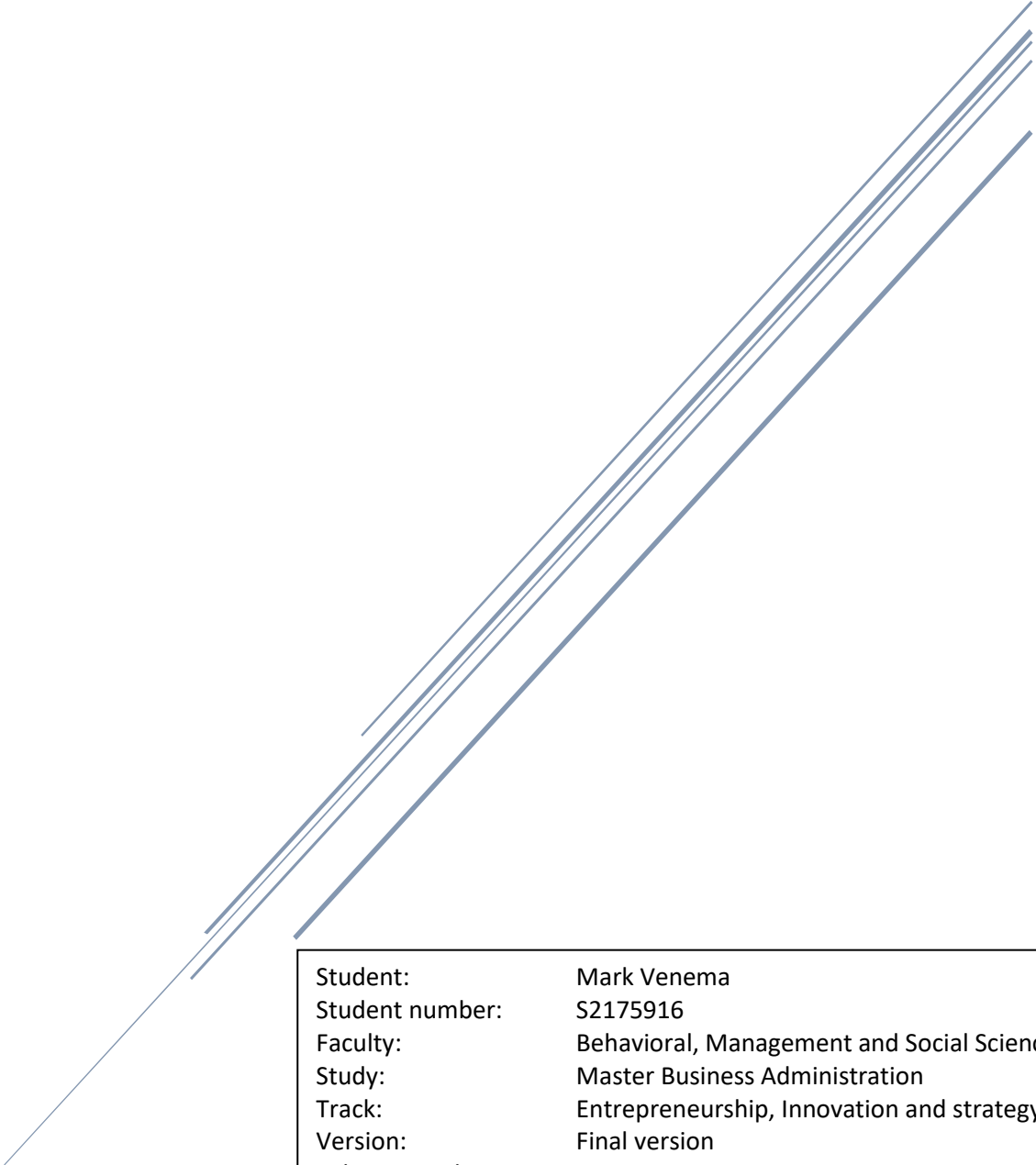


MASTER THESIS

Exploring the alteration of the business model logic to engage in business model innovation.



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Abstract

The concept of business model innovation' is part of a three-part circular relationship. The other two parts are 'business model' and 'business model logic.'. The circular relationship is somewhat complicated, as many other aspects can influence the parts of the relationship individually. The most vital aspect which affects the business model logic is the managerial cognition. The managerial cognition is part of a self-reinforcing structure of which the other part is the business model logic. This self-reinforcing nature occurs when a business model becomes embedded in the organization. The self-reinforcing part helps to further embedded the business model logic. A firmly embedded business model logic is risky as it is hard to unlearn when a business desires to go into another direction.

This thesis paper aims to create a clear understanding of the concept of business model logic. The goal of this understanding is to design a method that can help a case company in the installation technology section alter its firmly embedded business model logic. The company has the desire to alter this logic to include innovation and open up for business model innovation.

The main body of the thesis consists of two parts. The diagnostic part includes data regarding the business model logic of the case company, gathered through interviews with the top management of the organization. Furthermore, this part includes theory-based data regarding the causes and effects of the business model, gathered through a systematic literature review.

Following the diagnostic part is a solution design for the diagnosed business model logic scenario. The solution design aims to provide a method that can function as a solution for the diagnosed scenario. A second systematic literature review gathered theory-based data to develop the required method. Lastly, a workshop with the top management tested the appropriateness of the developed method.

Glossary of terms

- *Business model*: “a business model is a unit of analysis that describes the method by which a business exploits a business opportunity to deliver value to the customers and generate revenue from that value. This method includes the mechanisms to enable transactions, structure the participants involved, and describe and use the resources, capabilities, information, and goods involved.” (page 10)
- *Business model innovation*: “business model innovation is a way of commercializing an innovation by creating and capturing value from it, which is achieved through either adaptation(s) in the current business model or the creation of a new business model.” (page 10)
- *Business model logic*: a “conceptual framework for thinking about the process and results of cognitive simplification in top management teams” (Bettis, Wong, & Blettner, 2015, p. 370). A popular synonym often used by researchers is the dominant logic. (page 11)
- *Planned organizational change*: “deliberate activities that move an organization from its present state to a desired future state” (Stouten, Rousseau, & De Cremer, 2018, p. 752). (page 30)
- *Managerial cognition*: “Managerial cognition refers to belief systems and mental models involved in the decision-making process” (Kor & Mesko, 2013). (page 21)
- *Learned heuristics*: “Learned heuristics consist of processes and beliefs which derive from the managers’ educational background and previous work experience (Bettis et al., 2015; Schneckenberg, Velamuri, & Comberg, 2019).” (page 21)
- *Analogical transfer*: “Analogical transfer refers to well-known reference frames, often industry recipes used to design a BM (Schneckenberg et al., 2019).” (page 20)
- *Conceptual combination*: “A similar aspect as analogical transfer, which also influences the managerial cognition, is conceptual combination. The similarity between both aspects can be found in the use of a second source for the (re)organization of knowledge related to the first concept BM (Martins, Rindova, & Greenbaum, 2015). The difference Conceptual combination focuses on pinpointing the differences between the concepts (Martins et al., 2015)” (page 21)
- *Simplicity*: “Managers have to process much information that comes with decision-making uncertainties (Osievskyy & Dewald, 2015). Managers turn to coping mechanisms based on cognitive aspects to simplify the information (Schneckenberg, Velamuri, Comberg, & Spieth, 2017).” (page 22)
- *Self-reinforcing nature*: “The BML can be seen as a self-reinforcing managerial cognition concept. The managerial cognition leads to the development of structure, schemas, routines, and procedures. Through this development, it creates the BML. This BML, in turn, reinforces the managerial cognition by routinizing the structure (Bolton, 2004; Jarzabkowski, 2001).” (page 23)
- *Cognitive inertia*: “The cognitive inertia refers to the managers’ desire to stick to the current thinking model, which is the BML or dominant logic (Bergman, Jantunen, & Tarkiainen, 2015).” (page 24)
- *Structural inertia*: “Another form is structural inertia, which is a result of the successful establishment of the self-reinforcing relationship. The structures, procedures, routines, and schemas used to create the BML change into values, rules, controls, and incentives that mirror the BML (Bettis et al., 2015). These structures, procedures make it harder for the organization to do different things or do things differently.” (page 24)

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1. Introduction

1.1 Topic introduction

Most businesses these days operate in a globally competitive market in which technology develops rapidly. These developments and the high level of competitiveness can be threatening to the competitive advantage of a business. As a response, businesses often opt to make significant or small adjustments to their business model (BM). These adjustments are critical for businesses to maintain their competitive advantage. Researchers define the adjusting of the business model in order to maintain a competitive advantage as 'business model innovation' (BMI). The focus of BMI is to alter the existing BM to capture value from commercially exploitable opportunities. It is essential to develop an appropriate BM that fits around the exploitable opportunity (Chesbrough, 2007, 2010; Cosenz & Noto, 2018; Sosna, Trevinyo-Rodríguez, & Velamuri, 2010; Teece, 2010). Chesbrough (2010) emphasizes the importance of an appropriate BM with the following quote "a mediocre technology pursued within a great business model may be more valuable than a great technology exploited via a mediocre business model" (p. 355)

Many currently, successful businesses have gained or maintained their competitive advantage through the use of BMI. An excellent example of the need for appropriate BMI is Netflix, which adapted its website for DVD-rental in America into a worldwide online streaming service. In order to become the now popular streaming service, Netflix had to make changes to its BM (Amit & Zott, 2018). Netflix owns most of its success to its ability to perceive and adapt their BM. The company initially started with a pay-per-rental model. However, they quickly realized that this model was unsuccessful. They adapted their BM to a subscription model, which suited them better. Furthermore, with the further rise of the internet, the company choose to exploit the opportunity of becoming a streaming service. This change required them to overhaul their BM in order to exploit the opportunity successfully (Santos, Spector, & Van der Heyden, 2009; Teece, 2010)

1.2 Case

1.2.1 Case company

This paper will focus on BMI for a specific case company. The organization in question is currently successfully operating in the technology sector. The company has five different business units with their own BMs. These units are installation techniques, industrial automatization, sustainable techniques, ICT and telecommunication, and service and maintenance. The organization mostly operates in the Netherlands. Other countries they operate in are Ireland, Denmark, Germany, The United States, and Belgium.

This organization is a compelling case to research. They currently have a competitive advantage and are successful in exploiting that advantage. Furthermore, the organization is operating in an industry in which a disruptive technology can be just around the corner. Therefore, the organization could lose its competitive advantage at any time. In order to prevent this loss of the competitive advantage, the organization requires BMI.

Additionally, this case is compelling as it has multiple different yet interacting BMs. Therefore, it can be that one BM is no longer maintaining a competitive advantage while another is. To add, as the BMs are related, it could be that making adjustments to one BM harms the competitive advantage of another. A BM in the case company has to be appropriate for the exploitable opportunity and the other BMs.

1.2.2 Intake meeting

Before the start of the thesis, an intake meeting has taken place intending to understand the problem. In the intake meeting, the organization mentions that they have a desire to find new exploitable innovations. The organization wants to maintain its competitive advantage through the use of these innovations. Innovations mentioned where product innovations (e.g., infra-red heating),

organizational innovations (e.g., new departments or combination of departments), and BM innovations (e.g., a data-based BMs).

As a response to their desire, the organization has installed an innovation manager. The task of the innovation manager is to handle everything innovation-related at the company. This task includes guiding innovation projects, searching for possible opportunities, guiding innovation research, and promoting innovative thinking. However, the innovation manager realizes that there is an obstacle to his task. This obstacle is that some members of the organization do not recognize the necessity of exploiting innovations. This lack of necessity makes it hard for the innovation manager to engage in BMI as some members grasp the existing BMs without willing to let go.

According to the innovation manager, this lack of necessity has to do with the logic of the members. Most members feel that the organization is running fine right now and want to keep it this way. Making changes through innovation is seen as risky. Additionally, it has to do with the logic of the members. The innovation manager describes that many members seem stuck in the current way of thinking while ignoring an innovative way of thinking. The current logic is to “do things as they always have been done.” This logic obstructs the necessary innovative thinking. Therefore, the innovation manager desires to have this logic altered, so it includes a more innovative logic.

1.2.3 External exploration

The external exploration focuses on discovering the theoretical background behind the information from the intake meeting. The ‘logic’ discussed in the intake meeting is the business model logic (BML). BML, often called the ‘dominant logic.’, can be described as a logic based on the BM and used to process information for the business. Meaning that information is either relevant or irrelevant for the BM. The business uses relevant information while discarding irrelevant information (Bettis & Prahalad, 1995; Chesbrough, 2010; Weissbrod & Bocken, 2017).

Furthermore, the theory describes engaging in BMI as a difficult process. The organization might face several challenges before being able to execute BMI successfully. These challenges include altering the current BML. Other challenges are overcoming internal resistance towards business model innovation, finding commercially exploitable innovations, and correctly innovating the business model into a functioning model. These challenges can lead to uncertainties and risks for businesses. Additionally, overcoming these challenges can be difficult. (Chesbrough & Rosenbloom, 2002; Frankenberger, Weiblen, Csik, & Gassmann, 2013; Schneider & Spieth, 2013)

Besides, Prahalad (2004) explains that it is a common occurrence for businesses to get stuck in their BML. He further explains that, over time, successful BMs become embedded in the organization. This embedment leads to the BML. The stronger this BML is embedded, the harder it is to alter or unlearn the BML. Whether a firmly embedded logic is positive or negative for the organization depends on the situation. In a stable market, the embedded logic can work as a filter allowing the business to focus on what is necessary. However, in an unstable market, the embedded logic can work as a blinder, blinding the business from threats and opportunities (Bettis et al., 2015).

1.2.4 Initial problem definition

The above theory identifies the problem described in the intake meeting as a BML related problem. The obstruction the case company has to deal with is a firmly embedded BML. This embedded BML explains the difficulty the innovation manager faces when trying to engage in BMI. Additionally, the difficulty is in link with what the theory describes as the difficulty to alter or unlearn the existing BML. Furthermore, the logic of “doing things as they always have been done” is, according to theory, a result of the blinders aligned with the firmly embedded BML. As the case company is operating in an unstable competitive market, these blinders can be a risk for the organization. The company is blinding itself from opportunities and threats. This blinding makes it challenging to react to changes in their environment. This challenge, in turn, makes it possible for competitors to overtake the competitive advantage of the case company. This loss of the competitive advantage is what the case company tries to avoid.

Thus, required to solve the case company’s problem is a method to alter the firmly embedded BML. More research on the concept of ‘BML’ is required to identify a useful method. Therefore, this research paper aims to use theory to explore the concept of ‘BML,’ mostly its causes and effects. Another requirement is to create a better understanding of the current BML situation within the case company. Following the exploration is the search for an appropriate method to alter the case company’s BML. Therefore, based on the previously mentioned requirements, the following research question has been formulated: “What is known about a firmly embedded BML and the methods required to alter such BML?” This research question captures the essence of gathering, theoretical, knowledge, useful for the exploration and alteration of the case company’s BML.

1.3 The problem-solving approach

As the described problem is a combination of theoretical and practical information, traditional research does have a good fit. Therefore, this thesis paper will use a problem-solving approach as a research methodology. In the context of a problem-solving approach, this thesis is a field problem-solving project (FPS project). The FPS project is a design-oriented and theory-informed methodology that focuses on solving a problem in an organization. This approach originates from the third edition of the book 'Problem Solving in Organizations' by Joan van Aken and Hans Berends (2018). The approach follows the problem-solving cycle (figure 1.1). A specific business problem drives this problem-solving cycle. The cycle follows several steps to identify and analyze the problem; and design, implement, and evaluate a solution (Van Aken & Berends, 2018). The reason for the use of this approach in the thesis is because it best suits the thesis subject. The subject in this thesis focuses on a practical subject, namely solving a problem in an organization.

However, this paper does not fully use the problem-solving approach. This with the reason that this thesis has a higher theory focus than the suggested approach. This higher theory focus is useful to make sure that there is enough theoretical depth to solve the previously described problem. The higher theory focus is most important in the solution design step. The book’s approach towards this step is mostly practical oriented. This thesis project will, however, use a systematic literature review to support the solution. Additionally, given the time-span, the learning and evaluation step will not be executed. Both decisions derive from consultation with the university examiner of this thesis.

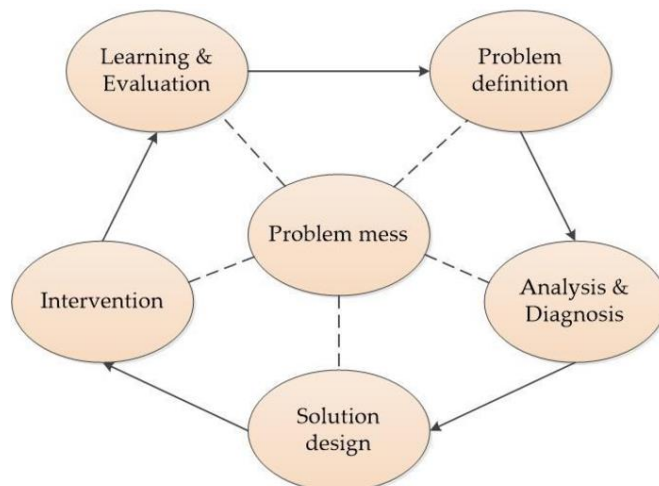


Figure 1.1 the problem-solving cycle (van Aken & Berends, 2018)

1.4 Goals of the artifact developed (deliverables)

Following the research question is the goals of this research paper. In the context of the problem-solving approach by van Aken and Berends (2018), the goals are the assignments and deliverables. The assignment consists of sub-assignments, which are the points above. These sub-assignments contain

deliverables of the project which come from the problem-solving cycle. Presented below are the sub-assignments/deliverables for this FPS project.

- Further, investigate the described problem through internal exploration. The FPS project identifies the problem of interest as the problem mess. A problem mess is a combination of perceptions of reality, value judgments based on those perceptions, and of influential or less powerful people making those judgments. Additionally, the information regarding the problem mess originates from the intake meeting and external exploration. More in-depth internal exploration would make it possible to get a better picture of the problem mess. Therefore, further investigation of the problem mess is required.
- Establish a cause-and-effect tree that can visualize the problem mess. This step is related to the previously mentioned step. Expected is that the internal exploration will lead to several perceptions and judgments regarding the BML logic within the organization. These perceptions and judgments can be put in the cause-and-effect tree to create a visualization of the problem mess. This visualization will describe the relationships between the causes and effects of the problem mess more clearly.
- Determine, through the use of systematic literature research, the actual cause-and-effect relationships. This systematic literature research aims to search for other causes empirically and to validate the causes discovered in the previous steps.
- Develop a solution, supported by the theory gathered through a systematic literature review, to the business problem. After the designing of the solution, a workshop tests one of the steps from the solution.

1.6 Thesis outline

The thesis paper consists of five additional chapters. Chapter two discusses the conceptual background of the thesis. This background, written in the form of a literature review, discusses the core concepts of the thesis. The third chapter discusses the methodology used to research the defined problem and its possible solution. In the fourth chapter, the artefact description represents the main body of the paper. This part consists of two subchapters. The first being the diagnosis chapter, and the second being the solution design chapter. The first chapter focuses on further diagnosing the problem mess. While the second focuses on finding a possible solution for the diagnosed problem. The fifth chapter is the discussion that discusses the research process. Lastly, the sixth chapter is the conclusion that provides a general conclusion for the thesis paper.

2. Conceptual background

The conceptual background aims to develop a foundation for the thesis paper by discussing the core concepts. The first is 'business model,' the second is 'business model innovation,' and the third is 'business model logic.'

2.1 Business models

It is constructive to start with the creation of an understanding of the concept of BM. Teece (2010) describes a BM as a design or architecture of the value creation, delivery, and capture mechanisms of business. Its basics are in defining how a business delivers value to the customer, entices customers to pay for value, and converts those payments into profit. Additionally, Chesbrough and Rosenbloom (2002) define BM in a rather basic sense. Their definition is that "a business model is a method of doing business by which a company can sustain itself-that is, generate revenue. The business model spells out how a company makes money by specifying where it is positioned in the value chain." (p. 533). Amit and Zott (2001) describe the BM as a unit of analysis by defining it as following: "a business model depicts the content, structure, and governance of transactions designed to create value through the exploitation of business model opportunities" (p. 22).

The definitions from these articles all seem to have the same core. However, they do differ in the description of this core. What the definitions seem to agree on is that a BM describes how a company creates value or positions itself in the value chain. All three definitions also state that a BM describes how a business generates revenue. The three definitions do, however, describe the concept of BMs in three different ways. None of these ways fully describe the essence which this paper wants to reach. Therefore, this paper will use a self-created definition based on the three mentioned definitions. This because the three definitions combined seem to define the essence of a BM for this paper accurately. The definition used in this paper is as follows:

A business model is a unit of analysis that describes the method by which a business exploits a business opportunity to deliver value to the customers and generate revenue from that value. This method includes the mechanisms to enable transactions, structure the participants involved, and describe and use the resources, capabilities, information, and goods involved.

