Copenhagen Business School

16th January 2016

Cand.merc Management of Innovation and Business Development

Department of Innovation and Organisational Economics



Abstract

The rapid growth of technology poses an increasingly growing threat to the banking sector. With tech companies, looking to gain market share from the banking sector, the sector needs to innovate itself. In order to gain insights into how the banking sector might enable itself to innovate, a case study of the successful innovation MobilePay by Danske Bank was made. The thesis set out to analyse the effect the strategic choices, made by Danske Bank in developing MobilePay, had on the success of creating a new market. In order to complete the analysis, this thesis used theory within the area of Organizational Ambidexterity, Blue Ocean Strategy, New Product Development, and First Mover Advantage. The purpose of this thesis is, to gain insight into how the strategic choices, made by Danske Bank, enabled them to develop MobilePay, and successfully create a new market. The study found that organizational ambidexterity played a vital role in making Danske Bank aware that radical innovation was needed, in order to survive in the future. The study also showed that a strong customer focus was crucial to the success of MobilePay. Furthermore, the results of this study indicated that choosing a strategy, which focuses on reducing uncertainty combined with an agile development method, increases the chances for success in creating a new market. The results of this case-study is relevant to anyone wanting to gain insight into how strategic choices helped ensure the success of MobilePay. The results are also relevant to other researchers, as a foundation for other case studies looking to identify key factors that can lead to successful market creation.

Table of Contents

Abstract	1
1. Introduction	4
2. Problem Area	6
2.1 Problem formulation	
2.1.1 Research questions	7
2.2 Limitations	8
3. Literature Review	9
4. Theoretical Framework	12
4.1 Organizational Ambidexterity	
4.2 Choosing a Strategy Approach	
4.3 Creating a Blue Ocean	
4.4 Disruptive Innovation	
4.5 New Product Development (NPD)	
4.6 Collaboration4.7 Development Methods: The Scrum methodmethods	
4.8 First Mover Advantage	
G .	
5. Methodology	
5.1 Philosophy of science	
5.2 Research strategy5.3 Research Design	
5.4 Data collection	
5.5 Critical assessment of the scientific method and research design	
6. Case Study: Danske Bank MobilePay	
6.1 The History and Development of MobilePay	44
7. Analysis	47
7.1 Organizational Change: A Shift Towards Organizational Ambidexter	
7.2 Choosing a Strategic Approach	
7.3 Developing a New Market: Blue Ocean Strategy	53
7.3.1 Analytical Tools for Blue Ocean: The Four Actions Framework	
7.3.2 The six principles of Blue Ocean strategy implementation	
7.5 MobilePay: A Case of Disruptive Innovation	
7.2 The New Product Development Process: Using Multidisciplinary Tea 7.2.1 Collaboration with In2Media and Trifork	
7.2.2 The Developing Method of MobilePay: A case on SCRUM	
7.4 First mover advantage	
8. Discussion	
9. Conclusion	
10. Suggestion for Further Studies	
11. Bibliography	
12. Appendix	
12.1 Slides from Presentation made by Bo Tolstrup Christensen March 3	
12.2 Summary of Presentation by Bo Tolstrup Christensen March 31 20	
12.3 Summary of Interview with Rasmus Korsgaard	101

1. Introduction

In the most recent annual review on the banking sector, McKinsey & Company presents multiple threats to the current business model of the banking sector (Dietz, et al. 2015). In the annual review, McKinsey & Company reviews the financial situation of the Banking sector, from 2005-2014, outlining the decline in banks profits as a result of the economic recession in 2008 (Dietz, et al. 2015). The review then goes on to address how well the banking sector has responded to the economic crisis, and how the sector, in 2014, hit an all-time high record profit (Dietz, et al. 2015). McKinsey & Company contributes this spike in profits, to the extreme growth experienced in China and Latin America. Even though the banking sector has experienced growth and presents larger profits, McKinsey & Company does not predict a bright future for the sector in the next decade (Dietz, et al. 2015). This gloomy outlook is, according to the review, caused by one factor: the digital revolution (Dietz, et al. 2015). The review goes on to say that the bank sector will experience a 60% decline in profits from non-mortgage retail lending, such as credit cards and car loans, resulting in a decline in revenue of 40% by 2025. (Dietz, et al. 2015). The CEO of Sydbank, Karen Frøsing, also shares this outlook. In an article in Børsen, Karen Frøsing outlines, that the banks in Denmark, as well as globally, has two choices. One option is that the banks spend the next 10 years fighting the digital 'rebels', by using their competitive advantage within the knowledge of customer data, whilst maintaining customers based on the emotional connection between bank and customer. Alternatively, the banks have to reduce their business to only include the areas that are within the individual banks core business (Zigler, Thomas og Rud 2015). McKinsey & Company agrees with Frøsing on the two options for the banks, but further explains, that the window of opportunity to make this choice is closing fast, and the banks have to make the choice within the next three years to be able to respond (Dietz, et al. 2015).

Though McKinsey & Company and Frøsing agree on the two options of respond to the threat of IT and FinTech companies, the options, especially the first, proves problematic. According to a survey created by the consultancy firm

Scratch, the new generation of consumers, also known as millennials, have a huge problem with the way the bank sector operates (Scratch 2013). According to their findings, Scratch found that i) banks are among the 10 least loved brands by millennials ii) 53% of millennials does not see a difference between banks, iii) 1 in 3 would be open to switching banks within 2 months, and iv) 71% would rather go to the dentist than the bank (Scratch 2013). Scratch also found, that nearly half of the millennials asked, anticipate that tech start-ups will overhaul the way banks work. Finally, 73% of the questioned millennials would be more excited about a new offering in financial services from Google, Amazone, Apple, Paypal, or Square than form their own bank (Scratch 2013). The problem that arises from these findings is that the consumer group, that is going to replace the banking sector's existing market, has a wildly negative view of the banks. There can be many reasons for the negative image of the banking sector. One reason could be the extreme amount of negative publicity during and after the 2008 recession, which left the banks in an image crisis (La Monica 2014). Alternatively, according to an article in Time Magazine, the reason for the dwindling interest in banks from the millennials stems from the fact that the new generation of young adults has a whole new set of money issues, which the incumbent banks simply do not address (Kadlec 2014). These new money issues includes growing student debt, a larger unemployment rate with minimal chances of accessing capital to start a business, and lastly a huge need for financial guidance, which the millennial generation has not received (Kadlec 2014). Furthermore the new generation does not want to go to physical branches anymore, instead they have gone digital, and want the banks to follow (Kadlec 2014). According to Time Magazine (Kadlec 2014) and the Scratch report (Scratch 2013), millennials do things differently than the previous generations. The different approach includes couples quickly mingling their economy, piecing a career together through four or five jobs, and being avid users of the shared economy options, such as car and apartment sharing (Kadlec 2014). This new approach to life does not fit well with a business model of a bank that simply wants to issue mortgages, auto loans, or credit cards (Kadlec 2014).

Based on the findings discussed above, it is evident that if the banking sector wants to protect itself, it is no longer enough to trim the business to only include the core business areas, but instead the banking sector has to innovate and renew itself either in-house or in collaboration with tech-companies, whom posses know-how and skills needed to meet the demands of the new generation.

2. Problem Area

From the above introduction it is evident, that the banking sector faces a lot of competition, from the tech industry, both currently, as well as in the future. The increased competition, combined with the increasing interest in sharing economy, and customer interests in exploring new ways of private banking, including virtual options, means the banking sector has to react in order to survive. The review from McKinsey & Company (Dietz, et al. 2015), along with the findings made by Frøsing (Zigler, Thomas og Rud 2015) underlines, that the banking sector has to innovate and renew itself, through for example in-house innovation or collaboration. Although McKinsey & Company and Frøsning come up with suggestions, these are more broad ideas rather than specific solution proposals for the banking sector. This is due to the fact, that neither McKinsey & Company, nor Frøsing, comes with concrete suggestions regarding how the bank sector could go about creating a framework that supports said in-house innovation, or how and whom the banking sector should collaborate with. Furthermore, the two papers do not come up with any recommendations for what strategy, the banking sector, could apply towards the market. This lack of actual solutions to the problems identified by McKinsey & Company and Frøsing, opens up for the need for an investigation into how companies, within the bank sector, can enable themselves to innovate, and what market strategies a company could use when either adapting to these future uncertainties, or when trying to control said uncertainties, in order to increase the chances of success and survival.

