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Enabling exploration within a corporate environment

developing an approach to drive explorative behavior

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Enabling exploration within a corporate environment

Developing an approach to drive explorative behavior

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Preface

This thesis marks the end of a remarkable period. Over the past six years, I have had the privilege to study at the Eindhoven University of Technology and develop myself into the person I am today. During these years, I have met wonderful people, was given the opportunity to live and study in Barcelona, and created memories for life, a time to remember. However, I would be lying if I said that I am not delighted that – with this thesis – it all comes to an end.

First of all, I want to say thank you to all the people that have supported me in writing my master thesis. Annelies Bobelyn, thank you for your enthusiasm, your feedback, and your help in bringing this project to an end. Richard Dingemans, thank you for your honest feedback and the opportunity to write my thesis within such an interesting environment. The countless conversations and discussions have definitely been a valuable part of my education.

Furthermore, I would like to thank all SAP employees for their genuine interest and willingness to help me with my research project. Especially those whom I have interviewed, thank you for your time and the inspirational conversations. Your interesting stories and perspectives have been valuable input.

Finally, I want to thank my family, friends, and girlfriend for their unconditional support, especially during the past few months.

Sjoerd Dankers, Eindhoven 2020

Management Summary

To survive in a world that changes faster everyday, challenging the status quo and searching for new ways to leverage modern day technology is key in maintaining a competitive position and securing the future. Therefore, companies have to explore for new opportunities while exploiting existing ones (March, 1991). However, simultaneously focusing on both exploration and exploitation is easier said than done as combining both activities creates tensions. A problem that was also encountered by the management of Digital Business Services Nederland (DBS NL) which is a department within the SAP SE subsidiary SAP Nederland. They felt that the employees focus too much on exploiting their existing competences at the expense of discovering and developing new ones. Therefore, the core objective of this thesis was to find a way to increase the explorative behavior within the department of DBS NL. Accordingly, the main research question was defined as follows:

How can DBS NL increase the amount of explorative behavior among its employees?

To answer this question, the research aimed at creating an in-dept understanding of the as-is situation, identify the barriers to exploration that the employees face, find ways to overcome these barriers, and develop an approach to increase the amount of explorative behavior.

Chapter 2 | Theoretical Background

Generally stated, exploration refers to the search for and discovery of new opportunities while exploitation is about benefitting from current opportunities. Exploration can best be characterized by things like risk taking, experimentation, flexibility, discovery, innovation, and future benefits. Whereas exploitation is associated with things as refinement, production, efficiency, implementation, and short-term returns (March, 1991). As such, exploration and exploitation are both crucial for the long-term survival and success of organizations (Gupta et al., 2006; March, 1991). Therefore, organizations need to be able to balance exploration and exploitation, they have to become ambidextrous (Tushman & O'Reilly, 1996). However, exploration and exploitation compete for – sometimes scarce – resources, are both self-reinforcing, and require vastly different environments. So, in order to become ambidextrous, organizations need to understand the tensions and address them adequately.

Therefore, this thesis aims to create an understanding of the obstructions that individuals face when balancing both activities. To do so, the business model framework is used to map the day-to-day operations. In other words, it is used to map how the department is organized to exploit their existing competences and how that obstructs exploration. Moreover, this study aimed to grasp the role of dominant logic in obstructing the explorative efforts.

Chapter 3 | Research Approach

To answer the main research question and related sub-questions, this project follows the design-oriented and theory-informed methodology for field problem-solving (FPS) projects as described by Van Aken & Berends (2018). First, a single case-study was used to create an in-depth understanding of the problem at hand and identify the barriers to exploration. Empirical data was collected through fifteen semi-structured interviews and several internal documents. Thereafter, the Gioia methodology (Gioia, Corley & Hamilton, 2012) was followed to analyze the data and create a 'local theory' of the unique situation. Second, based on the empirical findings an attempt was made to design a solution for the business problem. To do so, literature on organizational control was consulted to gain insights on how to solve the business problem at hand. Thereafter, the 'local theory' and the insights from literature were transformed into a set of design requirements and principles which then served as inputs for the iterative design process. Finally, a recommendation and a detailed solution were presented. Unfortunately, due to the time constraints of this project, there was no time for an extensive evaluation or testing of the solution.

Chapter 4 | Analysis & Diagnosis

The empirical results showed that within the department of DBS NL there is a strong focus on (short-term) financial performance, and thus exploiting existing competences. As a result, the employees face various barriers when it comes to exploration. On the one hand, the absence of both intrinsic and extrinsic motivational drivers limits the explorative behavior. Especially while such drivers in terms of goals, objectives, financial rewards and personal interests are present when it comes to exploiting existing competences. As a result, the employees take little initiative when it comes to explorative behavior. Additionally, there is no structured approach to compensate for the lack of initiative. On the other hand, the empirical findings indicated that employees face limitations in terms of resources and availability. More specifically, they face time constraints and are regularly working outside the office.

An evaluation of the identified barriers based on logical reasoning and the empirical data showed that the core of the problem lies with absence of drivers towards exploration. Based on this finding, a revised problem statement was defined which served as a starting point for the iterative design process.

Chapter 5 | Solution Design

In order to tackle the identified causes of the problem, theory on organizational control was reviewed to create an understanding of how behavior can be directed towards achieving organizational objectives. As such, it is argued that organizational control mechanisms can play a key role in enabling ambidexterity. A theory-based set of design principles on how to apply outcome, process, and clan controls in specific contexts together with the design requirements served as inputs for designing.

Chapter 6 | Detailed solution

Based on the design inputs and additional relevant factors, a redesign was developed. The overall solution consists of two core components; a *recommendation* and a *redesign.* The recommendation emphasizes on the importance of setting a direction by defining goals and objectives, and thereby creating a foundation for increasing the explorative behavior. The redesign represents a potential next step towards meeting those goals and objectives. It consists of a multi-step process that defines the what tasks are needed towards achieving the defined goal(s) and objective(s). Moreover, the process (process control) is infused with a combination of clan and outcome controlling mechanisms to actively guide employee behavior towards achieving the organizational objectives.

Chapter 7 | Conclusion

Due to the exploration-exploitation tensions, building an ambidextrous organization is a challenge. Especially when there is a strong emphasis on short-term financial performance, and thus exploitation. This study argues that clearly defining overall goals and objectives is a first step in giving increasing the explorative efforts. Such a direction enables the implementation of organizational control mechanisms to direct employee behavior towards achieving these organizational goals and objectives. Concluding, this study argues that organizations can increase the explorative behavior of their employees by actively guiding and controlling their behavior. To do so, they could implement the designed solution.

This study contributes to the existing theory in multiple ways. First, it provides an overview of barriers to exploration (tensions) that are present within a corporate environment with a strong emphasis on exploitation. Second, it contributes to theory by suggesting that the dominant logic of an organization limits the explorative behavior. Finally, it adds to existing literature through the development of an approach that aims to increase the explorative behavior among employees through the use of organizational controls.

Considering the managerial implications of this study, it can be concluded that building an ambidextrous organization takes effort. Thus, if the management of DBS NL wants to increase the explorative behavior of the employees, they should start by setting a direction with regard to exploration and creating an understanding of why exploration is so important. Thereafter, could start implementing outcome, process and clan controls to actively guide employee behavior and initiate change.

Logically, like all others, this study has its limitations with regard to the methodology that was used. First, due to the development of a 'local theory', the results might not be generalizable. Second, the sample might not be completely representable for the overall population. Third, the research showed that there was a difference in perception of the barriers among the respondents. However, the

characteristics of individuals were not studied within this research, and thus no statements can be made with regard this relation. Therefore, future research could place more emphasis on the role of personal characteristics in balancing exploitation and exploration. Finally, due to time constraints, the solution has not been implemented nor tested.

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Chapter 1 | Introduction

In the last decade(s), the 'innovators dilemma' as described by Clayton Christensen (2003) has become more relevant than ever. Companies face the challenge of meeting both current and future customer needs, and the continious threat of being disrupted by new entrants. Organizations must invest to keep improving their offerings and meet current customer demands. At the same time, companies have to devote resources to more radical innovations as these are crucial in maintaining the competitive advantage, living up to future customer needs, and securing the company's future. The list of companies that have failed living up to this challenge has been growing rapidly and even the largest multinationals face the threat of being disrupted like Nokia and Kodak.

New technologies like the Internet of Things (IoT), Blockchain, Articficial Intelligence (AI), and Machine Learning (ML) provide numerous opportunities for future innovations. These technologies provide the basis for facial recognition, the reccomendations on Netflix, and enable you to track your pizza right until your front door. In more extreme cases, modern day IT has led to the emergence of totally new business models.

However, technology is merely a means-to-an-end and true innovation comes from combining the technical and economical domain in an unique way (Chesbrough and Rosenbloom, 2002). Such innovations do not just happen, successfully combining the two domains in a unique way takes serious commitment and investments. Investments that in most cases come from succesfull exploitation efforts. Thus, on the one hand, organizations have to continously challenge the status quo and search for new ways to leverage modern day technology before they can exploit them. On the other hand, the revenues that come from exploiting existing opportunities provide the resources that are necessary to fund more explorative behavior. As such, organizations have to balance both activities for optimal performance. Focusing to much on exploration goes at the expense of organizational performance, while too much focus on exploiting current opportunities will leave tomorrows opportunities undiscovered.

Therefore, to survive in a world that changes faster everyday, companies have to explore for new opportunities while exploiting existing ones. However, companies have a hard time in finding a balance between these two critical activies (Birkinshaw & Gibson, 2004). Clayton Cristensen (2003) even argued that successfully uniting these activities is almost impossible. According to Tushman and O'Reilly (2008), the answer lies in building an ambidextrous organization. Therefore, this projects seeks to find a way to stimulate exploration within a corporate environment with a strong emphasis on exploitation.

1.1 | SAP SE

SAP SE is a German business-to-business (B2B) company that offers enterprise application software and related (consulting) services. The company was founded in 1972 and has grown into the global market leader within its industry. With over 99,000 employees, SAP serves more than 430,000 customers and generates a total revenue of over 24 billion euros each year (SAP SE, 2019). The company offers a wide range of business solutions that help customers to improve their overall efficiency and create valuable business insights. As the needs of their customers are subject to continuous change, it is crucial for SAP to keep innovating to maintain their competitive advantage and leading position.

In the pursuit of meeting current and future client needs, SAP is continuously innovating its product portfolio. As a part of that, they started to shift their focus from on-premise to cloud based offerings. Among these cloud offerings are several SaaS products (Software as a Service) which offer customers on-demand business solutions. Besides the SaaS offerings, SAP developed a cloud platform that provides a basis for both incremental and radical innovation: the SAP Cloud Platform (SCP). In general, the SCP has two main functions: 'customization' and 'innovation'. The SCP enables SAP to build product customizations as an add-on to the standard software packages while keeping the core product 'clean'. This simplifies updating and mitigates the risk of performance and stability issues. The innovation section houses advanced technologies like machine learning, blockchain, advanced analytics and big data, which are all bundled under the name 'SAP Leonardo'. These technologies can be used to build applications that create value in a novel way. With these product innovations, SAP aims to secure its future and expand its role in the world of information technology.

1.1.1 | Digital Business Services (DBS)

The services related to SAPs software products, including those offered on the SAP Cloud platform, are delivered by the 'Digital Business Services' department. The DBS division of SAP has over 19,000 employees worldwide and provides consulting services on various topics related to SAPs products. These services focus on helping the customers to get the most out of their software solutions.

Within the services department, there are mainly four teams; *BTS, Sales, Delivery, and SolAr.* The 'BTS' (business transformation services) consultants can best be classified as business consultants that advise customers on how SAP software can transform and add value to their business. The 'sales' team is responsible for selling service projects to make the transformation reality. The 'delivery' team consists of project managers that manage the overall implementation process during these projects. Finally, the 'SolAr' (solution architects) team consists of domain experts that ensure the fit between IT and business objectives during the implementation project.

1.2 | Problem Definition

This problem solving project is initiated by the service division of SAP Nederland; Digital Business Services Nederland (DBS NL). SAP Nederland is a subsidiary of SAP SE and is responsible for all business activities in The Netherlands. The (head) office is situated in 's Hertogenbosch and houses over 600 employees of which approximately 60 are working within the DBS department.

The project originated from a performance gap that was identified by the local management of DBS NL. Generally stated, the revenue streams of DBS NL depend too much on competences and services related to software that is becoming more and more a 'commodity' product. In other words, the added value of the services offered by DBS NL is decreasing, and thus they are losing their competitive advantage. Yet, the ability to provide unique and high value adding services is vital for the sustainability of the department. Boldly stated, where SAP has been focusing on innovating the product portfolio to secure their position as a market leader, the service division has been trapped in their own success.

To preserve the competitive advantage, it is crucial that the consultants of DBS NL continuously develop new competences in relation to SAPs newest products and technologies. To do so, DBS NL needs to explore new ways of leveraging the available information technology to create customer value. However, based on a series of informal interviews with various stakeholders, it was concluded that there is a lack of explorative behavior, and thus the development of new competences is limited. Moreover, it was found that the emphasis on exploiting the current business model potentially creates barriers and obstructs such exploration efforts. Based on the preliminary analysis of the problem mess, the following problem statement was defined:

> *"The current emphasis on exploiting the extant business model might obstruct exploration and avert employees from executing innovative projects."*

The objective of this project is to find a solution for the problem stated above. Therefore, the study evolves around answering the following research question:

- *How can DBS NL increase the amount of explorative behavior among its employees?*

In the process of builing the solution, the study will focus on creating an in-depth understanding of the current situation to create a solid foundation for the solution design.

- *How does the department of DBS NL currenly exploit its competences?*
- *Which barriers are present and how do they obstruct exploration?*
- *How can these barriers be overcome?*

The first two subquestions will be adressed during the analysis and diagnosis phase. Thereafter, the solution design phase will focus on answering the last subquestion and the main research question.

1.3 | Scientific Relevance

Within academic literature, it is generally accepted that both exploration and exploitation are vital activities for continued organizational success (Almahendra & Ambos, 2015; Gupta, Smith & Shalley, 2006; Tushman & O'Reilly, 1996; Uotila, Maula, Keil & Zahra, 2009). However, researchers also agree that both activities are significantly different and that serious tensions exist between them (Gupta et al., 2006; He & Wong, 2004; March, 1991). According to March (1991), they even tend to drive each other out. As a result, simultaneously exploring for new opportunities and exploiting existing ones is a true challenge for most organizations.

The tensions that exist between exploration and exploitation and the resulting strategic trade-offs have been discussed extensively within literature (Almahendra & Ambos, 2015; Groysberg & Lee, 2009). For example, firms have to decide on how to allocate their (scarce) resources between the two activities. Researchers agree that due to the better predictability and certainty of short-term benefits, firms tend to prefer exploitation over exploration and make their decisions accordingly (Fang, Lee & Schilling, 2010; Gupta et al., 2006; Levinthal & March, 1993). Unfortunately, a widely accepted definition of the optimal exploration-exploitation balance (e.g. allocation of resources) has not yet been found. Uotila et al. (2009) even argued that there is not one 'right' balance. As such, the challenge of becoming ambidextrous has still not been solved from a strategic perspective (Fang et al., 2010).

Strikingly, few researchers have studied the exploration-exploitation trade-off from the perspective of those who carry out the exploration and exploitation activities (Groysberg & Lee, 2009; Gupta et al., 2006). Therefore, this study focuses on how the act of combining exploration and exploitation is faced by challenges on the operational level during the day-to-day operations. More specifically, in the context of an exploitation focused professional service firm, it tries to uncover the barriers that obstruct the explorative behavior of individuals and how these might relate to the known exploration-exploitation tensions. Without such an understanding, building an ambidextrous organization is difficult.

As such, identifying and resolving the barriers to exploration is not only highly relevant from the organizational perspective, but also from a scientific perspective. To do so, this research project follows Groysberg and Lee (2009) by approaching exploration as the execution and improvement of the existent business model. Therefore, this thesis takes the business model concept to serve as a framework to map how the organization is organized around exploitation.

1.4 | Outline of the report

Chapter 1 | Introduction provides a brief description of the company, the department, the problem definition, the scientific relevance, and is completed by this outline. In ***Chapter 2 | Theoretical Background*** some theoretical background on the problem at hand and the relevant theoretical concepts will be provided. ***Chapter 3 | Research Approach*** gives an overview of how the research was conducted, how the data was collected, and how the solution was designed. In ***Chapter 4 | Analysis & Diagnosis*** the collected data is discussed and interpreted to answer the first two sub questions. **Chapter 5 | Solution Design** focuses on answering the last sub question by defining all inputs for designing and in ***Chapter 6 | Detailed Solution*** the main research question is answered by designing a solution using inputs from both literature and context. ***Chapter 7 | Conclusions*** discusses the outcomes of the research and reflects upon the theoretical contributions, managerial implications, and limitations and further research directions will be discussed.

Chapter 2 | Theoretical Background

In this chapter, the available literature on exploration, exploitation, ambidexterity, and business models will be discussed in more detail. The objective is to create a mutual understanding of these key concepts. First, the concepts exploration and explotation will be explained by discussing their unique characteristics. Thereafter, ambidexterity theory will be used to discuss the tensions that emerge from combining both exploration and exploitation. Finally, the literature on business models will be discussed in more detail to create an understanding of how organizations exploit their competences to create and capture value.

