases. This also means that it is difficult to find a number of cases.

3b: Partially in Dutch Partially in English: the description of the case is based on how the case was found. Often a direct copy is made. This means that, in some cases are in Dutch and others in English. Next to that, no uniform format for the description issues, which makes it difficult to compare cases. But this also makes the search procedures in the jukebox more difficult than is necessary. Often a search is done within the descriptions. The above facts and make it difficult to trust a search result

3c: not all search terms are used: in the jukebox not all search terms are used. This makes the jukebox overly complex and ambiguous.

3d: Different levels of abstraction under one variable: the terms or parameters under a search variable in the jukebox use different forms of abstraction.

4a: elements are thought up for every client: for this selection process no standard list of elements has been formulated. This means that for every client a new set of elements need to be thought up.

4b: Different output per employee/search: the output of this manner of selection is totally dependent upon the user. This makes it difficult to explain the process to the client in hindsight.

5a: Inventive principles are tech based: the inventive principles TRIZ are based on a large set of patents. All of these patents have a technical focus. Because of this, also the inventive principles of formulated in technical jargon. This makes it near to impossible to interpret them without having studied every principle individually.

5b: Contradictions should be linked to cases: in order to correctly convert TRIZ to a business model setting the cases should be linked to contradictions instead of inventive principles. This in turn would require at least around 1600 cases.

5c: Hard to get scientifically correct: without the 1600 cases it is near to impossible to scientifically prove this set up. Next to that, not even the basis of TRIZ has not been scientifically proven. In other words, by using TRIZ in this manner one builds three scientifically proven models upon each other.

6a: Cases are found which still need to be worked up: in this manner of search all users brainstorm for possible cases. This often leads to cases that are not shared in an elaborated form in the jukebox.

6b: Uncertain output: because of the randomness of this approach it is difficult to predict what the outcome will be: case and time wise.

6c: Difficult to validate: after the assignments is done it is near to impossible to explain and validate how the case was chosen. The client cannot be given the feeling that he/she has undergone a structured and professional process.

7a: Large number of variables which cannot be influenced: during every assignment there are a lot of variables which cannot be influenced. For instance, certain parts of the business model or the people involved to create support.

10a: High costs: validation is done via external market research. This is a very expensive procedure. Six Fingers can offer no cheap alternative at this moment. However, part of the strength of the Branchmarking method is that it is based on proven cases. This already is one form of validation.

10b: Hard to control or influence: as mentioned before, validation is done externally. This has as an effect that there is no control of the outcome.

11a: No standard format for the content: again, as mentioned before, there is no standard format for cases place in the jukebox.

11b: B2B vs. B2C/Land vs continent: most cases in the jukebox are focused on B2C. However, B2B cases might be needed more in the future. Especially, since more and more strategic orders are gotten.

Appendix III Six Finger parameters & extremes

This appendix shows all the parameters with the corresponding extremes, subdivided under the different questions. Next to that, per extreme an example case has been added.

How do we create value? - *Value offering*

Parameter	Extreme 1	Case 1	Extreme 2	Case 2
Product experience	Functional	Easy to book	Emotional	American Girl
Product design	Functional	Tata	Design	Swatch
Ease of use	Low	Topcoder	High	Callaway
Functionality	Single function	Quooker	Multi-functional	Jyske
Coverage of the solution	Single-need	Aldi	Full-need	American Girl
Breadth of the product portfolio	Narrow	Fatboy	Wide	Rice to riches
Depth of the product portfolio	Shallow	Trader Joe's	Deep	Urban Outfitters
Quality	Low	Euro shopper	High	TCHO
Warranty	Low	Apple	High	Land's End/Miele
Service	Low	UPC	High	Zappos
Standardization of the product	Standardized	Q8 Housing	Customizable	Youbar/Keepcup
Sustainability	Low	-	High	Innocent
Knowledge sharing	Low	Coca cola	High	Patients like me

How do we create value? - *Distribution*

<i>Parameter</i>	<i>Extreme 1</i>	<i>Case 1</i>	<i>Extreme 2</i>	<i>Case 2</i>
Availability	Limited	El Bulli	24/7	ANWB
Channel	Direct	EyeBuyDirect	Intermediary	Trung Nyguyen
Accessibility	Mass	Bruna	Exclusivity	Nespresso
Shop design	Functional	ADEG	Design	Quarter pounder
Region	Locally	7Eleven	Mondial	Innocentive

How do we create value? - Relationship

<i>Parameter</i>	<i>Extreme 1</i>	<i>Case 1</i>	<i>Extreme 2</i>	<i>Case 2</i>
Contact moments	Few	Utility companies	Many	Zappos
Involving the customer -> producer	Detached	AH	Involved	Caja Navarra
Involving the producer -> customer	Detached	AH	Involved	CRM essentials
Contact point	Automated	M3Housing	Human	Zappos
Transparency	Open	Caja Navarra	Closed	Quarter Pounder
Interaction during sales	Self-Service	Kijkshop	Sales advice	Super Quinn
Customer approach	Personal	Bol.com	Non- personal	Albert Heijn
Buying experience	Rational	Dabbawallas	Emotional	Chick-Fil-A
Customer approach	Individual	Bol.com	Community	Momslikeme

For who do we create value?