Within this context, research that can provide insights, as well as inspiration, into, in regards to how firms within the banking sector can strategically and

innovatively react to the growing external threats and market changes, becomes highly valuable. In order to provide such insights into how firms within the bank sector could become innovative, along with what strategic choices that could be made, this project will analyse the case of Danske Bank's MobilePay.

As mentioned earlier, the challenges faced by the banking sector are a global phenomenon (Dietz, et al. 2015). When looking at the challenges within a national context, Danske Bank was the first bank in Denmark to innovate, and launch a mobile payment solution to the Danish market (Mortensen 2014). This solution was called MobilePay and has since become a huge success, boasting over 3 million users since the launch in 2012 (Danske Bank, Historien om MobilePay og lidt fakta 2016). The success of MobilePay has led to the following problem formulation.

2.1 Problem formulation

To what extend was Danske Bank, through strategic choices leading to the development of MobilePay, able to create a new market?

2.1.1 Research questions

In order to adequately answer the problem formulation, the following research questions will help guide the research performed in connection to this thesis:

- What strategic choices did Danske Bank make, enabling the bank to be innovative and create MobilePay?
- What choices did Danske Bank make, when developing the strategy for MobilePay
- How was MobilePay developed?
- Did the development of MobilePay give Danske Bank a first mover advantage?

2.2 Limitations

Since this thesis is a single-case study, it is subject to certain limitations. The primary limitation in this regard, is that case studies are inherently context specific. Therefore, it is not possible for the findings made, nor is it the aim of this thesis, to be seen as a manual for other companies in the banking sector on how to be innovative, or how to develop new innovative products. Instead, this project should be seen as a tool for other banks to compare or assess their innovative activities. In short, this project will not be a clear-cut guide on how banks innovate and create new products, but instead, an inspirational tool for other banks to assess themselves and their organisation.

The case study will only include the timeframe from 2012 to the end of 2013. The reason for this limitation is that the focus of this thesis, is an analysis of the strategic choices made with regard to the organization, as well as the development of MobilePay that led Danske Bank to be a successful first mover. Events following the end of 2013, goes beyond the initial successful launch of MobilePay, and therefore address the strategic decisions made in regards to sustaining MobilePay's success, which is not the focus of this specific research.

Another limitation of this thesis is the theoretical framework applied to the case. From the problem formulation and associated research questions it can be deduced, that this thesis will focus on strategic choices made by Danske Bank, in order to create an environment that allowed for innovative activities. In addition to this, the thesis analyses the strategic choices made with relation to the product strategy behind MobilePay, as well as how the strategy was executed. The analysis will end with an assessment of MobilePay's successful launch, since it is of great interest how well Danske Bank managed to reduce uncertainties. When choosing what theoretical framework to use, one inherently also chooses, consciously or sub-consciously, not to include certain other theoretical approaches. In this sense, the chosen theoretical framework represents a limitation in itself, however the choices made in regards to the theoretical framework was based on the research inductive nature and the chosen theories

therefore a natural reflection of the findings made in the empirical data collection.

As the research conducted in this thesis is based on a single case, competitors within the field, such as Swipp and Lunar Way, will not be addressed in detail, nor analyses explicitly. It is important to mention, that making a comparative case study, including competitors, could have provided insights into differences in terms of the interplay of factors leading to the success of MobilePay and the lack of success amongst competitors.

Furthermore, the fact that the focus of study is on processes that have already ended, has certain limitations in regards to the possibilities for data collection methods. In practice these limitations mean that certain methods, such as observations, cannot be made. Instead, the empirical foundation is based on secondary sources and recollected interviews.

3. Literature Review

Before one embarks on exploring a scope of study, it is important to have a contextual understanding of said scope. Therefore, this thesis is inspired by multiple different reports, papers, and articles on the banking sector. The first of such report, which is also mentioned in the introduction to this thesis, is the Global Banking Review from McKinsey & Company (Dietz, et al. 2015). The report analyses the past 10 years economic development of the banking sector, and concludes, that the roller-coaster ride that the banking sector has experienced in the wake of the recession, has finally come to a halt. This claim is supported by the return on equity (ROE) finally being stable, and that profits are rising (Dietz, et al. 2015). Even though, it seems like the banking sector has recuperated after economic recession, the authors of the rapport is concerned about the acceleration of digitalization which, by 2025, will present a very real threat to the profits of the banking sector (Dietz, et al. 2015). According to McKinsey & Company, either the bank sector fight for the customer relationship, or they

learn to live without it, exposing the sector to a 60% possible profit loss on credit cards and car loans (Dietz, et al. 2015).

The assessment made by McKinsey and Company is further supported by Boston Consulting Group, whom in their assessment of global retail banking, 'Banking on Digital Simplicity', underlines that even though revenues are increasing, the banking sector will face accelerating disruptive challenges that will force banks to develop digital capabilities and radically simplify operations, as well as reinvent customer service (Grebe, et al. 2016). The report also states that a committed, full-scale digital implementation is the only way for banks to achieve four goals that will allow them to rise above the median (Grebe, et al. 2016). The four goals are as follows:

- Understand, strengthen, and deepen customer relationships.
- Reimagine customer journeys from front to back using digital technologies.
- Create agile, simple, and highly collaborative organizations
- Enhance digital capabilities (Grebe, et al. 2016).

The problem with the bank sector is, that the overly deliberate and cautious approach to digitalization taken by the banks is out-dated, leaving them fighting yesterday's battles and shrinking in today's markets (Grebe, et al. 2016). In short, the report calls for the need of the bank sector to radically digitalize itself or lose market share to digital competitors. The need for digitalization can be suggested by multiple factors. One factor is the increasing expectation from customers towards quick and convenient service through simple, intuitive digital interfaces, made popular by company's such as Netflix, Amazon, and Uber (Grebe, et al. 2016). Another factor that underlines the need for bank sector to reinvent its customer-service is the fact that only 37% of customers would positively recommend their banks. The last factor is the boost in funding for FinTech companies, which has risen from \$11 billion ten years ago, to a cumulative \$46 billion by the end of 2015 (Grebe, et al. 2016).

The need for improved digital capabilities, and a radical simplification of operations, combined with a reinvention of costumer service, is further supported by the report from Scratch Consultancy on millennials (Scratch 2013). The report is based on 10.000 American millennials (people born between 1981-2000) with the purpose of examining the demands the future customers have of the banking sector (Scratch 2013). The report came up with a number of conclusions, which should be of interest to the banking sector. The conclusions in the report, which are also mentioned in the introduction of this project, include banks being ranked among the least loved brands by millennials. The report also found that millennials has a general distrust, in the banking sectors ability to innovate/digitalize itself. This was underlined by the fact that 50% of the people in the study believes, that innovation of the banking sector will come from the tech-industry, and 68% believes that the way we access and pay with money will radically change in 5 years. Furthermore 73% of the people in the study would be more excited about financial products from the tech industry, rather than the banking sector (Scratch 2013). From the report it can be deduced, that millennials generally believes that the banking sector needs to innovate itself and become more digitalized. The report also concludes that the banking sector is the most prone to be challenged and altered by outside forces, rather than the industry itself (Scratch 2013).

Another paper that highlights the importance for the banking sector, to innovate itself, is a paper published in the Journal of Payments Strategy and Systems (Weichert 2008). The paper emphasises the importance of banks to attempt to innovate payment methods. Furthermore the paper also underlines, that the banks have to work with non-banks, to be understood as companies that posses other capabilities, such as identifying customer needs, embracing underserved populations, and enhancing payments system efficiency (Weichert 2008). Lastly, the paper takes into the account the important role of regulators. The paper stresses that while banks and non-banks create new innovative payment systems and methods, it is the responsibility of regulators to ensure that security and safety is not sacrificed (Weichert 2008). The paper concludes, that banks cannot disregard ideas and advances from non-banks, but should instead

embrace the ideas, and work together with the non-banks in order to ensure the greatest product. The paper also concludes, that the banks and non-banks cannot neglect the importance of including regulators in the process in order to ensure the safety of the users (Weichert 2008). This paper is crucial because it focuses on the importance of innovation within the bank sector especially payment methods, and for banks and non-banks to work together or at least learn from each other to ensure innovation.