2.1 | Exploration and Exploitation

Ever since March's (1991) paper on the relation between exploration and exploitation, these concepts have received wide attention within academic literature. Generally stated, exploration refers to the search for and discovery of new opportunities while exploitation is about benefitting from current opportunities. Over time, the concepts have been studied from numerous perspectives and various levels of analysis. As a result, there exist a variety of definitions and some ambiguity remains (Li, Vanhaverbeke & Schoenmakers, 2008).

Overall, researchers agree that exploration is linked to learning and innovation (Gupta, Smith & Shalley, 2006). Unfortunately, such a mutual understanding is lacking for the concept of exploitation. Some scholars have distinguished the concepts based on the presence (exploration) or absence (exploitation) of learning. However, Gupta et al. (2006) argued that it is more logical to follow the differentiation provided and used by March (1991) and He and Wong (2004). They state that both concepts involve at least some learning and, therefore, exploration and exploitation should be distinguished based on the type and level of learning involved. Thus, the distinction lies in the difference between improving a skill or extending knowledge and learning a new skill or creating new knowledge (Levinthal and March, 1993).

According to March (1991), exploration can best be characterized by things like risk taking, experimentation, flexibility, discovery, and innovation. Whereas exploitation is associated with things as refinement, production, efficiency, implementation, and execution. Another characteristic that sets the two concepts apart is the difference in terms of returns on investments. Where the returns from exploitation are predictable and can be expected on the short-term, the potential returns from exploration are uncertain and lie somewhere in the future (He & Wong, 2004; March, 1991).

In 2002, Danneels elaborated on the concepts of exploitation and exploration – as defined by March (1991) – by creating a framework that further defined the concepts in relation to organizational

renewal. He refers to organizational renewal as the development of organizational competences (e.g., resources, assets, skills, knowledge, capabilities) over time. In his paper, Danneels (2002) discusses how product innovation not only requires certain competences but it also results in the development of new competences. First, he makes a distinction between technology and customer competences. He refers to technological competences as the competences needed to build or develop the (physical) product whereas customer competences refer to the competences needed to sell the product to customers (Danneels, 2002). From the technology perspective, competences include things like technical knowledge, manufacturing facilities and engineering skills. Customer competences, on the other hand, include things like communication channels and knowledge on customer needs and problems. Danneels (2002) argues that these two competences together are at the core of each (product) innovation. More specifically, the two competences are worthless without one another. These concepts are at the core of his framework on the distinction between exploitation and exploration (Figure 1). Danneels (2002) defined three types of exploration that lead to organizational renewal; *pure exploration, leveraging technological competence,* and *leveraging customer competence.* In pure exploration, there is a focus on the development of both customer and technological competences. Leveraging technological competence refers to the development of new customer competences in order to leverage the already existent technological competences. Leveraging customer competences is defined as the creation of new technological competences to better exploit current customer competences. In both leveraging scenarios, there is a combination between exploiting existing competences and exploring new competences. As a result, less risk is involved when compared to pure exploration while still achieving organizational renewal. Finally, when utilizing both technology and customer competences that are already existing within the firm, it is defined as 'pure exploitation' and the amount of organizational renewal is limited.
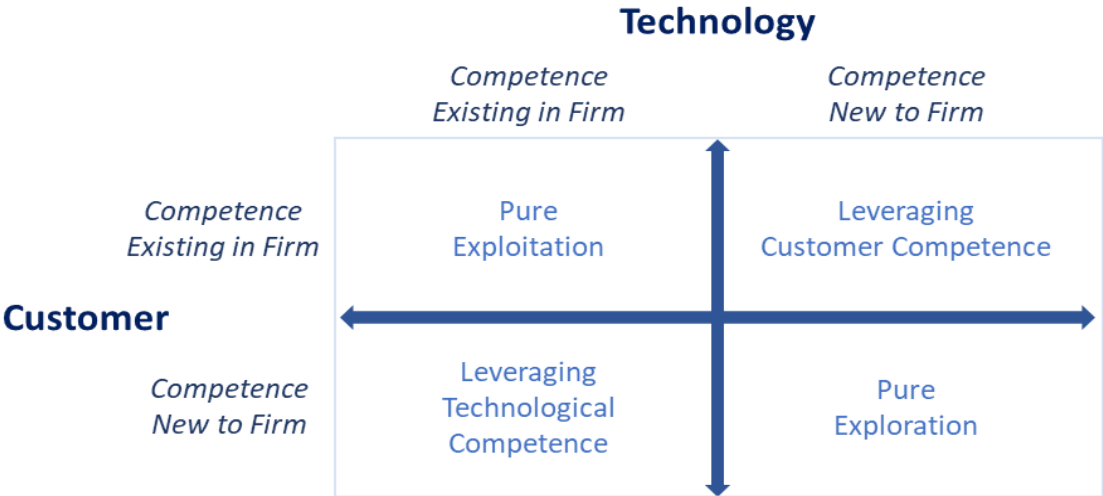

Figure 1 | Competence-based new product typology (Danneels, 2002)

All in all, although the concepts of exploration and exploitation are unmistakably tied to one another, they are on opposite sides. Exploration and exploitation can be seen as two ends of a continuum which are both crucial for the long-term survival and success of organizations (Gupta et al., 2006; March, 1991). On the one side, focusing on only exploitation will lead to prosperity on the short-term but failure on the long-term. On the other side, focusing only on exploration leads to the discovery of new opportunities and the creation of new competences without capitalizing upon them (Birkinshaw & Gibson, 2004; March, 1991; Uotila, Maula, Keil, Zahra, 2009; Tushman & O'Reilly, 1996). Therefore, organizations need to have or develop the ability to balance exploration and exploitation (March, 1991). They have to be or become ambidextrous (Tushman & O'Reilly, 1996).

2.1.1 | Ambidexterity

The act of balancing exploration and exploitation and performing them simultaneously is referred to as ambidexterity (Tushman & O'Reilly, 1996). Besides the fact that exploring and exploiting both play a crucial role in the survival of a firm, it is argued that ambidexterity is needed to achieve optimal performance (Uotila et al., 2009; Tushman & O'Reilly, 1996). However, the two concepts are so fundamentally different that several tensions arise when performing them simultaneously. As a result of these tensions, only a few organizations succeed in becoming truly ambidextrous (He & Wong, 2004; Tushman and O'Reilly, 1996).

The first tension relates to the fact that exploration and exploitation compete for – sometimes scarce – resources (He & Wong, 2004; March, 1991). From the perspective that the two form two ends of a continuum, resources spend on exploration cannot be spend on exploitation nor the other way around (Gupta et al., 2006). In other words, investments in explorative behavior will go at the expense of present operations (Birkinshaw & Gibson, 2004). Therefore, organizations have to make decisions on how to spend the available resources (He & Wong, 2004). In many cases, resources are allocated to the most profitable uses and exploitation will be favored (Chesbrough, 2010). Although not all companies make a conscious decision on how to allocate their resources when it comes to balancing exploration and exploitation, they do so implicitly. Such implicit choices can be found in procedures, rules, and incentive systems (March, 1991). However, the impact of this tension depends heavily on the scarcity of resources. When there is no scarcity of resources, exploration and exploitation can better be seen as complements (Gupta et al., 2006). In that case, the competition for resources and the resulting tensions are absent, making ambidexterity less cumbersome.

A second tension that makes balancing exploration and exploitation difficult is that both are self-reinforcing (Gupta et al., 2006). On the one hand, there is the 'success trap' (Gupta et al., 2006) or 'competency trap' (He & Wong, 2004). When the exploitation of a certain opportunity is successful, it is tempting to focus more and more on that success case. As a result, an organization develops more

and more capabilities to exploit that specific opportunity making it difficult to adapt (He & Wong, 2004). On the other hand, the balance can also start shifting towards excessive exploration which can be at least as destructive (Levinthal & March, 1993). Due to the relatively high level of uncertainty it is logical that exploration results in failure from time to time. The failure of one idea or opportunity leads to the search for new ideas and opportunities. When that happens, the organization has to do with a so called 'failure trap' (Gupta et al., 2006).

A third tension results from the fundamentally different characteristics of both activities. Exploration and exploitation both require very different strategies, structures, capabilities and cultures (Gupta et al., 2006; He & Wong, 2004). From an exploiting perspective, strict structures and procedures are required to optimize efficiency and control (Tushman & O'Reilly, 1996). Whereas, exploration needs structures and strategies that boost creativity and risk-taking. More specifically, the strict processes that improve exploitation tend to drive out the heart of exploration: *experimentation* (Benner & Tushman, 2003; Johnson et al., 2008; Morris et al., 2005).

A fourth tension may come from personal interests. Tushman & O'Reilly (1996) suggested that exploring for new opportunities might be exposed to resistance from individuals that thrive under the exploitation of current opportunities. For example, managers who reached their current position by exploiting the current model might be resistant to search for new opportunities (Chesbrough, 2010). On the contrary, people that see possibilities to prosper under new circumstances will welcome exploration with open arms.

Although these tensions make ambidexterity something that is hard to achieve, it is all but impossible. Birkinshaw and Gibson (2004) defined two forms of ambidexterity, each with its own characteristics and difficulties: *structural and contextual ambidexterity.*

Structural ambidexterity
According to Birkinshaw and Gibson (2004), structural ambidexterity is the standard way of creating an ambidextrous organization. In structural ambidexterity, exploration and exploitation are completely separated from one another. This is required as the differences and tensions between the two are so extreme that they cannot coexist (Birkinshaw & Gibson, 2004). The separation of both activities can take various forms, from complete separation in different business units to an individual group within a business unit. This hard separation of activities allows employees to become specialists on either exploration or exploitation. However, structural ambidexterity sets exploration and exploitation so far apart that there is little connection between them and, as a result, little synergetic effects are present.

Contextual ambidexterity

The concept of contextual ambidexterity depends on individuals to divide their time and efforts between exploration and exploitation. This type of ambidexterity takes place at the individual level instead of the organizational level. However, the organizational structures need to empower employees to make their own decisions (Birkinshaw & Gibson, 2004). Additionally, employees need to have the capabilities to perform both exploring and exploiting activities.

Birkinshaw and Gibson (2004) argued that structural and contextual ambidexterity should not be seen as alternatives, but that they could complement each other perfectly. In that way, the disadvantages could be minimized, and the advantages of both approaches could be optimized.

Eventually, operating an ambidextrous organization is easier said than done. Ambidexterity might be crucial for the survival of the organization and there may be synergistic effects might result from combining exploration and exploitation (He & Wong, 2004). However, there is tension between them and the optimal balance between exploration and exploitation remains rather undefined. Uotila et al. (2009) suggested that the balance resulting in optimal performance strongly depends upon the environmental conditions of an organization. Therefore, organizations should pay close attention to what specific approach fits their unique situation.

2.2 | Business Model

In this thesis, the business model concept is used as a framework to analyze how an organization creates and captures value. More specifically, it is used to describe how the department of DBS NL is organized to exploit their existent competences. The term 'business model' is a widely known and used concept. However, its core meaning is often misunderstood, and its value underrated. Regularly, it is assumed that competences create value, that value can be captured by selling it in the marketplace, and that markets are already existing instead of being created (Teece, 2010). However, competences do not create value on their own, it is the way they are commercialized that defines their value (Chesbrough & Rosenbloom, 2002). Therefore, the business model used to exploit certain competences has a major effect on its commercial success (Chesbrough, 2010). Osterwalder and Pigneur (2010) defined the concept 'business model' as:

> *"A business model describes the rationale of how an organization*
> *creates, delivers, and captures value."* (p. 14)

In a nutshell, a business model describes how an organization 'does business' (Frankenberger, Weiblen, Csik & Gassmann, 2013; Zott & Amit, 2010). However, the importance of business models is often neglected, and as a result the concept has received too little attention in research (Teece, 2010). Moreover, the research that has been done on business models has not resulted in a generally

accepted definition of what a business model exactly includes (Frankenberger et al., 2013). However, the various perspectives that are discussed in literature can be summarized using six key elements defined by Chesbrough and Rosenbloom (2002): *value proposition, market segment, value chain, economic model, value network,* and *competitive strategy.* Together, these elements describe how a company attempts to meet the perceived needs of their customers (Zott & Amit, 2013).

2.2.1 | Business Model Components

Value Proposition

The value proposition describes how the products or service creates value for the customer. It defines how the company's product solves the customer problem: c*ustomers do not want products, they want solutions* (Teece, 2010). The value proposition is a critical part of every business model as it is at the core of value creation and interacts with every other aspect of the business model (Johnson, Christensen & Kagermann, 2008).

Market Segment

The market segment defines which customers will be targeted. The market segment includes customers that benefit from the value proposition and are willing to pay for it (Chesbrough & Rosenbloom, 2002). A business model can focus on a mass or niche market, a segmented or diversified market, or a multi-sided market. The chosen market segment has major implications for the other components of the business model in terms of customer needs and problems. Therefore, defining the market segment is a deliberate decision and should be based on a thorough understanding of specific customer requirements (Osterwalder & Pigneur, 2010).

Value Chain

The value chain describes all the activities and assets needed to create and distribute the offering (Magretta, 2002). So, it articulates all the key processes and key resources required to create the offering (Chesbrough & Rosenbloom, 2002; Johnson et al., 2008). Additionally, the value chain includes the channels and customer relationships that are needed to deliver the value proposition to the targeted customers in the best way possible (Osterwalder & Pigneur, 2010).

Economic Model

The economic model elaborates on the financial viability of the business model (Morris, Schindehutte & Allen, 2005). It includes the cost structure, the revenue generation mechanisms and reflects the potential profitability. The cost structure is closely related to the value chain while the revenue mechanism is strongly tied to the value proposition and market segment (Johnson et al., 2008).

Value Network

The value network defines the position of the organization within the economic market place. It describes how the firm links their suppliers with their customers and reflects on the position regarding complementors and competitors (Chesbrough & Rosenbloom, 2002).

Competitive Strategy

The competitive strategy articulates how an organization tries to achieve superior performance create a competitive advantage over their competitors (Magretta, 2002). In other words, it describes how the organization will differentiate itself form the competition. To strengthen the competitive advantage and make it sustainable, companies can create 'isolating mechanisms' to obstruct imitation (Teece, 2010). A business model that creates value and is hard to replicate provides a company with a strong competitive advantage (Magretta, 2002). Obstructing imitation can be done through the creation and use of processes, systems and assets that are hard to copy. Such barriers can be created through the use of intellectual property rights or targeting niche markets that leave no room for competition (Teece, 2010).

2.2.2 | Business Model Levels

These six key elements together define how the technological domain is linked to the economic domain in order to create and capture value (Chesbrough and Rosenbloom, 2002). These elements describe the basic components of a business model: *the foundation level* (Morris et al., 2003). Osterwalder and Pigneur (2005) have transformed these components into '9 key building blocks' which are combined in the well-known 'Business Model Canvas' (BMC; Figure 2; Osterwalder & Pigneur, 2005, 2010).
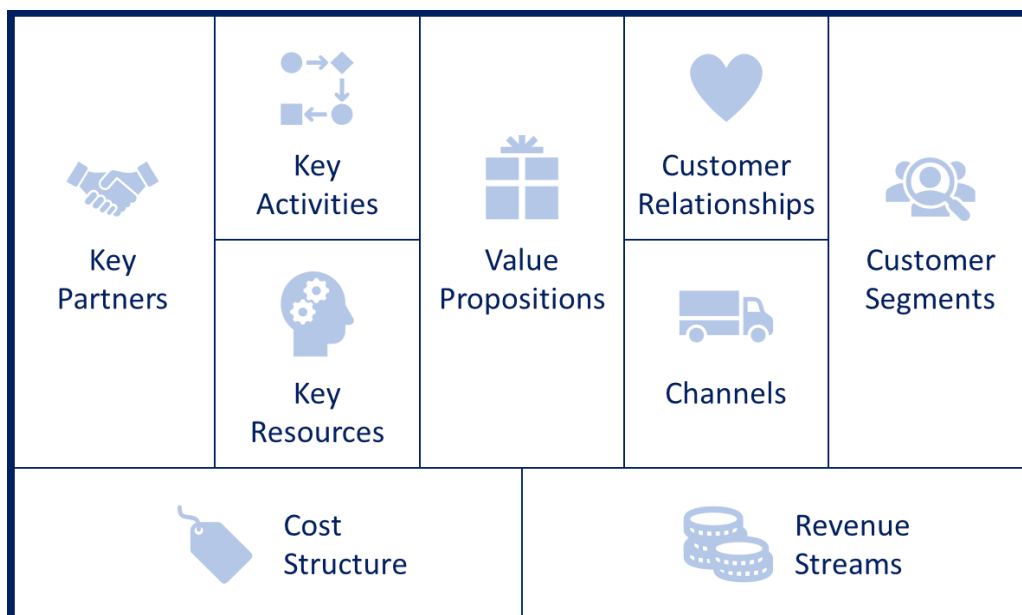

Figure 2 | Business Model Canvas (Osterwalder & Pigneur, 2005, 2010)

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The BMC is a framework to map business models that is easy to use and allows people to create an understanding of the business model basics in a limited period of time. The BMC is probably the most widely accepted standard to describe business models. However, it does not emphasize on competition or how a business model differentiates itself from the competition – the competitive strategy. The BMC provides a solid representation of what a business model is, but in order to use it optimally one should be aware of the underlying concepts and the limitations of the framework.