Next, to a definition, a BM also has a function. Both Chesbrough & Rosenbloom (2002) and Teece (2010) describe several aspects of BM's function. To start, a good BM distinct the value propositions of a business, which are irresistible to the consumers. Second, it identifies the market segments the business wants to target. Meaning who will be the users, for what purpose, and how will the revenue mechanism work. Third, a BM defines the structure of the value chain required to distribute the value in a cost-effective and in a reasonable time. Fourth, it estimates the cost structure and profit potential of organizing the business's offering, based on the value proposition and value chain. Fifth, it describes the business's position in the value network. It explains how business links suppliers with customers. The value chain also identifies competitors and complementors. Lastly, a good BM draws up the competitive strategy of a business to gain and maintain an advantage over competitors. (Chesbrough & Rosenbloom, 2002; Teece, 2010)

2.2 Business model innovation

Now that there is an understanding of the concept 'business models,' the focus can now be on the concept of 'business model innovation.' Firstly, the focus will be on what BMI is. BMI is vital for a business to commercialize innovations. It occurs when a business encounters an innovation that they wish to commercialize (Schneider & Spieth, 2013). To capture or deliver value from the innovation, innovators require a well-developed BM (Teece, 2010). Additionally, Chesbrough (2010) explains that the economic value of an innovative technology remains unused if not commercialized in some way through a BM. Schneider and Spieth (2013) add that BMs provide a framework for innovation.

Explaining its importance does, however, not define what BMI is. The concept of 'business model innovation' is an upcoming concept, and an increasing number of researches discuss the concept. Nonetheless, there are not many definitions which accurately define the concept. One of the available definitions is that by Frankenberger et al. (2013). They define BMI as "a novel way of how to create and capture value, which is achieved through a change of one or multiple components in the business model" (p. 4). This definition does capture part of BMI, but not all of it. Additionally, Santos et al. (2009) define BMI as "a reconfiguration of activities in the existing business model of a firm that is new to the product/service market in which the firm competes." (p. 14). They deliberately chose a focus on the concept of 'reconfiguration' within their definition as they focus on this concept in their paper. This research does, however, focus less on these types of businesses. Therefore, the definition does not fully cover what is meant by BMI within this research paper.

Since the available definitions do not cover the concept of BMI, this paper will use a self-created definition (based on the available definitions and literature). The definition is as follows:

Business model innovation is a way of commercializing an innovation by creating and capturing value from it, which is achieved through either adaptation(s) in the current business model or the creation of a new business model.

BMI seems to continue on the concept of ‘business models.’. The difference is, however, that in BMI, there is an already existing BM. This existing BM is either adapted, replaced or diversified through an additional BM to commercialize innovation. If not, the innovation will either be canceled or commercialized externally. Whether to commercialize internally or externally is determined during the process of BMI. Additionally, what to adapt within the current BM or completely replacing it is also determined during this process. (Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002; Corbo, 2017; Geissdoerfer et al., 2018; Schneider & Spieth, 2013; Teece, 2010)

Therefore, the next step aims to create an understanding of the process of conducting BMI. Firstly, the first step is an innovative idea. This idea could be an idea about new technology, new markets, or new trends. Businesses that are eager for the exploitation of business opportunities actively search for innovative ideas. This active search is commonly done by scanning the market and investing in the R&D department. However, this can be risky, slow, and expensive (Santos et al., 2009).

Nonetheless, this does not mean that this is bad. A well (commercially) developed technology originating from the R&D department can create a competitive advantage for the business (Cosenz & Noto, 2018). Scanning the market can help to find ideas from unmet customer needs, particular customer segments, a resource or capability, or a combination of these elements (Vogel, 2016). To add external ideas can also come from businesses within the same industry or in other industries. Businesses can try and replicate BMs from other businesses for their benefit. Replicating a BM is, however, proven to be difficult as a BM is complicated and sometimes firm-specific (Corbo, 2017).

However, an idea is not an exploitable innovative opportunity. The idea first is evaluated to become an opportunity. This evaluation focuses on whether it is worth to exploit the idea (Vogel, 2016). The evaluation is very similar to how entrepreneurs evaluate an idea before starting a new venture. The difference, however, is that in BMI, there already is a BM in practice. During the evaluation, it is critical to determine whether it is worth to adapt the BM or even replace it (Chesbrough, 2010). It could be that the innovative idea is worth exploiting but does not work with the current BM. The business then has to choose to either not exploit it, exploit it and replace the current BM, or exploit it through a new independent venture (Frankenberger et al., 2013). Also, it is possible to exploit it through diversification. With diversification, a BM is created additionally to the existing BM (Geissdoerfer et al., 2018).

There are several ways to implement an exploitable innovative opportunity. Firstly, a method is to start small with experiments (Ganguly & Euchner, 2018). A second method is to implement it added to the current BM (Sosna et al., 2010). A third method is to implement it entirely in one go (Chesbrough, 2010). Each way of implementing has its challenges and risks. The third method is the riskiest. It can destroy a company if the implementation fails or does not provide the required results. Implementing it additionally to the current BM is less risky. However, a challenge to overcome is distributing resources towards the new BM without harming the current one. Lastly, experiments are the least risky way of implementing. Experiments are smaller and do not change the BM. The BM change only happens when the experiments display the expected outcomes or generate enough data to realize the expected outcome. (Chesbrough, 2010; Ganguly & Euchner, 2018; Sosna et al., 2010; Teece, 2010)

2.3 Business model logic

Now that an understanding of the concept ‘business models’ and ‘business model innovation’ has been created, the focus can now be on the BML. To start, Bettis, Wong, and Blettner (2015) define BML as a “conceptual framework for thinking about the process and results of cognitive simplification in top management teams” (p. 370). A popular synonym often used by researchers is the dominant logic (Bettis et al., 2015; Schneider & Spieth, 2013; Sosna et al., 2010; Teece, 2010). The reason for the popularity of this synonym is that the BML, once established, often dominates visible and invisible organizational features (Bettis et al., 2015; Osiyevskyy & Dewald, 2015). To add, Prahalad (2004) explains that this dominant logic shapes how organizational members act and think. Prahalad (2004) views the dominant logic as a lens through which managers see emerging opportunities.

Whether the BML is positively or negatively affecting the organization depends on the situation of the organization. In a stable competitive environment, the BML helps the organization sustain strategy due to its consistency (Prahalad, 2004). Additionally, it can help an organization with simplifying their decision making in an uncertain and complex environment (Vossler, 2015). However, as Chesbrough (2010) depicts, the BML can act as a “double-edged sword” (p. 359). In a highly competitive environment that is subject to rapid changes, the BML can make it hard to recognize threats and opportunities (Prahalad, 2004). Additionally, the BML can lead an organization to decline due to the persistence of the current course (Sosna et al., 2010).

2.4 Conclusion

To conclude, the conceptual background aimed to develop a theoretical foundation for the described problem. The conceptual background has identified a relationship between the three key concepts of this paper. At the core of the relationship is the concept of ‘business model.’. After the creation of the initial BM, the relationship becomes visible as a continuous circle (represented in black in figure 2.1). A successful BM leads to the development of a BML. The more successful the BM is, the more likely it is that the BML becomes firmly embedded in the organization. When the organization chooses to engage in BMI to either maintain or regain its competitive advantage, the BML influences the BMI. A Firmly embedded BML makes it harder for the organization to engage in BMI while the opposite is for a loosely embedded BML. The BMI then focuses on adapting or replacing the existing BM in order to capture value from new opportunities. Then after the adaptation or replacement of the BM, the circle starts over.

The problem from the introduction seems to be related to this circular relationship. The case company has an existing BM, which is currently thriving. This BM has set up a firmly embedded BML, which now has become a difficulty for the execution of BMI. Thus the circular relationship has an obstruction between the BML and BMI (represented by the red line in figure 2.1). Therefore, in order to continue the circle, the BML has to be altered. The theoretical literature used for the conceptual background could not provide information about methods of altering the BML. Therefore, in order to solve the problem of the organization, additional information is required.

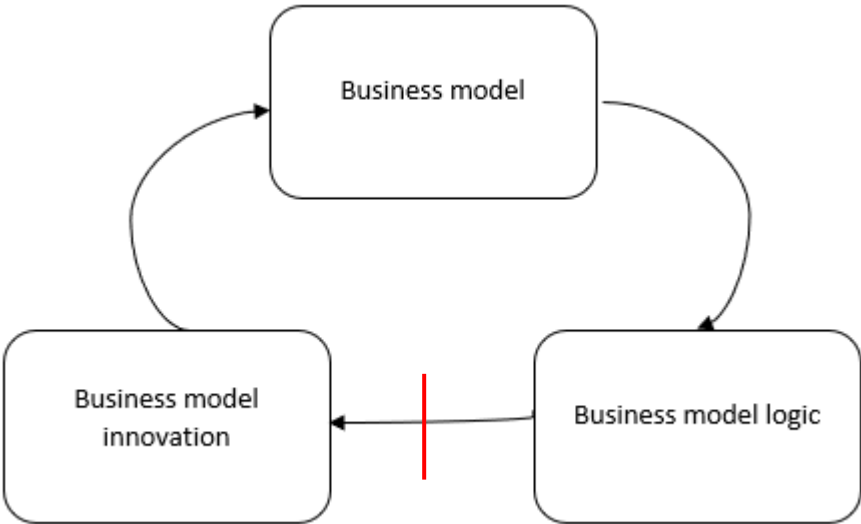


Figure 2.1 Circular relationship (case obstruction included in red)

3. Methodology

3.1 Data-gathering methods

As the previous chapter has indicated, additional research is required to understand the problem further and find an appropriate solution. Therefore, proper data gathering methods are required. The data gathering methods used for the problem are two systematic literature reviews, semi-structured interviews, and a workshop. Below, in figure 3.1, a timeline is presented, which displays the chronological order of the methods used. Additionally, the visualization creates a distinction between the methods used for the diagnostics and those for the solution design.

The research starts with creating a clearer picture of the case company through semi-structured interviews. The next step is to conduct a systematic literature review focused on a better understanding of the BML. Both the interviews as the review are part of the diagnostic part of the research. After the completion of the diagnostics, the solution part can start. This part firstly includes a systematic literature review focused on researching methods to solve the problem. Secondly, it includes a workshop to test a part of the solution design from the systematic literature review. The next section of this chapter describes the data gathering methods in more detail.

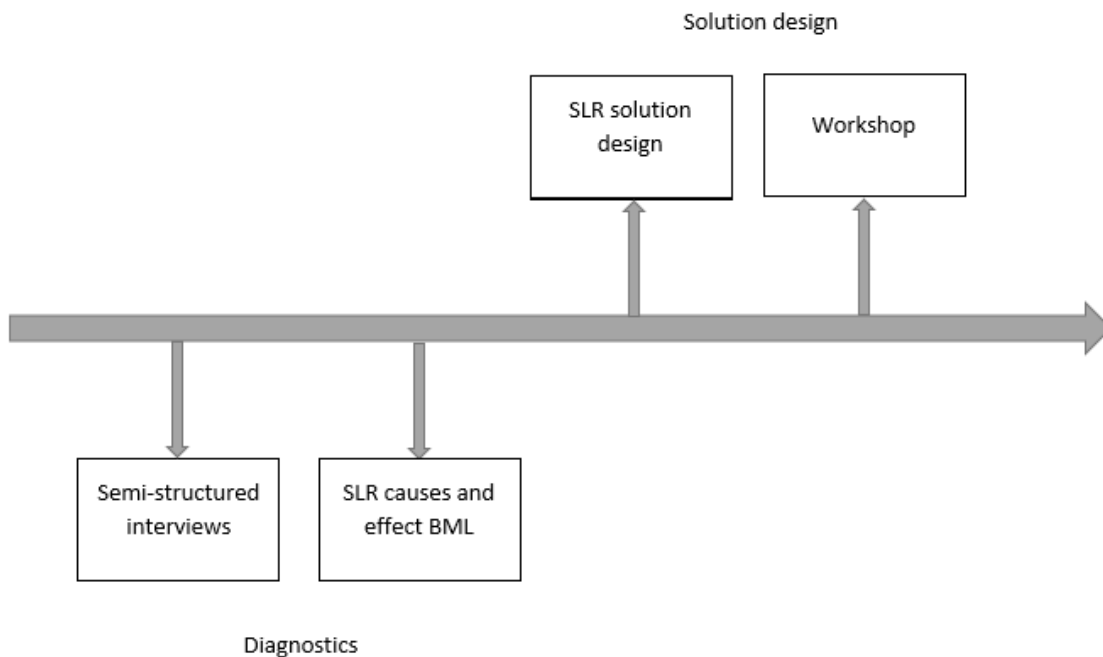


Figure 3.1 Methods timeline

3.2 Semi-structured interviews

3.2.1 Data gathering

This section describes how the empirical data for the diagnosis has been gathered. Bettis and Prahalad (1995) describe, in their paper regarding the BML, that interviewing top-managers is vital to diagnose the BML. Interviewing top-managers is essential as the BML is a phenomenon of which its underlying aspects are intangible, which means that interaction is required to discover the underlying aspects of the BML. Additionally, the top management is responsible for the BML. Therefore, in order to identify the BML, it is most fruitful to interview them (Bettis & Prahalad, 1995). Using interviews that focus on basic views of strategy and industry can, according to Bettis and Prahalad (1995), identify how the managers' process information.

The top-managers who have been interviewed are four business unit managers and two directors within the organization. These have been selected with the help of the innovation manager

within the case company. The reason that these six have been selected is due to their decision making role within the organization. The two directors have a general decision making role in the organization. On the other hand, the business unit managers have a decision making role for their business units. The organization's BML is influencing its role within the organization's influences and. Due to this interaction, the information they can provide is vital for the diagnosis of the BML.

As this project uses the design-oriented approach, it is essential to co-design the project. The role of the researcher is to direct the FPS project but not control it (Van Aken & Berends, 2018). Meaning that the researcher should not influence, but rather map, the managers' opinions. Accordingly, the interviews have been conducted using an open approach. The researcher will start by asking general questions and asks further questions that focus on the answers he receives. This way, the manager is in control, and the researcher focuses on understanding the information the manager provides. The expected result is a more in-depth picture of the problem mess, which has been used for the second sub-assignment. This second sub-assignment is the visualization of the problem mess through the use of a cause-effect tree.

3.2.2 Interview structure

The interviews use a semi-structured approach. Semi-structured interviews are used in situations in which the objective knowledge about a phenomenon is known, but the subjective knowledge is unknown (McIntosh & Morse, 2015). In this paper, theoretical knowledge has been gathered to understand the BML. However, this does not make it specific for the case company. Thus, subjective knowledge has been gathered to understand the phenomenon of this paper further. This gathering of subjective knowledge can be done using semi-structured interviews. The semi-structured interviews can be used to generate comparable data, which in turn can be used to understand the BML of the case organization (McIntosh & Morse, 2015). The semi-structured interviews use theory previously found in this paper as a structure. This theory-based information is confirmed by theory as to be linked to the BML of an organization. Therefore, such information can guide the interviews and make sure only relevant information for the organization's BML is gathered.

3.2.3 Data processing

Six interviews (recorded and transcribed) have been conducted in Dutch. They have been used to gather information for the empirical part of the diagnosis. Quotes have been taken from the transcripts and translated to English to be used as empirical data. The quotes and its translation can be found in appendix III. The results of the interviews can be found in the first section of chapter four.

3.3 Systematic literature reviews

3.3.1 Theory-informed diagnosis

The first systematic literature review focuses on gathering theoretical information regarding the BML and the altering of the BML. This information is essential for the diagnostic part of chapter 4. This method combines the strengths of a critical review with a comprehensive search process. It is a commonly used review method to develop recommendations for practitioners. The main theoretical field required to solve the BML altering problem at the organization follows from the problem definition. The problem concerns the business model management literature in general. However, the theory available in this literature is somewhat limited. Therefore, literature from other theoretical fields will also be used. Schneckenberg et al. (2017) explain that business model innovation (including BML) spans over the strategy, innovation, and entrepreneurship research fields. Therefore, expected is that these research fields would be able to provide relevant information that can be used to analyze the business problem.

Multiple sources and methods are used to find relevant information. The first source that will be used is Scopus. Scopus is a literature database with a wide variety of articles available. They use an independent review board to review the articles they make available. Using this allows them to publish

articles of good quality. This review board makes Scopus interesting for this research paper, as the quality of the articles is essential. Good quality articles can provide more useful and trustworthy information. Another literature database, Google Scholar, will be used. This additional to find as much as possible relevant information for this research paper. Google Scholar does not use a review board or any other method to review the articles. This lack of review makes the quality of the articles on Google Scholar disputable. Therefore, the articles have been assessed before using them. This assessment has been done by looking at the number of citations, assessing the credibility, correctness, and completeness.

Keywords in both databases have been used to find relevant articles. These keywords will be related to the topic of interest in this research paper. The first keywords that have been used are “Business model logic” AND “Business model innovation,”; and “Business model logic,” AND “innovation,” and “Dominant logic” AND “Business model innovation”, and “Dominant logic” AND “innovation”. The mentioned keywords have been tested and have resulted in relevant articles. These articles also use other keywords. These keywords, if deemed relevant, will be used to find more relevant articles. Additional to finding theory through keywords, another method has been used. This method is the snowball method. The first step within the snowball method is to find a set of useful articles. These authors have used other articles to write their articles. The snowball method uses the references of these articles to find new useful articles. The references from the newly found articles can then lead to new useful articles and so on. The downside of this method is that the new articles found are older than the previous articles found. The age of the articles might harm the credibility of them, as they might have become irrelevant. Therefore, the age of the article, in combination with its relevancy, will be considered. Appendix I provides a visualization of the systematics used for the systematic literature review.

3.3.2 Solution design

The second systematic literature review is a follow up of the diagnostic part of chapter four. The result of the diagnostic part is a clearly defined final problem definition. The goal of the second literature review is to develop a possible solution for the defined problem. This solution consists of theoretical information that focuses on the practical elements of the diagnosis. This way, a theory-based solution has been developed, which is suitable for the practical situation of the case company. The theoretical information has been gathered by conducting a systematic literature review. This review will mostly focus on change management literature. The reason for this choice is that the final problem definition is a common problem in the change management literature (Prats, Sosna, & Velamuri, 2012; Stouten et al., 2018). Therefore, it is most fruitful to gather information from the change management literature. The systematic literature focuses on identifying possible methods that can provide a solution to the problem. The most suitable methods and the most relevant information have been used to develop a solution to the problem. The systematic literature review has been executed similarly to the previous systematic literature review. This means that Scopus and Google Scholar databases, keywords, and the snowball method have been used. A visualization of the systematic literature review method used can be found in Appendix II.

3.4 Workshop

3.4.1 The workshop

The solution design part of chapter four finishes with a workshop. This workshop aimed to test a small part of the solution design. The workshop focuses on the second step from the solution design. This step is deemed as the most relevant for the current situation of the organization. The first step (the diagnosis of the current situation) has mostly been done in the diagnosis part of this FPS (thesis) project. It would not be fruitful to repeat this step. The next step is to assess the readiness for change. This step is particularly important as the diagnosis has identified that the organization’s readiness is rather disputable. The perspectives, regarding innovation, of the top-management, currently differs as

well. By using the organization readiness as a topic for the workshop, the top-management can reflect on themselves and their organization.

As Bettis and Prahalad (1995) describe, the BML is a phenomenon of which its underlying aspects are intangible. Therefore, interaction is required to understand these aspects. This interaction is also relevant for the assessment of the organization's readiness. The theory has identified that assessing readiness can be done by assessing three facets. These facets are the collective perception of the organization's change-history, the degree of stress the change recipients face, and the capability of senior management to guide and carry out the change (Bordia, Restubog, Jimmieson, & Irmer, 2011; Kor & Mesko, 2013; Rafferty & Simons, 2006; Stouten et al., 2018). Therefore, these three facets have been selected as the main topics in the workshop. As interaction is required to assess the organization's readiness, the workshop is focused on letting the top managers discuss the three facets of their organization.

Invited to the workshop are the same as for the interviews. These are the two directors of the company and four business unit managers. Unfortunately, one of the business unit managers could not attend the workshop. They have been invited as the theory suggests that it is the top management responsibility to assess the readiness of the organization (Kor & Mesko, 2013; Stouten et al., 2018). Furthermore, the diagnosis has identified that there are currently disputes in perceptions regarding the urgency of innovation. Allowing them to discuss their different perceptions could increase their sense of urgency.

3.4.2 Post-interview

At the end of the workshop, a post-interview was conducted. The interview became a group interview due to the busy agendas of the participants. The interview focused on capturing the participant's experience of the second step of the design solution to evaluate the appropriateness of the design solution. Additionally, the interview is focused on evaluating whether the workshop had its desired effect.

4. Artefact description

4.1 Diagnosis

The first step of the main body is to diagnose the current BML situation within the case company. This step is essential as creating a clear picture of the current situation is vital to finding a solution for the case organization's situation. The diagnosis starts with the interviews to gather empirical data from the top managers.