The above four reports mentioned, is only a small fraction of the literature written on the subject, but they all share one common trait and that is that non of these papers propose or provide any concrete suggestions, on how the incumbent firms within the banking sector, should tackle the need for innovation and digitalization. As the reports illustrate, it is important for the banking sector to reinvent themselves in a digitalized market, making research that provides insights into defining factors and frameworks for inducing such reinvention and innovative processes, crucial. In this light, case based research, as performed in this thesis, becomes highly relevant in order to shed light on factors and strategic choices associated with successful digitalized innovation. This is due to the fact, that case based research, though inherently context specific, can provide insights into areas of focus when embarking on innovative processes, and should enough case based research be made, commonalities can be identified, further strengthening the validity of the findings made.

4. Theoretical Framework

As the research performed in this thesis was done in a predominantly inductive manner, which will be elaborated in chapter 5. Methodology, it was important to identify a theoretical framework that could provide a sense-making language for categorising, analysing, and navigating the data collected. In connection to this, various theories were identified and used throughout the project process. The aim of this chapter is to introduce the thesis' theoretical toolbox that later will be applied to the findings in the analysis. Due to the project inductive nature, the

chosen theories are a reflection of the findings made. Therefore, a short connection to the case will in certain cases be made when introducing the individual theories to provide the reader with the needed context. The chapter, as well as the later analysis will be structured based on the way in which the identified factors, and the interplay between said factors, associated with the development of MobilePay unfolded themselves. In other words, the structuring element will be the time line of chronological events that made up the development process of MobilePay.

4.1 Organizational Ambidexterity

As will be explained in the description of the case of MobilePay, Danske Bank implemented a new strategy for the bank, which meant a major organizational change. The organizational change meant that Danske Bank created a new department that had the sole purpose of creating new digital products for the Bank. The organizational change made by Danske Bank meant that Danske Bank went from being an organisation that only focused on exploitation to an organisation that also focused on exploration. In practice, this meant that Danske Bank became an ambidextrous organization. Therefore, one of the theories used in this thesis project is the theory on organizational ambidexterity.

Organizational ambidexterity is, according to Raisch and Birkinshaw, "an organisation's ability to be aligned and efficient in its management of today's business demands while simultaneously being adaptive to changes in the environment" (Raisch og Birkinshaw 2008, 375). The underlying idea behind organizational ambidexterity is that an organization must earn enough revenue on existing business units in order to keep cash flow going, while simultaneously spending resources on more explorative search, which is search with increased risk that demands relatively long-term commitment compared to more exploitative efforts (Raisch og Birkinshaw 2008). Raisch and Birkinshaw (2008) go on to argue that exploitation and exploration require fundamentally different organizational structures, strategies, and context. This pressures managers to keep their company ambidextrous, which, according to the two authors, can be

done in two ways. One way is to structure the company in such a way, that certain departments are working with exploratory activities and other departments are focused on the exploitative activities. The other alternative is to encourage employees to spend a specific amount of time doing exploratory learning like Google does, when it pays its employees to spend a percentage of the workday on tasks not within their traditional area of responsibility (Raisch og Birkinshaw 2008). Tushman and O'Reilly further suggests in their paper, that firms simultaneously pursuing exploitation and exploration achieve a higher level of performance as opposed to firms emphasizing on only one aspect, at the expense of the other (Tushman og O'Reilly 1996).

4.2 Choosing a Strategy Approach

After analysing whether or not the organisational and strategic change of Danske Bank in 2012, transformed Danske Bank into an ambidextrous organisation, an analysis of the new strategy becomes interesting. As will be further described in the case description, the strategic change implemented in 2012 entailed going from a single to a dual strategy including a strategy for the classical bank, and a strategy for developing disruptive innovations (B. T. Christensen 2016). In this regard, it becomes interesting to look at the strategy chosen for developing disruptive innovations.

One of the most difficult challenges in business is creating strategy for the future, especially if the business is doing well (Wiltbank, et al. 2006). What makes this so challenging is that organisations often do not ask the question, 'where do we go from here', when the current operations are successful. This means that organisations often continue down the original path of sustaining status quo, until a challenge or opportunity crashes into the organization (Wiltbank, et al. 2006). However, an organisation will inevitably have to face the question at some point, whether it likes it or not, as operations and market influences rarely stay stable indefinitely. Answering the question of what to do next is however difficult, as there can be an infinite number of answers, some right, some wrong, depending on how an organisation decides to approach the question.

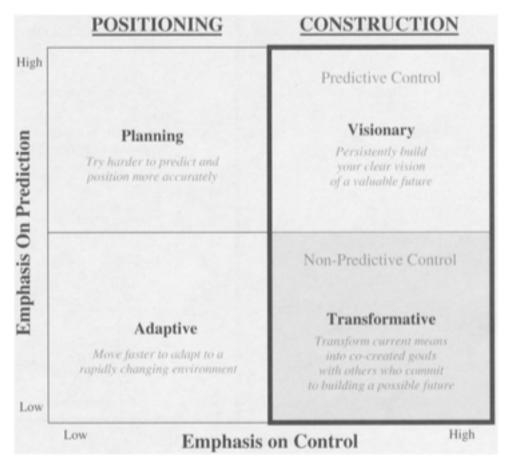
According to Sarasvathy there are two approaches to answer this question; effectual reasoning and causal reasoning (Sarasvathy 2001). In her studies, Sarasvathy argues that causal reasoning is goal driven, compared to effectual reasoning, which is means driven. Furthermore, Sarasvathy distinguishes between the two approaches, based on the five dimensions depicted below:

Dimension	Causation Model (Teleological)	Effectuation Model (Pragmatist)	
Starting point	Ends are given	Means are given	
Assumptions on future	Predictability means controllability	Controllability reduces need to predict	
Predisposition toward risk	Expected return	Affordable loss	
Appropriate for	Existing products and markets	New products and markets	
Attitude toward outside firms	Competition	Cooperation	
Type of model	Linear	Cyclical	

(Kraaijenbrink 2012)

Sarasvathy has been criticised for only taking into account the two extremes each of the approaches pose, offering little attention to possibilities that may be hybrids of the two or resting in between. Instead Kraaijenbrink argues that the dimensions should not be associated to a specific model, as in the table shows above, but instead be evaluated individually (Kraaijenbrink 2012). In short, Kraaijenbrink argues, that Sarasvathy in her research neglects the 'grey area' of approaches, which exist between the two extremes (Kraaijenbrink 2012).

In order to include alternative approaches, which exist in the spectrum, a new framework based on prediction and control was developed:



(Wiltbank, et al. 2006)

The above matrix introduces four different strategy approaches, planning, adaptive, visionary, and transformative (Wiltbank, et al. 2006).

The planning school, being one of the oldest in strategic management, highlights the importance of systematic analysis and integrative planning. Wiltbank goes on to argue that "discipline in the generation of alternatives, rational evaluation of important information, and significant integration into a firm's existing operations are earmarks of the rational planning process" (Wiltbank, et al. 2006, 985). The rational planning view maintain that as uncertainty increases, organisations that have worked continuously with analysing and predicting the changing environment in which they operate, will fair better as compared to those that have not done so (Wiltbank, et al. 2006).

The adapting approach focuses on organisations learning what to do next, by minimising the use of predictive rationality, in stark contrast to the planning approach, and instead focuses on experimenting and acting quickly to capture

new opportunities and markets (Wiltbank, et al. 2006). The approach indorses flexibility and being adaptive to situations in real-time, allowing for the organisations to successfully beat competitors who to a larger extent will struggle with the challenges of an uncertain future (Wiltbank, et al. 2006).