On top of the *foundation level*, the *proprietary level* (Morris et al., 2005) describes how certain components are translated into (unique) activities, and how this creates a sustainable advantage for the company. Where the *foundation level* focuses more on the 'what', the *proprietary level* addresses the 'how' of an element. Amit and Zott (2012) argue that a business model is a network of activities that together create value. They describe a business model based on three design elements: *content, structure,* and *governance* (Zott and Amit, 2010). The content element refers to the specific activities that together create and deliver value to the end user. The structure element describes how these activities are related and interact with each other. The third element – governance – refers to the actor that performs the activity. The definition of Zott and Amit (2010) takes the business model as a dynamic system of activities performed by various actors that together create value for the end user. Whether the business model creates value, and how much depends on four value drivers: *efficiency, novelty, complementarities,* and *lock-in* (Zott & Amit, 2010).

The 'efficiency' driver refers to the reduction of transaction cost by executing or combining activities in an efficient way (e.g. automating procedural tasks). Value can also be created through 'novelty' by adopting new activities (content), linking activities in new ways (structure), or changing the actor that performs the activity (governance). Using 'complementarities' can drive value by bundling activities in such a way that their combined value is higher than the sum of their individual values (e.g. example). Value creation through 'lock-in' refers to mechanisms that prevent actors from switching as that would impose significant costs (e.g. losing access to customer base, having a razor without a blade).

Over time, when the *foundation* and *proprietary level* have been implemented with success, the business model is locked into the organization through the creation of rules, norms and metrics (Johnson et al., 2008). This *rules level* provides guidance to the day-to-day execution of the business model (Morris et al. 2005). Prahalad (2004) refers to this as the dominant logic of the organization, a collective understanding of what leads to success. The more successful the 'recipe' has been, the stronger the lock-in becomes. This corresponds to the statement of March (1991) that exploitation (like exploration) is self-reinforcing.

All in all, the business model concept is way more complex than just a description of what a company sells and how they make money. It also encompasses how they are organized to do so and how that is embedded into the organization.

2.3 | Conclusion

The core objective of this research project is to answer the main research question, and thus solve the business problem at hand. To do so, it aims to create an understanding of the barriers to exploration faced by those who have to carry out and balance both exploration and exploitation activities. Moreover, this study follows Prahalad (2004) by arguing that the dominant logic – related to the existent business model – acts as a blinder and limit the ability of organizations and individuals to innovate and explore new opportunities.

Chapter 3 | Research Approach

This project follows the design-oriented and theory-informed methodology for field problem-solving (FPS) projects as described by Van Aken & Berends (2018). As the project was intended to solve a business problem, it is based on the 'design science research paradigm' and followed the 'problem-solving cycle' (Van Aken & Berends, 2018; Figure 3). However, this project only includes the first three steps of the problem-solving cycle as the actual intervention and evaluation surpass the limits of this project.

3.1 | Problem definition

The first phase of a FPS-project consists of creating a preliminary definition of the problem at hand. This problem definition emerges from a so called problem mess. This prolem mess entails the gap between the desired and actual performance of a business process or system (Van Aken & Berends, 2018). During an orientation period, an intitial analysis of this performance gap was made based on explorative interviews with various stakeholders. The resulting problem definition provided the starting point for the 'Analysis and diagnosis' phase.
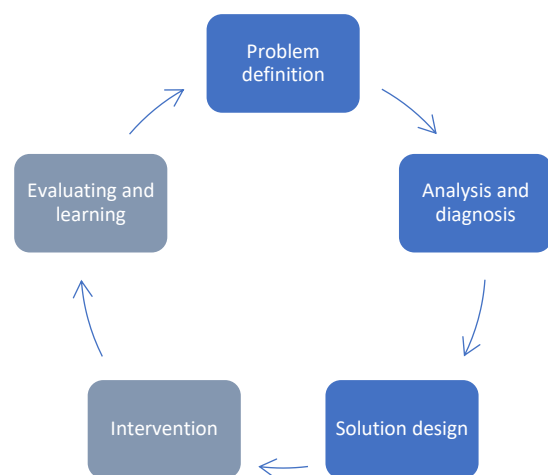
Figure 3 | Problem-solving cylce (Van Aken & Berends, 2018)

3.2 | Analysis and diagnosis

The second phase of the problem-solving cylce focused on creating a thorough understanding of the business problem and its causes. Developing a thorough understanding of the business problem and its causes is crucial and allows to generate insights that could aid the process of solution design. The process of creating a diagnosis has two core components: *mapping the strategic system and developing a problem-oriented analysis* (Van Aken & Berends, 2018). In other words, this phase adressed the first two sub-questions of the research. First, the business model was mapped to develop an in-depth understanding of the current situation. Second, the study focused on exploring and validating the potential causes and consequences of the business problem. In light of the design-orientation, extra attention was given to causes that were within the direct influence of the organization (Van Aken & Berends, 2018). Eventually, a first exploration of potential solution directions was also included in this phase.

3.2.1 | Case study

For the execution of the 'Analysis & Diagnosis' phase, a single-case study was chosen as the research method for collecting and analyzing data. Case study research is especially appropriate to address how and why questions (Yin, 2009). Moreover, a case study is particularly suitable for addressing descriptive and explanatory questions as it focusses on studying the problem within its real-world context (Yin, 2012). As this FPS-project focused on solving the business problem at hand, it was crucial to create an in-depth understanding of the problem at hand and trace the underlying causes back to their origin. This was critical as merely addressing the symptoms of the problem would have made designing an effective solution impossible. A case study is an excellent way to create such an in-depth understanding as it allows the researcher to collect extensive descriptions and insightful explanations (Yin, 2012). Therefore, the use of a case study fits the objectives of this phase.

3.2.1.1 | Unit of analysis

The unit of analysis is defined as the object within the organization that is the main point of focus of the FPS project (Van Aken & Berends, 2018; Yin, 2012). Within this study the department DBS NL was taken as the unit of analysis. More specifically, it focused on how the exploitation of the current business model creates barriers and obstructs exploration within DBS NL.

3.2.1.2 | Data collection

Qualitative research methods were used to collect the data needed for a solid analysis and diagnosis. The majortiy of data was collected through semi-structured interviews. Additionally, internal documentation and observations served as a complementary data source.

Semi-structured interviews | The main objective of the interviews was to collect information on the business problem from various perspectives. The different perpectives were then used to create an inter-subjective view and grasp the organizational reality (Van Aken & Berends, 2018). To create a representative sample, respondents were selected based on their funtional background, experience, years of employement and availability. The selection was done in consultation with the company supervisor and by using the snowball method. More sprecific, the respondents were asked to identify other potentially interesting participants (Blumberg, Cooper & Schindler, 2014). The set of fifteen respondents includes both managers (3) and employees from within the department. The variety among the selected respondents was crucial in order to gather as much insights as possible and ensure a realistic and hollistic overview.

The interviews were carried out in two consecutive phases. The first phase was of a more explorative nature and included seven interviews of approximately one hour. The interviews in the second phase built on the initial insights from phase one and were more of a more in-depth nature. Phase two

consisted of eight interviews that lasted fortyfive minutes on average. For both phases, a interview guide was used to (semi) structure the conversation (Appendix A; Appendix B). More specifically, a list of topics was used to make sure that all areas of importance were discussed during an interview which garantueed a basic level of reasemblance among the collected data. As such, the use of such a guide increases the reliability of the case study research (Yin, 2009). Yet, the topic list does not require that the interview follows a strict structure and predefined questions. Therefore, this way of interviewing leaves room for respondents to share their perspective and emphasize on what they consider as important (Blumberg et al., 2014). The interview guide for the first phase was partly based on the components of the BMC of Osterwalder and Pigneur (2010) in order to collect data on how DBS NL exploits their competences. As mentioned before, the BMC provides a widely accepted and practical framework to grasp the various components of a business model that have been identified in literature. Moreover, it gave the interviews a jumpstart as the department has worked with the model before and it was familiar to the repsondendents. Additionally, the guide partly consisted of topics that adressed explorative behavior and potential barriers to such behavior. For the second phase, the interview guide was based on the findings from the first phase along with some insights from literature.

Each interview started with an introduction of the FPS project in general, the procedure for data processing, and the value of the interview to the research as a whole. Next, the conversation continued with open ended questions guided by the protocol. This allowed the respondent to share their perspectives and elaborate on what they deemed important. Follow-up questions were used to collect examples and elaborations of specific topics. When a topic was fully discussed, sumerizing was used to check whether the interviewer grasped the perspective of the respondent (Van Aken & Berends, 2018). Towards the end of each interview, there was room for the interviewee to emphasize on what they considered of high importance.

To make sure that all the provided information was collected, every interview was digitally recorded. Afterwards, each interview was transcribed and the respondents were asked wether they wanted to review the transcript. Such a 'member-check' allows the respondent to review their statements and increases the reliability of data (Van Aken & Berends, 2018). However, none of the respondents felt the need to review their statements. The transcripts were then used for further analysis.

Internal Documentation | Relevant internal documentation was collected from the company archives and extracted from IT systems where possible. Documentation has the advantage that is does not forget potentially valuable information (Van Aken & Berends, 2018). Additionally, documentation can be used to create triangulation and increase the reliability of data (Blumber et al., 2014; Yin, 2012). However, it should be considered that not all documentation is equally realiable and that documentation might differ from reality. For example, financial reports are fact based while meeting

minutes are subject to the interpretation of an individual. Moreover, the use of this source of information is subject to availability (Van Aken & Berends, 2018). Table 1 provides an overview of the internal documentation that was used.

Table 1 | Overview of internal documentation

	Name	Type	Description
1.	DoA for Services (EMEA)	Excel	Framework that directs the decision-making process.
2.	Statement of Change	Text	Description of recent changes to the DoA.
3.	Internal projects design	Presentation	Presentation that describes the set-up of the internal projects.
4.	50X Challenge forum	Website	A forum on the online employee portal on which employees could sign-up and submit their ideas.

(Participant) Observation | A third method of data collection that was used is the observation of participants in their day to day activities. Such a method allows the researcher to view the organization from a insider's perspective (Blumberg et al., 2014; Van Aken & Berends, 2018). Valuable insights were collected during team meetings, coffee corner discussions and lunch time. However, it should be noted that this information mainly proved its value by creating an in-depth understanding of the context. This enabled the researcher to better grasp the arguments of the respondents.

3.2.1.3 | Data analysis

The (reviewed) interview transcripts were systemically analyzed following the Gioia methodology. This approach provides a data-driven method for analyzing large quantities of raw data within an unfamiliar territory to develop a 'grounded theory' (Gioia, Corley & Hamilton, 2012). However, as the problem-solving cycle focuses on finding a solution for a unique situation, the objective of this analysis was to develop a 'local theory' instead of a general theory (Van Aken & Berends, 2018). The process of data analysis evolves around the systematic coding of the empirical data. Such an approach allows the comparison of data and can be used to identify patterns and create an in-depth understanding of the problem, the causes and the consequences.

Coding | The coding process is a crucial part of the data analysis and provides the basis for further analysis by dividing the data into manageable amounts (Van Aken & Berends, 2018). The coding process was executed in multiple phases. First, the data was labelled using a predefined code scheme based on the existing theory on business models. More specifically, the predefined code scheme was composed of the same nine components of the business model canvas that were used in the interview guide (Osterwalder & Pigneur, 2010). This first phase had a deductive character and was intended to create an understanding of the as-is situation.

Second, open coding was used as a procedure for labelling and categorizing the data. This open coding procedure fits the open nature of this study as it does not make use of an existing coding scheme. The codes were developed 'on the go' which prevents the exclusion of potentially valuable data that does not match a specific predefined code (Van Aken & Berends, 2018). Moreover, it enables the researcher to move beyond what we already know (Gioia et al., 2012). In the first step of open coding, all transcripts from the phase one interviews were labelled using a coding program (QDA Miner Lite). This inductive approach resulted in a list of – what Gioia et al. (2012) calls – first-order concepts. Thereafter, the process continued with seeking similarities and overlap within the extensive list of codes and shortening it by merging similar labels into one concept. In step two, the reduced list of first-order codes was used as a code scheme for labelling the transcripts from phase two. This second step had a more deductive character as it builds on previously identified concepts. However, where necessary, new concepts were added and exiting concepts were refined in an iterative manner. Eventually, the resulting list of first-order concepts was used as the starting point for the second-order analysis (Gioia et al., 2012).

In the second-order analysis, the various labels were compared to identify differences and similarities among the first-order concepts. These insights were then used to subdivide the concepts (first-order) into overarching themes (second-order; Gioia et al., 2012). The first-order concepts and second-order themes together were then used to build a data structure that served as the basis for further interpretation of the factors at play and their interdependencies (Gioia et al., 2012).

3.2.1.4 | Quality criteria

Van Aken and Berends (2018) describe four criteria that can be used to discuss the quality of research: *controllability, reliability, validity,* and *recognition of results.* Using these four criteria to analyze the quality of this FPS project is crucial as it defines the value of the output. In general, this research project aims to reach inter-subjective agreement on the research results. The four quality criteria can be seen as requirements for doing so (Van Aken & Berends, 2018).

Controllability | Controllability refers to the degree to which the research can be replicated by others. Providing an elaborate description of how the study was executed allows others to judge the quality of the process and the reliability and validity of its outcomes. Following the rule of thumb described by Van Aken and Berends (2018), the methodology that was followed in this project was extensively discussed in the 'research approach' chapter. Additionally, attaching the interview protocols as an appendix adds to the degree of controllability. In theory, this allows others to replicate the study and check the quality. However, it should be noted that actually replicating a qualitative study might be hard as the interviewer plays a key role during both data collection and the interpretation of the data. Nonetheless, the description can be used to judge the reliability and validity of the study.

Reliability | The reliability of a study considers the extent to which certain characteristics influence the outcome. In other words, a study is deemed reliable if the results are independent of certain characteristics. Van Aken & Berends (2018) described four potential sources of bias: *the researcher, the instrument, the respondents,* and *the situation.*

The bias of 'the researcher' refers to the extent in which the researcher's personal incentives, beliefs and perspectives influence the results of the study. Especially in qualitative research, the bias of the researcher does affect the outcomes. Moreover, spending significant time within the organization possibly strengthens this bias over time, and thus may have had an impact on the results. Nonetheless, this study aimed to reduce this effect by making use of an interview guide, recording the interviews and fully transcribing the discussions. Moreover, the researcher tried to make sure that the questions asked by the researcher did not 'push' the interviewee in a certain direction.

The bias of 'the instrument' considers the influence of the instrument on the research results. In general, this means that two different instruments should lead to similar results (Van Aken & Berends, 2018). The effect of this type of bias can be minimized through triangulation. Within this study, internal documentation and observations are used to triangulate the findings from interviews where possible.

The bias of 'the respondent' reflects the influence of the sampling strategy on the results (Van Aken & Berends, 2018). Therefore, an attempt was made to compose the sample in such a way that it represented the total population and included all perspectives. Additionally, this type of bias refers to the way participants answer the questions. To prevent respondents from giving answers that are based on friendliness or social desirability, the questions asked were open-ended and it was emphasized that there were no wrong answers.

Finally, the circumstances in which the study is conducted can affect the reliability. However, for FPS projects this effect is limited due to the long-term presence within the organization (Van Aken & Berends, 2018).

Validity | The validity reflects on the extent to which the research results can be classified as 'true'. There are mainly three types of validity that are relevant for this study (Van Aken & Berends, 2018; Yin, 2009): *construct validity, internal validity,* and *external validity*.

The construct validity reflects on whether the used instrument covers the unit of analysis completely. In this study, this is partly guaranteed by the use of a literature-based interview guide. Moreover, the construct validity was improved by approaching the interview protocols in an iterative manner and making continuous improvements where necessary. Additionally, the use of triangulation is beneficial for the construct validity (Van Aken & Berends, 2018).

The internal validity considers the completeness of the study regarding the identification of causes (Van Aken & Berends, 2018). This type of validity is increased by using semi-structured interviews that allow room for respondents to share their perspectives. Comparing these various perspectives enables the researcher to judge the validity of certain relationships and make evidence-based claims.

The external validity of a study emphasizes on the generalizability of the results. As this study uses a single case study, the generalizability is limited (Yin, 2012). Moreover, as an FPS project is design-oriented and focuses on a unique case, the external validity is less important (Van Aken & Berends, 2018).

Recognition of Results | The recognition of results refers to the extent to which the results are recognized by the organization (Van Aken & Berends, 2018). This study mitigated this affect by involving the actors on a regular basis. This allowed the researcher to fine tune the presentation of results in such a way that fits best within the organization.