4.1.1 Interviews

Six interviews have been conducted as previously has been discussed in the methodology. The semi-structured approach allowed for the gathering of relevant information. The interviewees could speak freely about the vision and thoughts regarding innovation (within the organization). This method resulted in useful information for the problem mess. The most relevant results can be found below, including a visual representation (figure 4.1). Several quotes from the interviews have been translated and are visible below. Both the original Dutch quote and the translation are visible in appendix III.

4.1.1.1 Perceived necessity

The first topic, the perceived necessity, focuses on whether innovating the BM is seen, by the top-managers, as necessary for the organization or not. This perceived necessity has to do with the balance between the daily tasks and developing innovative ideas. Furthermore, the perceived necessity has to do with the personalities of the interviewees. The following two quotes focus on the first-mentioned part of perceived necessity.

“We are an organization that is reasonably big, but just not big enough to roster people free for innovation. It is something that has to be done in between your normal tasks. That sometimes makes it difficult and maybe slower than at a bigger company. Those who can allocate people for innovation and nothing else. For that, we are still too small as an organization. In other words, you often see that there are good ideas and intentions. However, these often get stuck on the fact that there is not enough time or resources. It is the workforce that you need for it and the workforce you have to roster free to be busy with innovation.” (Business unit manager)

“That is working about a year and a half; maybe the pace could be faster or better. So it is logical that he is not always busy with it. That is our own choice. We should, later on, have to evaluate whether this is the right way, or whether he can, due to the pressure from all other tasks, spend the desired time on it.” (Director)

The interviewees mention that there currently is a misbalance between the time spent on daily tasks and on coming up with innovative ideas. Some even perceive it as a lack of time. Currently, most members of the organization spend their time on their daily tasks and take none to limited time for innovative ideas. Some interviewees mention that this misbalance has to do with a lack of time for other tasks than the daily tasks.

However, this misbalance seems to derive from the primary focus of the top-management. This focus is on gaining, mostly short to medium term financial results. Long term innovative opportunities do not provide these direct financial terms. Therefore, long term innovative opportunities are less relevant to the organization. This viewpoint shows that the short term focus overshadows the long term innovative opportunities.

The perceived effect of this short to medium term focus differs per interviewee. All interviewees recognize that the focus is effecting the innovativeness of the organization. However, some of the interviewees do not perceive this focus as harming the organization. They feel that the organization is currently doing well and do not see any threats which can harm this performance. On the other side are interviewees who also feel that the organization is doing well. Nonetheless, they feel that innovation should also focus on maintaining this performance in the long term through innovation.

It seems that there are two logics in the organization. One that focuses on the short to medium term results and one that focuses on long term innovation. The first one seems to be the dominating logic. The result of this dominant logic is that the organization has a high focus on daily tasks and low on developing innovative ideas, as discussed above. Thus, in order to solve the problem in this thesis, the dominant logic should shift towards the latter logic.

“We do not have many innovative people that leave their mind a free spirit. They are mostly technicians. Some are very passionate about technology and driven by that passion for developing and designing on a product level. That something that I do not see happening anytime soon. ... We have mostly blue/green people. With that, I mean number focused. Red, as in this is what we are going to do instead of looking at several opportunities and developments.” (Business unit manager)

As the above quote implies, the personality of the members of the organization explains why the short to medium term focus is the dominating logic. Some interviewees mentioned that most of the members are either red or blue/green people. The red people focus mostly on only doing what needs to be done (daily tasks). The blue/green people are more numbers focused. Both types of personalities support the short to medium term logic rather than the long term innovation logic. These personality types have a low focus on innovation. This low focus leads to a low necessity for long term innovation.

4.1.1.2 Newness and complexity

This section focuses on the perceived newness and complexity of the organization's desired approach. The approach the business has implemented is currently still new. Previously innovation was a spontaneous process in the organization. Sometimes projects introduced new concepts, new things were discovered on a congress, or customers/suppliers had the desire to try new technologies. However, innovation has become more critical for the organization. Technologies change at a faster pace, and new BMs enter the market. The organization has, as a reaction, established an innovation-manager to stimulate innovation. Additionally, as the previous section has displayed, the approach is somewhat contradicting to the logic that is dominant in the organization. This contradiction leads to complexity and uncertainty.

"The risks are in the fact that you enter a road which is not yet mapped out, where you want to invest in. Where you have the chicken and the egg story. We are balancing on the fact that you want to enter such markets, but you are not yet designed to do so. That, of course, is not possible yet. You cannot fully focus on something while there is not a demand for yet. That is a fragile line of balance. In the end, the customer wants something, and we are busy fulfilling their desires. So that is rather difficult to do." (Business unit manager)

"it is, of course, a huge wild growth. Everything is, of course, presented very well. However, it is hard to divide the good from the bad, what is worth it, and what is not worth it. However, you do get much information via several mailings. There is way too much to find. You have to look very precise about how it is presented, especially with practice in the back of your head, to see what is truly something." (Business unit manager)

As the managers describe, there is a lot of information available in their environment or on the internet. Their goal is to find a way through all this information to come up with innovative ideas. Finding this way is often described as challenging. Decisions are required to determine whether the information is relevant or not and whether it is a real development or just a hype. The managers use structure and procedures to find somewhat of a way through this information. These structures and procedures are related to the vision for 2020-2025, which the organization has developed. This vision aims to structure the focus of the organization and to point all faces in the same direction. However, this vision is rather new and still has to develop roots in the organization.

Additionally, the vision clashes somewhat with the dominant logic. Members perceive searching for innovations with a short to medium-term focused logic as challenging. The logic that is currently dominant does not provide a solid structure for addressing what information is relevant or what is irrelevant for the BM. Therefore, the members have to search through a wild growth of information without adequately knowing what to search.

4.1.1.3 Reactive attitude

The last section focuses on the attitude of the organization. This attitude can either be proactive or reactive. The attitude of the organization was a topic that was mentioned in most of the interviews. The organization's general approach is to have a proactive attitude. Their ambition is to create employees who can be seen as co-entrepreneurs of the organization. With co-entrepreneurs, they mean that their employees have a proactive attitude, take responsibility for their tasks, and have the freedom to fill in how they complete their tasks.

"you have some people who see everything rosy and tell how good they are. Also, on the organization level, I absolutely do not want to short come to the organization. However, saying and doing. Let me say it this way. We say that we are very innovative, but I, personally, think we are trend followers." (Business unit manager)

“Look, we are not a company that will really develop new things. We apply developments. However, we can, of course, see in which direction the market is going. So in that way, we look at the market, what it is doing, and what new business models, new developments can be applied. Nonetheless, we are never fully at the front. That is too expensive for us.” (Director)

However, as the above two quotes imply, it became clear that a reactive approach is being executed. When the interviewees talk about looking for and working with innovative opportunities, they talk about looking at and enacting upon developments in their environment. To add, they explicitly mention that they do not want to be frontrunners but rather the first of the early majority. They perceive being the frontrunner as a too high position for them.

Past projects can explain a part of this stance of not wanting to be the frontrunner but rather the early majority. The organization has, in the past, taken the role of the industry-frontrunner/early adapter on several projects. In these projects, the organization has cooperated with other organizations to develop rather new technologies and bring them to the market. These projects were costly for the organization and did not meet their expectations. The results of these unmet expectations are that the management has developed a specific avoidance towards being the frontrunner or early adopter. They feel more comfortable in the role of the first of the early majority, looking at the developments around them and adapting them if, to some extent, proof of concept is given.

Lastly, an essential factor that plays a role in the reactive attitude is the different environmental perceptions. The organization consists of five different business units, each operating with slightly different markets. These markets change at different paces, which influences the necessity of innovation. Markets that change rapidly require a more proactive approach to maintain a competitive advantage. Markets that change slowly can work with a reactive attitude. With this in mind, managers have different perceptions of the environment of the whole organization.

Additionally, the directors are not directly related to these markets. However, they have to balance between the different business units. They focus on an organization-wide innovation attitude. For this organization, the different perceptions, in combination with previously mentioned factors, resulted in a reactive attitude towards innovation.

4.1.1.4 visualization of the interview results

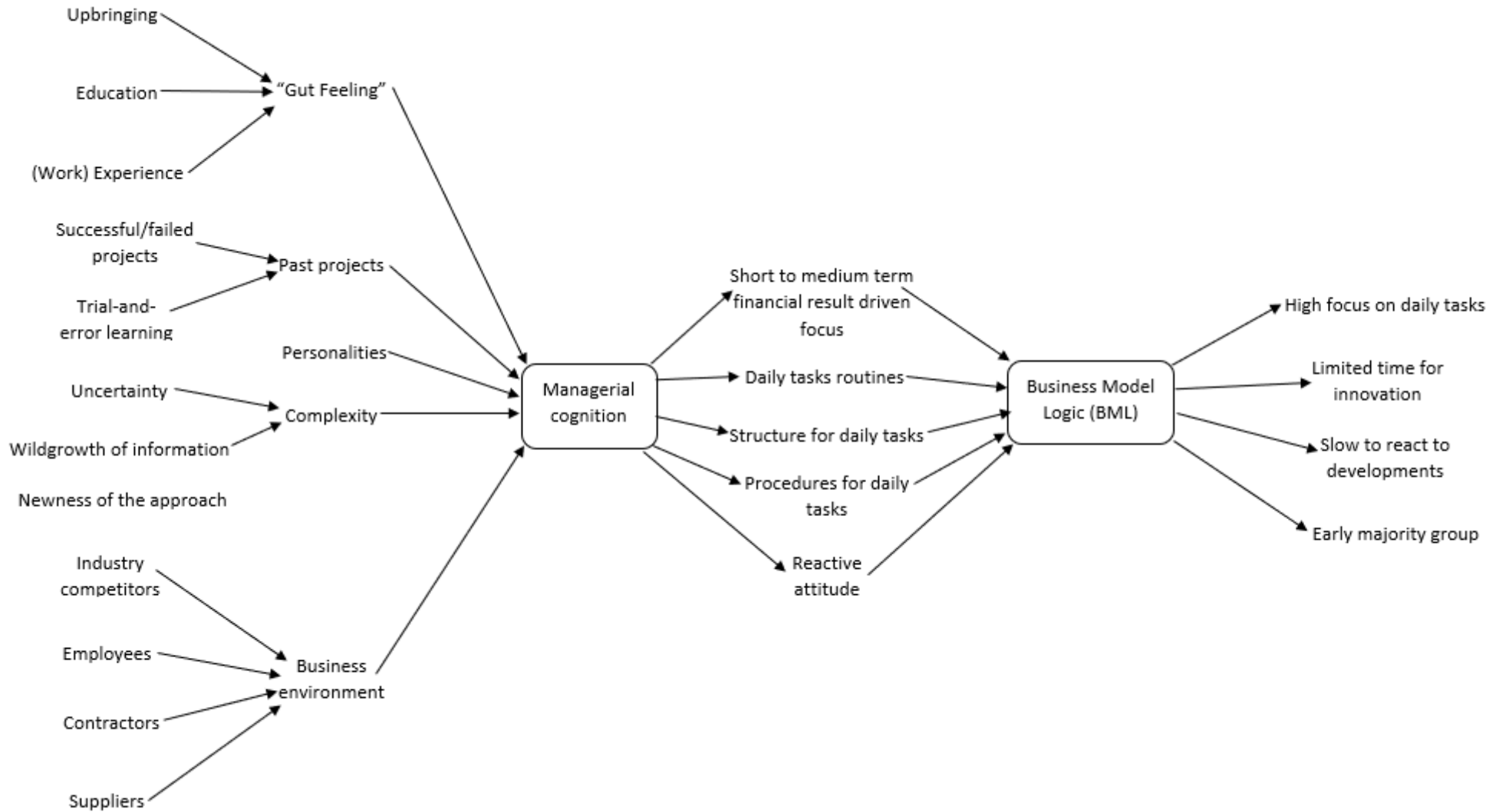


Figure 4.1 visualization of BML (based on internal exploration)

4.1.2 Systematic literature review

The interviews have provided relevant and useful data. However, this does not fully explain the BML. Additionally, the interviews provide an example of the case company's BML. Expected is that theoretical information can provide a clearer picture of the concept of BML. Therefore, a systematic literature review with the goal of understanding BML has been executed. Appendix I displays the systematics of this systematic literature review.

4.1.2.1 Causes

4.1.2.1.1 Managerial cognition

Important for BML is the managerial cognition of the top-management of the organization. The BML is a strategic mindset that is created and used by the top-management to guide decision-making practices (Ojasalo & Ojasalo, 2015). The managerial cognition of the top-managers plays an essential role in the development of this mindset. Managerial cognition refers to belief systems and mental models involved in the decision-making process (Kor & Mesko, 2013). These beliefs are used to interpret the business environment and make decisions upon the interpretation (Bergman et al., 2015).

4.1.2.1.2. Learned heuristics

The learned heuristics of the managers are influencing the managerial cognition. Learned heuristics consist of processes and beliefs which derive from the managers' educational background and previous work experience (Bettis et al., 2015; Schneckenberg et al., 2019). The background and work experience of the managers could provide potential biases which influence the managerial cognition (Amit & Zott, 2015). Over time, managers gain a preference for specific processes and beliefs which originate from their learned heuristics (Schneckenberg et al., 2019). These preferred processes and beliefs advance into skills and routines that are, tacitly, drawn upon for decisions (Jarzabkowski, 2001).

The consequence of these biases is that experienced managers tend to stick to familiar constructs. These experienced managers motivate their behavior by building on successful past projects (Schneckenberg et al., 2019). This tendency strengthens the dominance of the BML as both visible as invisible organizational features turn to the preferred constructs. Thus, creating tacit routines which influence the decision making of managers (Jarzabkowski, 2001). The heuristics can harm the opportunity and threat perception of the managers (Obloj, Obloj, & Pratt, 2010). The heuristics can, once dominating the BML, make it hard for the organization to respond to its environment. This form of non-responsiveness will lead the organization into a state of decline (Bettis et al., 2015).

4.1.2.1.3. Analogical transfer and conceptual combination

Another cognitional aspect that influences the managerial cognition is analogical transfer. Analogical transfer refers to well-known reference frames, often industry recipes used to design a BM (Schneckenberg et al., 2019). It is analogical in the sense of identifying similarities between existing BMs and an analogical concept. The transfer element refers to the correct transfer of attributes and links from the analogical source to the target BM (Comberg, Schneckenberg, & Velamuri, 2015). Analogical transfer is regularly used in the process of (re)designing a BM. During this (re)designing phase, managers use the reference frameworks to develop assumptions, identify similar operation modes, and learn from industry best practices (Schneckenberg et al., 2019).

A similar aspect as analogical transfer, which also influences the managerial cognition, is conceptual combination. The similarity between both aspects is in the use of a second source for the (re)organization of knowledge related to the first concept BM (Martins et al., 2015). The difference between both concepts lies in the use of the source concept. Analogical transfer focuses on pinpointing similarities between the source and the first concept, while the conceptual combination focuses on pinpointing the differences between the concepts (Martins et al., 2015). These differences are used to adapt elements of the first concept BM. To develop new value-creating and value-capturing mechanisms (Schneckenberg et al., 2019).

Both of the previous two cognitive aspects influence the managerial cognition through the use of reference frameworks. These reference frameworks point the manager in a specific direction. In the case of analogical transfer, this direction is similar to the source framework. Contrarily, with conceptual combination, the direction is towards the difference between the source- and target framework. As Martin et al. (2015) describe, both cognitive aspects influence managerial understanding and create filters to process new information. These filters strengthen the dominance of the BML as they isolate certain information from other information (Bettis & Prahalad, 1995).

4.1.2.1.4 Prediction-based approach

Furthermore, a commonly used approach that influences managerial cognition is the prediction-based approach. The core of this approach is on creating goals based analysis and predictions of the expected future (Wiltbank, Read, Dew, & Sarasvathy, 2009). These predictions influence managerial decision making by focusing on causes for the future. It is argued that this approach is lacking as it blinds the managers from new information (Cui, Su, Feng, & Hertz, 2019). Managers operate in an environment in which ambiguity plays a vital role in making the future unpredictable (Gabrielsson & Gabrielsson, 2013). Decisions can trigger unpredicted environmental responses that change the expected future.

4.1.2.1.5 Simplicity

These above mentioned cognitive aspects are related to the manager's tendency to simplify decision making. Managers have to process much information that comes with decision-making uncertainties (Osievskyy & Dewald, 2015). Managers turn to coping mechanisms based on cognitive aspects to simplify the information (Schneckenberg et al., 2017). This simplification allows managers to find their way through a high amount of information (Kor & Mesko, 2013). Additionally, it helps them to deal with uncertain situations. This preference of simplicity facilitates the BML as it leans to the creation of routines and procedures (Bettis et al., 2015).

These uncertainties derive from several aspects, which include organizational growth. As the organization grows, managing all its facets becomes increasingly more complex (Schneckenberg et al., 2017). It becomes more critical to make sure all its employees understand and follow the strategic course. This strategic course results in the creation of routines, procedures, systems, and structures, that derive from cognitive managerial aspects. These measures simplify decision-making, focus attention on vital organizational issues, and establish strategic priorities (Kor & Mesko, 2013; Schneckenberg et al., 2017). In such situations, the BML expands into an organizational-level phenomenon and becomes more visible (Kor & Mesko, 2013).

To add, computational- and dynamic complexity increases the managers' desire for simplicity. Computational complexity derives from the uncertainty related to large numbers of BM configuration options, while dynamic complexity derives from the interdependencies between the components (Schneckenberg et al., 2017). New- or alterations to BMs are overflowed with uncertainty. They might call for new/unfamiliar revenue models, channels, partners, value capture, value creation, and value proposition that have to cooperate (Ganguly & Euchner, 2018; Sosna et al., 2010). The business cannot know in advance what the most suitable configurations and interdependencies are, due to constant changes in the market environment (Frankenberger et al., 2013). This form of unknowingness brings uncertainty and can lead to dissatisfaction in the business (Teece, 2010). To prevent dissatisfaction, managers tend to use coping mechanisms for decision-making to simplify the processes (Schneckenberg et al., 2017).

4.1.2.2 Effects

4.1.2.1.1 Self-reinforcing nature

The BML can be seen as a self-reinforcing managerial cognition concept. The managerial cognition leads to the development of structure, schemas, routines, and procedures. Through this development, it creates the BML. This BML, in turn, reinforces the managerial cognition by routinizing the structure

(Bolton, 2004; Jarzabkowski, 2001). As long as the organization stays successful, it keeps relying on the existing patterns of action and structure. It even further embeds the BML in the managerial cognition. This deeper embedding leads to data gaps being filled in with typical information, and the ignorance of atypical information. It also bypasses information that disproves the BML (Bettis et al., 2015; Martins et al., 2015).

This self-reinforcing managerial cognition is related to organizational performance. In times of success, the self-reinforcing relationship will continue to exist. However, once the BML loses its success, the performance will start to decline (Sosna et al., 2010). In the state of decline, the BML can be a burden to the organization, as it negatively affects multiple cognition aspects. Managers need to find new practices and concepts to turn the declining performance (Bergman et al., 2015). The stronger the BML is embedded, the harder it is for the managers to turn the performance direction (Jarzabkowski, 2001). Additionally, the BML can be so embedded that the organization first has to suffer a devastating decline before it starts to think about change (Bettis et al., 2015).

4.1.2.1.2 Information filter

Besides, the BML is a simplification method that is used as an information filter. This filter affects the way information is perceived. It filters relevant information from irrelevant information. Relevant information is related to the BML, while irrelevant information is not (Bettis & Prahalad, 1995; Vargo & Lusch, 2017). This filter method can be perceived as a blinder for managers, focusing them on only that what is deemed relevant. This focus blinds them from threats and opportunities which could be found in the irrelevant information (Prahalad, 2004; Vargo & Lusch, 2017). In a state of decline, this blinder makes it hard for managers to retrieve and interpret vital information that is not related to the BML (Bergman et al., 2015).

4.1.2.1.3 environmental perception

An important cognition that is being affected by the BML is environmental perception. Environmental perception can be focused on being reactive or being proactive (Osiyevskyy & Dewald, 2015). Meaning that managers tend to react to change or, in case of no exogenous change, search for change (Schneider, 2019). Exogenous change, such as technological developments and competition shifts, can provide threats or opportunities. In the case of no exogenous change, opportunities and threats have to be explored (Gabrielsson & Gabrielsson, 2013). The discovery of opportunities and threats are for both types subject to managerial perception (Kor & Mesko, 2013). The BML structures this managerial environmental perception. The more dominant this logic is, the stronger the blinders are, and the harder it is to perceive threats and opportunities in the organizations' environment (Jarzabkowski, 2001; Prahalad, 2004).

4.1.2.1.4 proactive vs. reactive approach

Furthermore, the choice for a proactive or reactive approach is determined by the BML. A deeply embedded BML is linked to a reactive approach. It focuses more on what directly affects the organization rather than external changes (Schneider, 2019). In opposition, when the BML is less embedded, the organization tends to use a more proactive approach (Obloj et al., 2010). Of the two approaches, proactive seems to be more beneficial for BMI. The proactive approach helps with the search for opportunities, exploiting emerging opportunities, and acting in foresight of future demand (Obloj et al., 2010). Furthermore, a proactive approach leads to experimentation, which could lead to next practices instead of best practices (Prahalad, 2004). By contrast, a reactive approach is less useful as it narrows the perceptual field and is dependent on environmental change (Obloj et al., 2010).