The visionary approach emphasises constructing an organisation and its surroundings, based on envisioning future possibilities and proactively bringing them to life (Wiltbank, et al. 2006). This stems from the essence of a vision is to set ambitious goals aiming at creating and colonising new spaces in an environment. As can be seen from the matrix, the visionary approach simultaneously emphasizes high control and high prediction. This means that the future to a large part unfolds the way it does, because visionary leaders chose to create it that way (Wiltbank, et al. 2006).

The last approach is the transformative approach. There is rather limited research made on this approach, the research that has been made emphasises, that the transformation approach is based on the belief that, to the extend we can control the future, we do not need to predict it (Sarasvathy 2001). The approach is build around the idea that we cannot predict the future, but we can through knowledge, experience, and network, to a certain degree control, or at least reflect, on the uncertainties associated with uncertainty (Wiltbank, et al. 2006).

By applying the above theory to the case of MobilePay, this thesis project will try to determine what strategy Danske Bank approached future uncertainties with. The choice of strategy approach is crucial, as choices made in this regard will, to a certain degree, influence other choices made in terms of how development work was approached, organized, and executed in a more practical sense.

4.3 Creating a Blue Ocean

Once the strategic approach has been determined, theories regarding new market creation will be applied to the case of MobilePay. Based on the data collected for this case, it is known that Danske Bank wanted to create a completely new way of doing P2P payments (B. T. Christensen, Finansdagen - MobilePay 2014). Therefore, this thesis will use Blue Ocean theory, in an attempt to construct what the strategy behind MobilePay might have looked like. Furthermore it will also be assessed whether or not the case of MobilePay followed the blue ocean framework, or if it deviated from it.

In the book, 'Blue Ocean Strategy', the two authors Kim and Mauborgne states that too many companies are stuck in a red ocean, which is made bloody by fierce competition. The fierce competition limits the room for real growth within the market, and therefore Kim and Mauborgne argues that the only way to beat the competition is to make it obsolete (Kim og Mauborgne 2005). The cornerstone in creating a blue ocean is value innovation. "Value innovation is created in the region where a company's actions favourable affect both its cost structure and its value to buyers. Cost savings are made by eliminating and reducing the factors an industry competes on. Buyer value, on the other hand, is lifted by raising and creating elements the industry has never offered" (Kim og Mauborgne 2005, 16) In other words, the creation of a blue ocean is about driving costs down while, at the same time, driving value up for the buyers. Kim and Mauborgne goes on to describe that within the red ocean it is assumed that an industry's structural conditions are given and that firms are forced to compete within them. On the other hand, value innovation is based on the view that market boundaries and industry structures are not given and can be reconstructed by the actions and beliefs of industry players (Kim og Mauborgne 2005). In other words, the strategic view within the red ocean is that there is a set of boundaries, which companies have to compete within, whereas in the blue ocean, it is the view that a company can change the boundaries and a new market can be created. In order to enable organisations to identify the possibility of developing a blue ocean, Kim and Mauborgne has developed two different analytical tools. The two authors

argue, that whilst a number of tools and frameworks exist for the red ocean, there are only two tools/frameworks for the blue ocean, which are the strategy canvas and the four actions framework (Kim og Mauborgne 2005). When combined, the two tools should help organizations develop a blue ocean, while also reducing risks associated with the blue ocean (Kim og Mauborgne 2005).

The four actions framework is a tool created with the purpose of reconstructing the buyer value elements, in order to enable the user of the framework, to be able to craft a new value curve (Kim og Mauborgne 2005). The four-action framework is based on four questions, designed to make an organisation critically assess the strategy and business model associated with that industry. This critical assessment of an industry should make it possible for an organisation to break away from the trade-off between differentiation and low cost, and create a new value curve (Kim og Mauborgne 2005). The four questions are as follows:

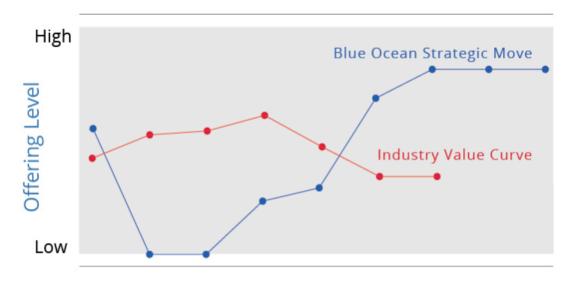
- Which of the factors that the industry takes for granted should be eliminated?
- Which factors should be reduced well below the industry's standard?
- Which factors should be raised well above the industry's standard?
- Which factors should be created that the industry has never offered?

And should be set up in a table with the corresponding answers:

Eliminate	Raise
Reduce	Create

The answers to the four questions can then be applied to the strategy canvas, which serves two purposes. The first purpose is to depict the current state of

play in the known market space, i.e. to assess, which factors the industry is competing on, and where the industry is currently investing in. The second purpose is, for the user of the strategy canvas, to reflect on how things are done now, and what alternatives, to the statues quo might, there be. (Kim og Mauborgne 2005). The outline for the strategy canvas is depicted below, where the horizontal axis on the strategy canvas captures the range of factors that an industry competes on and invests in, while the vertical axis captures the offering that buyers receive across all of these key competing factors (Kim og Mauborgne 2005).



Competing Factors

Once a blue ocean strategic move has been formulated through the four-actions framework and the strategy canvas, Kim and Mauborgne then presents the six principles that an organization has to address in order to increase the success of the blue ocean strategy (Kim og Mauborgne 2005). The six principles are:

- 1. Reconstructing market boundaries
- 2. Focus on the big picture not the numbers
- 3. Reach beyond existing demand
- 4. Get the strategic sequencing right
- 5. Overcoming key organizational hurdles
- 6. Build execution into strategy

Where the first four is concerned with formulating the blue ocean strategy, and the last two is about execution (Kim og Mauborgne 2005).

4.4 Disruptive Innovation

Once the strategy behind MobilePay has been determined, this thesis will then move on to assessing what type of innovation, MobilePay, was. It is interesting to assess this, because there are some, who do not believe that MobilePay was disrupted anything (Korsgaard 2016).

In the book Innovator's Solution, Christensen and Raynor identifies three critical elements of disruption:

Pace of Technological Progress Pace of Technological Progress Range of Performance That Customers Can Utilize or Absorb Disruptive Innovations Time

Figure 1: Christensen and Raynor (2003)

The Disruptive Innovation Model

The first element identified, is the performance that customers can utilize or absorb (Christensen og Raynor 2003). This element is depicted as the dotted line, in the above diagram. The above diagram is simplified though, because there in a market exist multiple customer groups, whom all have different levels of utilization. Therefore, the dotted line depicted, is meant as a median of all customer groups, and the total range of performance that customers can utilized is therefore depicted on the right side in the diagram (Christensen og Raynor

2003). The second element identified, is that there in every market, is different trajectories of improvement that innovating companies provides, as they introduce new and improved products (Christensen og Raynor 2003). What is interesting about this is, that the technological progress, which dictates the performance in the diagram above, almost always surpasses the ability of customers, in any given group of the market, to use it. This phenomenon is depicted as the steeper of the two lines in the diagram (Christensen og Raynor 2003). The last element is the distinction between the sustaining innovation and disruptive innovation (Christensen og Raynor 2003). The theory states, that a sustaining innovation always targets demanding and high-end customers. It does this by introducing new products with better performance than the previously product. Most sustaining innovations are incremental improvements introduced every year, such as the smartphone market (Christensen og Raynor 2003)

A second type of innovation is disruptive innovation. Compared to incremental innovation, disruptive innovation, does not attempt to bring incrementally better products to already established customers in the established markets (Christensen og Raynor 2003). Instead disruptive innovation is concerned with redefining the performance trajectory, by introducing new products and goods, which is not as good as the existing product, but instead offers other value to the customers (Christensen og Raynor 2003). Once the disruptive innovation gains a strong foothold on the market, it will then become a sustaining innovation, introducing incremental improvements. The pace of technological advancement will help the underperforming innovation reach a level that is good enough for the more demanding customer, which in turn means the demise of the incumbent innovation (Christensen og Raynor 2003).