3.3 | Solution design

The third phase of the problem-solving cylce entails the process of designing a solution for the business problem. The insights generated from the extensive problem diagnosis provided the starting point for a literature review. The problem diagnosis and findings from literature were then used as a foundation for the iterative design of a set of alternative solutions. Thereafter, one of these solutions was elaborated into a final solution design. Figure 4 shows the steps of the design process.
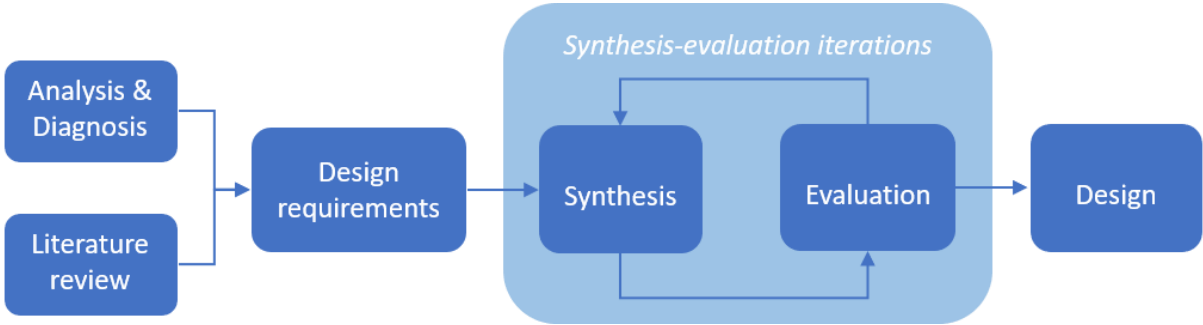
Figure 4 | Design process based on Van Aken and Berends (2018)

3.3.1 | Literature review

The barriers to exploration that were identified during the analysis and diagnosis phase were the starting point for the literature review. The review aimed to uncover knowledge on possible solutions, their design and the key success factors. More specifically, the review aimed at answering the third and last sub question. The combined insights from the literature review and the problem diagnosis were the key ingredients for the design process.

Search strategy | The search for literature was done using search engines Google Scholar and LibrarySearch (TU/e). The search focused on both scholarly journals and professional journals. Scholarly journals present findings based on solid arguments and emperical research, making them a reliable source of information. Professional journals do not neccesarily have a scientific foundation but can provide practical solutions that makes them valueble in solution design.

First, the specific search query that was used emerged from the barrier(s) that were identified during the 'analysis and diagnosis' phase. The articles that were found through this initial search were used to get familiar with the main concepts and findings on the topic. Thereafter, the main focus shifts towards publications that offer insights to towards solutions to overcome the barriers. From that point on, the snowballing method is then used to search for articles that critisize or support these solutions to assess their usefulnes for the business problem at hand (Van Aken & Berends, 2018). To assure the quality of the articles, the number of citations and the 'impact factor' of the journal was used to assess the quality of the publications (Van Aken & Berends, 2018).

However, possible solutions that can be found within literature do not necessarily fit the context of DBS NL. Therefore, the insights from literature were then contextualized by making use of CIMO-logic. This logic evolves around the extraction of design principles from theory. A principle combines a context (C) with an intervention (I) and mechanism (M) with the intend to achieve an outcome (O; Van Aken & Berends, 2018). The context refers to the surrounding environment in which the intervention is going to implemented. The interventions describe how managers can influence behavior. The mechanisms refer to the effect of the intervention and the outcome refers to the intended goal of the intervention (Denyer, Tranfield & Van Aken, 2008).

3.3.2 | Design requirements

Van Aken & Berends (2018) defined four types of design requirements that serve as input for the designing: *functional requirements, user requirements, boundary conditions, design restrictions.* Functional requirements emphasize on the minimal functionality the solution should have and the benefits it should bring. The user requirements are the minimal requirements that are expected or demanded by the potential users. Boundary conditions are minimum requirements regarding compliancy with the law, policies and company culture. The design restrictions elaborate on project limitations regarding resources like money, time and impact on operations. The design requirements were defined in close cooperation with organization and provided a basic playing field for the synthesis-evaluation iterations. During the design process, these requirements were subject to change based on the gained experience.

3.3.3 | Synthesis-Evaluation

The actual 'designing' consisted of a synthesis and evaluation component. The synthesis step is a process in which the problem diagnosis, preliminary ideas about solution directions and findings from literature are combined in a creative way to build a redesign. The synthesis step was followed by the evaluation step in which the redesign was assessed. This assessment was based on the predefined design requirements and was executed in cooperation with the client organization. These steps were executed in an iterative manner (Figure 2) until a satisfying and feasible solution was designed (Van Aken & Berends, 2018). When the resulting redesign met all requirements and solved the problem, the concept solution was then elaborated into a detailed solution design.

3.3.4 | Testing

Due to the time constraints of this FPS project, there was no time for an extensive evaluation or testing of the detailed solution. Therefore, the solution was evaluated through informal discussions with two stakeholders. The main objective of these discussions was to create an open conversation in which the strenghts and weaknesses of the solution are discussed. This uncovered potential design flaws and provided input for further improvements.

Chapter 4 | Analysis & Diagnosis

In this chapter, the data that was obtained through fifteen semi-structured interviews will be structured and discussed to answer the first two sub-questions of the research. First, the current exploitation and exploration activities will be described to create an understanding of the as-is situation. Second, the empirical data will be analyzed and discussed to identify barriers that obstruct explorative behavior. Thereafter, the findings will be evaluated, and a revised problem statement will be presented.

4.1 | Setting the Scene (as-is situation)

In this section, the business model will be mapped to explain how the current competences are exploited and current initiatives regarding exploration will be briefly discussed. This overview of the 'as-is' situation aims to create an understanding of the problem context.

4.1.1 | Exploitation (Business Model)

In this section, the current business model will be briefly discussed using the key components described by Osterwalder and Pigneur (2010). To ensure a holistic overview of the business model, the competitive advantage was integrated into the nine components used in the 'Business Model Canvas'.

Value Proposition

The value proposition of DBS has three main components: *risk reduction, cost reduction, and customization*. First, DBS NL helps its customers to maximize the chance on a successful and smooth software implementation. Second, DBS NL helps its customers to minimize the overall implementation costs of the purchased software solution. Third, DBS NL assists its customers in correctly configuring and matching the software to the specific customer needs and objectives. In the end, the components are all united behind the same objective: *optimizing the added value of the purchased software*.

Customer Segments

In general, the customer segment of DBS NL is comprised of 'large' (multinational) organizations with a significant IT budget and a complex IT landscape. Moreover, these organizations are among the 'front-runners' when it comes to the use of enterprise software.

Channels

From the SAP perspective (selling software), DBS is one of the delivery organizations, and thus responsible for delivering of the sold software solutions to the customers. From the DBS perspective (selling services) it makes use of its own direct sales force (service sales) that is responsible for managing customer accounts and selling services. These services are then delivered by teams of

consultants and project managers. Additionally, DBS also makes use of web sales channels for specific predefined services.

Customer Relationships

The customer relationships can best be described as: *dedicated personal assistance.* Each customer has a dedicated DBS sales account representative that maintains the overall relationship. Additionally, within each project team there is a project manager that takes care of the project-based relationship.

Revenue Streams

Generally stated, the revenues come from selling consulting hours (hour-business). Each consultant has a per-hour non-negotiable list price that is charged to customers for each hour that a consultant works for them. However, most consulting hours are sold on a project basis in which a set of deliverables is translated into a specific number of consulting hours. On the project level there is room for some price negotiations.

Key Resources

The key resources of DBS NL include human, physical, and also intellectual resources. The human resources – the employees – are the core asset of DBS NL. The employees all have their own area of expertise, are highly experienced, and have strong social skills. Moreover, their network within SAP grants them access to an ecosystem of experts that possess state-of-the-art knowledge that can be found nowhere else. These human resources provide DBS NL with a unique and strong competitive advantage that is hard to imitate.

Besides the human resources, DBS NL has a relatively limited set of physical resources including things like the SAP-office and the IT infrastructure. Additionally, DBS NL also has access to a set of intellectual resources which include intellectual property and renowned brand of SAP.

Key Partnerships

The most crucial partnerships are those within the SAP organization. However, there is also an ecosystem of external delivery organizations (system integrators; SIs) that play a crucial role in the implementation of SAP software. From that perspective, the SIs can be seen as competitors to SAPs own delivery organization. However, DBS specifically focuses on complex projects or tasks that cannot be executed by these partners. Where possible, DBS leaves the implementation to these partners as that allows SAP to benefit from the scalability of software.

Key Activities

The key activities of DBS NL can best be categorized as: *problem solving*. The DBS consultants are mainly occupied with solving complex customer problems related to the implementation and configuration of SAP software. This can include activities actually implementing a software solution,

guiding and supervising the implementation process, or reviewing the work of partners. In the end, the consultants use their unique competences to solve complex problems. To do so, it also of the outmost importance that they continuously educate themselves and improve their competences. Additionally, the key activities also include activities related to the sales of software and services.

Cost Structure

The cost structure is composed of mainly fixed costs including cost items like the labor, facilities, cars, and (travel) expenses. Logically, the largest cost item is the cost of labor as this is directly related to the human resources. Within DBS NL, there is little room for economies of scale as each consulting hour can only be sold once. However, there are economies of scope due to the globalization of support processes like marketing and HR.

4.1.2 | Exploration

Besides the activities related to the exploitation of the current competences, there are – although limited – also exploration efforts that aim at the development of new competences. Basically, there are two types of initiatives: *top-down* and *bottom-up*.

Once or twice a year, the management of DBS NL initiates a so called '50X challenge' (top-down). These challenges evolve around specific SAP technology and provide employees with a direction for ideation. More specifically, employees are asked to come up with ideas on how the available SAP technologies can be used to create value for customers. The employees can then submit their ideas through the employee portal in an online idea box. Then, after some time (undefined), the ideas are filtered by the management and a selection of the most promising ideas is made. The challenge ends with the announcement of a 'Top 3' and the winners get a small reward (present). The winners then have the possibility to start a so called 'internal project' (bottom-up) in which the idea can be developed further. In the core, these challenges are intended to stimulate creativity and boost explorative behavior. However, the number of employees that participate in the challenge is limited. Moreover, the number of internal projects that come forth from this challenge is very limited. For the last challenge the participation rate was below 20 % and so far, there has been no follow-up (internal) project.

The 'internal projects' are employee driven initiatives that evolve around an innovative idea. In theory, anyone can start and work on such a project without permission from the management team. The employees are free to spend time on these projects and small investments can be made with the permission of the management. However, the work is categorized as educational, and thus the time is not billable. The idea behind these 'internal projects' is to provide room for individual initiatives regarding exploration. Using the framework of Danneels (2002), the challenges and internal projects focus on leveraging customer competences and develop new competences with regard to technology.

Unfortunately, the number of projects that is started is limited, and thus few competences are developed this way.

4.2 | Barriers

In this section, the empirical analysis of the collected data will be used to answer the second sub-question: *"Which barriers obstruct exploration and how are these related to the extant business model?"* First, all barriers (second-order themes) will be discussed individually using the underlying codes (first-order concepts). To make it comprehensible, the various barriers have been subdivided into three aggregate levels: *organizational, cultural, and external.* The organizational level includes barriers that are imposed on the employees from the top down. The cultural level encompasses barriers are not imposed top-down but reside within the culture. Finally, the external level refers to potential barriers that might obstruct exploration from the outside the organization. Figure 5 provides an overview of all first-order concepts, how many times they were mentioned by respondents, and the related second-order themes.

Figure 5 | Data Structure

4.2.1 | Organizational level

Based on the empirical analysis, three barriers have been identified that originate from the organizational structure. In general, such structures are put in place to improve the operational efficiency. However, they can also impose obstructions on 'less efficient' activities like exploration. From this perspective, the following barriers were identified regarding exploration activities: *a lack of importance*, *a lack of structure*, *a lack of resources,* and *physical separation.*

Lack of Importance

The empirical results indicate that exploration activities have been given little strategic importance within DBS NL. In total, ten out of fifteen respondents mentioned that there is a strong, top-down focus on (short-term) profitability. This emphasis can be traced back to the fact that the SAP office in the Netherlands is a sales office and as such its core objective is to generate profit. As one of the respondents noted;

> *"We [SAP NL] are a sales organization and therefore, everything is focused on sales."*

Moreover, one of the respondents mentioned that it is also related to the position of the services department within the software company. He noted;

> *"The margin on man-hours [consulting/services] can never compete with the margin on software or support. As a result, there is pressure from within SAP on services [DBS]."*

In other words, the relatively low margin on services affects the overall margin of the company and negatively impacts the earnings per share (EPS), and as a listed company that is one of the top priorities. From that perspective, operational efficiency and maximizing the profitability is critical towards securing the future of DBS within SAP.

On the one hand, organizational objectives or incentives regarding exploration are very limited if not completely absent. In total, six out of fifteen respondents stated that there are no overall objectives when it comes to exploring new opportunities, with the exception of some individual objectives. One of them noted;

> *"Personally, I like doing new things. So, from that perspective it has importance for me. I like to experiment and learn from it. However, in my job it holds no importance in terms of; if we do not do it that it will cause problems for DBS NL as a department. So, for now it is not important."*

This quote illustrates how the lack of importance on the organizational level shapes the employee's perspective on explorative behavior. Moreover, it suggests that, with the absence of (shared) objectives, all explorative efforts depend on individual initiatives driven by personal (intrinsic) motivations. However, two respondents mentioned that if such initiatives are deemed important for

the sustainability of the company, there should be (extrinsic) incentives for these exploring efforts, like there are for exploitation.

On the other hand, objectives and incentives for exploitation are present. The focus on financial performance is directly reflected by the design of the key performance indicators (KPIs) that are used to monitor both the department wide and the individual performances. The management team of DBS NL is assessed based on a series of KPIs reflecting on the financial performance of the department as a whole and their respective teams (revenue, profits, average utilization). Following the MT KPIs, the employees are assessed based on their individual performances and those of the entire department (individual utilization, revenue, profits). One of the respondents noted;

> *"Evaluating the KPIs, SAP should decide where it wants to go with its consulting division. If we want to focus on implementing the software correctly, there should be an objective for it. But in the end, it is all about numbers, the benefits, and from my perspective, that causes conflicts."*

The KPIs for both management and employees emphasize on financial performance, and thus exploiting current competences. Briefly stated, where incentives to put effort in exploration are absent, such incentives are present to guide employee behavior towards exploitation in the form of positive appraisals. Moreover, seven out of fifteen respondents mentioned that this effect is strengthened by the fact that the reward structure is directly tied to the KPIs and depend on whether objectives are met or not. So, besides the non-monetary incentives in the form of appraisals, there is also a financial incentive to focus on exploitation. As one of the respondents summarized;

> *"So, everything is focused on – from reward systems to KPIs, how people behave, how people are rewarded – doing riskless things and staying far away from risky things."*

This quote emphasizes on the crucial role the assessment and reward structures on controlling employee behavior. Moreover, it suggests that the structures designed to guide exploiting efforts are limiting explorative behavior.

In the end, the results suggest that the lack of importance has two core components. On one side, the current performance objectives and related controlling mechanisms push the priorities of employees towards exploiting their core capabilities and knowledge. On the other side, the absence of such mechanisms for exploration or even objectives at all, leaves exploration efforts completely up to the likes of the employees. So, from the ambidexterity perspective, employees are pulled towards exploitation with (monetary) incentives while such a pulling force remains absent for exploration. As a result, the attention of employees is channeled towards exploitation, and thus away from exploration.

Lack of Structure

The empirical results imply that there is no supportive framework for exploration. Besides the '50x challenges' and the 'internal projects', there is no process that supports employees in their explorative efforts. In total, ten out of fifteen respondents mentioned that a continuous and structural approach to exploratory activities – like an innovation funnel – was lacking. There is no permanent structure to collect and filter ideas and develop them in a systematic way. As one of the respondents from phase one noted;

> *"No, we have arranged that [approach to exploration] very poorly. Within DBS, people know that they could go to [manager]; he is in for something crazy [experimental]. But then it has not been taken care of."*

As a result, explorative efforts heavily depend on the initiative, self-reliance and persistence of the employees. There is no approach that helps them to increase their chance on success or gives them a push in the right direction. Moreover, the (limited) resources that are available for exploration are not necessarily allocated to the most promising ideas, but it is more like; *"shooting with hail."*

Although there is no formal approach to exploration, the '50X challenges' emphasized on ideation in relation to the use of new technologies like Machine Learning (ML), Internet of Things (IoT), and Blockchain. However, five respondents mentioned that there was a serious lack of follow-up regarding these initiatives. One respondent noted:

> *"I don't know if it is true, but they always said that within SAP people are brilliant when it comes to generating ideas, but these ideas never take-off. Everybody prefers working on new ideas over actually developing them [and thus creating new competences]."*

In other words, exploration is generally limited to generating ideas without an approach to follow-up on them and take them further. No one bears the responsibility to organize for the next steps and neither have these steps been defined. As a result, potentially valuable ideas are left on the shelf and the learning effects are limited to creative thinking.

In some cases, ideas were taken to a next level or efforts were made to do so by starting an 'internal project'. However, seven respondents mentioned that the communication regarding these explorative efforts was limited or even completely absent. Failures and setbacks are not shared, successes are not celebrated, and others are unaware of the progress that is being made. When talking about one of these initiatives one of the respondents – like several others – noted;

> *"Yes, never heard of it [internal project] again. Not whether he [project owner] got it working or whatsoever."*

As a result, potential excitement and learning effects are shared among the involved individuals but are not used to build momentum and create enthusiasm to boost explorative behavior. Moreover, individuals that are not involved might even feel excluded.