4.1.2.1.5 Simplification

Moreover, the perceptual field of the manager is further narrowed down through the use of simplified methods. As has previously been described, complexity can lead to uncertainty. To cope with the

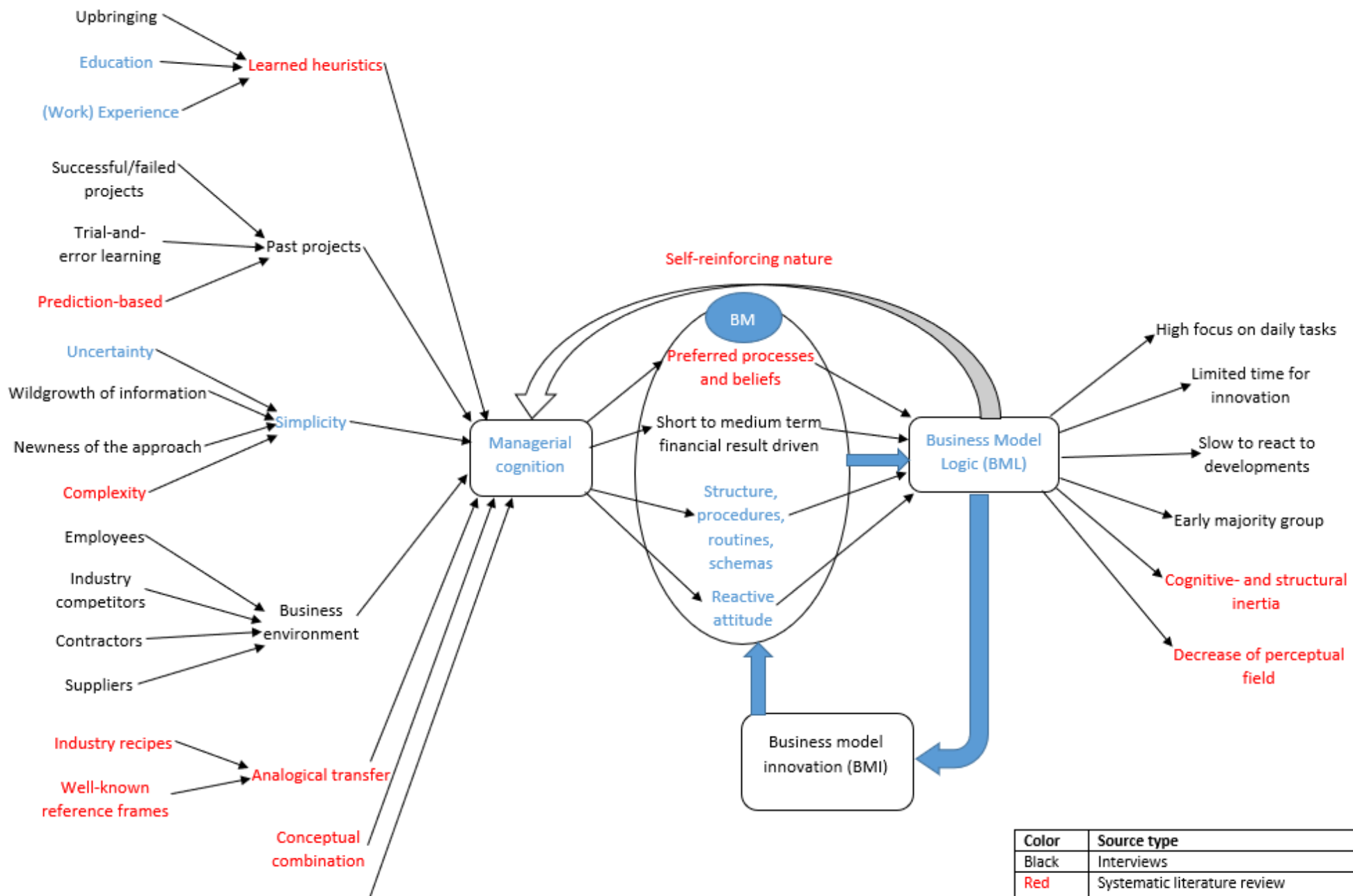
uncertainty, managers tend to use simplifications such as routines that strengthen the BML (Kor & Mesko, 2013; Schneckenberg et al., 2017). The consequence of these routines is that the manager's ability to comprehend the complexity of situations decreases (Bettis et al., 2015). Avoiding complexity can also be seen as avoiding several different options and opportunities. This avoidance means that they can be limiting themselves from finding the most suitable solutions (Prahalad, 2004). New complex situations will be processed with the same routines as previous situations. This repetition of routines will further embed the BML in the organization (Martins et al., 2015).

4.1.2.1.6 Inertia

A concept that is closely related to complexity and is part of the self-reinforcing nature of the BML is inertia. Researchers have linked several forms of inertia to the BML or the BML. One of these forms is cognitive inertia. The cognitive inertia refers to the managers' desire to stick to the current thinking model, which is the BML or dominant logic (Bergman et al., 2015). The organization starts to develop routines, procedures, structure, and schemas around the BML. Hence the establish the self-reinforcing relationship between the logic and the managerial cognition (Bolton, 2004).

Additionally, the organization starts to develop an emotional and affective bond to the BML. This bond can intensify, leading to the blind commitment to the BML (Schneckenberg et al., 2019). This blind commitment also blinds the managers from other practices that could provide opportunities or threats to the organization (Obloj et al., 2010).

Another form is structural inertia, which is a result of the successful establishment of the self-reinforcing relationship. The structure, procedures, routines, and schemas used to create the BML change into values, rules, controls, and incentives that mirror the BML (Bettis et al., 2015). This mirror makes it harder for the organization to do different things or do things differently. This difficulty does not have to be a problem as long as there is no need for significant change (Viljakainen, Toivonen, & Aikala, 2013). It is even beneficial if the organization works efficiently and effectively (Bettis et al., 2015). However, it is difficult to change once a significant change is required. The deeply embedded BML has prevented the managers from generating knowledge and skills unrelated to the BML. This inertia is further reinforced by the top managers whose success is often owed to their successful execution of the BML. These managers tend to know the BML by the hearth and tend to stick to its structure (Chesbrough, 2007). The ultimate result of inertia is that "good companies go bad because they insist only on doing what worked in the past" (Bettis et al., 2015, p. 370).



Color	Source type
Black	Interviews
Red	Systematic literature review
Blue	Interviews & systematic literature review

Figure 4.2 Visualization of BML (internal exploration & systematic literature review)

Concept	Source
Education	(Amit & Zott, 2015; Bettis et al., 2015; Jarzabkowski, 2001; Obloj et al., 2010; Schneckenberg et al., 2019)
(Work) Experience	(Amit & Zott, 2015; Bettis et al., 2015; Jarzabkowski, 2001; Obloj et al., 2010; Schneckenberg et al., 2019)
Prediction-based	(Cui et al., 2019; Gabrielsson & Gabrielsson, 2013; Wiltbank et al., 2009)
Uncertainty	(Kor & Mesko, 2013; Schneckenberg et al., 2017)
Complexity	(Frankenberger et al., 2013; Ganguly & Euchner, 2018; Schneckenberg et al., 2017; Sosna et al., 2010; Teece, 2010)
Industry recipes	(Comberg et al., 2015; Schneckenberg et al., 2019)
Well-known reference frames	(Bettis & Prahalad, 1995; Comberg et al., 2015; Jarzabkowski, 2001; Martins et al., 2015; Schneckenberg et al., 2019)
Learned heuristics	(Amit & Zott, 2015; Bettis et al., 2015; Jarzabkowski, 2001; Obloj et al., 2010; Schneckenberg et al., 2019)
Simplicity	(Bettis et al., 2015; Kor & Mesko, 2013; Osiyevskyy & Dewald, 2015; Schneckenberg et al., 2017)
Analogical transfer	(Bettis & Prahalad, 1995; Comberg et al., 2015; Martins et al., 2015; Schneckenberg et al., 2019)
Conceptual combination	(Martins et al., 2015; Schneckenberg et al., 2019)
Managerial cognition	(Bergman et al., 2015; Kor & Mesko, 2013; Ojasalo & Ojasalo, 2015)
Self-reinforcing nature	(Bergman et al., 2015; Bettis et al., 2015; Bolton, 2004; Jarzabkowski, 2001; Martins et al., 2015; Sosna et al., 2010)
Preferred processes and beliefs	(Amit & Zott, 2015; Jarzabkowski, 2001; Schneckenberg et al., 2019)
Structure, procedures, routines, schemas	(Kor & Mesko, 2013; Schneckenberg et al., 2017)
Reactive attitude	(Obloj et al., 2010; Prahalad, 2004; Schneider, 2019)
Business model logic (BML)	(Bergman et al., 2015; Bettis & Prahalad, 1995; Prahalad, 2004; Vargo & Lusch, 2017)
Cognitive-and structural inertia	(Bergman et al., 2015; Bettis et al., 2015; Chesbrough, 2007; Obloj et al., 2010; Schneckenberg et al., 2019; Viljakainen et al., 2013)
Decrease of the perceptual field	(Bettis et al., 2015; Gabrielsson & Gabrielsson, 2013; Jarzabkowski, 2001; Kor & Mesko, 2013; Martins et al., 2015; Osiyevskyy & Dewald, 2015; Prahalad, 2004; Schneckenberg et al., 2017)

Figure 4.3 Sources per concept

4.1.2.3 Conclusion

To conclude, the concept of 'BML' has been further researched through the use of a systematic literature review. BML is found to be an essential aspect that plays a role in the BMI process. The BML influences the perception of the organization towards new information. It can be seen as a lens through which managers perceive information. It helps a manager as a guide through the high amount of available information.

Additionally, it helps them make decisions for their organization. This guidance can either be positive for the managers or negative. On the one side, the BML can broaden the perspective of the managers allowing them to recognize opportunities and threats. On the other side, it can limit the perspective of the managers, limiting them from the recognition of opportunities and threats. Recognizing threats and opportunities is essential for managers to timely engage in BMI and successfully exploit new opportunities.

This information seems to align with the information from the interviews in which became clear that the managers have different perceptions, experience new information as a wild growth of information, and therefore seem to use some mechanisms to filter the information. Both the theory and interviews display that these mechanisms to filter information are based on aspects that are linked to the concept 'managerial cognition'. The managerial cognition leads to the creation of structures, routines, and procedures, which in turn leads to the BML.

Whether the BML broadens or blinds, the managers' perception depends on the dominance of the BML. The BML is a rather complex concept that is influenced by and influences several managerial cognitive features. The managers create the BML out of a desire to simplify decision-making processes for managers. Once established, the BML can engage in a self-reinforcing relationship, which is strengthened by the success of the BML. The more successful the BML is, the more likely it is that it will be used for future situations. This cycle can continue even until the company starts to decline. Only when the organization starts to decline drastically does the desire for change take a severe course. This change often goes too slow as the managers first have to unlearn their existing BML to engage in BMI. Nonetheless, if this self-reinforcing relationship is not strongly influencing the BML, managers find it easier to recognize threats and opportunities and adapt accordingly.

4.1.3 Final problem definition

4.1.3.1 Conclusion internal exploration & systematic literature review

4.1.3.1.1 initial problem definition

The initial problem definition described that a method of altering a firmly embedded BML is required. Now that both the interviews and the systematic literature review have been conducted, the problem can be specified. Both the internal exploration and systematic literature review have shown that BML is a complicated concept. Multiple factors influence the BML and are being influenced by the BML. These factors are related to the managerial cognition. Accordingly, the final cause-and-effect tree (figure 4.2) has been made to display a visual conceptualization of the problem mess.

4.1.3.1.2 result-driven focus

The internal exploration has displayed that even though innovation has become more critical, practice shows otherwise. Meaning that the management is still using a BML, which does not indeed include innovation. This BML is short to medium term result-focused while innovation is mostly long term process. Due to this difference, the short to medium term result focus dominates the BML and overshadows long term innovation. Meaning that the short to medium-term financial results is seen as an urgency while long term innovation is not. Thus resulting in a BML which mostly focuses on daily tasks rather than innovative developments.

To add, the reactive attitude of the organization further strengthens this result-driven focus. Results from past projects have led to the avoidance of being the frontrunner/early-adopter of new developments. The organization feels more comfortable in an early majority position in which proof of

concept has been given. This reactive attitude is focused on enacting upon innovation only when the urgency is perceived as high. Also, multiple interviewees perceive the organization's environment as slowly developing and, therefore, perceive the urgency for innovation as low. They find it more important to focus on efficiently executing their daily tasks.

Nonetheless, the organization is attempting to give innovation a more critical role. They have recently assigned an innovation manager and have developed a vision for 2020-2025, which includes innovation. However, being the innovation manager is that person's secondary task. The primary task is being a business unit manager, which requires much time. This results in the innovation manager mostly being busy with his primary tasks. To add, the vision for 2020-2025 still has to establish roots in the organization. Looking at the innovation part of this vision, it is a rather new approach which provides uncertainty regarding its execution. The organization is still looking for a way to implement it most efficiently. However, this search for a method of implementation is also being overshadowed by the primary daily tasks.

4.1.3.1.3 Managerial cognition

Theoretical evidence has been used to validate and complement the data from the interviews. Many links could be made between the theory and the interviews. Firstly, the theory has identified that managerial cognition plays a vital role in the BML. Managerial cognition influences the environmental perception of the managers. The way they perceive and interpret their environment affects the way they create structure, procedures, routines, and schemas for their business. This structure, procedures, routines, and schemas lead to the creation of the BML. Managerial cognition also seems to play an essential role in the case organization. Many cognitive aspects were mentioned during the interviews. The managers described that these cognitive aspects are being used to create routines, develop priorities, and make decisions.

Secondly, the theory describes that managers tend to stick to what they know and what is comfortable. This tendency leads to tacit features of the BML being deeply embedded in the organization. These features have to be (partially) unlearned before the organization can successfully change. As they are tacit features, it is perceived as hard to change them. This perception seems to be in line with what is happening in the organization. There is a desire for change in the BML. However, changing it is perceived as hard. This perception seems to be due to tacit features, which make short to medium term financial results more urgent than innovation.

4.1.3.1.4 self-reinforcing nature

Additionally, the self-reinforcing nature, which was found during the theory, could affect the organization. The managers understand, to some extent, that innovation is vital for the long term survival of the organization. However, they currently perceive the organization as successful. This perception of success can, through the self-reinforcing nature, further embed itself in the organization. Consequently, this self-reinforcing nature can continue until the organization is catastrophically declining. Organizations that were in such a state found it hard to change as the first had to unlearn their heavily embedded existing BML.

The case organization is currently not in a state of decline, and expected is that this will not happen for a while. However, they could go into this direction if they remain on their current course. There seems to be a self-reinforcing nature in place with the focus on short to medium-term financial results. In order to prevent this self-reinforcing nature from going in that direction, innovation should become an urgency for the organization.

4.1.3.1.5 consequences of dominant BML

Furthermore, the theory has identified possible consequences of the lack of time for innovation. The most important consequence is that the organization will be slow in reacting to new developments. The theory has found that it is essential to timely react to opportunities or threats which derive from the business environment. Failing in timely reacting to environmental changes could decline in

organizational performance. Not only a timely reaction is essential, but also sufficient time should also be invested in innovations. Without sufficient time to develop them, innovations will not be able to capture and create significant value. Thus, innovation cannot provide a competitive advantage for the organization.

Lastly, another possible consequence of a dominant BML is inertia. Both structural- as cognitive inertia can blind the organization and make it hard to react to developments. The case organization seems to, to some extent, suffer from both forms of inertia. The cognitive inertia can be found in the desire for a more critical role for innovation while sticking to the result-driven focus. The structural inertia can be found in the daily task-focused routine. Nonetheless, even though both forms of inertia negatively affect the responsiveness to developments, they are not dominant enough to blind the organization.

4.1.3.1.6 The relationship between the core concepts

The conceptual background identified a circular relationship between the three core concepts (see figure 2.1). This relationship has been included in the visualization of the BML (figure 4.2). The BM is represented by the oval circle in the middle of the visualization. Furthermore, the blue arrows represented the direction of the relationship (similar to figure 2.1).

As the visualization displays, the relationship between the three concepts is more complicated than as initially visualized in figure 2.1. Firstly, the relationships seem to be part of a bigger picture, as can be seen in the visualization. Secondly, in this bigger picture, the managerial cognition seems to be an essential concept. The managerial cognition affects the aspects of the BM (such as the attitude and preferred processes and beliefs), which, in turn, affect the BML.

4.1.3.2 Final problem definition

To conclude, the organization has the desire to engage in long term innovation. However, the urgency for long term innovation is low. Something that has a high urgency is the short to medium term financial results. Thus, the organization focuses on primary daily tasks which overshadow innovation. This overshadowing results in a desire for long term innovation, which does not get sufficient attention to develop and come up with innovations properly. Accordingly, the FPS (thesis) project will focus on the urgency problem of long term innovation. In order to fulfill the organization's desire, long term innovation requires to be perceived as urgent for the organization.

Additionally, the urgency has to lead to innovation being part of the primary tasks. Important aspects that need to be taken into account are managerial cognition and the reactive attitude. Both the theory as the internal exploration have identified both aspects as essential factors influencing the BML. If managerial cognition is more focused on innovation, this likely circulate into the BML. Additionally, a proactive attitude towards innovation is more fruitful for long term innovation.

4.2 Solution design

4.2.1 Introduction

As the final problem definition has described, the organization needs to make innovation more of an urgency to fulfill their desire for long term innovation. This necessity requires changes in the organization's BML. Bettis et al. (2015) describe that the deeper embedded the BML logic is, the harder it is to change it. They compare a deeply embedded BML with "physical solids, the process of moving back to a fluid state can require enormous amounts of energy if it can be accomplished at all." (Bettis et al., 2015, p. 373). To change, the organization has to design a new path under the resistance of the existing BML. This new path requires the unlearning of the visible and invisible features of the existing BML (Bettis et al., 2015). Thus, a well-developed and argued solution design is required.

This well-developed and argued solution requires sufficient knowledge about organizational change. Such information is available in the change management literature. Part of change management literature is planned organizational change that can be defined as "deliberate activities

that move an organization from its present state to a desired future state” (Stouten, Rousseau, & De Cremer, 2018, p. 752). In this case, the “desired future state” is the inclusion of long term innovation. Additionally, the case organization seems to struggle with making drastic and sustainable change. Stouten et al. (2018) have identified that this is a commonly discussed problem in change management literature. These two connections imply that change management literature is best suited to be used for the solution design. The systematics of the literature are visible in appendix II.

4.2.2 Solution design

4.2.2.1 #1 *Get facts regarding the nature of the problem (s)—Diagnosis step #1*

4.2.2.1.1 Importance of the diagnosis

It is essential to develop a proper diagnosis in or to form the basis of the change progress. The very first step discussed by most researchers and practitioners in the diagnosis of the existing situation (Appelbaum, Habashy, Malo, & Shafiq, 2012; Beer, Eisenstat, & Spector, 1990; Dibella, 2007; Kotter, 1995; Stouten et al., 2018). Change implementations often fail due to a lack of a sufficient basis (Cooperrider & Srivastva, 1987). This basis is provided by diagnosing the existing situation of the organization. This diagnosis is essential to understand what kind(s) of change is needed to get to the desired situation (Stouten et al., 2018).

This diagnosis has to be well developed and in-depth to gather the information that is relevant for the desired change. This first requires the retrieval of information regarding the necessity of the desired change (Stouten et al., 2018). Miller, Johnson, and Grau (1994) explain that future change requires the overcoming of a lack of source credibility. This lack of source credibility can be overcome through the use of the diagnosis. The diagnosis can provide information that can be used as evidence for the necessity of change (Miller et al., 1994). This ‘credibility’ is related to what Armenakis and Harris (2009) describe as the discrepancy belief. The discrepancy belief is the belief that change is needed. It focuses on the current state of the organization and what the desired state is (Armenakis & Harris, 2009). If the current state does not match the desired state, then change is most likely necessary (Armenakis & Harris, 2009; Stouten et al., 2018).

Secondly, it requires the search for possible conditions and hindrances, which could affect the desired change. There is a difference between understanding the problem (the necessity), and understanding the change process (the change design) (Beer et al., 1990). There might be structures, procedures, and routines that are not directly linked to the problem but do obstruct the change (Stouten et al., 2018). This view is related to what Armenakis and Harris (2009) describe as appropriateness belief. The appropriateness belief is the belief that the designed change is the right one to get to the desired state (Armenakis & Harris, 2009). If the change design is not seen as appropriate, the change is, regardless of the understanding of the problem, unlikely to succeed (Armenakis & Harris, 2009; Stouten et al., 2018).