In the above diagram, disruptive innovation was only depicted in two dimensions. The reason for this simplification was for the sake of simplicity, but a third dimension actually exists. The reason for the third dimension is that there exists, two different types of disruption. In the above diagram, the disruption known as low-end disruption was depicted. The below diagram introduces the third dimension, and with it new-market disruption.

The Third Dimension of the Disruptive Innovation Model

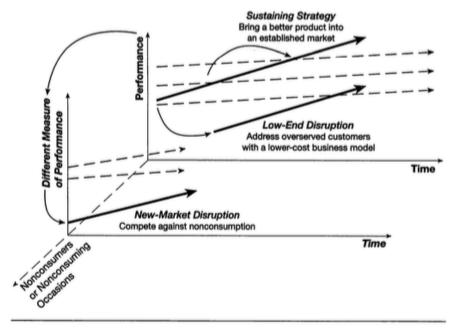


Figure 2: Christensen and Raynor (2003)

The new dimension is created to illustrate the second type of disruption, which is new market disruption. A new-market disruption focuses on non-consumption, compared to the low-end disruption, which focuses on over-served customers. Because a new-market disruption is much more affordable and simpler to use, the new-market disruption attracts a whole new population of consumers, who before either did not have the skill or money to use the existing solutions (Christensen og Raynor 2003). Although the new-market disruption does not focus on the existing customers, but on a whole new population of customers, as the new-market disruption improves in performance, it begins to attract customers from the existing market, starting with the least demanding tier (Christensen og Raynor 2003).

In order to assess whether or not an innovation is disruptive, a company can apply a litmus test. The test consists of five questions, which are split into 3 groups. The first group, consisting of two questions, determines if the innovation is a new-market disruption. The second group of questions determines if the innovation is a low-end disruption. Lastly the last question refers to, whether or

not the innovation will disrupt all existing companies within the market the innovation will be released. (Christensen og Raynor 2003).

The first sets of questions are:

- Is there a large population of people who historically have not had the money, equipment, or skill to this thing themselves, and as a result have gone without it altogether or have needed to pay someone with more expertise to do it for them?
- To use the product or service, do customers need to go to an inconvenient, centralized location?

If both questions are answered affirmatively the idea has the potential of becoming a new-market disruption. This means that if the organization behind the innovation can develop the technology needed at a price so that a large population of people that are less skilled and wealthy, can begin owning and using the technology, which historically only had been for the more skilled and wealthy, then there is a potential for shaping the innovation into a new-market disruption (Christensen og Raynor 2003).

If the idea is not a new-market idea, it might be a low-end disruption instead. In order to determine this, the following questions should be answered affirmatively:

- Are there customers at the low end of the market who would be happy to purchase a product with less (but good enough) performance if they could get it at a lower price?
- Can we create a business model that enables us to earn attractive profits at the discount prices required to win the business of these over served customers at the low end?

According to Christensen and Raynor, "the innovations associated with low-end disruption are improvements that reduce overhead costs, enabling a company to

earn attractive returns on lower gross margins, coupled with improvements in manufacturing or business processes that turn assets faster" (Christensen og Raynor 2003). A good example of low-end disruption was the introduction of Japanese cars on the American market. The Japanese companies were able to produce their cars at a lower price, thereby enabling them to also sell at a lower price. The Japanese cars where not the same quality, but the customers on the American market was willing to make that trade-off in order to get the product at a lower price (Christensen og Raynor 2003).

Once it has been established whether the idea is new-market disruptive or lowend disruption, one last question has to be answered affirmatively:

• Is the innovation disruptive to all of the significant incumbent firms in the industry?

If this question is not answered affirmatively, then it means that the innovation is sustaining to one, or more, of the incumbent firms, which will highly decrease the chances for the innovation to succeed (Christensen og Raynor 2003). Below is a summary of three different approaches that organizations can use in order to create new growth businesses:

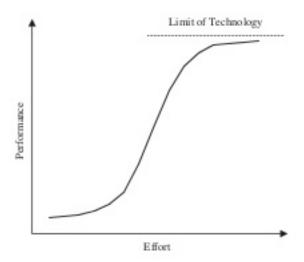
Three Approaches to Creating New-Growth Businesses				
Dimension	Sustaining Innovations	Low-End Disruptions	New-Market Disruptions	
Targeted performance of the product or service	Performance improvement in attributes most valued by the industry's most demanding customers. These improvements may be incremental or breakthrough in character.	Performance that is good enough along the traditional metrics of performance at the low end of the mainstream market.	Lower performance in "traditional" attributes, but improved performance in new attributes— typically simplicity and convenience.	
Targeted customers or market application	The most attractive (i.e., profitable) customers in the mainstream markets who are willing to pay for improved performance.	Overserved customers in the low end of the mainstream market.	Targets non- consumption: customers who historically lacked the money or skill to buy and use the product.	
Impact on the required business model (processes and cost structure)	Improves or maintains profit margins by exploiting the existing processes and cost structure and making better use of current competitive advantages.	Utilizes a new operating or financial approach or both—a different combination of lower gross profit margins and higher asset utilization that can earn attractive returns at the discount prices required to win business at the low end of the market.	Business model must make money at lower price per unit sold, and at unit production volumes that initially will be small. Gross margin dollars per unit sold will be signifi- cantly lower.	

(Christensen og Raynor 2003)

Schilling also discusses different dimensions that distinguish different types of innovation. In her work, Schilling does not talk about disruptive innovation, but instead uses the dimensions product versus process innovation, radical versus incremental innovation, competence-enhancing versus competence-destroying innovation, and architectural versus component innovation (Schilling 2010). If the theory of Schilling is compared to that of Christensen and Raynor, the disruptive innovation described in the latters book, can be compared to Schillings radical versus incremental innovation.

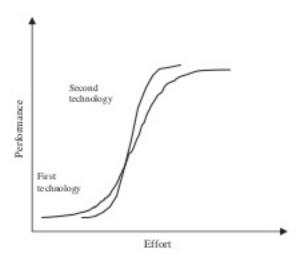
With regard to types of innovations, Schilling also introduces s-curves with regard to technological improvements and technological diffusion (Schilling 2010). Schilling argues, that the technological s-curve can be used as a prescription tool for organisations, to gain an idea of when to develop, or change to, a new technology (Schilling 2010). Schilling also argues that the technology s-

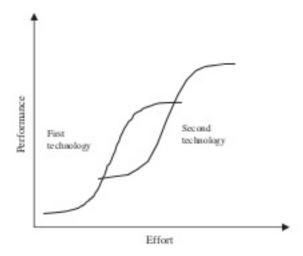
curve can be used to determine whether a new technology will beat the existing (Schilling 2010). The technology s-curve is depicted below:



From the illustration it can be seen, that in the beginning of the curve, the effort used on the technology increases, but the increase in performance is slow. This is mainly due to the fundamentals of the technology is poorly understood (Schilling 2010). Then, as organisations and developers begin to understand the technology, the performance increases with less effort until the point of limitation is reached (Schilling 2010).

Now, for a new technology to beat the old one, Schilling outlines two possibilities, which are depicted below:





In the first scenario, the new technology has a steeper s-curve than the incumbent technology. This means that the performance to effort ratio is higher than the original technology, which means that organisations will shift from the incumbent to the new technology. In the second scenario, the new technology represents a higher performance limit, which will extend the time, in which organisations can reap, the benefit from the technology. This will make organisations change from the incumbent to the new technology (Schilling 2010). The problem with using the s-curve model as a prescriptive tool is, that it is based on knowledge that cannot be obtained except in retrospect. In order to use the model, an organisation has to know the limit of a technology, which is almost impossible before this limit is reached (Schilling 2010). Furthermore, the effortaxis in the model is based on the assumption that the effort invested is constant over time. If this is not the case, the s-curve will obscure (Schilling 2010).

Even though there are limits to the s-curve model, this thesis will try to assess whether or not MobilePay can be mapped together with existing s-curves, or if MobilePay developed a new s-curve.

4.5 New Product Development (NPD)

Once the attempt of creating the possible strategy behind MobilePay, in correspondence with the strategic approach, has been made, and the determination of the type of innovation MobilePay was. This thesis will go on to analyse how the MobilePay development team executed the strategy. Starting with the initial development process.