Additionally, two respondents mentioned the absence of frameworks as problematic. Both had been involved in explorative projects that showed serious progress and they stated that conflicts with existent regulations and procedures caused problems. One of them stated;

> *"So, if you keep things small, it's easy, but as soon as you make serious progress, you'll notice that we – as a company – are not set up for that [co-innovation partnerships]. While if we really want to innovate, we should, because then you come across things as legal [non-disclosure agreements, partner contracts]."*

As a result, the persistence of the involved actors was seriously tested, and additional expertise was needed. Logically, setbacks are unavoidable during such explorative projects. However, the experience of overcoming these setbacks can aid future projects and eliminate the need to reinvent the wheel.

In general, the lack of structure – whether it is the absence of a systematic approach or the lack of communication – has resulted in too much dependency on the initiative, persistence and capabilities of individuals. Moreover, the (limited) available resources are used in an inefficient manner. Besides, a more structured way of sharing progress and communicating about ongoing projects could be used to build momentum, spark enthusiasm and lower the threshold towards exploration.

Lack of Resources

The results suggest that the resources that are allocated to and available for exploration efforts are limited. In total, seven out of fifteen respondents mentioned that the core focus on being profitable and meeting the financial objectives limits the resources available for exploration. In general, resources are allocated to the most profitable activities, and therefore the allocation of resources to exploration is limited. Moreover, with the key resource being 'man-hours' and the fact that each hour can only be used once, there is a scarcity of resources. One of the respondents described the trade-off between exploration and exploitation as follows;

> *"So, an expert [consultant] can be assigned to a big project within the market where he is billable, or he can be assigned to an internal project where he is not billable and even costs money."*

From a short-term profitability perspective, it is not interesting to assign hours to projects where the financial returns are highly uncertain, lie in the future or might even be absent. Therefore, processes, procedures and rules are put in place to maximize the return on resources and mitigate risks regarding the projects. One of the respondents summarized;

> *"Because all rules [and procedures] are designed to maximize revenue and minimize risks [timelines, budgets, quality]."*

This quote suggests that everything is organized to optimize the financial performance. For example, there are rules that define the minimum project margin and limitations on the time that can be spend on project preparation before a deal is signed. Moreover, risks are minimized by making sure that all risks with regard to project execution are known and mitigated to assure a successful project; *within budget, within time, and conform objectives*. In other words, these procedures and rules are designed to prevent the 'waste' of resources on less profitable uses. However, three respondents indicated that for explorative efforts – in general – the outcomes cannot be predicted, nor can all risks be mitigated. So, when there is the certainty of revenue, resources can be allocated, but the allocation of resources to explorative and risky activities is problematic.

From the employee perspective, with absence of budgets and staffing, the resources available for exploration are limited to the 'slack time' that fall outside the utilization objective, the hours that they do not have to be billable. However, four respondents mentioned that the challenging objective regarding their utilization (KPI) limited their availability when it comes to spending time on exploration efforts. One of the respondents noted;

> *"Additionally, you have the utilization [KPI] that is important, do you spend enough hours at the customer [being billable]. And that has to do with the KPIs that are being imposed top-down. If you know that our official KPI objective lies around 80%, well you can't even do your meetings within the remaining time. If you have mandatory meetings, such as team meetings, and have to do your training, you are not even able to meet the objective. So, then you have no time at all, no slack. And especially if you want to be innovative, you will have to allocate time and budget [resources] so that people can acquire knowledge and spend time on it [explorative projects]. And as long as it is an hour factory [revenue model], that remains very difficult."*

In other words, the current balance between billable (paid for) and non-billable (not paid for) hours leaves little time for exploration. In total, six respondents endorsed the statement that utilization objective limited their availability in terms of time. However, five respondents also stated that they have the feeling that the management team supports explorative behavior and would try to minimize the negative impact on their financial rewards. The MT has some room to twist the knobs regarding the KPI objectives. Yet, three respondents mentioned that also the management is limited by their own challenging objectives when it comes to allocating resources to exploration.

Additionally, is interesting to mention is that three respondents – whom all have a management position – stated that the utilization is indeed a limiting factor for their subordinates when it comes to exploration. However, they argue that it is also partly a perception problem. As one of them noted;

> *"On the one hand, you have the utilization objective and you have to meet certain goals that requires you to be billable but does not have to obstruct the exploration. It does not necessarily have to cost two days a week. I think it might withhold people from exploring. That they focus on utilization instead of what I can do."*

In other words, the fact that resources are limited does not mean that there are no resources at all. It is up to the individual to decide how they use their 'slack time'. However, this perception is also partly imposed top-down, because it is; *"you have to be billable for at least X percent of your time (utilization)"* and not *"you can use Y (100 – X) percent of your time for explorative efforts".* Or as one of the respondents summarized;

> *"The quantifiable revenues come from [customer] projects, your billable hours. Only if those meet the minimum conditions, then we can do more [additional education, exploration]."*

In general, the resources that are available for exploration are limited due the combination of scarcity and a focus on generating revenue and making profits, and thus exploiting current competences. All in all, the constraints that are imposed top-down are limiting the possibilities regarding explorative efforts, but at least there is some slack.

Independent working

The empirical results suggest that the independent way of working obstructs explorative efforts. Four respondents emphasized on the fact that their work is highly project-based, and thus their interactions with colleagues are limited. Moreover, one respondent emphasized on the fact that a major part of the work is done outside the office;

> *"As I said before, I spend a lot of time at the customer, I am there almost five days a week. So, you do not spend much time at the office and then your circle of SAP colleagues only consists of the people who happen to be at the same customer, you don't see the rest."*

Logically, project-based and off-site working limits interactions among employees and the possibilities when it comes to collaborating on an explorative (internal) project. At least, it limits the options for face-to-face meetings or informally discussing wild ideas or directions for improvement.

4.2.3 | Cultural level

Besides the barriers to exploration that originate from the organizational structure, there are also obstructions that find its origin in the culture of the department. More specifically, such obstructions are related to the (shared) mindset and resulting behavior of employees. One barrier has been identified: *Norms, Values & beliefs.*

Norms, Values & Beliefs

The empirical results suggest that the norms, values and beliefs that are shared among the employees trap them in their comfort zone. This behavior originates from a combination of extrinsic and intrinsic factors. On the one hand, as discussed before, there is little extrinsic motivation for employees to put effort in exploration in terms of objectives and rewards. Moreover, seven respondents mentioned that also the management plays a crucial role in the prioritization regarding explorative behavior. As one of them noted;

> *"If your boss does not talk about it [exploring], and you are not encouraged to do so, but you do get praised for good performances at the customer, why would you."*

Another respondent noted;

> *"In the end, we are all human and is it very easy to stick with what I have been doing forever to earn my bread and butter, make profit, and make sure I get a decent assessment."*

These quotes suggest that the various extrinsic factors provide an incentive for employees to take the easy way and exploit their current competences. However, six out of fifteen respondents mentioned that also the characteristics of the employee and what they value plays a crucial role in this relation. Individuals that are strongly driven by their KPIs and highly value their financial and non-financial rewards will experience less 'freedom' in comparison to someone who places more value on doing things he or she likes. From this perspective, the lack of explorative behavior depends on the extent to which individuals are driven by extrinsic motivations like appraisals and financial rewards.

On the other hand, besides the extrinsic influences, there are also intrinsic factors that limit the explorative behavior of employees. Nine out of fifteen respondents suggested that a large part of the work force has a strong 'dominant logic' that withholds them from explorative behavior. In other words, those individuals firmly hold on to 'their way of working' which they feel comfortable with and fits their competences. As one respondent mentioned;

> *"There is a certain fixed degree of; this is my role, this is my job."*

So, they focus on doing what they were hired for in the first place. One of the respondents also noted that the dominant logic is strengthened by the degree of success that is associated with 'their way of

working'. In other words, being successful with what you do makes you want to continue doing it. At least, it does not directly create an urgency to start doing or thinking in a different manner. Moreover, a second factor that reinforces the dominant logic is the strong customer-first mentality that is shared among the employees. Four respondents mentioned that the customer-first mentality is a limiting factor when it comes to explorative efforts. One respondent noted;

> *"I try to act in the best interest of the customer, assuming that if the customer is satisfied and I am performing well, it will benefit SAP as well. I try to stick with my way of working, high quality, what I feel comfortable with."*

This quote illustrates how the customer-first mentality makes people stick with their way of working and strengthens the dominant logic. Employees are driven by customer satisfaction and not the level of innovativeness of their work. In general, the customer interests are relatively short-term and fit the current competences of the employees. The core focus lies at; *"how can I serve this customer now"* and not *"how can I help my customers in the future".* As a result, the strong customer focus does not drive explorative behavior.

All in all, the lack of initiative regarding explorative behavior is partly rooted in the norms, values and beliefs that are shared among the employees of DBS NL. Some are driven by extrinsic factors, which are limited or even absent for exploration. Others are strongly driven by customer satisfaction instead of the innovativeness of their work. In the end, it is a combination of multiple facets that drives the current behavior towards exploitation, and thus away from exploration.

4.2.4 | External level

The empirical research fully focused on identifying internal barriers for exploration. As such, it is hard to make statements on potential external barriers. However, there is one barrier that is worth mentioning: *brand perception.*

Brand Perception

Especially in phase one, several respondents mentioned the brand perception as a potential barrier for exploration. More specifically, four interviewees stated that customers do not see SAP as the to-go-to party for highly innovative projects. According to one of the respondents, customers perceive SAP as;

> *"that risk adverse party that only thinks in up-front payments."*

Another respondent noted;

> *"I think that in many cases, we [SAP] are not directly perceived as innovation partner. I think that in general we are still perceived as ERP [enterprise resource planning] supplier."*

As mentioned, potential customers might not directly perceive SAP as a suitable innovation partner. A perception that could be troublesome when it comes to interacting with customer for explorative projects. However, as no customers were interviewed, no hard claims can be made on how this obstructs explorative behavior.

4.3 | Evaluation

The empirical results show that the lack of explorative behavior (effect) is caused by the combination of multiple barriers (causes). However, especially from the solutioning perspective, it is crucial to have a more holistic understanding of the situation. Some barriers have a more severe or different impact than others and some barriers also related to each another. Unfortunately, the empirical data does not provide conclusive insights into the weight of each barrier or their relations with one another. Therefore, this evaluation is largely based on logic reasoning and uses empirical data where available.

First, the empirical findings showed that there are few drivers for exploration. On the organizational level, there is a lack of importance in terms of goals, objectives and incentives regarding exploration. As such, there are no extrinsic motivators that drive the explorative behavior of the employees. Yet, such drivers are present for exploitation in the form of KPI's and related bonuses. Thus, on the organizational level, employees are driven more towards exploitation than exploration. On the cultural level, the employees are not driven towards exploration by strong intrinsic motivations. Generally stated, their personal interests (e.g. customer first mentality) drives them towards exploiting their current competences. As a result, there are neither extrinsic nor intrinsic drivers that motivate employees to show the explorative behavior. As there is also a lack of structure regarding exploration, the extent to which employees show explorative behavior fully depends their personal motivation to do so.

Second, the empirical findings showed that there are also factors that limit the ability of the employees to put effort into exploration. In other words, even if an individual is strongly motivated to show explorative behavior, their efforts are limited to some extent. One of these limitations is the challenging utilization target that limits the time that employees can spend on exploration. Logically, when there is a strong focus on financial performance, metrics are put in place to ensure that the key resources are used in the most profitable way. As such, this limitation originates from the current business model configuration of selling *man-hours* and the related metrics that are put in place to ensure the efficient use of these scarce resources. If, for example, an organization makes money by selling a tangible product, the limitations on employee time (man-hours) are probably less strict. A second limitation is also related to the current configuration of the business model. The empirical findings showed that the employees spend a significant amount of time working outside the office, and as a result collaborating on explorative projects is complicated. For a large part, this limitation originates from the fact that the type of work – services/consulting – demands employees to be physically at a customer. An office job provides more flexibility in that sense.

From a solutioning perspective, the question remains whether it is more effective to start with developing drivers for exploration or removing the limitations. The empirical findings showed that there are limitations, but that does not mean that those limits are currently reached. Moreover, resolving the limitations can prove to be difficult as they are imposed from the top-down and originate from the current business model configuration.

From that perspective, it can be argued that – in the current situation – it is more effective to focus on creating drivers towards exploration than to try to resolve the limitations. This view is supported by the empirical data. When respondents were asked what – in their opinion – should be the first step towards increasing the explorative behavior, six of them suggested that setting a direction and making exploration important could be a first step forward. As one of them noted;

> *"Start with making it [exploration] important and create awareness. Because now, it is not talked about, and thus it is probably not important. I think that a lot can be achieved through creating focus."*

Therefore, the solution should aim to develop drivers that motivate employees to show explorative behavior and make the most out the resources that are available while keeping the limitations in mind.

4.4 | Conclusion

In conclusion, the empirical analysis showed that there is a multitude of barriers that affect the amount of exploration efforts in some way. Moreover, the evaluation showed that the core of the problem lies with absence of drivers towards exploration. Therefore, a revised problem statement was prepared;

> *"The absence of both extrinsic and intrinsic motivators that drive exploration limit the explorative behavior among the employees of DBS NL."*

For the solution to be effective, it is crucial that it targets the core of the problem and does not merely fight symptoms. Therefore, this revised problem statement serves as a starting point for the solution design.

Chapter 5 | Solution Design

In this chapter, the various inputs that formed the foundation for the design process are described. This includes a list of design requirements that are based on the applicable context and a set of design principles that emerged from literature. These design principles provide an answer to the last sub-question of the research; *How can these barriers be overcome?* These design principles and requirements formed the starting point for the iterative design process. The resulting redesign is discussed extensively in the next chapter (Chapter 6).

5.1 | Design requirements

In this section, the design requirements that are to be met by the final solution will be described. Van Aken and Berends (2018) defined four types of requirements: *functional requirements, user requirements, boundary conditions,* and *design restrictions.*

- *Functional requirements:* define the minimum performance level of the designed solution.
- *User requirements:* articulate requirements that are important from the user perspective.
- *Boundary conditions:* define a set of conditions that must be met unconditionally. These conditions are given and are not negotiable.
- *Design restrictions:* set the preferred solution space for the designed solution. However, these preferences might negotiable in some cases.

The design requirements that serve as input to the design process can be found in Table 2. The requirements are based on the theoretical background, the problem diagnosis, the context, and logical reasoning.

Table 2 | Design Requirements

Functional requirements	*The designed solution should promote and/or facilitate explorative behavior.*
	The designed solution should tackle the core of the business problem.
User requirements	*The designed solution should respect the current working hours of the employees.*
	Employees should have enough freedom in maintaining their exploration-exploitation balance.
	Employees should be able to monitor the progress of projects.
Boundary conditions	*The designed solution may not conflict with the current systems and policies of the department and company.*
Design restrictions	*The designed solution should respect the currently available resources.*
	The costs of implementing and running the solution should be kept to a minimum.

5.1.1 | Functional Requirements

The core objective of this thesis is to find a way to increase the explorative behavior among the employees of DBS NL. As such, the minimum performance level of the designed solution is straight forward, it should increase the explorative behavior within the department. However, the management does not necessarily desire every individual to increase their explorative efforts. Therefore, the focus is on increasing the cumulative explorative behavior within the department. To do so, the solution should address the core of the problem that has been identified during the analysis and diagnosis phase. As such, it should aim at creating motivators that drive the exploration efforts as their absence is at the very core of the problem.

5.1.2 | User Requirements

The solution intends to increase the explorative behavior within the department, and thus its users are the employees of DBS NL. From their perspective, the solution should respect their current working conditions (working hours and flexibility). Moreover, the solution should not limit the employees in achieving their personal (exploitation) objectives to the extend that it negatively impacts their financial compensation. As such, the employees should be free to determine the form in which they participate, and thus balance their exploration and exploitation activities. Finally, the empirical findings showed that the employees desire a more structured approach to exploration that includes clear follow-up activities. Additionally, they want to have better insights into the progress of the explorative activities when they are not directly involved.

5.1.3 | Boundary Conditions

The solution may not conflict with the (global) policies and systems that are currently in place. For example, policies on information processing, customer interactions and compliance. Likewise, it should limit the ability of the department to adhere to regionally or globally defined goals and objectives.

5.1.4 | Design Restrictions

The solution should respect the limitations in terms of resources (time, funds) and availability of the employees. For example, designing a solution that demands the employees to be available and in the office every Friday afternoon is unrealistic. In some cases, the management may decide to deviate from this restriction and make an exception. However, in the basis, the solution should adhere to the resources that are available. Furthermore, the costs of implementing and running the solution should be kept to a minimum. More specifically, the limited resources should be used for actual exploration activities as much as possible and not for implementing or managing those activities.

5.2 | Literature Review

In this section, available literature will be studied and discussed to create a knowledge base that serves as input to designing. This input is then used as a theoretical basis for solving the business problem identified during the empirical analysis (Chapter 4). However, the output of this analysis is a 'local' theory, and thus highly context specific. Therefore, the theoretical insights are transformed into context specific design principles to ensure the practical value. This is done through the use of CIMO-logic. First, the context (C) and intended outcome (O) will be discussed. Thereafter, appropriate interventions (I) and mechanisms (M) will be extracted from literature. Table 3 provides an overview of all extracted design principles.