A well developed and in-depth diagnosis consists of the previously mentioned discrepancy and appropriateness. A successful organizational diagnosis not only consists of recognizing problem symptoms but also on identifying its root causes (Armenakis & Harris, 2009). Identifying the root causes of the problem is essential to understand the logic behind the problem (Van De Ven & Poole, 2005). Important in understanding the logic behind the problem is to involve different levels of the company into the diagnosis, which means that employees, top management, and middle management should be involved (Stouten et al., 2018). By involving the different levels, different perspectives can be analyzed, which makes it easier to identify root causes. Additionally, it is more likely that by involving different levels, the most suitable changes will be selected. Choosing the most suitable changes will strengthen the perceived appropriateness of the change (Armenakis & Harris, 2009).

4.2.2.1.2 Sense of urgency

Furthermore, multiple researchers explain that the diagnosis is essential to create a sense of urgency. Organizations often tend to stick with what is currently working and do not perceive the need for change as urgent (Kotter, 1995). Nonetheless, the sense of urgency is essential for the previously

mentioned discrepancy. Without a sense of urgency, the need for change is low (Armenakis & Harris, 2009). With no sense of urgency and thus a low need discrepancy, people are not motivated to cooperate in the change process, and the change is most likely to fail (Stouten et al., 2018). To create a sense of urgency, the organization requires leaders who dare to challenge the status quo. Such leaders are required to point out adverse facts such as new competition, a decrease in profits, or other indicators of a decrease in the competitive position (Kotter, 1995).

Creating this sense of urgency can be perceived as stressful by the leaders. Creating a sense of urgency in a successful organization is difficult as it is still growing (Kotter, 1995; Prats et al., 2012). In such cases, the organization becomes stuck in their BML and find it hard to alter from this (Bettis et al., 2015). Organizations tend to dislike the messenger of bad news, especially if this person is seen as an adverse change leader. What organizations often do is bring in outsiders to present unwanted information (Kotter, 1995). A message presented by an outsider is perceived as more believable. This perception of believability, of course, depends on the type of outsider. The most common and believed type of outsider is consultants (Appelbaum et al., 2012). This type is because consultants often challenge the status quo and can emphasize the dangers of this status quo (Kotter, 1995). Lastly, in a few very successful cases, members of an organization deliberately created a crisis to boost the sense of urgency (Kotter, 1995). Such actions are risky as the organization has to deal with the consequences of the created crisis. Nonetheless, it can help galvanize urgency in an organization which sticks to much to their existing BML (Augustine & Euchner, 2013; Ford, 2002; Kotter, 1995; Stouten et al., 2018).

4.2.2.1.3 Current diagnosis

For this FPS project, the diagnosis has already partially been conducted. The diagnosis indicated that the desired state does not match the current state, and thus change is needed. Both members of the top management and middle management have been interviewed to identify the problem and its root causes. This diagnosis can be further developed by including additional members of the middle management (currently only the top of the middle management has been included) and by including employees. This way, the discrepancy can be tested, and the most appropriate changes can be selected.

Moreover, the most important conclusion of the diagnosis is the lack of a sense of urgency for innovation. As Kotter (1995) has displayed, creating a sense of urgency is essential for the change progress. Without this sense of urgency, the discrepancy is low. This low discrepancy seems to be the case for this FPS project as the need for an innovative BML is low. Thus there is a low motivation to cooperate with the change process.

Additionally, daily tasks seem to have a higher priority. This higher priority results in a lower urgency. Stouten et al. (2018) explain that the presence of high stress (the daily tasks) can negatively impact the sense of urgency for a change (Long term innovation focus). Therefore, the diagnosis should also focus on identifying and discussing adverse facts that can be used to create a sense of urgency for the long term innovation focus.

4.2.2.2 #2 Assess and address the organization's readiness for change—Diagnosis step #2

4.2.2.2.1 Importance of readiness

Additionally, the organization's readiness is essential to assess and address before starting the change process. The second step is much related to the previous step. Whereas the previous step focused on the diagnosis of the problem and its causes, this step focuses on diagnosing the organization's readiness for the change. The readiness for change refers to the capacity of the organization and its members to handle the demands that effective change requires. Without being able to handle the demands, the organization is most likely to fail. Stouten et al. (2018) have identified three facets of readiness that have to be assessed and addressed to successfully determine the organization's readiness for change (Stouten et al., 2018).

4.2.2.2 Facets of readiness

The first mentioned facet of readiness is the collectively perceived history of the organization with the change, its previous successes, and failures. The organization's history defines change recipient perceptions and expectations of change (Stouten et al., 2018). History can either be positive or negative for the readiness of the organization. Its positive when previously implemented changes are generally being perceived as successful. Previous changes are often being perceived as successful if there is a mutual memory of successful change in structures, processes, services, and capabilities, and if employees remember being treated fair during this process. Its negative when previously implemented changes are generally being perceived as unsuccessful. This perception often occurs if the implementation was seen as unfair or did not meet the organization's expectations. If the perception is positive, then the change manager(s) can build the new change upon the previous changes. If the perception is negative, then the change manager(s) first have to detach this change from previous changes and focus on creating credibility while decreasing mistrust. (Bordia et al., 2011; Rafferty & Simons, 2006; Stouten et al., 2018)

The second mentioned facet of readiness is the current degree of stress that change recipients face. In the previous step, it has been mentioned that the presence of stress can negatively influence the sense of urgency for change (Rafferty & Simons, 2006; Stouten et al., 2018). Change recipients who are constrained by stress from existing demands are not flexible. This low flexibility makes them less responsive to new demands and to engage in change requirements such as cognitive and emotional work (Stouten et al., 2018). Gärtner (2013) claims that readiness for change can be enhanced through the use of mindfulness. This use of mindfulness includes a decrease in the degree of stress that recipients face. By enhancing the mindfulness of the recipients, they should become more open to the "here and now.". This openness would allow them to become more open to change and flexible. The recipients should feel less constrained by current demands and are more flexible for change (Gärtner, 2013).

The third mentioned readiness facet is the senior leadership's capability to guide and carry out the change. Critical in the change process is to manage it properly. This proper management requires the ability of senior leadership to both guide and carry out the change process. This ability to manage it differs per senior manager as they have different educational backgrounds and experiences. It is essential to access the change skills of senior leadership because their capabilities are crucial for the change process (Stouten et al., 2018). Kor and Mesko (2013) further describe that managers can be seen as ambassadors of change. The managers have the capabilities to build, integrate, and reconfigure organizational resources and competencies, which Kor and Mesko (2013) define as "dynamic managerial capabilities"(p.34). The dynamic managerial capabilities consist of three attributes. These are managerial human capital (the skills and knowledge of the managers), managerial social capital (the ability to use connections to access resources), and managerial cognition (the belief systems and mental models for decision making).

4.2.2.3 Addressing weaknesses.

Notable is that identified weaknesses have to be addressed before proceeding with the change. The readiness of the organization is an essential aspect of the change to succeed. If the organization is not ready before the change, there is no need to engage in the change process as they will most likely fail (Stouten et al., 2018). If the organization is not ready yet, employees are more likely to resist the change. Which, in turn, negatively affects the change plan's success. Addressing this resistance as a lack of readiness makes it easier to create readiness and thus decrease resistance (Armenakis & Harris, 2009).

During the diagnosis of the problem, it became clear that previous (related) changes are being perceived as failed changes. These changes were attempts to implement innovative ideas in which the organization was the early adopter. These changes did not provide the expected results and have been discarded. The result of these failed change attempts is that there are mistrusts towards new similar attempts. Linking this to the above theory, it seems that the first facet (the organization's change

history) is displaying a weakness. The failed attempts in the organization's history negatively affect the readiness of the organization. This lack of readiness means that before implementing this change, the organization has to detach this change from previous change attempts. To add, the organization has to create credibility for this change before implementing it. Increasing credibility will help the organization become ready for the change.

Additionally, another identified weakness has to do with the second facet. The members of the organization feel the pressure of fulfilling their daily tasks. This pressure results in a lack of time for tasks indirectly related to their daily tasks. Which, in turn, negatively influences the readiness for change as the daily tasks are seen as more urgent. As a result, the organization would first have to address this weakness before implementing the change. As the theory from Gärtner (2013) describes, this would require the enhancement of mindfulness to increase readiness. For this case problem, this would require the investment of time in tasks unrelated to daily tasks. These unrelated tasks would, for this case, be mostly related to long term innovation.

4.2.2.3 #3 Implement Evidence-Based Change Interventions

4.2.2.3.1 Importance of alternative methods and practical interventions

Alternative methods and practical interventions are essential to assess all possible options for the organization (Stouten et al., 2018). The third step is a follow up to the first two steps. Whereas the previous two steps focused on diagnosing the current situation, this step focuses on identifying possible solutions for the diagnosed situation. This step includes identifying what kind(s) of change is required and how readiness can be improved. The previous step already shortly mentioned some ways to improve readiness. This step, however, focuses on finding alternative methods and practical interventions specific to the diagnosed situation.

4.2.2.3.2 Sources of evidence for possible solutions

There are several different sources of evidence that can be used for the identification of possible solutions. A first source is a diverse group of people experienced with the situation, from both inside as outside of the organization (Stouten et al., 2018). Those with previous experience of a similar situation can provide relevant information or possible solutions. These experiences could be failures as successes. Additionally, experienced people, external to the problem, can often help an organization see how they could apply their resources and capabilities to solve specific problems (Prats et al., 2012). Such people often are less biased by the organization, have more freedom to be creative and open-minded (Augustine & Euchner, 2013; Helfat & Peteraf, 2015).

The second source of evidence that can be used is stakeholders (including affected employees and managers). It is essential to prevent the creation of biased solutions. Therefore, gathering facts from stakeholders (including affected employees and managers) can ensure that the solutions are based on a broad point of view. Additionally, stakeholders are critical information sources regarding possible solutions. To add, they may be able to test alternatives to identify successful solutions (Stouten et al., 2018). Moreover, external stakeholders can be helpful as harmful to the change plan. For example, external stakeholders can help decrease risks associated with change. However, if the change plan is not in their interest, they can also hinder it by not or barely cooperating. (Augustine & Euchner, 2013; Dibella, 2007; Prats et al., 2012).

The third source of good evidence is scientific research. Scientific research can provide information regarding risks, benefits, and possible effective implementation methods. It is a form of widely available information on online research databases such as Google Scholar and Scopus. (Stouten et al., 2018). Stouten et al. (2018) further suggest focusing on systematic reviews and meta-analysis of appropriate interventions. They add a notice that some change interventions are more effective than others and often work better in combination with supporting interventions. Cooperrider and Srivastva (1987) add that scientific evidence can provide methodological legitimacy to the interventions. Lastly, it is essential to accurately reflect on the fit between the found interventions and

the diagnosed situation. Blindly copying (scientific) interventions might result in using interventions that do not fit (Armenakis & Harris, 2009). Hence, such misfits do not solve diagnosed situations.

4.2.2.3.3 Current situation

For this FPS project, the kind(s) of required change are related to the attitude regarding long term innovation within the organization. Additionally, the search for evidence for how readiness can be improved is related to the stress from daily tasks and the adverse perceived history. Both issues could be solved if the organization gathers evidence from people who are experienced with promoting innovative attitudes, creating credibility for change, and balancing between short term tasks and long term tasks. Additionally, evidence can be gathered from stakeholders regarding the innovative attitude, trust regarding the change, and pressure from daily tasks. Moreover, evidence can also be gathered from scientific research to identify which type of interventions can be used to implement the desired change and to enhance the readiness of the organization. By doing this, evidence can be gathered from different sources that strengthen the credibility of the interventions and increase the likeliness of identifying the right solutions.

4.2.2.4 #4 Develop Effective Change Leadership Throughout the Organization

4.2.2.4.1 Importance of effective leadership

The change plan requires leaders who can effectively lead the change process throughout the organization. Therefore, the fourth step is the development of effective change leadership. Kotter (1995) suggests that effective leadership can be developed through the use of a guiding coalition. Prats et al. (2012) emphasize the importance of the coalition by claiming that “the single most important success factor was getting the right team to lead the change” (p. 129).

The function of the guiding coalition is to guide the change during the change process. This function includes many tasks, such as:

- Gathering support from top management;
- Developing and communicating a clear vision (step #5);
- Establishing a strategic action for the change;
- Helping with the previous three steps;
- Developing a shared picture of the problem

(Appelbaum et al., 2012; Beer et al., 1990; Hiatt, 2006; Judson, 1991; Kotter, 1995; Stouten et al., 2018).

4.2.2.4.2 Selecting the coalition members

Selecting the right members for the guiding coalition is essential for the success of the change. The guiding coalition, due to its central role in change, requires the power and capability to make change happen (Kotter, 1995; Stouten et al., 2018). To add, it has to establish legitimacy for chosen courses of action and distinct interpretations (Buchanan et al., 2005). The establishing of legitimacy requires the inclusion of organizational members who know how to deal with change themselves and are capable of leading a change process (Buchanan et al., 2005). Such members should be seen as credible and respected by other members of the organization (Prats et al., 2012). They also should be trusted and recognized as distinguished leaders by top managers (Kotter, 1995). Lastly, the coalition requires members who have a strong internal network, are believed to have the persuasive power required to sway others to back the change and build internal momentum (Kotter, 1995; Prats et al., 2012).

Additionally, as the word coalition implies, it is fruitful for the change process to include members of different levels of the organization. A change process requires members taking change initiation roles, change execution roles, and supportive roles. The top and middle managers mostly take on initiation and execution roles, such as decision making and change planning (Heyden, Fourné, Koene, Werkman, & Ansari, 2017; Stouten et al., 2018). The influential employees can take on a supportive role by providing resources for change and swaying other employees towards the change (Hobfoll, Halbesleben, Neveu, & Westman, 2018). Lastly, the existing process might need to be

changed. These processes involve different levels of the organization. Excluded levels might slow down, distract, or block change plans related to their processes. By including members of different levels, this is less likely to happen (Prats et al., 2012).

Furthermore, there are certain types of members which should be excluded from the coalition. These members could harm or slow down the change process. Kotter (1995) mentions two specific types of members that could be harmful to the change process. The first type is people who have a big ego. Such people take over the conversation and dominate their own opinion. Such people are unfit as the guiding coalition should create a safe environment that provides room for voice, mistakes, and learning (Stouten et al., 2018). A big ego would, therefore, make the coalition counterproductive.

The second type is people who have a pessimistic and blaming attitude towards change. Such people create mistrust within the coalition and slow down the change process (Kotter, 1995). This pessimism often comes from the organization's previous change history (Bordia et al., 2011). In steps two and three, this has already been discussed as part of organizational readiness. Whereas these two steps focused on the collective perspective on pessimism, this one focuses on the individual perspective. Individual perception can differ from the collective perception. If a member of the organization with a negative perception is included, he/she can demotivate members of the organization (Bordia et al., 2011; Kotter, 1995).

4.2.2.4.3 Current situation

This step is, for this FPS project, related to the diagnosed managerial cognition. The top management has already selected one person, which they trust and see as a distinguished leader. Furthermore, the top management believes this person knows how to deal with change and is capable of leading the change process. However, it seems that this person, on his own, does not have the power to make change happen on the desired scale. This lack of power seems logical as researchers such as Kotter (1995), Prats et al. (2012), (Stouten et al., 2018), and many others talk about a team-leading the change rather than a single person. Kotter (1995) even suggests that a guiding coalition should consist of 5 to 50 members. Therefore, it seems that the organization should create a guiding coalition that does have the power to make change happen.

The organization should select members who are fit for the desired change, to create a powerful coalition. Being fit for the desired change is, in this case, having a supportive attitude towards long term innovation within the organization. The creation of a powerful coalition requires the selection of members of the organization (from different levels) who have an innovative attitude and are willing to take on an initiative, executive, or supportive role in the guiding coalition. Together the coalition should have enough power and capabilities to make change happen. Moreover, the top-management should allow members of the organization to deviate, to a certain extent, from their daily tasks. Without this, selected members cannot spend sufficient time on effectively developing leadership for the change plan.

4.2.2.5 #5 Develop and Communicate a Compelling Change Vision

4.2.2.5.1 Importance of communicating a compelling change vision

The fifth step is focused on developing and communicating a change vision throughout the organization. Many researchers see this step as a vital step in the change process. Without a compelling change vision, the change most likely will not get sufficient support from members of the organization to be successful. By making the change vision compelling, the members of the organization are more likely to identify themselves in the vision and more motivated to support it (Armenakis & Harris, 2009; Dibella, 2007; Stouten et al., 2018).

4.2.2.5.2 Content of the change vision

Researchers have different points of view regarding the content of the change vision. The one thing they agree upon is that a useful change vision should include the perspectives of all stakeholders. This useful change vision requires the first three steps, which focused on diagnosing the situation and

gathering evidence from stakeholders (Dibella, 2007; Euchner, 2013; Stouten et al., 2018). They further agree on the usefulness of implementing shared goals and positive beliefs in the change vision. The implementation of shared goals and positive beliefs help the members align themselves with the change vision (Helfat & Peteraf, 2015). The shared goals and positive beliefs are valuable in gaining support for the change vision. It helps establish mutual interactions and develop universal change-related norms (Stouten et al., 2018) Lastly, Miller et al. (1994) emphasize that having any information is perceived as more useful than no information at all.

Furthermore, the communicated change vision has to be clearly expressed and understood. The members of the organization must understand the vision to perceive it as appropriate and adopt it (Armenakis & Harris, 2009; Whittington, Cailluet, & Yakis-Douglas, 2011). The affected members should understand the reason and advantages of the change. Explaining the reasons and advantages makes it easier to gain the support of the members (Prats et al., 2012). Likewise, a coherent, consistent, and well-articulated vision is essential for members to calmly and rationally reflect upon the vision (Appelbaum et al., 2012). Communicating a change vision, which is both clear as understandable, makes it more likely that members understand, adopt, and act upon the change, even if it is, at first, painful (Kotter, 1995; Prats et al., 2012). Additionally, they will be more likely to be enthusiastic about the change while being less likely to believe the change would fail (Appelbaum et al., 2012; Miller et al., 1994).

4.2.2.5.3 Communication of the change vision

The communication of the change vision itself is also a point of discussion in change management literature. Language, both verbal as non-verbal, is an essential aspect of the communication of the change vision. Researchers suggest that managers should take full use of their storytelling skills to mobilize the organization around the change vision (Helfat & Peteraf, 2015). Armenakis and Harris (2009) describe this as persuasive communication which entails the transmittance of the change message, through speeches and memos, to persuade change recipients. Such messages can be transmitted through different channels. Examples of useful channels are meetings and face-to-face conversations (Stouten et al., 2018). Notable is that a two-way communication flow is established. Two-way communication decreases doubt while it increases the connection with the change vision (Appelbaum et al., 2012). To add, the frequency of communication is often a point of discussion. Researchers emphasize consistency and repetition in the communication of the vision. This way, recipients can discuss issues and create trust (Appelbaum et al., 2012; Stouten et al., 2018).

4.2.2.5.4 Current situation

Lastly, both the necessity and appeal of change play a role in the focus of the change vision. Dibella (2007) describe multiple scenarios regarding the degree of necessity and appeal. Of these scenarios, the low appeal/high necessity scenario is most applicable to the case organization. In the case situation, the change is seen as a necessary process to remain competitive. However, it is perceived as inconvenient as it requires time that is rather spend on completing daily tasks. Therefore, the appeal of the change is low. Dibella (2007) explains that in such a scenario, it is best to make use of the necessity of change while also making the change more desirable by altering specific characteristics. For the case organization, this would mean that their change vision should emphasize the necessity of change while also finding ways to change the convenience perception. The convenience perception can be changed by altering characteristics of the change process to make the change more desirable (Dibella, 2007; Stouten et al., 2018). Then the organization can develop a compelling, clear, understood, consistent, and frequently communicated change vision.

4.2.2.6 #6 Work with Social Networks and Tap Their Influence

4.2.2.6.1 Importance of social networks

Social networks are essential as they can influence the change plan. The sixth step is focused on the strong influence of social networks. During the implementation of change, many members discuss the

change process with each other. These social interactions can influence the change recipient's perception (Miller et al., 1994). This perception makes the concept of social interactions rather crucial for the change plan. Its influence can affect both change actions and outcomes (Tenkasi & Chesmore, 2003). By tapping into the social networks of supporters of the change plan, social interactions can be stimulated, which positively affect the change (Stouten et al., 2018). For example, social interactions can improve cooperation and decrease resistance regarding the change (Helfat & Peteraf, 2015).

4.2.2.6.2 Tapping the influence of social networks

Social networks mostly owe their influential power to the trust involved in those networks. When change recipients are confronted with the change, they often need to discuss it (Miller et al., 1994). Rafferty and Simons (2006) explain that they do this with people they trust. This concept of trust consists of the perception that the chosen person is trustworthy, and the confidence to be vulnerable to his/her actions (Bordia et al., 2011). This combination of the perception of trustworthiness and vulnerability makes it that the recipient is easily susceptible to being influenced. Stouten et al. (2018) further elaborate that recipients are more likely to trust people who are close to them. This trust makes them, in the context of organizational change, turn towards their team (Stouten et al., 2018). This concept of trust is somewhat related to the mistrust mentioned steps 2 and 3. The difference is, however, that in this case, the focus is on individual trust, while the previously discussed trust had to do with the organization's collective trust perception.