The classical literature, within new product development, states that for NPD to be successful, three objectives have to be achieved. The first objective is to maximize fit with customer requirements. This objective entails aligning a new products feature with the demands/requirement of the customers. "For a product to be successful, it has to offer more compelling features, greater quality, or more attractive pricing than competing products" (Schilling 2010). Even though this is obvious, many companies fail at doing so. The problem is a lack of understanding of the customer requirements. Some companies focuses on features that they think the customer wants, at the expense of other features that might be valued more by customers. Another mistake companies make is overestimate how much customers are willing to pay for a product (Schilling 2010). The objective is created in order for companies to remember to include the customers need in the development process, instead of what the company think is best.

The second objective is minimizing the development cycle time. This objective focuses on the rate of product development, since this plays a vital role in the success of the product (Schilling 2010). The reason for the importance of a short development cycle time is that other companies might beat you to the market if you are too slow. Furthermore, the lifecycle of the technology, which a company might base their product on, can be obsolete before the product reaches the market, or the need for the product might have disappeared (Schilling 2010). A shorter development cycle time might also affect the overall cost of the development, since much of labour cost is time base.

The last objective focussing on controlling the development costs. This objective is crucial to a development process, because it can turn a otherwise good product into a disaster. The reason for this is that there is no value, for an organisation, if the new product has been so costly to develop that a profit margin no longer exists (Schilling 2010).

In order to minimize the product development cycle time, many companies have started to adopt a parallel development process (Schilling 2010). The parallel development process could mean that a company will begin the actual development of a product, before the final details are finished (Schilling 2010). Some risks exist though, with the parallel development process. The risk lies in the chances of increasing development costs, should a sudden change, for example design, happen. Because the development of a product might have been started, a sudden and complex change in design might lead to a restart of the development process, which would mean that resources has been lost and cost go up (Schilling 2010). In order to accommodate this risk, many companies use a project champion who is responsible for the coordination of the different departments involved in the process. The project champion is also responsible of attaining the resources needed for the process. The problem with a product champion is that the individuals might "loose" themselves in the project, and not recognise that the development process should be terminated (Schilling 2010). To evaluate the development process, the classical theory introduces a tool such as stage-gate. The stage-gate model view a NPD process as being linear, and therefore the project has to pass through a number of gates before moving on in the development process (Schilling 2010). The problem with the stage-gate model is that more and more NPD processes are not linear, and therefore a different model has to be used (Rose 2010).

The above section described the classical NPD process, which includes many different divisions of an organisation, putting a huge pressure on communication and coordination (Schilling 2010). To solve this issue, many organisations have begun to use cross-functional NPD teams. Schilling presents four different team structure types, which are all suitable for different types of projects:

Characteristics	Functional Team	Lightweight Heavyweight Team Team		Autonomous Team	
Project Manager	None	Junior or middle manager	Senior manager	Senior manager	
Power of project manager	N/A	Low High		Very high	
Time spent on team activities	Up to 10%	Up to 25%	100%	100%	
Location of team members	Functions	Functions	Collocated with project manager	Collocated with project manager	
Length of commitment to team	Temporary	Temporary Long-term but ultimately temporary		Permanent	
Evaluation of team members	Functional heads	Functional heads	Project manager and functional heads	Project manager	
Potential for conflict between team and functions	Low	Low	Moderate	High	
Degree of cross- functional integration	Low	Moderate	High	High	
Degree with fit with existing organizational practices	High	High	Moderate	Moderate-low	

Appropriate	Derivative	Derivative	Platform	Platform
for:	projects	projects projects/breakthrough		projects/breakthrough
			projects	projects

(Schilling 2010)

Using teams presents a number of both opportunities, but also threats. One opportunity with teams is that bringing together multiple people, with different backgrounds and experience, enables a team to look at a problem from multiple angles. The issue with teams is controlling the size. If a team gets too big, the cost of administration and communication problems with arise, and thereby eliminating the benefit of teams (Schilling 2010).

One important factor that companies need to remember, when using teams, is diversity. Specifically functional diversity is key to a good team, because it enables a team to include design, manufacturing, and marketing objectives to be integrated in the NPD process (Schilling 2010). The problem that might arise with functional diversity is that the different backgrounds might view problems differently, and thereby result in lower group cohesion (Schilling 2010). It is therefore important to ensure, when putting together a group, that the problem that the group is trying to solve is commonly understood by the entire group (Schilling 2010). Another way to ensure team success is also to create some form of ownership feeling for the team towards the project (Schilling 2010)

4.6 Collaboration

When preparing the NPD structure, the MobilePay development team acknowledged that Danske Bank did not posses all the necessary resources or know-how to develop MobilePay on their own. Therefore, the MobilePay team had to seek help from external companies. This makes it interesting to analyse the choice of collaboration strategy chosen by the MobilePay team.

According to Schilling, many companies will face the decision whether to perform all activities, in product development, themselves or collaborate with

one or more partners (Schilling 2010). Many studies suggest that innovation is more often than not, created by collaborative efforts of multiple people or companies, not single individuals (Schilling 2010). Even though collaboration seems as a great idea, there are many difficulties, which companies have to address before collaborating with others. The first thing that has to be addressed is, whether a potential collaboration partner possesses the necessary capabilities or other resources that could "fill" the gaps that an organisation might have (Schilling 2010). Another issue that has to be assessed is whether or not collaboration would jeopardize any proprietary technologies to be released to competitors (Schilling 2010). If an innovation is unique in some way, such as design or functionality, sharing this with a collaboration partner might expose this technology to competitors, whom then could take it and make it their own. In other words, organizations may choose to avoid collaboration if the organization already possesses the necessary capabilities and other resources in-house, if the organization is worried about protecting proprietary technologies and controlling the development process, or if the organization prefers to build capabilities in-house rather than access a partner firm's capabilities (Schilling 2010).

Even though, there are many problems with collaboration that has to be assessed by an organisation, before collaborating with others, there are also many advantages. One advantage is the possibility of sharing the cost and risk of new product development. Another advantage is the possibility of combining complementary resources that maybe would have cost a lot if an organisation had to develop it in-house. The organisations within the collaboration might also learn from each other, and could also learn new things through the collective NPD process (Schilling 2010). If an organisation decides to collaborate with other companies, a collaboration mode has to be picked. Schilling presents seven different ways organisation might collaborate (Schilling 2010). There are different trade-offs associated with each collaboration mode. These trade-offs are within speed, cost, control, potential for leveraging existing competencies, potential for developing new competencies, and potential for accessing other

firm's competencies. A summery of the different collaboration modes is depicted in the below table:

	Speed	Cost	Control	Potential for leveraging existing competencies	Potential for developing new competencies	Potential for accessing other firms' competencies
Solo internal development	Low	High	High	Yes	Yes	No
Strategic alliances	Varies	Varies	Low	Yes	Yes	Sometimes
Joint ventures	Low	Shared	Shared	Yes	Yes	Yes
Licensing in	High	Medium	Low	Sometimes	Sometimes	Sometimes
Licensing out	High	Low	Medium	Yes	No	Sometimes
Outsourcing	Medium/High	Medium	Medium	Sometimes	No	Yes
Collective research organizations	Low	Varies	Varies	Yes	Yes	Yes

(Schilling 2010)

An organization should evaluate these trade-offs in formulating a collaboration strategy (Schilling 2010). In order to ensure that the collaboration is successful, an organisation should evaluate possible partners, based on their strategic fit and their resource fit (Schilling 2010). The organisations involved in a collaboration also has to ensure that all partners understand their rights and obligations, combined with clear methods of evaluating if the partners follows these rights and obligations (Schilling 2010)

4.7 Development Methods: The Scrum method

Once it has been established what type of NPD structure Danske Bank chose, the thesis will determine the development method used, and analyse how the MobilePay development team executed this method.