<i>Parameter</i>	<i>Extreme 1</i>	<i>Case 1</i>	<i>Extreme 2</i>	<i>Case 2</i>
Breadth of the target group	Narrow	ADEG	Wide	Callway
Clustering of the target group	Split up	Kotex	Clustered	Urban Outfitters

How do we make money?

<i>Parameter</i>	<i>Extreme 1</i>	<i>Case 1</i>	<i>Extreme 2</i>	<i>Case 2</i>
Availability in pricing	Available	Yellow Tail	Exclusive	Voss Water
Investment	Long term	Spotify	One time	Groupon
Customer bonding	Contractual bound	Mortgage Brokers	terminable contract	Spotify
Form of income	Funds	Pink Ribbon	Commercial	Gradefund

Appendix IV Explanation of the parameters

This appendix gives an overview of all the parameters, plus a short description per parameter.

How do we create value?

Value offering

Parameter

Product experience	What is the experience delivered when using the process
Product design	Is the product only made to fulfil its core function or does the design also add value?
Ease of use	How easy is the product/service to be used? Are knowledge and expertise needed?
Functionality	How many functions are incorporated into the design? For how many things can it be used?
Coverage of the solution	Do I just get product or a turn-key solution?
Breadth of the product portfolio	How many different products do are offered?
Depth of the product portfolio	How many product are offered that complement one another?
Quality	How high is the quality of the product/service?
Warranty	How long is the warranty offered and what policy is there regarding breakdowns?
Service	What kind of services are delivered to customers with problems?
Standardization of the product	Can the customer choose only choose a standardized product, a modifiable product or is the product custom made?
Sustainability	Is there a focus on sustainability (in the product as well as the production process.
Knowledge sharing	Is knowledge being shared with the customers or is everything kept a secret? Mystery vs. openness

Distribution

Parameter

Availability	Is the sales channel always available or is exclusivity created by means of limited availability?
Channel	Is the firm in direct contact with the customer or is an intermediary used for connecting the two?
Accessibility	Is the aim of the channel to attract the masses or only an exclusive set of customers?
Shop	Is the shop designed for making efficient sales or are design elements added?
Region	Is there a local focus or is the product exactly the same where ever it is delivered?

Relationship

Parameter

Contact moments	How often is a customer/prospect contacted?
Involving the customer with the producer	Is the customer involved with the development and/or sales processes?
Involving the producer with the customer	Does the producer know who the customer is and is there a constant feedback loop between the two?
Contact point	Is the contact point for a customer automated or does he/she always get to speak a person?
Transparency	Is the firm open concerning their processes and products?
Interaction during sales	Is the sales process guided by the firm or does the customer have to make the decisions by himself?
Customer approach	Is the customer personally known or just another number?
Buying experience	Is the buying experience based on making the sale as efficiently as possible or is there added value in experiencing the process?

For who do we create value?

Parameter

Breadth of the target group

How large is the target group?

Clustering of the target group

Is there a different approach for different groups of customers?

How do we make money?

Parameter

Availability in pricing

Is the product available to anyone or focussed on a select few via means of pricing?

Investment

How many payments does a customer have to make for a single sale?

Customer bonding

How is the customer bound to the selling-firm?

Form of income

Is income generated via funds or via commercial parths?

Appendix V New Jukebox Design

Variable	Description
Concept name	Name of the concept. Note not the name of the firm
Rating	Rating of the concept by Six Fingers
Creation date	Date the concept was entered into the database
Date	Date the concept was initiated
Innovation dimension	Incremental, tactical, strategic, internal
Innovation area	Variables: Communication, service, product, sales/distribution
Business model parameters	A checklist which includes all the parameters discussed in Appendix III and IV. It is important that the checklists have an AND function. In other words cases are excluded by adding more parameters.
Marketing parameters	For marketing related cases a separate list needs to be formulated. This is not part of this research.
Description	Description and explanation of the concept
Business	B2B, B2B+B2C, B2C
Market	producer, distributive trade, service provider
Product Description	The product or service the concept is aimed at
Continent	Continent the concept is applied in
Areas of success	Variables: Image, brand awareness, sales profit
Risk description	Risks involved with the concept
Applicable market	producer, distributive trade, service provider
Applicable sub-market	Industry the concept is active in
Firm	Firm name
Used by	Firms using the concept