The solution has to be implemented within the department of DBS NL. The empirical analysis showed that within the department, there is a strong focus on exploiting the current business model and little drivers when it comes to exploration. As a result, there is a lack of explorative efforts. Therefore, the desired outcome that is defined by the management of DBS NL is to increase explorative behavior among the employees. More specifically, they want the employees to spend more effort and time on exploring potential uses of SAP technology and generating new competences along the way. To do so, design principles are deduced from organizational control theory. Accordingly, the literature search evolved around relevant terminology; *organizational control(s), controls,* and *management control*. Additionally, these terms were combined with context specific terminology; *exploration, innovation,* and *new product development.*

5.2.1 | Organizational Control

Organizational control theory evolves around the use of controlling mechanisms to coordinate, monitor, and evaluate employee behavior. Organizations use controls to guide the individual efforts of their employees towards meeting the business objectives of the organization (Sitkin, Cardinal & Bijlsma-Frankema, 2010; Davila, Foster & Oyon, 2009). Therefore, organizational control plays a key role in the performance and success of firms (Ouchi, 1979).

In general, organizational control theory refers to three distinct types of control when it comes to directing employee behavior towards achieving the organizational objectives: *outcome control, process control,* and *clan control* (Ouchi, 1979; Turner & Makhija, 2006). First, an organization can tie the contribution of an individual towards the organizational objectives to a specific reward, and thus providing individuals with the option to pursue non-organizational goals at the cost of their reward (outcome control). Second, an organization can define which behavior is expected and desired, and correct individuals when they break ranks (process control). Third, an organization can select or shape individuals to make sure that individual objectives are aligned with those of the organization (clan control; Ouchi, 1979). However, according to Sitkin et al. (2010), there is a lack of conceptual consensus

regarding the different types of control. For example, the concepts of process and behavior control are used interchangeably while referring to one and the same concept (e.g. Rijsdijk & Van den Ende, 2011; Sihag & Rijsdijk, 2019). Moreover, the literature on control theory is highly fragmented, and as a result there is no common framework that serves as a basis for further research (Sitkin et al., 2010). These inconsistencies make it hard to compare the variety of empirical work on organization control. Therefore, this thesis uses literature that evolves around the previously described control types (outcome, process, and clan) or their equivalents to further elaborate on their characteristics and effects on performance. Additionally, extra attention is given to appliances of organizational control within the context of innovation and exploration.

In general, clan control is a more informal way to influence employee behavior and outcome and process control are more formal controlling mechanisms. However, also within the different types more formal or informal mechanism are possible (Cardinal, Sitkin & Long, 2004). Formal controls include things like written rules and procedures, whereas informal control mechanisms are things like shared norms and beliefs. Both formal and informal controls have their advantages and disadvantages. On the one hand, formal controls allow for better data capturing which is beneficial for the organizational learning. On the other hand, formal controls are much more time-consuming than informal controls, and thus reduces the resources available for the desired behavior (Tatikonda & Rosenthal, 2000). Accordingly, Poskela and Martinsuo (2009) argue that informal and formal controls form a coherent whole. More specifically, informal controls take over where formal controls leave a gap (Ouchi, 1997; Poskela & Martinsuo, 2009).

Outcome control

Outcome control refers to the translation of the overall business objectives into specific desired outputs and the evaluation of behavior accordingly (Ouchi, 1979; Rijsdijk et al., 2011; Turner & Makhija, 2006). So, individuals are not assessed on how they behave, but on the outcome that results from their behavior. As such, employees are given a high degree of autonomy and independence (Rijsdijk et al., 2011). Outcome control is the most formal type of organization control and includes things like deadlines, milestones, and revenue targets (Bonner, Ruekert & Walker, 2002).

In general, outcome control is positively related to performance as it motivates individuals to act in the best interest of the collective (Cardinal, 2001; Rijsdijk et al., 2011; Sihag et al., 2019). It does so by aligning the individual goals with the collective objectives and providing incentives and responsibility towards achieving these goals (Sihag et al., 2019). Clearly specifying the desired outcomes creates focus and commitment among the involved individuals (Rijsdijk et al., 2011). Moreover, setting specific and challenging goals leads to higher performance and boosts creativity (Davila et al., 2009; Poskela et al., 2009). In comparison to the other forms of control, outcome control is probably the most efficient

way of guiding behavior as it does not require the controller (manager) to monitor the behavior of controlees (subordinate) up close (Eisenhardt, 1985; Sihag et al., 2019). As such, outcome control provides controllers with a hands-off approach to direct the behavior of their subordinates (Rijsdijk et al., 2011; Sihag et al., 2019).

However, outcome control also has its downsides, especially in the context of innovation. Rijsdijk and Van den Ende (2011) noted that formal mechanisms increase the bureaucracy, and therefore might limit behavior in terms of flexibility (Rijsdijk & Van den Ende, 2011). Moreover, the hands-off approach can lead to a disconnect between controller and controlee. Furthermore, Poskela and Martinsuo (2009) argue that for innovation activities, it is hard to measure the outcome in an objective manner. That is problematic as for the successful use of outcome control, the outcomes should be measurable (Cardinal, 2001). Moreover, Cardinal (2001) argues that it is crucial that the outcome is in the hands of the controlees. In this light, Poskela and Martinsuo (2009) argued that outcome-based rewarding is not positively related with performance as it hinders explorative behavior by withholding individuals from risk-taking behavior. However, outcome control is not only about measuring the objectives in terms of hard results, it can also focus on effort (Turner & Makhija, 2006).

All in all, considering both advantages and disadvantages, it is argued that outcome-based controls can play a crucial role in increasing the explorative behavior among the employees of DBS NL. However, it is crucial that the potential disadvantages of these type of mechanisms are considered during design. More specifically, outcome control should be used if it is possible to define the outcome and measure them in some way (Ouchi, 1979; Turner & Makhija, 2006) and they are within the control of the controlee(s) (Cardinal, 2001).

> **Principle 1:** *Organizations with an emphasis on exploitation (C) can increase their total explorative efforts (O) by clearly defining individual goals and objectives in terms of deadlines and specifications (I) and thereby creating commitment and focus towards achieving the organizational objectives among the employees (M).*

Process Control

Process control refers to the use of mechanisms that predefine the desired behavior that is expected of an individual or collective (Rijsdijk et al., 2011). On the one hand, such controls can be very strict and include formal process descriptions, predefined procedures and guiding rules (Cardinal, 2001). On the other hand, they can also be very lenient and depend on shared values and beliefs on how activities should be executed. These then work as a mental guiding mechanism that leaves room for individual interpretation.

According to Sihag and Rijsdijk (2019), in general, process control has a positive effect on the performance of an organization. These controls aim to reduce complexity and increase efficiency by providing individuals with a guiding framework. It does so by building on existing knowledge on how to achieve specific results (Turner & Makhija, 2006). Process control allows controllers to reduce the variability in the behavior of the controlees, and as a result limit the number of failures (Rijsdijk et al., 2011; Sihag et al., 2019). Even for uncertain innovation activities, some degree of formalizing behavior enhances the innovation performance (Poskela & Martinsuo, 2009; Segarra-Ciprés, Escrig-Tena & García-Juan, 2019; Tatikonda & Rosenthal, 2000).

However, researchers also found that for exploration activities, the positive effect of process control is limited (Bonner et al., 2002; Rijsdijk et al., 2011; Sihag et al., 2019). Implementing process controls increases bureaucracy, and as a result limit flexibility and stifle creativity (Cardinal, 2001; Rijsdijk & Van den Ende, 2011). Accordingly, Davila et al. (2009) and Segarra-Ciprés et al. (2019) argued that controls play a key role in keeping direction, but that they should allow for deviating behavior when the situation requires it. In comparison to outcome control, process control does require the controller to understand the process and monitor the process closely (Bonner et al., 2002; Sihag & Rijsdijk, 2019). As such, it is a more resource intensive way of controlling employee behavior. Moreover, closely monitoring the behavior of controlees results in a lower tolerance for failure which might be harmful for innovation performance (Cardinal, 2001).

In the end, considering both the positive and negative effects of process control, it can be concluded that some process control mechanisms are needed to provide individuals a helping hand when it comes to explorative behavior. However, it is crucial to ensure that the mechanisms do not constrain the creativity and problem-solving capabilities of the employees. As such, the use of process controls should be limited to those tasks of which there is sufficient knowledge (Bonner et al., 2002; Ouchi, 1979; Turner & Makhija, 2006). Therefore, especially in the front-end (fuzzy) of innovation where creative freedom is most critical and process knowledge is limited, the use of strict process controls should be kept to a minimum (Poskela et al., 2009). Accordingly, Tatikonda and Rosenthal (2000) suggested that formal process controls should be used to create structure at the project level (e.g. what must be done), while maintaining flexibility at the working level (e.g. how to do it).

> **Principle 2:** *Organizations with an emphasis on exploitation (C) can increase the efficiency and effectiveness of their exploration efforts (O) by defining the desired behavior through the design of a structured approach (I) and thereby develop an understanding of what behavior is required to achieve the organizational objectives (M).*

Clan Control

In general, clan control refers the use of socialization and selection mechanisms to build a collective of controlees whose interest overlap with those of the organization (Ouchi, 1979). Informal types of clan control rely upon social interactions – social events or off-site meetings – between multiple actors to align individual interest with those of the organization (Rijsdijk & Van den Ende, 2011). More formal types of clan control mechanisms are hiring and selection procedures that aim to find individuals whose personal interests overlap with those of the organization but also includes programs for personal development.

In general, clan control increases the organizational efficiency and performance (Rijsdijk et al., 2011; Sihag et al., 2019). It does so by ensuring that the personal interests of the controlees match the interests of the organization. From that perspective, there is no reason to for individuals to show deviant behavior that is not in the best interest of the organization.

However, relying too much on clan control as a mechanism for guiding employee behavior might lead to high levels of compromising among individuals which might be harmful for the innovation performance (Rijsdijk & Van den Ende, 2011). Moreover, in comparison to other forms of control, clan controls take long to implement (Eisenhardt, 1985)

Therefore, it is argued clan control plays a crucial role in aligning interests and directing behavior. Especially, in the front end of innovation, clan control is vital (Poskela et al., 2009). However, relying solely on clan control as a mechanism for directing behavior might not have the desired effect. Thus, informal clan control should be used in combination with other forms of control.

> **Principle 3:** *Organizations with an emphasis on exploitation (C) can increase the total explorative efforts and improve the outcomes (O) by sharing and emphasizing its [explorative behavior] importance for the organization and the individuals within (I) and thereby aligning the interests of the individuals with those of the organization (M).*

Interplay of Controls

Over time, significant research has been done on the effects the various of controls in isolation (Sitkin et al., 2010). However, according to Rijsdijk and Van den Ende (2011), studying the various controls in isolation has little practical value as organizations generally use a set of multiple controls. Therefore, more recent research takes a more holistic view and argues that the various controls should be viewed as complements rather than substitutes (Sihag et al., 2018). However, Tiwana (2010) argues that there is some truth in both perspectives. Combining multiple controls can result in a reinforcing positive synergy or create negative tensions (Cardinal, 2001; Tiwana, 2010).

Rijsdijk and Van den Ende (2011) argue that combing process control with either outcome or clan control creates negative tensions. Combining process and outcome control leads to high levels of bureaucracy which is undesirable for innovation. Process and clan control might interfere with one another as they both encompass defining appropriate behavior. Therefore, they argue that combining outcome and clan control is the best way to enable individuals to deal with unexpected events. Cardinal (2001) endorses this view by stating that informal (clan) controls can best be combined with outcome controls. Moreover, the disadvantages of formal outcome control can be mitigated through the use of informal clan controls (Sihag et al., 2018).

Principle 4: *Organizations with an emphasis on exploitation (C) can increase the explorative behavior among their employees (O) by combining outcome and clan control (I) to create both intrinsic and extrinsic motivators for exploration and thereby aligning the interests of the individuals with those of the organization (M).*

Table 3 | Theory-based design principles

	Context (C)	**Intervention (I)**	**Mechanism (M)**	**Outcome (O)**
1.	Organizations with an emphasis on exploitation	Should clearly define individual goals and objectives in terms of deadlines and specifications	To create commitment and focus towards achieving the organizational objectives among the employees	and increase their total explorative efforts.
2.	Organizations with an emphasis on exploitation	Should define the desired behavior through the design of a structured approach	To develop an understanding of what behavior is required to achieve the organizational objectives	and increase the efficiency and effectiveness of their exploration efforts.
3.	Organizations with an emphasis on exploitation	Should share and emphasize the importance for the organization and the individuals themselves	To align the interests of individuals with those of the organization	and increase the total explorative efforts and improve the outcomes.
4.	Organizations with an emphasis on exploitation	Should combine outcome and clan control	To create both intrinsic and extrinsic motivations, and thereby align interests	and increase the explorative behavior among their employees.

Chapter 6 | Detailed Solution

In this chapter, the solution that was designed to solve the business problem is presented and discussed in detail. Accordingly, this chapter provides an answer to the main research question: *How can DBS NL increase the amount of explorative behavior among its employees?* The overall solution consists of two core components; a *recommendation* and a *redesign.* The recommendation can best be seen as a crucial precondition for a successful implementation of the redesign. As such, ignoring the recommendation will drastically decrease the value and effectiveness of the redesign or any other attempt to increase the explorative behavior. In other words, the recommendation encompasses a crucial first step towards increasing exploration and the redesign represents a potential next step in that process. However, that does not mean that the redesign is necessarily the best next step towards increasing the explorative behavior within the department nor is it the only next step that is needed. On the long-term, a more holistic approach towards exploration activities is needed in order to become truly ambidextrous. With the redesign as starting point, a tailor-made approach that considers the limitations and fits within the environment of the department can be developed over time through trial-and-error.

Currently, employee behavior is driven by a strong focus on exploitation. This focus is created and maintained through the use of challenging objectives and a set of related controlling mechanisms. However, for exploration such mechanisms and objectives are absent. Therefore, both the recommendation and the redesign build on organizational control theory to direct behavior towards exploration. The theory of organizational control evolves around aligning individual objectives with the organizational objectives. More specifically, it aims to direct the behavior of individuals in such a way that they act in the best interest of the collective (DBS NL).

6.1 | Recommendation

The empirical data showed that – currently – exploration has been given little strategic importance. More specifically, there are no overall goals or objectives regarding exploration efforts. Yet, from an organizational control perspective, such a direction is a critical element in controlling employee behavior, and thus cannot be missed. It is impossible to guide behavior towards achieving organizational objectives when those are non-existing.

Therefore, the very first step that the management of DBS NL should take is to define goals and objectives regarding exploration. Setting a clear direction provides the necessary foundation for the use of organizational control mechanisms to increase explorative behavior among the employees. Moreover, it enables individuals to make decisions that are in line with the defined direction, and thus act in the best interest of the organization.

In the core, exploration and innovation are all about finding and developing novel ways to create business value. As such, from a professional service perspective, a highly relevant goal would be to focus on the continuous development of new competences as these are at the very core of creating value for their customers, and thus creating business value. According to Danneels (2002), explorative projects are an effective way to develop such new technological competences, customer competences, or both at the same time. Therefore, to attain that goal, DBS NL could set a variety of objectives on metrics like:

- Number of hours spend on projects or educational activities each month/year.
- Number of explorative projects started/completed each year.
- Percentage of revenue growth from 'new things' like products or services.

However, only setting a direction may not be enough to make individuals actually follow that direction and change their current behavior. In other words, merely defining the change and why it is in the best interest of the organization does not mean that the employees support the desired change, and thus change their behavior. Moreover, employees might even be reluctant to change, especially when they do not see the benefits of the change nor feel the obligation to contribute (Kim, Hornung & Rousseau, 2011). This view corresponds with the general assumption within organizational control theory that – in general – individuals act in their own best interest (Ouchi, 1979). Therefore, with the organizational goal(s) and objectives defined, a next step for the management to take should be to implement control mechanisms that aim to align the individual interests of the employees with the overall objectives. Such controls enable the management team to direct and monitor the individual behavior and take corrective action when necessary. However, it should be noted that the theory on organizational control merely provides insights in the effectiveness of various types of control within certain contexts and does not specify the content of those controls. For example, it is argued that process control is beneficial for the performance of procedural tasks (Ouchi, 1979; Turner & Makhija, 2006), but it does not specify the configuration or contents of those tasks. As such, almost any activity can be infused with certain control mechanisms to boost the performance, and thus the options for the use of organizational control are numerous.

6.2 | Redesign

In this section, the final redesign will be presented that aims to tackle the business problem, and thus increase the explorative behavior among the employees of DBS NL. To do so, the redesign builds on the assumption that a direction in terms of goals and objectives will be set by the management team of DBS NL. With that as a starting point, the redesign presents a potential next step towards increasing the explorative behavior within the department.