Essential for tapping the influence of the social networks within the organization is to identify key *opinion leaders*. Often a group of peers has one or more persons whose opinion is leading for the group. By identifying these *opinion leaders* gaining their support and training them as a change agent, an effective change promotion can be established (Stouten et al., 2018). Armenakis and Harris (2009) explain that these *opinion leaders* can serve act as horizontal change agents. Furthermore, by training them as change agents, they can become role models of the change. The use of change agents helps to communicate the vision transparently. It further helps create a clear picture of the change and its accompanying actions (Hiatt, 2006).

4.2.2.6.3 Current situation

For the case organization, this would mean that they should identify and gain the support of the *opinion leaders* within their organization. After this has been done, the *opinion leaders* can be trained to become role models for the desired change. This training would require them to embrace an attitude that supports long term innovation. If this is done, then the *opinion leaders* can start promoting the urgency of long term innovation on a horizontal level. That, in turn, would allow the organization to influence social interactions indirectly.

4.2.2.7 #7 Use Enabling Practices to Support Implementation

4.2.2.7.1 Importance of enabling practices

Enabling practices are essential to support the implementation of the change plan. Therefore, the seventh step is related to the use of enabling practices. The use of such practices is fruitful for the support of the implementation of change interventions. They can both support the initial rollout of complex change interventions as be useful for the change process over time. For this step, five factors/enabling practices are relevant. These factors/practices are goal setting, learning, employee participation, fairness and justice, and transitional structure. Each of the factors/practices have a different focus and role in support of the change implementation. (Stouten et al., 2018)

4.2.2.7.2 Factors/enabling practices

The setting of goals for organizational change is essential for its success. Goal setting focuses on specifying individual, unit, and organization goals, related to the change (Stouten et al., 2018). The goals help the change by giving individuals or units a direction. If these goals are seen as reasonable

and fair, then the members of the organization are more likely to adopt the change. This increase in likelihood to adopt change is due to the natural human tendency to self-expand to achieve prescribed goals (Ceci, Masciarelli, & Prencipe, 2016; Hobfoll et al., 2018). Furthermore, the setting of goals is vital in helping address continuous clashing goals and missions between units, lack of managerial accountability for change, or the possible opting out of the change by some units or individuals (Stouten et al., 2018). Lastly, the establishment of short-term goals can help both maintain and gain support for the change by gaining small wins (further discussed in step eight) (Appelbaum et al., 2012).

Furthermore, learning practices have a central role in almost all change processes by helping generate change motivation. It is rather common that learning practices are required to implement the change effectively. Change often requires the acquisition of new skills and knowledge by employees and managers (Stouten et al., 2018). Hiatt (2006) stresses the importance of providing learning practices that are compatible with the role of the organization's members. If the acquired skills and knowledge are not compatible with the role, members might suffer psychological blocks. Compatible learning practices can help embody change by teaching the members new processes, routines, and behaviors (Whelan-Berry & Somerville, 2010). Lastly, learning often turns into self-efficacy (Stouten et al., 2018). This self-efficacy ultimately turns into motivation for the change (Hobfoll et al., 2018).

Additional to the learning practices are employee participation practices. The cooperation of the organization's members is required for change plans to have a high success chance (Miller et al., 1994). Moreover, by developing practices in which employees are stimulated to participate, support for the change can be increased. Such practices allow the employees to provide feedback and share information regarding the change. This sharing, in turn, should enhance the employees' sense of discrepancy and would make it more likely that appropriate change(s) are selected (Armenakis & Harris, 2009; Stouten et al., 2018).

Furthermore, employee participation in decision-making practices has been associated with a higher readiness for change. This association is because the employee gets to interact with the change process (Gärtner, 2013). Lastly, the commitment to the change plan is also improved through the use of employee participation practices. Participation in active implementation of the change plan, such as pilots, enhances the employee's understanding of the change plan, which in turn increases their commitment (Whelan-Berry & Somerville, 2010).

Factors that are important for the enabling practices are fairness and justice. The current treatment perception is, similarly to the historical treatment perception discussed in step 2, essential for the success of the change plan. Fairness and justice focus on the use of fair procedures and respectful treatment of the people involved in the change (Stouten et al., 2018). An essential result of an unfair and disrespectful perception is that recipients start to resist the change process. Therefore, it is fruitful to stimulate a positive perception (Heyden et al., 2017).

Additionally, when leaders act as role models for the change plan, employees often positively reconsider their initial view on the expected fairness. This reconsideration is due to the positive association between the leader's exemplary role and the employee's cooperation with change (Stouten et al., 2018). Lastly, a good perception of fairness and justice is especially important when the employee is uncertain about the change and its chance of success. This perception is essential because uncertainty negatively influences the fairness and justice perception (Rodell & Colquitt, 2009).

Lastly, transitional structures can be useful to oversee and modify change-related projects. The implementation of the change process often includes tests, experiments, and small scale initiatives. These practices can make a complex change easier to implement (Golden-Biddle, 2013). However, they require a transitional structure that makes sure the desired change is achieved. Transitional structures are arrangements, such as temporary teams, that guide and modify (if needed) change projects or trials (Stouten et al., 2018). There can be many practices operating at the same time, which could require multiple transition structures (Westerlund, Garvare, Höög, & Nyström, 2015). Furthermore, experimentation with practices and routines, under the guidance of transition structures, allows the organization to become more flexible and learn new skills and roles (Feldman & Pentland, 2003).

4.2.2.7.3 Current situation

The learning practices and employee participation practices are especially important for the case company. First of all, learning practices are related to BML. These are related because a part of the learning process is to learn new processes, routines, and behaviors. The diagnosis part has identified these as causes of the BML. Therefore, the use of learning practices to learn new processes, routines, and behaviors would also help break with the current BML. As a result of this break, the organization can use the learning practices to alter the existing BML towards the desired state. The employee participation practices can be essential to stimulate the readiness for change and increase the sense of urgency. The sense of urgency is currently low among employees. Thus, the use of employee participation could be beneficial to increase this sense in the organization.

4.2.2.8 #8 Promote Micro-Processes and Experimentation

4.2.2.8.1 Importance of micro-processes and experimentation

Experimentation and micro-processes are a vital part of the change plan. The eighth step focuses on the promotion of micro-processes and experimentation. This step is closely related to step seven. The enabling practices described in step seven can be used for the micro-processes and experimentation in this step. Where previous steps mostly focus on indirect aspects of the desired change, this step focuses on experiments to get to the desired state. The small scale or micro-processes are central to effective change. Through the implementation of small interventions, the organization can learn what does and does not work. The interventions generate first-hand experiences and opportunities and can demonstrate meaningful results. (Stouten et al., 2018)

4.2.2.8.2 Trial-and-error learning

Trial-and-error learning is a popular concept in both change management literature as business model literature. This concept focuses on learning from doing. Which refers to, in the context of organizational change, the implementation of small scale interventions to test which changes work or do not work (Stouten et al., 2018). Furthermore, these small scale interventions can be seen as a form of test training. These test 'trainings' can help enable an understanding of the known and unknown of the change plan. This understanding can, in turn, help the development of the change plan as it provides useful information (Golden-Biddle, 2013). Trial-and-error learning tackles an often occurring issue with change. This occurring issue is the managing resources between existing and new activities. The use of small scale interventions makes it possible to use a limited amount to resources to test new activities (Kor & Mesko, 2013).

An essential aspect of trial-and-error learning is the management of the received feedback. To discover what is working and whatnot, the guiding coalition requires feedback from the change recipients. This feedback has to be managed by the coalition to be useful (Stouten et al., 2018). The feedback also has to assess whether the interventions change the sentiment towards the change plan (Armenakis & Harris, 2009). If the feedback is not managed correctly, the credibility of the change plan is undermined (Kotter, 1995). The best way to manage this feedback, as described by Appelbaum et al. (2012), is to discuss it face-to-face. This way, deficiencies can immediately be corrected.

4.2.2.8.3 Small wins

Additionally, small scale interventions can be used to create 'small wins.'. These 'small wins' can be used to provide proof of concept, stimulate support for the change, and gain credibility. Kotter (1995) emphasizes the importance of creating, rather than hoping for 'small wins.'. Kotter (1995) further explains that managers should actively look for 'small wins' rather than passively waiting for them (Appelbaum et al., 2012; Kotter, 1995). The creation of 'small wins' requires analyzing what change recipients perceive as easy to accomplish. Through this analysis, the organization can identify 'small wins' and build up momentum based on these 'wins' (Armenakis & Harris, 2009). To add, Stouten et al. (2018) mention two critical issues regarding the 'small wins.'. Firstly, they address the metrics of the 'small wins.'. They explain that these metrics should focus on being attractive to the change

recipients rather than to the management. Secondly, they mention that the 'small wins' should not interfere with the long term goal. If this is the case, then the short term gains will provide false readings for the long term success of the change (Stouten et al., 2018).

4.2.2.8.4 Current situation

Step seven indicated that the creation of short-term change-related goals is essential for the support of the change. People want to see proof of concept before they are willing to commit to the change (Stouten et al., 2018). The setting and achievement of short-term goals help provide 'small wins' which can be used as proof of concept. These 'small wins' are also relevant for the case organization. During the diagnosis, it became clear that there is a specific avoidance of innovation, which derives from the organization's history. It also became clear that these managers prefer having proof of concept before committing to the change/innovation. The 'small wins' discussed by the literature could be useful to provide proof of concept to the managers.

Additionally, from a practical perspective, the organization would require multiple small interventions to create a sense of urgency and change the attitude towards innovation. The diagnosis has identified several managerial cognitive factors that affect the attitude towards innovation. Each of these identified factors has to be addressed to change the attitude. Some might require a few interventions, while others would require multiple interventions. To add, Stouten et al. (2018) claim that it can be essential to implementing a focus on learning new skills. Doing this will allow the change recipients to discover new approaches. Additionally, this could enhance their mindfulness, which allows them to be open to the urgency of innovation (Gärtner, 2013).

4.2.2.9 #9 Assess Change Progress and Outcomes over Time

4.2.2.9.1 Importance of assessing over time

The ninth step is directly related to the last two steps. This step focuses on assessing the outcomes of the enabling practices and micro-processes and experimentation. The step is essential to, periodically, assess the progress of the planned change. This assessment includes the assessment of whether the results, experiences, and activities meet prior expectations. The assessment also includes assessing whether the goals from step seven have been met or not. Lastly, it includes the assessment of feedback, as discussed in step eight. These assessments can be made by continuously monitoring the change plan's progress. For the monitoring, reliable metrics should be collected from multiple different stakeholders. (Stouten et al., 2018; Whelan-Berry & Somerville, 2010)

Several aspects, crucial to the change success, are essential to the monitoring during the change progress. These crucial aspects are the degree of change implementation, commitment, competence, and efficacy. These aspects can provide useful feedback, which is vital to learn from and base further implementations (Stouten et al., 2018; Whelan-Berry & Somerville, 2010). By adequately monitoring these aspects, the coalition can become more flexible in the processing of the retrieved information (Prats et al., 2012). Prats et al. (2012) further mention that resistance to change is an important aspect to monitor. Keeping an eye on the resistance to change is essential to determine where more support needs to be gained before implementing new interventions (Prats et al., 2012). Insufficient monitoring of the crucial aspects could become a hindrance to the sustainability of the change plan. The reason that this can become a hindrance is that the monitoring is vital for the motivation and adaptation of the change (Westerlund et al., 2015).

The continuous monitoring of the change progress and its outcomes can be used to strengthen the change plan. As has previously been described, the monitoring of crucial aspects can provide much useful information. This information is useful in the sense that it can both help understand the progress and help strengthen the change plan (Stouten et al., 2018). If the monitored outcome does not meet the expectations, then the coalition should focus on strengthening these outcomes. The coalition can strengthen these outcomes by implementing different practices/interventions or making them more desirable to the change recipient (Beer et al., 1990; Prats et al., 2012).

Additionally, the change outcomes can be strengthened by continuously investing resources in the change. This way, sustainable change can be stimulated (Hiatt, 2006; Kotter, 1995). Moreover, the continuous investment of resources can allow the change to solidify in the organization culture and BML (Appelbaum et al., 2012).

4.2.2.9.2 Current situation

The most critical aspects for the organization to monitor is the increase/decrease in the degree of urgency for long term innovation and the change commitment, and resistance. The primary focus of this change plan is to create a sense of urgency for long-term innovation. So to assess whether the change progress is going in the right direction, the degree of urgency and change commitment is essential. On the other side is the resistance to change. Expected is that this will first increase due to the influence and unlearning of the current BML. After a certain point, the resistance would, however, decrease during the commitment, and the degree of urgency increases. Furthermore, the other mentioned aspects in the above paragraph are also essential to monitor. However, they are not the primary indicators for the desired change.

4.2.2.10 #10 Institutionalize the Change to Sustain Its Effectiveness

4.2.2.10.1 Importance of institutionalization of change

Lastly, it is important to institutionalize the change in order to sustain its effectiveness. Therefore, the final step focuses on the institutionalization of the change. As has been mentioned in the previous step, continuous investment in resources towards the change is important to sustain the change and solidify it in the organization's culture and BML. A useful way to make sure this happens is by institutionalizing the change. This institutionalization includes institutionalizing it into the culture and management systems of the organization. By institutionalizing the change, it becomes a common practice in the organization. This common practice, in turn, can influence the decision making and control mechanisms. Furthermore, it sets a standard in the organization which influences the daily behavior. (Appelbaum et al., 2012; Cooperrider & Srivastva, 1987; Prats et al., 2012; Stouten et al., 2018)

4.2.2.10.2 Institutionalizing through ongoing adaptation

However, necessary for the organization is to sustain the change through ongoing adaptation. The risk of solidifying the change to profoundly is that the organization creates a new dominant BML, which can lead to inertia and other harmful effects. Therefore, Buchanan et al. (2005) suggest that the 'ideal organization' can continuously adapt by moving and redirecting where needed. Doing this requires a continuation of the enabling practices (step seven). This continuation can help in making the change plan practices more effective and efficient (Stouten et al., 2018). To add, it also helps in new situations that require new knowledge, learning, and institutional norms (Ceci et al., 2016). Lastly, the use of training is useful to sustain the change plan. Through the use of training, the change practices can further spread throughout the organization. This spread allows new members to get accustomed to the practices directly. It also allows existing members to develop further the change plan (Appelbaum et al., 2012; Buchanan et al., 2005).

Nonetheless, the change does have to be institutionalized, to some extent, to be useful for the organization. The change plan requires to be sustained and continued. Failing to do so would lead to the initial decay of the change in which gains from the change are lost (Buchanan et al., 2005). Institutionalizing the change by setting up standards is used to make it possible for the rest of the organization to imitate the change (Appelbaum et al., 2012). The standards can sway previous resisting employees to the change. These so-called late adopters, who are committed to the organization, are more likely to follow through on change practices once they have become routine (Stouten et al., 2018). Additional to commitment, the change practices also gain credibility through institutionalization. With both commitment and credibility established, change recipients start focusing on making the change practices more desirable for them (Dibella, 2007). Lastly, this focus on

making the practices more desirable will make the desired outcome more likely to be achieved (Buchanan et al., 2005).

4.2.2.10.3 Current situation

Moreover, from a practical perspective, the institutionalization affects the managerial cognition. As Shang, Huang, and Guo (2010) describe the institutional environment of the organization impacts the managerial cognition. The managerial cognition has been identified as a critical factor in the BML. Being able to influence it would allow the organization to go towards its desired state (Helfat & Peteraf, 2015). This influence on managerial cognition comes from the belief systems managers follow (Kor & Mesko, 2013). These belief systems change as a result of the institutionalization, which in turn change the managerial cognition. The managerial cognition can further be influenced through the routines, or the institutionalization of change could set up (Cavalcante, Kesting, & Ulhøi, 2011).

Furthermore, other identified aspects that can be influenced through institutionalization are the day to day activities and the reactive attitude. Both aspects have been identified during the diagnosis of the FPS project problem. The first was a result of the BML, while the latter was a result of managerial cognition. To start, the day to day activities are, similarly to managerial cognition, based on the routines and beliefs within the organization. The result of an institutionalized and sustainable change is that it becomes part of the everyday activities (Appelbaum et al., 2012). The long term innovation-focused attitude can become part of the day to day activities if the case company institutionalizes it. Secondly, the ongoing adaptation of the change practices can help change the reactive attitude of the organization. The reason the ongoing adaptation can help is due to the stimulation of continuously learning new knowledge and skills. This constant learning may shift the reactive attitude towards the desired proactive attitude (Stouten et al., 2018).

4.2.3 Conclusion

The previous section presented a ten-step method that aims to solve the problem of altering the BML. Following the ten-steps method should allow the organization to alter the BML to enable BMI. Each of the ten steps focuses on different aspects of the previously researched BML. The visualization below displays which part is affected or used by the steps of the solution design. As the visualization displays, not all parts of the BML are addressed or used. Only the parts that the solution design theory describes as critical to altering the BML are required. The focus of step seven is a good example. Step seven is about using enabling practices. These enabling practices are essential to unlearn the structure, procedures, routines, and schemas (visible in the middle of the visualization) to alter the BML.

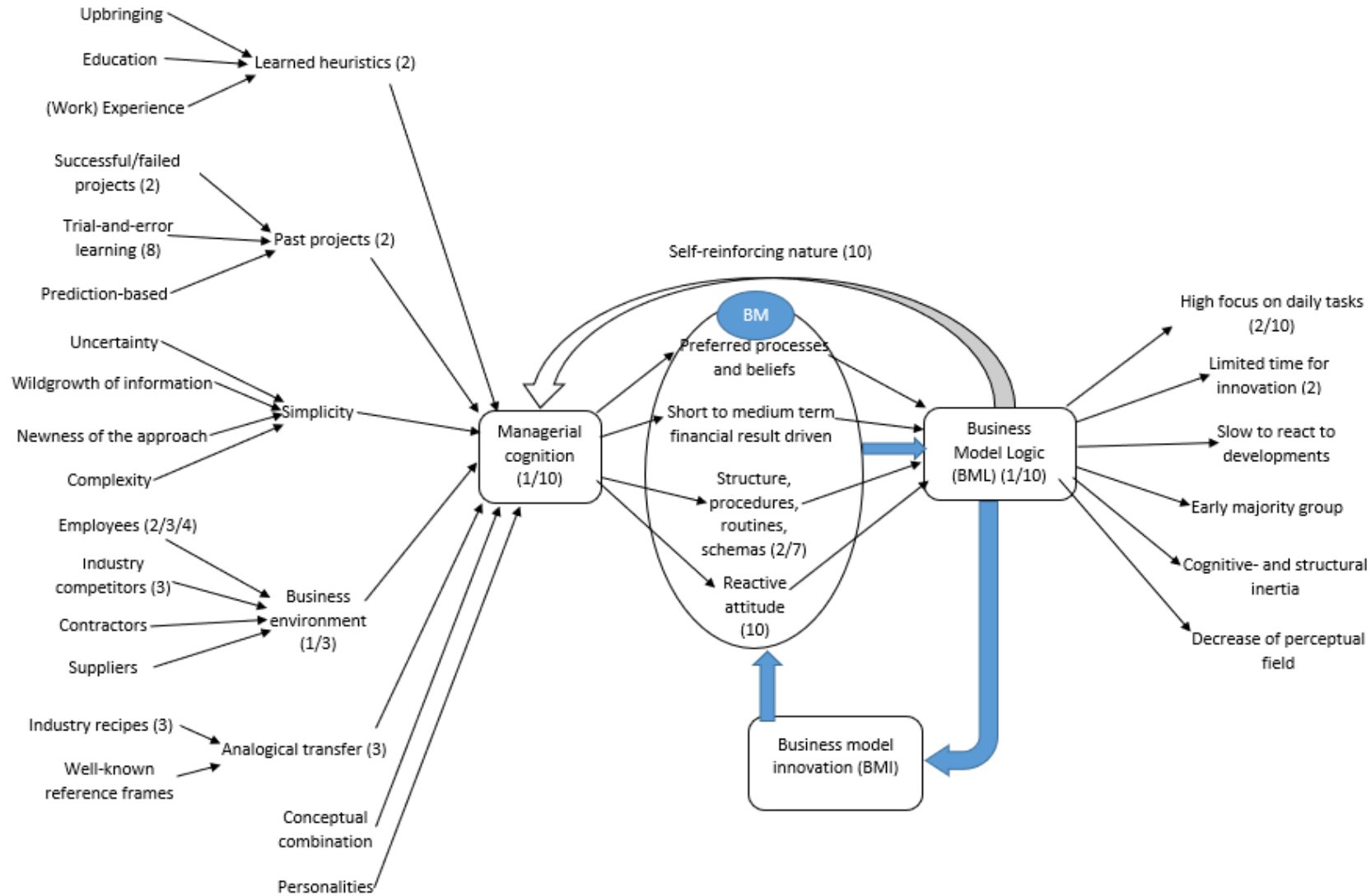


Figure 4.4 Visualization BML with solution design (numbers represent the step numbers)

4.2.4 Workshop

4.2.4.1 Workshop

The last section of chapter 4 focuses on the workshop. The solution design consists of ten steps aimed to solve the problem. These steps have to be appropriate for the case company. If they are not appropriate for the case company, the problem can not be solved. Therefore, testing the appropriateness of the ten steps is essential. The workshop aims to test whether the solution design is appropriate for the case company.