The literature on NPD methods can be divided into to "schools" with the traditional method on one side, and the agile method on the other. According to Jeremy Rose, the traditional method structures the development process as a linear process, which is often expressed in stages (Rose 2010). Rose acknowledges in his work, that this way of describing the traditional method is simplified, and versions do exist (Rose 2010). Rose argues that the traditional methods "focus on rational paper-based analysis, modelling, linear stage models, documentation and accountability" (Rose 2010). There are several of such methods, but most are based on the simplest expression of a stage development method, such as stage-gate or waterfall method (Rose 2010)

The agile method of development, which includes the scrum method, is a break from the traditional method, and "focuses on practical development tasks, programming, prototyping and customer contact – usually in an iterative or incremental process, which is better at handling change" (Rose 2010). Ken Schwabe and Jeff Sutherland developed the scrum framework in the early 1990's. According to the two developers of the framework, scrum is a framework that can be used to "address complex adaptive problems, while productively and creatively delivering products of the highest possible value" (Schwaber og Sutherland 2012). Furthermore, the scrum framework is characterized by being agile, simple to understand, but very difficult to master (Schwaber og Sutherland 2012). The scrum method does not, compared to stage-gate or waterfall, see the development process as linear. The scrum method does not dictate what order tasks has to be done, which gives a development team using scrum, creative freedom to start at any point, and then change to another at any given time (Schwaber og Sutherland 2012). This agile approach to order, makes the scrum method much more flexible and productive (Schwaber og Sutherland 2012).

The scrum method consists of many different parts, which must be done in order for the scrum framework to be successful. Firstly, the scrum framework consists of a scrum team. The scrum team can be broken down into three roles, the scrum master, the product owner, and the development team. The role of the scrum master is to ensure that everyone understands the scrum method and follows it. A scrum master does this, by ensuring that the scrum team follows scrum theory, the associated practices and rules (Schwaber og Sutherland 2012). The role of the scrum master can best be described as a servant/leader for the scrum team. It is the responsibility of the scrum master to help anyone outside of the scrum team, understand what interaction with the scrum team is beneficial and, which are not. The scrum master thereby helps all involved to change these interactions, thereby maximizing the value created by the scrum team (Schwaber og Sutherland 2012). As mentioned earlier, the scrum master acts as a servant/leader to the entire scrum team. This entails a number of tasks that the scrum master can help the product owner with. These tasks include; finding techniques for effective product backlog management, ensuring the product owner knows how to arrange the product backlog to maximize value, understanding and practicing agility etc. (Schwaber og Sutherland 2012). The scrum master also services the development team through coaching self organization and cross-functionality, helping the development team to create high-value products etc. (Schwaber og Sutherland 2012).

The product owner is accountable and responsible for maximizing the value of the product and the work of the development team (Schwaber og Sutherland 2012). The scrum framework does not dictate how that is done, but it does dictate that the product owner is responsible for managing the product backlog (Schwaber og Sutherland 2012).

The development team is made up by professionals who work together to deliver a potentially releasable increment of done product, at the end of each sprint (Schwaber og Sutherland 2012). The development team is self-organizing and manages their own work (Schwaber og Sutherland 2012). Furthermore, it is the

synergy that optimizes the overall efficiency and effectiveness of the development team. The scrum framework also includes multiple events, which are; the sprint, sprint planning, daily scrum, sprint review, and sprint retrospective (Schwaber og Sutherland 2012). The events will be applied to the case of MobilePay in the analysis.

4.8 First Mover Advantage

After analysing the case of MobilePay using the above theories, theory, regarding the first mover advantage, will be used to assess two things. The first thing is to assess to what degree, the MobilePay team, succeeded to reduce or even remove the uncertainties and problems with being a first mover. The second thing the first mover advantage theory will be used for, is to assess to what degree MobilePay gained the advantages of being a first mover.

"The first to market is the first to fail", or "the pioneer is the one with the arrows in his back", are commonly used phrases when talking about first mover advantages (Robinson og Min 2002). The quote is a reflection of the "low" survival rate associated with being a first mover. The reason for the perception of survival rate of first movers is low, is the many market and technological uncertainties associated with it (Robinson og Min 2002). The work of Schilling supports this, but takes it a bit further in explaining, which areas uncertainties, and problems are most present. One area that can be a problem for the first mover is R&D expense. Because the first mover is first to the market with something completely new, an organisation might face the cost of developing everything from scratch. If this is the case, the R&D expenses will be considerably higher, compared to that of second mover, which might be able to develop a product at a lower cost, now that the technology has been created (Schilling 2010). Furthermore, a first mover might face significant ambiguity from the consumers. Since the first mover product is something completely new, users might not understand or know what to do with the product or technology (Schilling 2010). This might mean that the first mover will face further costs in making the consumers understand the new product. Another problem associated with first

movers, is the lack of, or poorly developed supplier market and distribution channels (Schilling 2010). This will reduce the profit margin of the first mover, because the first mover might have to solve the problem, or wait for the distributers to get up to speed (Schilling 2010). Lastly, if the success of the first mover product is dependent on complementary goods, and these goods are nonexisting, the product will fail (Schilling 2010). A hypothetical example could be electric cars in a market with no charging stations; the product then could not be used. The same is the case, if the first mover product is dependent on enabling technologies, which might be immature (Schilling 2010). If this is the case, the consumers will not get the full performance from the new product, and therefore chose not to buy it. The last, and biggest disadvantage, regarding being a first mover, is the uncertainty regarding consumer requirements. (Schilling 2010) Since a first mover wants to create something that has not been seen before, the first mover cannot use historical data to predict the success of the first mover product. This means that the first mover will have to anticipate, or even guess, what requirements the consumers might have. A first mover can reduce the uncertainty regarding consumer requirements by including consumers in the development process (Schilling 2010), but at the end this uncertainty will always exist until the product is launched.

Even though there are many risks and uncertainties associated with being a first mover, advantages also exist. One first mover advantage is the opportunity to build brand loyalty (Schilling 2010). By being first to the market, the first mover has a chance to be branded as the "pioneer" within a new market by the consumers. Associated with brand loyalty is also the change of gaining a reputation of technological leadership (Schilling 2010).

Another advantage that first movers have, explained in the study of Robinson and Min, is the capitalisation of the monopoly, which a first mover has, until second movers enter the market (Robinson og Min 2002). If a first mover successfully gains all the above advantages, while simultaneously reducing the uncertainties, the first mover will have a higher survival rate (Robinson og Min 2002).

5. Methodology

5.1 Philosophy of science

When discussing what qualifies as science, the field of philosophy of science proposes that reflections be made in regards to what the nature of truth and navigate reality and science within the social world. Generally, this is reflected on at three fundamental and sometimes overlapping levels, these being: ontology, epistemology and methodology (Andersen 2008). Ontology is concerned with the questions of what reality is and how we view the world. Epistemology is concerned with how we acknowledge reality and is the reality subjective or objective. Lastly methodology, which is concerned with what method, we use to acknowledge reality (Andersen 2008). In terms of ontology the author, and therefore this project, takes its point of departure in constructionism. This constructionist ontological stance trickles down into both the projects epistemology, being interpretivism, as well as the projects methodology. This is due to the fact that the way in which the author views and understands reality in the social world, inherently has an effect on the way in which the author views the way in which knowledge is viewed, as well as how such knowledge is collected in practice. In terms of this project, the stances taken in regards to philosophy of science means that the project views the social world and truth as being constructed by social structures. In other words, truth in social matters is not a certainty that exists outside social structure but instead a product of said structure. In practice, this was an implication on how the research in this project is collected, as well as analyzed, as the author acknowledges that social truth is subjective.

5.2 Research strategy

According to Bell and Bryman, there are two primary approaches of connecting theory and research: deduction and induction (Bryman og Bell 2011). The difference between the two approaches is that, deduction takes its point of departure in theory, from which a hypothesis is then created. Once theory and hypothesis is in place, data is collected, with the empirical findings either

confirming or rejecting the hypothesis. If the hypothesis is rejected, it can then result in turn will lead to a revision of the theory (Bryman og Bell 2011). When using an inductive approach, information is gathered first, then analytically viewed in the light of compatible theories that show similar characteristics, either supporting the theories or resulting in suggested modifications to said theories, or even in some cases creating grounds for new theories (Bryman og Bell 2011). This project was approached in a predominantly inductive manner, however, as is also pointed out by Bryman & Bell, the nature of research is rarely as linear, as the definitions of the two approaches may suggest (2011). This was also evident when undertaking this project. Though the research approach to this project have many inductive tendencies, considerations in terms of theories were made early on in-, as well as continuously throughout-, the research process. Therefore, it cannot be argued that the resulting project is exclusively the result of an inductive approach, but instead an expression of a more fluid and iterative process that also included deductive elements. This is to be understood in that the research approach consisted of a series of loops as the research was undertaken, where data was collected and theories considered simultaneously, as new findings appeared, theories where reconsidered and vise versa. In practice this means that data was not collected without any considerations in regards to compatible theories. This being said, the empirical data still primarily guided the projects development, in line with induction.