From an organizational control perspective, it can be argued that exploration activities are so unpredictable that they cannot be defined upfront, and thus that the best way to direct employee behavior towards exploration is through the use of outcome and clan controls (Rijsdijk & Van den Ende, 2011). Such controls provide the employees with the necessary flexibility while assuring that they keep the set direction at heart. As such, the management should actively share their vision on the importance of exploration efforts in order to develop alignment between the interest of the employees and those of the organization. Moreover, formal clan controls like hiring and selection procedures could be implemented to assure that new hires are driven by intrinsic motivations when it comes to exploration. Additionally, they could convert the organizational objectives into individual objectives and tie those objectives to some type of reward – tangible or intangible – to provide individuals with incentives for exploration.

However, within literature it is also argued that some degree of process control is needed to assure effectiveness in terms of resources and objectives (Poskela & Martinsuo, 2009). Such effectiveness is desired as the empirical findings showed that the resources available for exploration are limited and the management is not in the position to make permanent changes to that limitation. Moreover, the empirical findings also showed that – in the current situation – there is a lack of structure regarding explorative initiatives which is negatively related to the amount of explorative behavior. From that perspective, implementing process controls can be beneficial as long as they do not limit the creativity and problem-solving of the employees and are limited to what is known (Ouchi, 1979; Turner & Makhija, 2006). Furthermore, process controls are the only type of organizational control that directly target and guide the actual behavior. A characteristic that can be especially valuable as the redesign intends to change the current behavior of the employees. Clearly defining the behavior that is desired may help employees to develop an understanding of what is expected from them, and thus how they have to change their behavior in order to achieve the organizational objectives. Therefore, the redesign should define the various steps (behavior) that are needed to meet the organizational objectives to the extent those are known. More specifically, it should define 'what' tasks must be done without precisely prescribing 'how' it should be done (Tatikonda & Rosenthal, 2000). These individual steps or tasks can then be infused by other control mechanisms to boost the performance along the way. As mentioned before, the design of that process takes the design requirements and the design principles as inputs. Furthermore, some additional factors were taken into consideration.

One of those factors is the potential resistance amongst the employees. The empirical findings showed that their time is already limited and introducing yet another initiative that demands their attention and time might not be effective and encounter resistance. A second factor that was considered was the suitability for implementing other control mechanisms. The use of outcome control requires steps

to be timely while clan control needs sufficient interaction points between controller (management) and controlee (employee). A third factor that was considered is the goal and related objectives that need to be achieved through the process, which is – of course – a crucial perquisite for designing a process that needs to guide the employee behavior. Unfortunately, as mentioned in the recommendation, such a direction is not yet clearly defined by the management team. Therefore, the redesign will primarily focus on the continuous development of new competences.

Taking all factors into account, it was decided to build on the existing structure of the '50X Challenge' and the concept of the 'internal project' as follow-up. As argued by Danneels (2002), such hands-on innovation projects can lead to the development of both new technology and customer competences. Additionally, the campaign format provides multiple advantages that make it stand out.

First, the very first 'idea challenge' showed that such a challenge has the potential to trigger the employees in a positive way, at least a significant part of them. Most respondents were enthusiastic about the concept, but not about the execution. This positive attitude towards the concept may reduce the resistance, and thus smoothen the implementation. Especially if they are presented a well-thought-out approach.

Second, considering the limited resources, a campaign is more applicable than a more continuous approach. A challenge allows collecting a vast amount of ideas in a limited period of time and enables the selection of the most promising ideas. As a result, the limited resources can be allocated to the 'best' ideas. A continuous approach would require more frequent selecting from fewer ideas, and as a result more projects, less resources per selected idea, and potentially lower idea quality. Moreover, due to the higher frequency of selection moments, a continuous approach would take additional resources away from the actual explorative behavior.

Third, a campaign has clear start date which makes it possible to build momentum and make people enthusiastic about contributing, and thus get them out of their day-to-day business. Moreover, the timeliness of a challenge matches perfectly with the use of (intermediate) outcome controls, and thus building focus and commitment towards achieving the goals and objectives. Besides, (intermediate) outcome controls make it possible to monitor the progress towards the organizational objective more regularly in terms of efforts and results which makes it possible to take corrective actions when needed.

Fourth, a campaign provides flexibility and can be altered and improved every time it is executed. It can be planned during periods in which the workload is relatively low, and thus employees have time to contribute. Finally, each campaign can focus on a different theme that is deemed relevant at that point in time, and thus allows a targeted development of competences.

Therefore, the '50X Challenge' is redesigned and infused with a combination of controls to direct employee behavior and enhance the performance towards meeting the objective(s). The redesign is composed of three consecutive phases; *a kick-off, an idea challenge,* and *execution phase*. Figure 6 shows a high-level overview of these stages. In the next sections, each phase will be discussed in more detail and the underlying controlling mechanisms will be discussed.
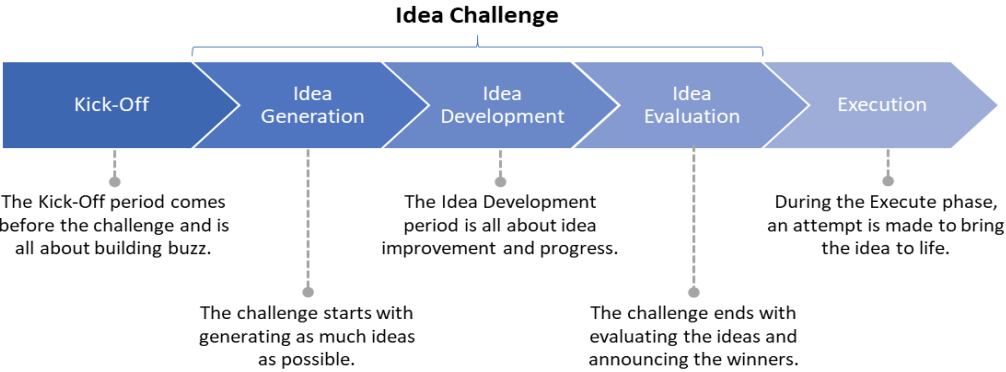

Figure 6 | High-level overview

6.2.1 | Kick-off

The kick-off phase is all about creating awareness and building momentum. The core goal is to create enthusiasm among the employees, share goals and objectives, and make employees wanting to participate in the next phase; *the idea challenge*.

It all starts with a pyramid of boxes – the 'innovation kits' – that is placed in the office. These kits include a combination of innovation tools, supplies, and a 'process' description which are all intended to assist the employees during the next phase(s). On the same day, all employees receive a meeting request for a 'Coffee Corner' meeting during which the purpose of the boxes will be explained, and the management shares the goal(s) and objective(s). On the one hand, these boxes give the upcoming challenge a fun character and it makes innovation somewhat tangible. On the other hand, however, the 'innovation kits' have a symbolic meaning. At the end of the meeting, all employees are given the choice whether they want to participate in the upcoming challenge or not. By picking-up the 'innovation kit', employees commit to participating, and thus putting in some effort. Those employees will be referred to as 'IDEA owners'. During the two weeks that follow, the management team has the task to actively share their views on why explorative efforts are in the best interest of both the organization as well as the individuals themselves. Finally, the kick-off period ends with a social event during which the management team shares their long-term vision and elaborate once more on why they think that explorative behavior is key for the future success of the department. With this kick-off event, the first phase is completed, and the actual challenge is kicked-off.

The objective is to get as much employees as possible to participate in the next phase. To do so, the kick-off phase is mainly based on clan control as a mechanism for directing employee behavior by aligning the individual interests with those of the organization. Both the coffee corner meeting and the kick-off event allow for socializing, and thus sharing beliefs and aligning goals and objectives. This informal clan control mechanism aims at making individuals want to participate based on their personal interests. Additionally, the challenge of winning the idea contest could be classified as an outcome control mechanism. Deciding not to participate comes at the cost of the opportunity to win the challenge. As such, it could create focus and commitment towards participating (Sihag et al., 2019). Furthermore, from the outcome control perspective, one could argue that the boxes are a reward for showing willingness to participate, and thus incentivize explorative behavior. Using the description of Ouchi (1979), employees are free not to participate at the cost of receiving an innovation kit. However, it is questionable whether the kit can be seen as a reward as it is merely intended to help participants in the next phase(s). As such, the innovations kits define what behavior is desired, educate employees on what is expected from them, and provide tools to do so.

6.2.2 | Idea Challenge

Phase two is the actual idea challenge during which the employees that committed to participating (IDEA owners) in the previous phase, will put effort into generating and developing ideas. The goal of this phase is to find new and innovative ways of creating (added) value.

To do so, the challenge builds on the fuzzy-front end stages as defined by Eling, Griffin and Langerak (2014). It is known that in order to develop a new concept, one needs to start with a vast amount of ideas, evaluate them, develop them, and evaluate them again. As such, this phase consists of three sub-phases; *generate, develop,* and *evaluate.* It should be noted that the empirical findings showed that the employees spend a significant part of their time outside the office, and thus might not be able to participate on site. Therefore, the entire challenge is supported by an online portal which can be accessed by the employees where ever they are. Moreover, using such an online tool limits the effort that is needed for facilitating the process (e.g. collecting ideas, uploading ideas).

The first sub-phase starts immediately after the kick-off event when the online portal is opened, and participants can start submitting their ideas. During a period of exactly three weeks, idea owners are free to submit all their ideas to the online portal. This sub-phase serves only one objective; generating and collecting as much ideas as possible. After the submission deadline, no new ideas can be submitted, and the next sub-phase is started; *idea development*. Until this submission deadline, all employees have the possibility to grab a 'innovation kit' (or not), submit an idea, and become an 'IDEA owner'.

As soon as the 'generate' phase has ended, the next sub-phase starts; *develop.* Again, for a period of three weeks, all employees are free to contribute by making suggestions for improvements and giving feedback on the ideas through the online portal. The employees participating in the challenge in this way are referred to as 'Contributors'. The provided suggestions and feedback can then be used by the idea owners to further develop and improve their ideas or even combine them with those of others. After three weeks, the portal closes, and no more adjustments can be made. At least not through the online portal.

Finally, after six weeks of generating and developing ideas, the next sub-phase starts; *evaluate.* First, the members of the management team individually review and evaluate the ideas. Based on the predefined criteria, they decide on their top 10 of ideas. These are then merged into a final list of the ten most promising ideas. Second, an online voting portal is opened to determine a final ranking of the ten selected ideas. Thus, for a period of two weeks, the idea owners can lobby for support among their colleagues in an attempt to boost the ranking of their idea. After these two weeks, the final ranking is publicized, and the winner is announced. Depending on the preferences of the management, one or more (winning) ideas enter the next phase to further develop the concept.

The idea challenge relies on a combination of multiple controlling mechanisms for directing the employee behavior. First, as mentioned before, the challenge builds on existing knowledge on the fuzzy-front end of innovation to define what behavior is desired from the participants during the sub-phases. As such, it makes use of process controls to direct employee behavior. Second, the challenge is infused with various outcome controls. From the perspective of the idea owners, the challenge is all about achieving one goal; developing the winning idea. As argued by Poskela and Martinsuo (2009), setting specific and challenging goals leads to higher performances. Moreover, intermediate desired outcomes are defined to increase focus and commitment and allow for corrective actions when needed (Sihag et al., 2019); *number of ideas (objective), deadlines (timeliness),* and *quality criteria.* So, these controls provide direction without limiting the creative freedom or autonomy. In other words, they provide guidance on what participants have to do, but not how they have to do it.

Figure 7 provides a detailed visual overview of the idea challenge. It includes the tasks of the various stakeholders and depicts the function of the online portal.
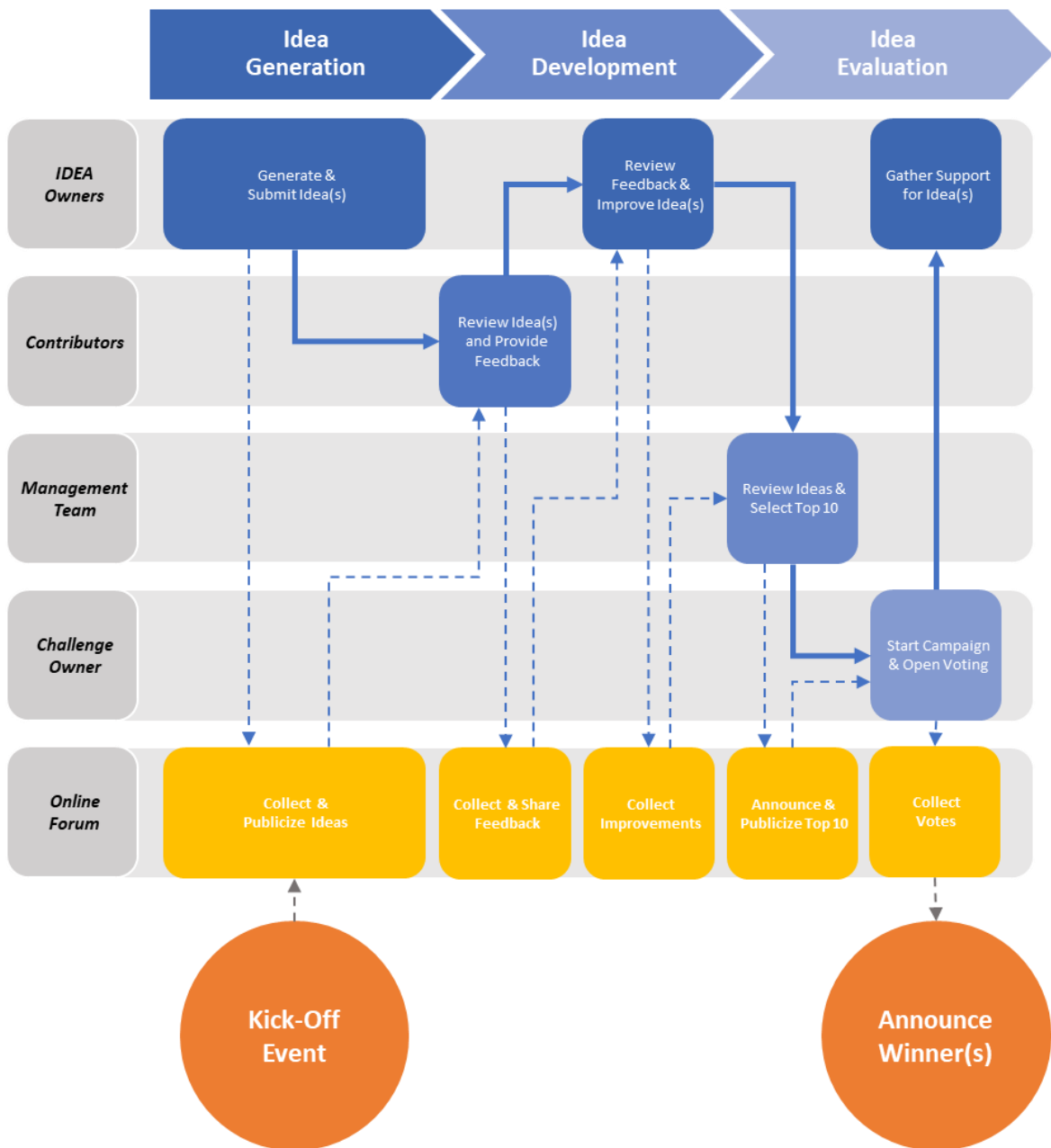
Figure 7 | Idea Challenge

6.2.3 | Execution

The challenge is followed by an execution phase during which the winning idea(s) is (are) developed in an iterative manner. The core goal of this phase is to turn the winning idea(s) into reality and at the same time develop new competences.

First, the management team assigns a management sponsor to the project. This management sponsor is responsible for monitoring the progress and provides direction when necessary. Together with the management sponsor, the idea owner composes a project team that will work on developing the idea. Thereafter, during an initial project meeting, the project team defines their own project goals and objectives. From then on, the development is an iterative process that is based on agile working methods which are known among the employees of DBS NL. It includes four
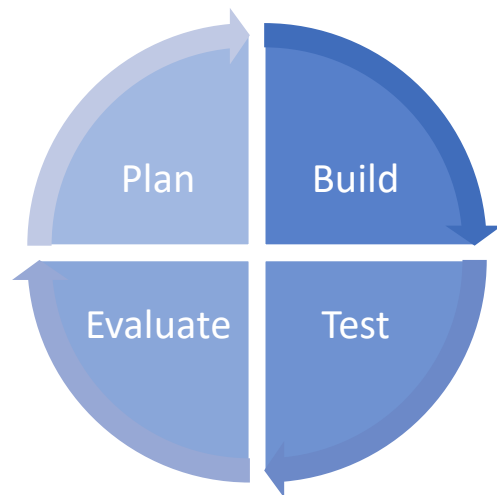

Figure 8 | Execution phase

consecutive steps that are executed in an iterative manner; *plan, build, test,* and *evaluate* (Figure 8).

During each planning step, the project team discusses what their next steps are going to be. They define what tasks have to be executed in the upcoming cycle and distribute responsibilities. Thereafter, during the building step, the tasks that were defined during the planning step are executed. During testing, the project team tests what they have done in the 'build' step. This can include testing the software functionality or checking assumptions with potential customers. Finally, during the evaluation step, the project team together with the management sponsor reflects on what they have learned during the building and testing steps and decide whether corrective action is needed. The project team reports what they have learned back to the department and use it as input for planning step of the next cycle. As such, the project team gradually works towards their overall goals and objectives.