However, testing all ten steps is not possible as that would take up a much time which does not fit with the agendas of the top-managers. Another reason is that the completion of some steps is required before starting the next one. For example, the first three steps need to be completed before starting the fourth step. Therefore, the workshop focuses on testing only one of the ten steps. The step that is most suited for the workshop is the second step of the solution design.

The second step focuses on diagnosing the readiness of the organization. This step is the best fit for the workshop because it follows the chronologic order of the steps. The first step is mostly related to the diagnosis section of this thesis. Therefore, repeating this step in the workshop would not be fruitful for the case organization. The diagnostic section of the thesis identified that the organization is not ready for the change. Factors such as their history and the perceived urgency of innovation display that the organization is not ready for change.

Therefore, the workshop focuses on addressing the lack of readiness for the change in a workshop. The second step includes three facets, which are the main subjects of the workshop. These facets are the collectively perceived history, the degree of stress, and the capability of the top management to guide the change. Each of the facets has been discussed in the form of group discussion. For each subject (facet), the participants had to form an opinion on their own. This opinion should be focused on what they individually think about the specific facet. For example, the participants were asked to form an opinion about the general perception of the companies innovative history. Afterward, individual opinions were discussed in the group to come to a general conclusion. The participants for the workshop were three business unit managers (one, previously interviewed, business unit manager was unable to attend) and two directors.

4.2.4.2 Workshop results

The workshop provided evidence that the solution design is appropriate for the case company. The workshop was successful in executing the second step of the solution design. All participants were able to develop their individual opinion and discuss this opinion during the group discussion. The participants understood how they could assess the organization's readiness for the change. Additionally, the participants were all able to provide a discussable opinion about the readiness for change.

Furthermore, the group discussion provided a proper assessment of the case company's readiness for the change. Of the three facets, the second facet (the degree of stress) has taken the most time to discuss. That the second facet took the most time was expected. The diagnostic section of the thesis already indicated that there are different opinions on how the employees should spend work time (see section 4.1.1.1 about the two different logics).

The general assessment of the participants is that the organization is not yet ready for the desired change. They understand that this first has to be addressed before the organization can make innovation more urgent within the company. They also understand that this includes addressing the three facets of readiness. Most importantly, addressing the degree of stress within the company. This awareness resulted in the managers planning to create a more structured innovation policy than currently is used.

4.2.4.3 Post-interview

After completing the workshop, a group interview has been conducted to assess the perceived usefulness and relevancy of the step discussed in the workshop. During this group interview, it became clear that the participants have deemed the second design step, and thus the workshop as relevant and useful. The following quote can best describe the perceived usefulness and relevancy: “We all were aware of the need for innovation, but not for the urgency of a well-structured innovation policy. The workshop allowed us to reflect on this” (Director). This quote sums up the general perception of all the participants regarding the workshop.

4.2.5 Discussion and Conclusion

4.2.5.2 Conclusion

To conclude, the ten steps can be divided into three groups. The first, second, and third steps are all three focused on diagnosing and addressing the current situation. The fourth, fifth, and sixth step is focused on the development of a change plan and gaining support for this change plan. Lastly, step seven, eight, nine, and ten focus on the execution of the change plan. These steps include the monitoring of the change plan and the institutionalization of the change practices. All of these steps are focused on unlearning the existing BML to learn a new BML. Besides, the learning of a new BML includes preventing new inertias due to being too deeply embedded in the BML. This prevention of new inertias is done by providing theoretical information that discusses the necessity of sustaining change through ongoing adaptation.

Additionally, the workshop has successfully tested the usefulness and relevance of one of the ten steps. Testing this was the second step, the assessment of the readiness for change. During the workshop, every facet could be assessed. This assessment resulted in the participants realizing that they require a structured innovation policy. This structured innovation policy is expected to help create a sense of urgency for innovation within the organization.

4.2.5.2 Discussion

First of all, important to mention is that the ten steps above do not have to be followed step by step. Meaning that one step does not have to be fully finalized before starting the next one. The change process is a continuous process that can change over time. Specific previously made plans or assumptions can alter during the process due to unforeseen circumstances. For example, in the second step, the assumption could be that the organization has a high readiness. Then when trying to gain support for the change plan, the organization realizes that they wrongly assumed the readiness. This wrong assumption requires the organization to readdress the readiness. This assumption is an example of how the change plan is an iterative process. New, previously unseen, things could come to light, which could require new plans and enabling practices.

Additionally, the diagnosis identified that the top-managers have different perspectives regarding the urgency of innovation. These differences are expected to influence the support for the initiation of the ten steps. It might be necessary first to create readiness among the top management to get sufficient support. After there is sufficient support from the top management, people can be assigned to initiate the ten steps. Expected is that once this ten-step process starts, more support (from top management) can be generated. This support, in turn, could allow for more resources towards the change process.

Lastly, as the final problem definition describes, both the managerial cognition and reactive attitude have been identified as important aspects influencing the BML. Therefore, both aspects have been taken into account when researching the solution for the FPS project problem. Nonetheless, both aspects have mostly been mentioned tacitly in the steps. The focus of the change steps is to unlearn a certain BML and to learn a new one. Taking into account that the organization does not become deeply embedded in the new BML by fully solidifying the change. This unlearn-learn process includes both aspects, but there was no need to mention them directly. The last step (the institutionalization) is an

exception. It is an exception because the last step is directly related to the results of this step is a change in both aspects.

5. Discussion

5.1 Interpretation of the results

The previous chapter focused on understanding the problem mess of the organization and finding a solution to the problem. The problem mess focuses on understanding the BML of the organization. The solution to the problem focuses on unlearning the current BML while learning a new one. Both focuses are related to the objectives stated in the introduction section of this thesis paper. The objectives focused on further investigating the problem mess described during the intake meeting, visualizing it, and finding a solution for it. The results combine practical and theoretical data with meeting the objectives of the introduction.

5.2 Summary of what was learned

Firstly, what was learned is that BML is a complicated concept. The BML can both be helpful as harmful to the organization. Helpful by offering information filters and simplification for the decision making process. Harmful by creating a set of blinders that can blind the organizations from opportunities and threats. The balance between being helpful and harmful is rather thin. Secondly, communication is vital to the success of the change. Without proper communication, change has a high chance of being wrongly understood. A wrongly understood change can create unrest and even generate resistance to that change.

5.3 Theoretical and practical contribution

5.3.1 Theoretical contribution

The part of the paper that mostly contributes to the existing theory is the visualization of the BML. The existing theory has not visualized the concept 'BML,' nor has it been discussed in detail. The existing theory mostly discusses small aspects of the BML but not the full scale of it. Nonetheless, this paper can still be improved by going more in-depth on every aspect mentioned in the BML. Going more in-depth was, however, not relevant for this thesis paper as it focused more on understanding it to an extent so that a solution could be found for the case organization.

Additionally, the existing theory has not yet discussed a detailed solution regarding the alteration of the BML. The existing theory describes that this requires unlearning. However, it does not further explain the process of unlearning this in the context of BML. This paper did, with the use of existing theory, describe a method that focuses on unlearning the existing BML and learning a new BML. However, this method is focused on a specific practical situation. Therefore, it is essential to keep this in mind when using this information.

5.3.2 Practical contribution

Additional to the theoretical contribution, this paper also has a practical contribution. The thesis paper focused on using theoretical information for a practical situation. The focus was to create a solution that helps the organization get to its desired state. The solution has developed a set of steps that act as a guideline for the case organization. Other organization which would have the desire to alter their BML could also use the solution design for their organization. Nonetheless, it has to be mentioned that this solution design is created for the diagnosed situation for the case organization. Therefore, not everything might be relevant to other organizations.

5.4 Limitations and future research

5.4.1 Limitations

One limitation is related to the problem-solving approach this paper uses. This approach includes the evaluation of the solution design, typically. However, executing the solution design and then evaluating it would take approximately eight months up to two years. Therefore, the choice has been made to go no further than the solution design. This choice limits the paper; almost no information is gathered on whether the solution design is fully applicable. However, the workshop did gather some information regarding the appropriateness of the solution design. This information provided some confirmation for the applicability of the solution design. Nonetheless, only time can tell if every step is as applicable as the second step.

Another limitation is that this thesis paper only includes information from the top-management perspective. Other members of the organization have not been included in the paper. Not including other members has been done on purpose as no theoretical evidence could be found which suggested to include them in the paper. Nonetheless, other members of the organization seem to, indirectly, affect, and be affected by the BML.

5.4.2 Future research

The second limitation could be interesting for future research. As has been said, no theoretical evidence which suggested the inclusion of other members could be found. Nonetheless, they seem to, indirectly, affect, and be affected by the BML. As the theory suggested, part of the BML is structures, routines, schemas, and procedures. These structures, routines, and schemas affect more than just the top management. Therefore, it might be interesting to research the perspective of other members of the organization on the BML. Including their perspectives might shine light upon new findings, which could be relevant for the understanding of the BML.

6. Conclusion

To conclude, this paper firstly focused on understanding the existing BML of the case organization. For the creation of this understanding, both practical as theoretical data have been gathered. The practical data has been gathered by interviewing the top-management of the case organization. The theoretical data has been gathered through the use of a systematic literature review. During the gathering of data for the understanding of the BML, several essential findings have been found.

Firstly, managerial cognition plays a vital role in the BML. The managerial cognition influences the decision making of the top-managers. This influence on the decision making, in turn, influences the structure, schemas, and routines which help develop the BML. Thus, managerial cognition was identified as playing a significant role within the BML. This identification resulted in the concept of 'managerial cognition' being a vital focus in this thesis. It became clear that in order to change the BML, managerial cognition should be changed first.

Secondly, another important finding is that the BML can act as a blinder for the organization. The BML can become dominant, which means that it dominates the decision making and choices of the top-management. This dominance could lead to the managers blindly following their BML without looking at the opportunities and threats around them. Being blind for opportunities and threats, in turn, can harm the organization as threats and opportunities are not recognized in time. This finding is important because it can lead to a possible stagnation or decline in the organization's performance.

Thirdly, the BML can create a self-reinforcing nature. During the systematic literature review, a relationship has been identified between the BML and managerial cognition. This relationship was described as the 'self-reinforcing nature.'. As has been explained before, managerial cognition leads to structures, schemas, and routines. These are used to create the BML. In turn, the BML sets up blinders and routinizes processes which affect the managerial cognition. The managerial cognition, in turn, affects the structure, schemas, and routines. This cycle often continues as long as the

organization is successful. To add, it often ends too late, when the organization realizes it is suffering a devastating decline. This finding became essential for this paper due to its possible negative effect.

After an understanding of the BML has been created, the paper focused on designing a solution for this situation. For the solution design, a new systematic literature review has been conducted. The first literature review focused on gathering data from several innovation-related literature fields. This literature review focused on gathering data from the change management literature field. This literature review resulted in a ten-step solution design that can be used as a guideline. The focus of this ten-step solution design is to unlearn the existing BML to learn a BML, which includes long term innovation.

One of the most critical steps of this ten-step solution is the second step. This step focuses on the readiness of the organization. This step is essential as the diagnosis of the BML has indicated that the current readiness is rather disputable. A workshop has been conducted to test the appropriateness of the ten-step solution design. The step, which was the topic of the workshop is the second step.

The choice of using the second step has been made due to the disputable readiness. This workshop resulted in the top-managers of the organization, realizing that they do not have a developed structure for innovation. This step is also important because if the organization is not ready for change, the change is likely to fail.

Lastly, the step to institutionalize the change plan and ongoingly adapt it is essential. As previous paragraphs have already displayed, the BML can set up blinders for the organization. These blinders have adverse effects on the organization. So when the organization starts institutionalizing the change plan, these blinders should be prevented. The blinders can be prevented by implementing an ongoing adaptation structure additional to the institutionalization of the change. This adaptation structure should be able to allow the organization to see threats and opportunities which are usually ignored. Additionally, it would allow the organization to maintain an innovative attitude.

Bibliography

- Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic Management Journal*, 22(6–7), 493–520. <https://doi.org/10.1002/smj.187>
- Amit, R., & Zott, C. (2015). Crafting Business Architecture: the Antecedents of Business Model Design. *Strategic Entrepreneurship Journal*, 9(4), 331–350. <https://doi.org/10.1002/sej.1200>
- Amit, R., & Zott, C. (2018). Creating Value Through Business Model Innovation. *Sloan Management Review*, 36–44.
- Appelbaum, S. H., Habashy, S., Malo, J. L., & Shafiq, H. (2012). Back to the future: Revisiting Kotter's 1996 change model. *Journal of Management Development*, 31(8), 764–782. <https://doi.org/10.1108/02621711211253231>
- Armenakis, A. A., & Harris, S. G. (2009). Reflections: our Journey in Organizational Change Research and Practice. *Journal of Change Management*, 9(2), 127–142. <https://doi.org/10.1080/14697010902879079>
- Augustine, N., & Euchner, J. (2013). Building a culture of innovation: An interview with Norm Augustine. *Research Technology Management*, 56(6), 17–22. <https://doi.org/10.5437/08956308X5606003>
- Beer, M., Eisenstat, R. A., & Spector, B. (1990). Why change programs do not produce change. *Harvard Business Review*, 68(6), 158–166. <https://doi.org/10.4018/978-1-5225-0196-1.ch105>
- Bergman, J. P., Jantunen, A., & Tarkiainen, A. (2015). Managerial cognition and dominant logic in innovation management: Empirical study in media industry. *International Journal of Business Innovation and Research*, 9(3), 253–271. <https://doi.org/10.1504/IJBIR.2015.069136>
- Bettis, R., & Prahalad, C. (1995). The dominant Logic: Retrospective and Extension. *Strategic Management Journal*, 16(1), 5–14. <https://doi.org/https://doi.org/10.1002/smj.4250160104>
- Bettis, R., Wong, S. S., & Blettner, D. (2015). Dominant Logic, Knowledge Creation, and Managerial Choice. *Handbook of Organizational Learning and Knowledge Management*, 367–381. <https://doi.org/10.1002/9781119207245.ch17>
- Bolton, R. N. (2004). Invited Commentaries on “Evolving to a New Dominant Logic for Marketing.” *Journal of Marketing*, 68(1), 18–27. <https://doi.org/10.1509/jmkg.68.1.18.24035>
- Bordia, P., Restubog, S. L. D., Jimmieson, N. L., & Irmer, B. E. (2011). Haunted by the past: Effects of poor change management history on employee attitudes and turnover. *Group and Organization Management*, 36(2), 191–222. <https://doi.org/10.1177/1059601110392990>
- Buchanan, D., Fitzgerald, L., Ketley, D., Gollop, R., Jones, J. L., Lamont, S. Saint, ... Whitby, E. (2005). No going back: A review of the literature on sustaining organizational change. *International Journal of Management Reviews*, 7(3), 189–205. <https://doi.org/10.1111/j.1468-2370.2005.00111.x>
- Cavalcante, S., Kesting, P., & Ulhøi, J. (2011). Business model dynamics and innovation: (re)establishing the missing linkages. *Management Decision*, 49(8), 1327–1342. <https://doi.org/10.1108/00251741111163142>
- Ceci, F., Masciarelli, F., & Prencipe, A. (2016). Changes in Organizational Architecture: Aspiration Levels, Performance Gaps, and Organizational Change. *International Journal of Innovation and Technology Management*, 13(1). <https://doi.org/10.1142/S0219877016500024>
- Chesbrough, H. (2007). Business model innovation: It is not just about technology anymore. *Strategy and Leadership*, 35(6), 12–17. <https://doi.org/10.1108/10878570710833714>
- Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning*, 43(2–3), 354–363. <https://doi.org/10.1016/j.lrp.2009.07.010>
- Chesbrough, H., & Rosenbloom, R. (2002). The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Industrial and Corporate Change*, 11(3), 529–555. <https://doi.org/10.1093/icc/11.3.529>
- Comberg, C., Schneckenberg, D., & Velamuri, V. (2015). The Design Logic for Business Model Innovation in Sharing Economies. *XXVth International Society for Professional Innovation*

- Management Conference Proceedings, Book of Abstracts*, (June), 1–15.
- Cooperrider, D., & Srivastva, S. (1987). *APPRECIATIVE INQUIRY IN ORGANIZATIONAL LIFE. Research in Organizational Change and Development* (Vol. 1). JAI Press Inc.
- Corbo, L. (2017). In search of business model configurations that work: Lessons from the hybridization of Air Berlin and JetBlue. *Journal of Air Transport Management*, *64*, 139–150. <https://doi.org/10.1016/j.jairtraman.2016.09.010>
- Cosenz, F., & Noto, G. (2018). A dynamic business modelling approach to design and experiment new business venture strategies. *Long Range Planning*, *51*(1), 127–140. <https://doi.org/10.1016/j.lrp.2017.07.001>
- Cui, L., Su, S. I. I., Feng, Y., & Hertz, S. (2019). Causal or effectual? Dynamics of decision making logics in servitization. *Industrial Marketing Management*, *82*(May 2018), 15–26. <https://doi.org/10.1016/j.indmarman.2019.03.013>
- Dibella, A. J. (2007). Critical Perceptions of Organisational Change. *Journal of Change Management*, *7*(3–4), 231–242. <https://doi.org/10.1080/14697010701649707>
- Euchner, J. (2013). Innovation is change management. *Research Technology Management*, *56*(4), 10–11. <https://doi.org/10.5437/08956308X5604002>
- Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, *48*(1), 94–118. <https://doi.org/10.2307/3556620>
- Ford, C. M. (2002). The futurity of decisions as a facilitator of organizational creativity and change. *Journal of Organizational Change Management*, *15*(6), 635–646. <https://doi.org/10.1108/09534810210449541>
- Frankenberger, K., Weiblen, T., Csik, M., & Gassmann, O. (2013). The 4I-framework of business model innovation: a structured view on process phases and challenges. *International Journal of Product Development*, *18*(3/4), 249–273. <https://doi.org/10.1504/IJPD.2013.055012>
- Gabrielsson, P., & Gabrielsson, M. (2013). A dynamic model of growth phases and survival in international business-to-business new ventures: The moderating effect of decision-making logic. *Industrial Marketing Management*, *42*(8), 1357–1373. <https://doi.org/10.1016/j.indmarman.2013.07.011>
- Ganguly, A., & Euchner, J. (2018). Conducting Business Experiments. *Research Technology Management*, *61*(2), 27–36. <https://doi.org/10.1080/08956308.2018.1421381>
- Gärtner, C. (2013). Enhancing Readiness for Change by Enhancing Mindfulness. *Journal of Change Management*, *13*(1), 52–68. <https://doi.org/10.1080/14697017.2013.768433>
- Geissdoerfer, M., Vladimirova, D., & Evans, S. (2018). Sustainable business model innovation: A review. *Journal of Cleaner Production*, *198*, 401–416. <https://doi.org/10.1016/j.jclepro.2018.06.240>
- Golden-Biddle, K. (2013). How to change an organization without blowing it up. *MIT Sloan Management Review*, *54*(2), 35–41.
- Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, *36*(6), 831–850. <https://doi.org/10.1002/smj.2247>
- Heyden, M. L. M., Fourné, S. P. L., Koene, B. A. S., Werkman, R., & Ansari, S. (Shaz). (2017). Rethinking ‘Top-Down’ and ‘Bottom-Up’ Roles of Top and Middle Managers in Organizational Change: Implications for Employee Support. *Journal of Management Studies*, *54*(7), 961–985. <https://doi.org/10.1111/joms.12258>
- Hiatt, J. (2006). *ADKAR: a model for change in business, government, and our community* (1st ed.). Prosci Research.
- Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of Resources in the Organizational Context: The Reality of Resources and Their Consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, *5*(1), 103–128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>
- Jarzabkowski, P. (2001). Dominant Logic: An aid to strategic action or a predisposition to inertia?