The execution phase makes use of all three types of control mechanisms for directing behavior. However, the use of process control is limited to prescribing agile methods as a way of working. Due to the iterative and flexible character of this process, it does not limit the freedom needed for creative problem solving. Especially for innovative projects such flexibility is needed. For the rest, this phase relies on the use of outcome and clan control, as these controls are better suitable for such variable processes (Rijsdijk et al., 2011). The project team is required to define their own objectives and translate them into intermediate outcome controls that focus on effort instead of results, as defining outcomes upfront in terms of results can be troublesome for explorative projects. Clearly defining the desired outcomes increases the commitment of the involved individuals towards meeting those

objectives (Sihag et al., 2019). Especially when those are defined by the project team itself (Bonner et al., 2002). Although the project team bears the responsibility for defining the desired outcomes themselves, this setup does allow the management sponsor to monitor progress without monitoring every move and make sure that they are aligned with those of the department. Finally, the direct involvement of a management sponsor allows for clan control through socialization mechanisms.

6.2.4 | Evaluation & Testing

In this section, the potential flaws and challenges regarding the redesign will be discussed. Due to the limitations of this research project, the redesign is not actually implemented (yet). As a result, no hard statements can be made with regard to its effectivity. However, an attempt can be made to evaluate the redesign on forehand and discuss how it can be tested when it is implemented. Assuming that the redesign will be implemented within the department. First, the weaknesses and key success factors of the solution will be discussed. As a part of the evaluation, the final solution was discussed with the company supervisor and one of the employees. Second, directions for testing the effectiveness of solution will be discussed.

The key strengths of the redesign lie with the low complexity, the creative freedom that is given to individuals, and the challenge it offers. Moreover, it enables employees to decide for themselves whether how they want to participate. This freedom makes the solution relatively easy to implement as it is not directly affected by an individual that resist to participate. Yet, at the same time, this might also be the main weakness of the redesign as its success partly depends on the willingness of employees to participate in exploration activities. Another potential weakness is the need for a committed 'Challenge Owner' who keeps things going and is responsible for running the challenge, and thus all communication and keeping track of the progress. As this can be a time-consuming task, it might be hard to find someone that is willing and able to take on this role. A potential solution to this problem could be to ask the working-students to manage the ownership in a collaborative manner. Another factor that is critical for a successful implementation is the management support. Their efforts in propagating the importance of explorative behavior is critical for creating overlapping interests. Likewise, also the active involvement of the management sponsor during the execution phase is key. Therefore, serious commitment in terms of time and focus is needed from the management team to ensure a successful implementation. However, as their schedules are already fully booked most of the time, they will have to find the right balance and set priorities.

During the two evaluation discussions two interesting potential flaws were identified. The company supervisor mentioned that when it comes to ideation, software has the disadvantage that it is not tangible. Based on previous experiences, he argued that adding a tangible component would have a positive effect on the enthusiasm of the employees. Based on this feedback, the 'innovation kits' were

included in the final redesign. During the discussion with the employee, he mentioned that the perspective of actually winning something triggered him to participate in similar challenges. However, including a price would increase the implementation costs which is a design restriction. Therefore, it was not included in the final redesign. However, it can be considered as an addition during the implementation if the management sees fit.

All in all, the objective of the redesign is to increase the explorative behavior among the employees of DBS NL. To do so, the solution builds on organizational control theory to direct employee behavior. However, as each organization or department is unique in some way, the effectiveness of the redesign cannot be guaranteed upfront. Nonetheless, the effectiveness can be tested in multiple ways.

Logically, it can be tested by evaluating the extent to which the department wide goals and objectives are met or not. Furthermore, measuring the level of exploration in terms of number of participants and ideas and comparing it to past results can provide some insights into the effectiveness. A third way to measure the impact would be to make use of the yearly employee survey. This survey includes a set of innovation parameters which could be used as input for measuring the increase of explorative behavior year to year. Furthermore, also the outcome controls that are integrated in the redesign can be used to determine the effectiveness.

Finally, it should be noted that the implementation of the redesign is just a first step towards increasing the explorative behavior within the department. As such, the solution does not immediately solve all problems or remove all barriers. However, it does provide a basis for further improvement. For example, formal mechanisms of clan control might be necessary to increase the willingness to participate in exploration activities. Trial-and-error is probably the best way to find out what approach and combination of controls works best for the unique situation.

6.2.5 | Reflection

As previously mentioned, the redesign is not the only way towards increasing the explorative efforts within the department. However, due to its flexibility, the concept can serve multiple appliances within the department. The time periods can be adjusted, different ideation themes (problems) can be set, and the intermediate outcome controls can be tweaked. For example, a micro-version (e.g. one week per phase) can be initiated by employees who have a basic idea but want to gather more related ideas and different perspectives. The concept is very flexible and can be heavily modified.

Furthermore, although the presented redesign is specifically designed for the department of DBS NL, the core concept – defining the tasks needed (what) and infuse the process with controls – could be used in various scenarios.

Chapter 7 | Conclusions

In this final chapter, the conclusions of this thesis will be presented. First, the results will be used to reflect upon the research question. Thereafter, the theoretical contributions and managerial implications of this study will be presented. Finally, the limitations of this research and suggestions for further research will be discussed.

7.1 | Conclusion

The core objective of this research was to find a way to increase the explorative behavior within the department DBS NL. The management of DBS NL found that – in order to continue their success – they need to start making more revenue from 'new' things and preserve the uniqueness of their services, and thus their competitive advantage. Accordingly, within the existing literature on exploration and exploitation it is generally accepted that both activities are crucial for the long-term success and survival of an organization. However, exploration and exploitation are two completely different and opposing activities and as a result, simultaneously exploring and exploiting (ambidexterity) creates serious tensions on the strategic level. They compete for (scarce) resources, are self-reinforcing, and require different structures. Unfortunately, an in-depth understanding of how the exploration-exploitation tensions impact those who have to execute the activities is lacking. Therefore, this study aimed at uncovering the barriers to exploration on the operational level, find a way to overcome these barriers, and thus enable ambidexterity.

The empirical analysis showed that – within the department of DBS NL – the employees face both limitations and a lack of drivers regarding explorative efforts. More specifically, most employees do not feel motivated – both intrinsically and extrinsically – to put effort into exploration and on top of that there are no structures that guide the explorative efforts. Moreover, their efforts are constrained in terms of time and availability. On the contrary, such motivators are present for exploitation efforts which drive employee behavior towards exploitation. Therefore, if DBS NL wants to increase the explorative behavior of their employees within their exploitation focused environment, they have to develop both intrinsic and extrinsic motivators and perhaps remove the limitations where possible and desirable.

Based on the empirical findings, it was argued that a first step in enabling ambidexterity within the department is setting a direction by defining goals and objectives for exploration, and thus articulating that – besides exploitation – exploration is also important for the department. On top of this recommendation, a redesign of an existent idea challenge was created that aims at increasing the explorative behavior. To do so, the redesign incorporates a system of multiple organizational control mechanisms to guide employee behavior and align their objectives with those of the department. The

designed solution encompasses three main phases; a *kick-off*, an *idea challenge*, and an *execution* phase. The kick-off phase is intended to build appetite and motivate employees to participate in the idea challenge. The idea challenge aims to trigger employees to make an effort towards coming up with a creative and innovative idea. Finally, the execute phase focuses on developing the winning idea(s) in an iterative manner and creating new customer and technological competences along the way.

All in all, becoming an ambidextrous organization and combining both exploitation and exploration is a challenge. Especially because building the right environment takes effort and commitment and cannot be done overnight. However, clearly defining overall goals and objectives is a first step in giving exploration importance. Thereafter, the management can implement organizational control mechanisms to direct employee behavior towards achieving these organizational goals and objectives.

7.2 | Theoretical Contributions

This study focused at designing a solution to increase the explorative behavior within the department of DBS NL. As such, the main value is of this thesis is of a practical nature. However, that does not mean that it does not contribute to theory. On the contrary, this thesis explored the barriers to exploration on the operational level and thereby contributes to the existing – mainly strategic level focused – exploration-exploitation literature. Moreover, it was explored how the dominant logic of the existent business model impacts exploration-exploitation balance. Therefore, this study contributes to the existing theory in multiple ways.

First, it does so by providing an overview of the barriers to exploration that individuals face within a corporate environment with a strong emphasis on exploitation. The empirical results showed that employees face a lack of resources when it comes to exploration as most of their time is devoted to exploitation activities. This finding corresponds with the – generally accepted – finding that exploration and exploitation compete for (scarce) resources, and thus that more of one goes at the expense of the other (Gupta et al., 2006; He & Wong, 2004; March, 1991). Moreover, the empirical findings showed that the current lack of exploration is related to the absence of formal structures for exploration. This endorses the view within literature that both exploration and exploitation need their own systems and structures and require a vastly different approach (Gupta et al., 2006; He & Wong, 2004). Furthermore, the empirical results suggest that setting a direction and motivating individuals – both intrinsically and intrinsically – to follow that direction plays a critical role in driving explorative behavior. A finding that is less prominent in the literature on exploration-exploitation but does correspond with the suggestion of Tushman and O'Reilly (1996) that individuals act based on their personal interests, and thus do not when they see no benefit.

Second, this research adds to literature by drawing a line between the dominant logic of an organization and the barriers to exploration. More specifically, the combination of challenging goals and objectives, (financial) rewards, and personal interests lock people into exploiting their current competences. Especially when it is the easiest path to personal (financial) success. As such, this study argues that dominant-logic pulls employees towards exploitation, and thus away from exploration. From that perspective, it can be argued that exploitation is indeed self-reinforcing (Gupta et al., 2006; He & Wong, 2004; March, 1991) and that both the structures and the culture of an organization – through dominant logic – play key role in that mechanisms.

Finally, it adds to existing literature through the development of an approach to increase the explorative behavior among employees. To do so, it suggests that organizational control can play a key role in motivating individuals to challenge their dominant logic, countering the self-reinforcing nature of exploitation, and thus becoming ambidextrous. This study suggests that it is critical that organizations set a clear direction in which both exploration and exploitation goals and objectives are accounted for.

7.3 | Managerial Implications

For an organization to remain successful and grow on the long-term, they have to be able to exploit and explore simultaneously. However, it can be concluded that building an ambidextrous organization is challenging and takes serious effort and commitment. Organizations that want to balance both activities need to decide on the allocation of their resources and build structures to facilitate both exploration and exploitation efforts. On top of those decisions, this research suggests that organizations have to actively guide employee behavior in order to achieve a balance.

The findings of this research suggest that in an exploitation focused environment, merely providing employees with some slack time (resources) that can be used for exploration activities is not enough. Especially not when the behavior of those employees is pulled towards exploitation by means of organizational control mechanisms (e.g. utilization targets, revenue targets, rewards). On the contrary, in order to boost their exploration efforts, they should implement a combination of controls mechanisms to direct employee behavior.

Thus, if the management of DBS NL wants to increase the explorative behavior of the employees, they should start by setting a direction with regard to exploration and creating an understanding of why exploration is so important. Thereafter, could start implementing outcome, process and clan controls to actively guide employee behavior and initiate change. To do so, they could implement the redesign of the '50X Challenge' in a first step towards increasing the explorative behavior. By defining the desired outcomes and sharing visions, commitment and focus can be created towards achieving the

organizational goals. Moreover, the redesign can be used multiple times, potentially even serving multiple purposes. For example, by defining different objectives, setting different themes, or adjusting the deadlines, the management can aim for more incremental or more radical innovation projects. However, it should be noted that merely running the idea challenge multiple times is not enough to become truly ambidextrous. The management has to actively share their views on what is needed towards the future, introduce controls and develop a more holistic approach to exploration over time.

7.4 | Limitations and further research

The core objective of this research project was to (re)design a solution to tackle the lack of explorative behavior among the employees of DBS NL. However, like all others, this study has its limitations with regard to the methodology that was used.

First, this study followed the Gioia methodology to develop a 'local theory' of the problem environment. To do so, a single case study was chosen as a research method. As a result, the barriers that were identified during the empirical analysis might not be generalizable. Therefore, future research could make use of a multiple case study to assess whether the identified barriers are generalizable or not.

Second, although it was tried to select a diverse and representative sample of the overall population, the selection of respondents was constrained by multiple factors. As a result, the majority of the sample consisted of people with a clear perspective on why exploration was not happening and why it should or not, and where willing to share their view. As such, the sample might not be completely representable for the overall population.

Third, the research indicated that personal characteristics might have a moderating effect on the relations between the barriers and the level of explorative behavior. In other words, some individuals perceive the barriers to more constraining than others. However, the characteristics of individuals were not studied within this research, and thus no statements can be made with regard this relation. Therefore, future research could place more emphasis on the role of personal characteristics in balancing exploitation and exploration.

Finally, as noted before, the final redesign was not tested due to the fact that testing would surpass the limits of this research project. Therefore, no guarantees can be given concerning the effectiveness of the solution. As such, implementing and testing the solution is needed to make claims with regard to the success of the redesign.

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Appendix A | Interview Guide – Phase 1

This interview guide's purpose is to structure the data collection and increase the reliability. The questions aim at uncovering the barriers to exploration within DBS NL and targets a variety of DBS employees.

Questions and Probes

Part 1 – Characteristics

Question 1.   **What is your current function?**
Question 2.   **What is your background?**
Question 3.   **How long have you been working at SAP?**

Part 2 – Business Model (10/15 min)

Provide the definition of a business model and what elements it includes.

Topic 1.   **Value proposition**

probe I   Which customer problems does DBS intend to solve?

probe II   How does DBS create value for the customer?

Topic 2.   **Customer segment**

probe I   What defines a typical DBS customer?

probe II   What characteristics are crucial?

probe III   What makes these customers interesting for DBS?

Topic 3.   **Value network (partners, activities, resources, channels, relationships)**

probe I   What are the key resources and activities needed to create the solution?

probe II   How is the offering delivered to the customer?

probe III   Which external actors are involved in the network?

Topic 4.   **Economic model (costs, revenues, profitability)**

probe I   How would you describe the cost structure and main revenue streams?

probe II   What can you say about profitability and margins?

Topic 5.   **Competitive strategy**

probe I   What advantage does DBS have over its competitors?

probe II   What does DBS do better or different than its competitors?

Part 3 – (Innovative) Projects (15 min)

Define what makes a project innovative; separate between the different products/services.

Question 1.   **Innovative projects**

probe I   Could you briefly describe the nature of these projects?

probe II   What is the driving force for doing innovative projects?

probe III	Would you like to do (more) innovative projects?
probe IV	What is holding you back?
Question 2.	**Customer perspective**
probe I	What (new) customer needs have you identified in the field?
probe II	Is SAP able to address those needs?
probe III	What restrains customers from innovating with SAP?

Part 4 – Barriers to Exploration (25 min)

Focus on how the 'dominant logic' of the current BM obstructs BMI. Create insights into the 'first line of defense', the rules, norms and metrics.

Question 3.	**In your opinion, does the DBS need to innovate?**
probe I	How sustainable is the current way of running the business?
probe II	Does the DBS address the changing needs adequately?
probe III	How does that relate to your own innovative projects?
probe IV	What is threatening the current business?
probe V	Where is change needed the most?
Question 4.	**Have you experienced barriers to exploration?**
probe I	Is there room to challenge the status quo? Why (not)?
probe II	Are there certain rules related to the current BM that obstruct exploration? *(utilization rate, profitability margins, time frames, etc.)*
probe III	Do the current assets fit the (future) customer needs?

Part 5 – Recap (5/10 min)

Provide summary of the discussed problem areas and barriers.

Question 1.	**Do you have any suggestions for solving the problem?**
probe I	How can the barriers be neutralized/eliminated?
probe II	How can exploration be incentivized?
Question 2.	**Do you have any remaining comments or recommendations?**

Closing

Thanks again for your time and valuable input! I will transcribe the interview in the next days and send you the transcript afterwards. If you want to make any adjustments to the transcript, please let me know. At last, do you have any suggestions for future respondents?

Appendix B | Interview Guide - Phase 2

This interview guide's purpose is to structure the data collection and increase the reliability. The questions aim at uncovering the barriers to exploration within DBS NL and targets a variety of DBS employees.

Themes and questions

Theme 1 | Exploitation & Exploration

- From your perspective, is exploration important for DBS NL? Why (not)?
- How are exploitation and exploration currently balanced?

Theme 3 | Organizational structure

- Is there room for exploration within the current organizational structure? Why (not)?
- Does exploration conflict with the current rules and procedures? (How?)
- Do the current KPIs stimulate explorative behavior? Why (not)?
- To what extent are you free to spend time on exploration? What constraints are present?

Theme 2 | Organizational culture

- How would you describe the culture within DBS NL?
- Is there a tolerance for failure?
- Is there room for ideation and sharing ideas for improvement or innovation?
- How is that culture maintained? What is the role of management in this?
- Does the management support 'entrepreneurial/champion behavior'?

Theme 4 | Assets & Capabilities

- Does DBS NL have the right capabilities for exploration?
- If not, what capabilities are missing?
- Are the available capabilities used to their full potential?

Theme 5 | Solution directions

- What needs to change in terms of organizational structure to enable exploration?
- How should "exploration" be incentivized or facilitated?
- What kind of culture (change) is needed for that?

Closing

Do you have any last remarks?