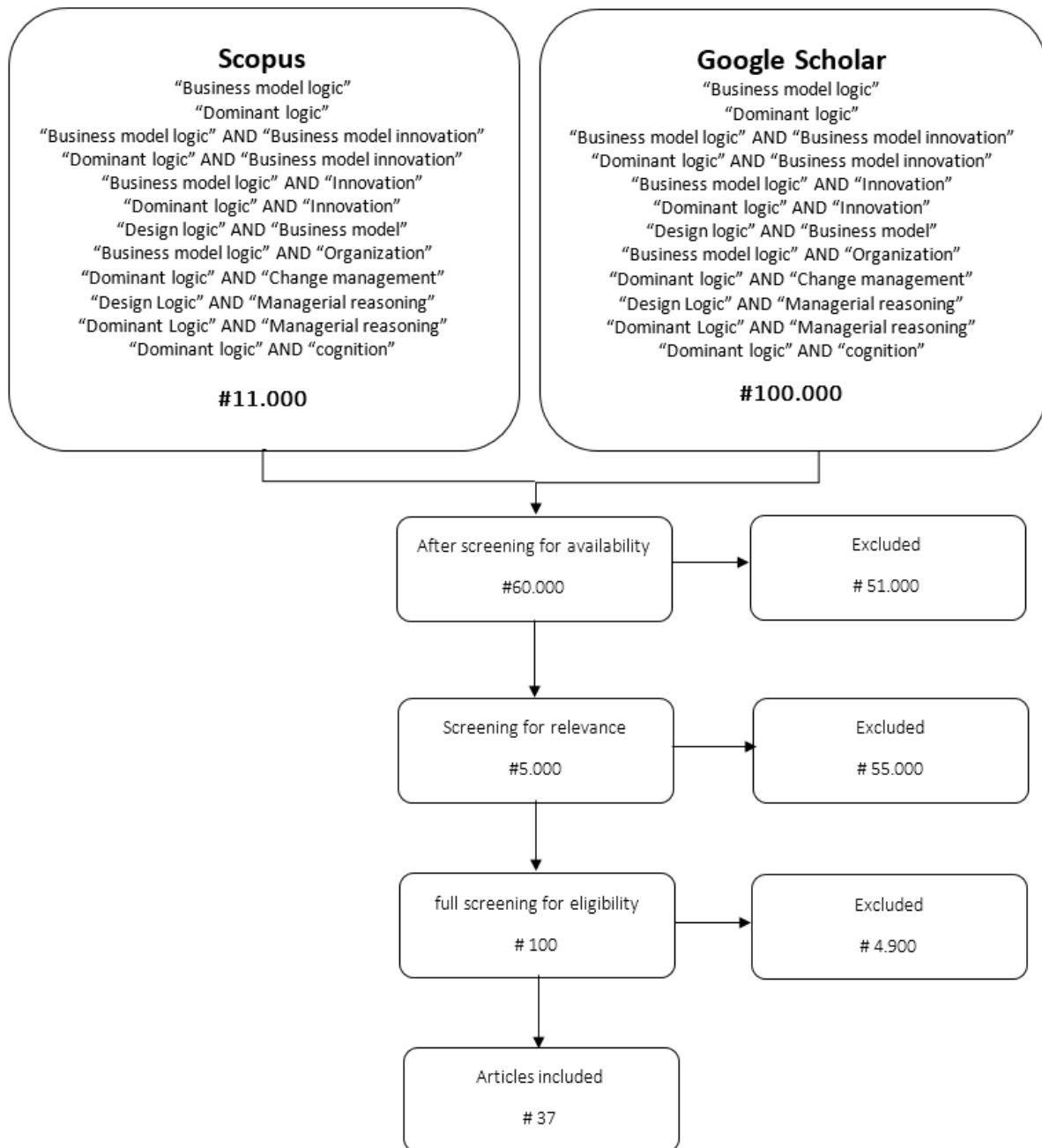
Aston Business School, 0–35.

- Judson, A. S. (1991). *Changing behavior in organizations: Minimizing resistance to change*. B. Blackwell.
- Kor, Y. Y. & Mesko, A. (2013). Dynamic managerial capabilities: Configuration and orchestration of top executives' capabilities and the firm's dominant logic. *Strategic Management Journal*, 34(2), 233–244. <https://doi.org/10.1002/smj.2000>
- Kotter, J. (1995). *Leading Change: Why transformation efforts fail*. *Leading Change*. Harvard Business Review.
- Martins, L. L., Rindova, V. P., & Greenbaum, B. E. (2015). Unlocking the Hidden Value of Concepts: A Cognitive Approach to Business Model Innovation. *Strategic Entrepreneurship Journal*, 9(1), 99–117. <https://doi.org/10.1002/sej.1191>
- McIntosh, M. J., & Morse, J. M. (2015). Situating and constructing diversity in semi-structured interviews. *Global Qualitative Nursing Research*, 2. <https://doi.org/10.1177/2333393615597674>
- Miller, V. D., Johnson, J. R., & Grau, J. (1994). Antecedents to willingness to participate in a planned organizational change. *Journal of Applied Communication Research*, 22(1), 59–80. <https://doi.org/10.1080/00909889409365387>
- Obloj, T., Obloj, K., & Pratt, M. G. (2010). Dominant logic and entrepreneurial firms' performance in a transition economy. *Entrepreneurship: Theory and Practice*, 34(1), 151–170. <https://doi.org/10.1111/j.1540-6520.2009.00367.x>
- Ojasalo, K., & Ojasalo, J. (2015). Adapting business model thinking to service logic: An empirical study on developing a service design tool. *The Nordic School – Alternative Perspectives on Marketing and Service Management*, (forthcoming), 309–333.
- Osiyevskyy, O., & Dewald, J. (2015). Explorative Versus Exploitative Business Model Change: The Cognitive Antecedents of Firm-Level Responses to Disruptive Innovation. *Strategic Entrepreneurship Journal*, 9(1), 58–78. <https://doi.org/10.1002/sej.1192>
- Prahalad, C. K. (2004). The blinders of dominant logic. *Long Range Planning*, 37(2), 171–179. <https://doi.org/10.1016/j.lrp.2004.01.010>
- Prats, J., Sosna, M., & Velamuri, S. R. (2012). Managing in different growth contexts. *California Management Review*, 54(4), 118–142. <https://doi.org/10.1525/cmr.2012.54.4.118>
- Rafferty, A. E., & Simons, R. H. (2006). An examination of the antecedents of readiness for fine-tuning and corporate transformation changes. *Journal of Business and Psychology*, 20(3), 325–350. <https://doi.org/10.1007/s10869-005-9013-2>
- Rodell, J. B., & Colquitt, J. A. (2009). Looking Ahead in Times of Uncertainty: The Role of Anticipatory Justice in an Organizational Change Context. *Journal of Applied Psychology*, 94(4), 989–1002. <https://doi.org/10.1037/a0015351>
- Santos, J., Spector, B., & Van der Heyden, L. (2009). *Toward a theory of business model innovation within incumbent firms*. INSEAD. Retrieved from http://org.business.utah.edu/opsconf/pages/vanderHeyden_Paper.pdf
- Schneckenberg, D., Velamuri, V., & Comberg, C. (2019). The Design Logic of New Business Models: Unveiling Cognitive Foundations of Managerial Reasoning. *European Management Review*, 16(2), 427–447. <https://doi.org/10.1111/emre.12293>
- Schneckenberg, D., Velamuri, V. K., Comberg, C., & Spieth, P. (2017). Business model innovation and decision making: uncovering mechanisms for coping with uncertainty. *R and D Management*, 47(3), 404–419. <https://doi.org/10.1111/radm.12205>
- Schneider, S. (2019). How to approach business model innovation: the role of opportunities in times of (no) exogenous change. *R&D Management*, 49(4), 399–420. <https://doi.org/10.1111/radm.12302>
- Schneider, S., & Spieth, P. (2013). Business model innovation: towards an integrated future research agenda. *International Journal of Innovation Management*, 17(01), 1340001. <https://doi.org/10.1142/S136391961340001X>
- Shang, H., Huang, P., & Guo, Y. (2010). Managerial cognition: the sources of sustainable competitive advantage in hypercompetition: A case study. *Nankai Business Review International*, 1(4), 444–

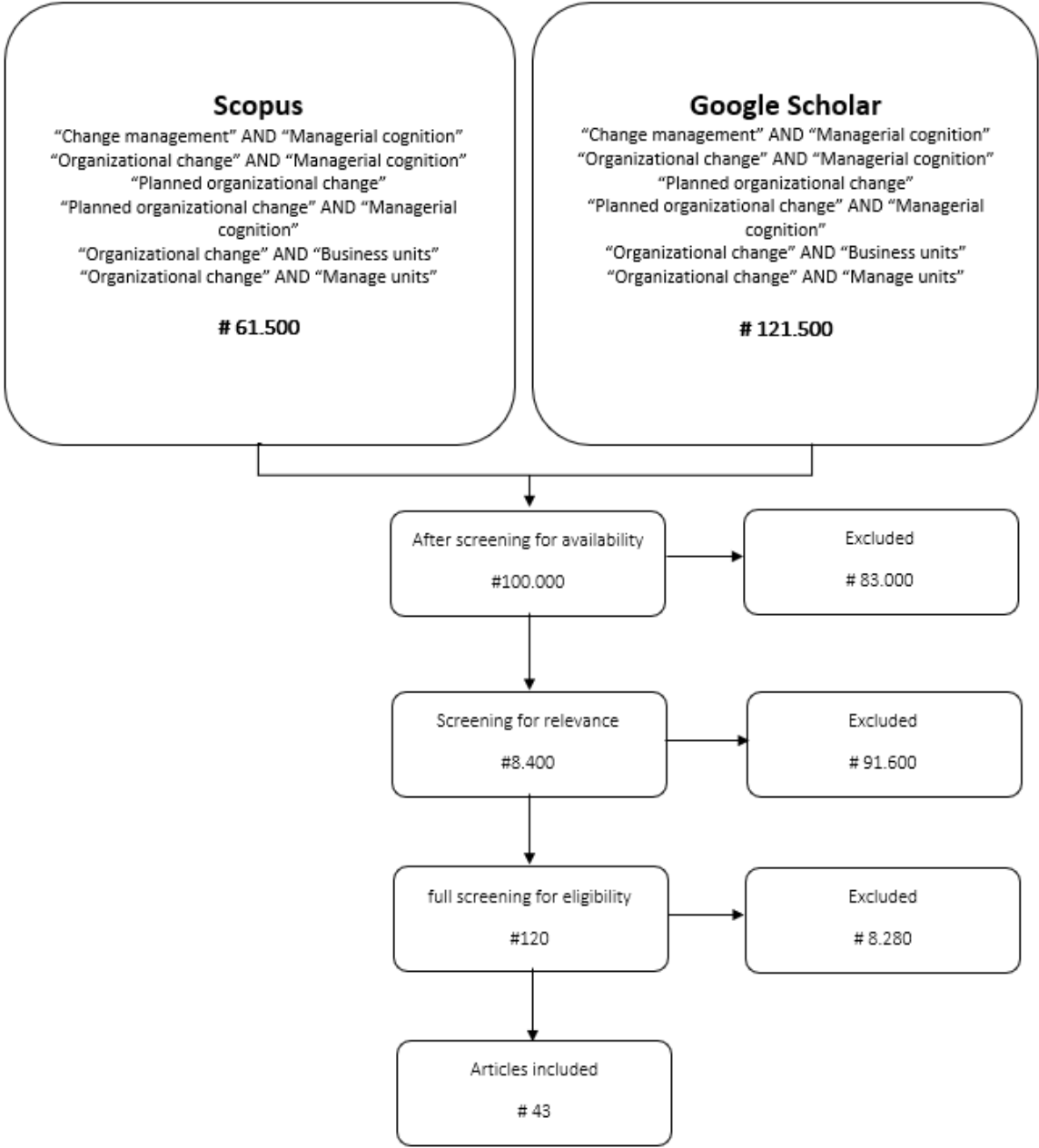
459. <https://doi.org/10.1108/20408741011082589>
- Sosna, M., Treviño-Rodríguez, R. N., & Velamuri, S. R. (2010). Business model innovation through trial-and-error learning: The naturhouse case. *Long Range Planning*, 43(2–3), 383–407. <https://doi.org/10.1016/j.lrp.2010.02.003>
- Stouten, J., Rousseau, D. M., & De Cremer, D. (2018). Successful organizational change: Integrating the management practice and scholarly literatures. *Academy of Management Annals*, 12(2), 752–788. <https://doi.org/10.5465/annals.2016.0095>
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, 43(2–3), 172–194. <https://doi.org/10.1016/j.lrp.2009.07.003>
- Tenkasi, R. V., & Chesmore, M. C. (2003). Social Networks and Planned Organizational Change: The Impact of Strong Network Ties on Effective Change Implementation and Use. *The Journal of Applied Behavioral Science*, 39(3), 281–300. <https://doi.org/10.1177/0021886303258338>
- van Aken, J. E., & Berends, H. (2018). *Problem Solving in Organizations*. Cambridge: Cambridge University Press.
- Van De Ven, A. H., & Poole, M. S. (2005). Alternative approaches for studying organizational change. *Organization Studies*, 26(9), 1377–1404. <https://doi.org/10.1177/0170840605056907>
- Vargo, S. L., & Lusch, R. F. (2017). Service-dominant logic 2025. *International Journal of Research in Marketing*, 34(1), 46–67. <https://doi.org/10.1016/j.ijresmar.2016.11.001>
- Viljakainen, A., Toivonen, M., & Aikala, M. (2013). Industry transformation towards service logic: A business model approach. *Cambridge Service Alliance, Working Paper Series*, (October 2014), 1–24. Retrieved from http://www.cambridgeservicealliance.org/uploads/downloadfiles/2013_December_Industry_transformation_towards_service_logic_A_BM_approach.pdf
- Vogel, P. (2016). From Venture Idea to Venture Opportunity. *Entrepreneurship: Theory and Practice*, 41(6), 1–29. <https://doi.org/10.1111/etap.12234>
- Vossler, J. (2015). *Thinking About Business Model Innovation*. University Of Twente. Retrieved from https://essay.utwente.nl/68168/1/Vossler_MA_School_of_Management_and_Governance.pdf
- Weissbrod, I., & Bocken, N. M. P. (2017). Developing sustainable business experimentation capability – A case study. *Journal of Cleaner Production*, 142, 2663–2676. <https://doi.org/10.1016/j.jclepro.2016.11.009>
- Westerlund, A., Garvare, R., Höög, E., & Nyström, M. E. (2015). Facilitating system-wide organizational change in health care. *International Journal of Quality and Service Sciences*, 7(1), 72–89. <https://doi.org/10.1108/IJQSS-01-2015-0004>
- Whelan-Berry, K. S., & Somerville, K. A. (2010). Linking change drivers and the organizational change process: A review and synthesis. *Journal of Change Management*, 10(2), 175–193. <https://doi.org/10.1080/14697011003795651>
- Whittington, R., Caillaet, L., & Yakis-Douglas, B. (2011). Opening strategy: Evolution of a precarious profession. *British Journal of Management*, 22(3), 531–544. <https://doi.org/10.1111/j.1467-8551.2011.00762.x>
- Wiltbank, R., Read, S., Dew, N., & Sarasvathy, S. D. (2009). Prediction and control under uncertainty: Outcomes in angel investing. *Journal of Business Venturing*, 24(2), 116–133. <https://doi.org/10.1016/j.jbusvent.2007.11.004>

Appendix

Appendix I visualization systematic literature review (diagnoses)



Appendix II visualization systematic literature review (solution design)



Appendix III Dutch quotes with translations

Source	Dutch quote	English translation
Innovationmanager	“De beperking is gewoon dat je, je pakt een aantal mensen uit je huidige business en daar probeer je iets, innovatie mee te brengen. Dat blijft altijd lastig dan dat mensen worden altijd teruggetrokken in hun huidige processen. Dat werk gaat gewoon door.”	“The limitation is that you take a couple of people out of your current business and try to bring innovation with them. That is always difficult as those people will be drawn back in their current processes. That work continues in its regular order”.
Business unit manager	“We zijn een organisatie die redelijk groot is maar net niet groot genoeg om mensen daar voor vrij te maken. Het is iets wat er tussendoor moet worden gedaan. Door je normale werkzaamheden heen. Dat maakt het soms wel lastig en misschien wel trager dan bij een groter bedrijf. Die echt mensen daarvoor kunnen alloceren van daar ben je mee bezig en niets anders. Daar zijn wij nog te klein voor als organisatie. Met andere woorden je ziet vaak dat er best wel goede ideeën en bedoelingen zijn. maar je ziet vaak dat het vastloopt of strand in het feit dat er net niet genoeg tijd voor of middelen. Het is wel de mankracht die je er voor nodig hebt en de mankracht die je daarvoor moet vrijmaken om op het gebied van innovatie bezig te zijn.”	“We are an organization that is reasonably big, but just not big enough to roster people free for innovation. It is something that has to be done in between your normal tasks. That sometimes makes it difficult and maybe slower than at a bigger company. Those who can allocate people for innovation and nothing else. For that, we are still too small as an organization. In other words, you often see that there are good ideas and intentions. However, these often get stuck on the fact that there is not enough time or resources. It is the workforce that you need for it and the workforce you have to roster free to be busy with innovation.”
Director	“Dat loopt nu anderhalf jaar. Als ik eerlijk ben, dat loopt wel, alleen misschien de mate waarin kan sneller misschien of beter. Dus dan is het logisch dat hij er niet elke dag ermee bezig is. Dat onze eigen keuze. Dan zouden we straks moeten evalueren is dit de goede manier, of door alle andere drukte kan hij er de tijd aan besteden dat wij graag willen.”	“That is working about a year and a half; maybe the pace could be faster or better. So it is logical that he is not always busy with it. That is our own choice. We should, later on, have to evaluate whether this is the right way, or whether he can, due to the pressure from all other tasks, spend the desired time on it.”
Business unit manager	“We hebben niet heel veel innoverende mensen die hun geesten vrij loop laten. Het zijn echt technuten. Waarvan de een heel veel passie heeft voor	“We do not have many innovative people that leave their mind a free spirit. They are mostly technicians. Some are very passionate about

	<p>techniek en vanuit die gedrevenheid iets te ontwikkelen ontwerpen op producten niveau zie ik nog niet zo gauw gebeuren. Bij ons zijn het veel blauw groene mensen. Daar bedoel ik cijfermatig. Rood van dit gaan we zo doen in plaats van allerlei mogelijkheden kansen en ontwikkelingen zien.”</p>	<p>technology and driven by that passion for developing and designing on a product level. That something that I do not see happening anytime soon. ... We have mostly blue/green people. With that, I mean number focused. Red, as in this is what we are going to do instead of looking at several opportunities and developments.”</p>
Business unit manager	<p>“De risico's zitten in het feit dat je een weg inslaat die nog niet uitgestippeld is. Waar je eigenlijk wel in wil investeren. Waar je het kip en ei verhaal hebt. We zitten te balanceren op het feit dat je wel dit soort markten wil aanboren. Maar je bent er nog niet compleet op ingericht. Dat kan natuurlijk nog niet. Je kunt je niet volledig ergens op inrichten terwijl er nog geen vraag naar is. Dat is een hele dunne balanceerlijn. Uiteindelijk wil de klant iets en daar zijn we bezig om invulling aan te geven. Dat is dus best wel lastig om dat te doen.”</p>	<p>“The risks are in the fact that you enter a road which is not yet mapped out, where you want to invest in. Where you have the chicken and the egg story. We are balancing on the fact that you want to enter such markets, but you are not yet designed to do so. That, of course, is not possible yet. You cannot fully focus on something while there is not a demand for yet. That is a fragile line of balance. In the end, the customer wants something, and we are busy fulfilling their desires. So that is rather difficult to do.”</p>
Director	<p>“Kijk wij zijn niet een bedrijf dat echt nieuwe dingen gaan ontwikkelen, wij passen ontwikkelingen toe. Maar we kunnen natuurlijk wel in de markt zien waar het naartoe gaat. Dus op die manier kijken we dus wel naar de markt, wat daar speelt en op welke manier wij nieuwe verdienmodellen, nieuwe ontwikkelingen kunnen inzetten. Maar we lopen nooit helemaal voorop. Dat kost ons veel geld.”</p>	<p>“Look, we are not a company that will really develop new things. We apply developments. However, we can, of course, see in which direction the market is going. So in that way, we look at the market, what it is doing, and what new business models, new developments can be applied. Nonetheless, we are never fully at the front. That is too expensive for us.”</p>
Business unit manager	<p>“Het is natuurlijk een gigantische wildgroei. Alles wordt heel mooi gepresenteerd. Het is wel moeilijk om daar het kap van de koren te scheiden van is dit echt wat of is dit niks. Maar je krijgt echt wel heel veel informatie krijg je al via allerlei mailings krijg je binnen. Er is</p>	<p>“it is, of course, a huge wild growth. Everything is, of course, presented very well. However, it is hard to divide the good from the bad, what is worth it, and what is not worth it. However, you do get much information via several</p>

	eigenlijk veel te veel te vinden. Je moet eigenlijk heel goed kijken van hoe wordt het gepresenteerd en zeker met de praktijk in je achterhoofd van is het echt wel wat.”	mailings. There is way too much to find. You have to look very precise about how it is presented, especially with practice in the back of your head, to see what is truly something.”
Business unit manager	“Je hebt sommige mensen die zien alles rooskleurig en vertellen hoe goed ze wel niet zijn. Ook op organisatie, daar wil ik Kremer absoluut niet te kort doen. Maar zeggen en doen laat ik het dan zo zeggen. Wij zeggen dat we al heel innovatief zijn maar ik, maar dat is persoonlijk, denk dat we trendvolger zijn.”	“you have some people who see everything rosy and tell how good they are. Also, on the organization level, I absolutely do not want to short come to the organization. However, saying and doing. Let me say it this way. We say that we are very innovative, but I, personally, think we are trend followers.”