5.3 Research Design

In Bryman & Bell's book, *Business Research Methods*, five different research designs are identified. These are experimental design, cross-sectional design, longitudinal design, case study design, and comparative analysis (Bryman og Bell 2011). The experimental design involves setting up two groups where one is the control group and the other is the experimental group. The experiment is then carried out and the experimental group is compared to the control group. This type of research design is not common in business research, as it is hard to establish the requisite level of control needed. The cross-sectional research

design entails the collection of data from multiple cases at a single point in time in order to collect a body of quantitative and qualitative data in connection with multiple variables, which are then examined to detect patterns of association. The longitudinal design is very similar to the cross-sectional, but instead of only measuring at one point in time, the longitudinal design measures over time. The case study design entails the detailed and intensive analysis of a single case. Finally the comparative design is a comparative study that aims to compare two or more case studies in relation to a broad number of issues (Bryman og Bell 2011).

This thesis will use the case study research design. This choice in research design will allow for an in-depth study of Danske Banks development and launch of MobilePay. Furthermore, the choice of a case study makes it possible to get a more holistic understanding of the specific factors that influenced MobilePay's success.

In line with the thesis ontological stance, doing a case study acknowledges that social reality is not readily generalized across cases, but is instead highly context dependent, making efforts best spent on understanding the dynamics of a single case in great detail, as opposed to for example two opposing cases in more shallow detail. Further implications of the case study method will be addressed in the subchapter 4.5 Critical assessment of the scientific method and research design.

5.4 Data collection

The thesis is based on a combination of both primary and secondary data. The secondary data consists of information from various websites, reports regarding innovation in the bank sector, reports regarding the challenges that tech companies has on the bank sector, books and different academic papers containing theories that might be relevant to the data collected. In addition to this, contact was established with the head of MobilePay, Bo Tolstrup

Christensen. Unfortunately it was not possible to get an interview with Bo Tolstrup Christensen, but he did send a presentation on MobilePay that will also be used in this thesis appendix 12.1. Guest lectures on digital disruption and innovation were also attended.

In addition to the secondary data collection, primary data was also collected in the form of an in-depth, semi-constructed interview with the Head of App Development from the three men Danske Bank team that developed MobilePay, Rasmus Korsgaard. The semi-constructed interview method was used, as it is a very suitable method when you have a theoretical and practical knowledge of what is being investigated, but lack a deeper understanding. Furthermore, semi-constructed interviews are The interview have valuable insights into the dynamics at play in the development of MobilePay, The answers from the interview were then held up against the lecture given by Bo Tolstrup Christensen, as a comparison between the views of the business development side and the App development side. Contact was also established with Peter Gregersen, Head of Design, but he was unfortunately not available for an interview.

5.5 Critical assessment of the scientific method and research design

According to Ib Andersen, good research has a high degree of validity and reliability (Andersen 2008). The validity is concerned with the integrity of the conclusions that are generated from a piece of research (Bryman og Bell 2011). In terms of validity, the research used for this thesis was collected and performed under sound conditions that included an extensive secondary data collection and literary review. This was done in order to get an as unbiased an impression of the area of study as possible, as well as an understanding of the research previously done on the area. This being said, the author recognises the unavoidable bias present in newspaper articles and work done by others in general, but by using many different sources, it is believed that this bias is minimized.

In regards to the primary data collected, the interview was conducted in a manner aimed at increasing the validity of the data resulting from the interview. In practice this was achieved by asking non-leading questions and performing the interview in a semi-constructed manner, allowing for the interview to unfold organically and for the interviewer to ask questions, as they became relevant in connection to what the interviewee expressed. This being said, it can be argued that the project's validity could have been strengthened had more interviews been conducted, as this would include a more nuanced understanding of the dynamics at play in the development of MobilePay. However, attempts were made to talk to all three members of Danske Bank's Mobile Pay development team, but only one member, Rasmus Korsgaard, was available. Therefore, the lack of more interviews was not a reflection of lack of attempts, but rather a reflection of availability. In an attempt to strengthen the validity and include more perspectives, a guest lecture by Bo Tolstrup Christensen was attended, to hear his view on the development process, thereby gaining insights into how two out of the three members of the MobilePay development team, understood the development process.

Reliability on the other hand is concerned with whether or not the results of a study are repeatable (Bryman og Bell 2011). This can be achieved by releasing information on how an interview was conducted and which questions where asked. It could also include releasing all raw data from which, graphs or other calculations were made. To ensure a higher reliability, the interview questions will be attached this project, as well as the entire audio from the interview. One factor that lowers the reliability of the interview is, that the interview was semiconstructed with open question, which allowed for the interview to develop in other directions than dictated by the semi-constructed interview guide.

Conducting the interview in this manner, allowed for a conversation between the two people involved, which uncovered information that might not have been found had the interview been strictly constructed. However, this also makes the interview more difficult to replicate, influencing the reliability of the results. A replication of the interview becomes more difficult, not only because there is not a strict guide to follow, but because it cannot be assured that the same

conversation would repeat itself, as the conversation was based on follow-up questions asked by the interviewer. This, combined with the possibility that the interviewee might forget or come up with other points, than was made in the original interview, makes it impossible to ensure that the same exact findings would be made. In addition to including the interview guide, all other data used in this project will also be cited, so they can be found and recreated.

In terms of external validity or generalisability of the project, the choice of using a case study research design plays a crucial role. One of the downfalls of using a case study research method is that the findings made are inherently case dependent. Therefore, findings made in this project, being based on a single case, cannot readily be applied to other cases or be generalized as findings made across the banking sector as a whole. Due to this, the greater relevance of the findings made in this thesis could be questioned, however it is the belief of the researcher that the conclusions found in this project can serve as an inspiration or tool for other banks.

6. Case Study: Danske Bank MobilePay

Before the analysis of MobilePay can commence, case study description has to be made first. The case study description will create a timeline in the development process, and also introduce the key people involved in the process.

6.1 The History and Development of MobilePay

The scope of this study is within the timeframe from beginning of 2012 to the end of 2013. The timeframe includes the development of MobilePay, the launch, and the success of MobilePay as a P2P transaction tool. Despite this timeframe being the basis and scope of the study, certain aspects that occurred prior to 2012 will be included to give a contextual understanding of events that influenced the development and launch of MobilePay.

In the years leading up to 2012, Danske Bank had gone from being known as the biggest bank in Denmark, reliable, and trustworthy, to a bank with a huge image problem. The financial crisis in 2008, the Stein Bagger case, and a failed image restoring campaign, New Standard, meant that Danske Bank in the midst of an image crises (Mortensen 2014). The bank needed a success story, which would not only affect the image towards already existing customers, but also the rest of the market (B. T. Christensen 2016). Image boosting was therefore one of the key drivers behind the development of MobilePay (Korsgaard 2016).

The story of MobilePay has its beginning in the big organizational change that Danske Bank made in 2012. Eivind Kolding was made CEO in 2012, and with a new management team, they were tasked to carry out an extensive organizational transformation of Danske Bank. This organisational change meant that Danske Bank moved away from being a six-stringed, country focused organisation, to a segment focus with three business areas: Corporate and Institutional Banking, Personal Banking, and Business Banking (Qvartz 2015). Along with the organizational change was a new strategy, which sought to execute a financial turnaround and simultaneously define the road to a competitive and profitable future for the bank (Qvartz 2015).

In order to define the road to a competitive and profitable future for the bank, Danske Bank recognised the opportunity, of the Nordic countries being close to unmatched with regard to online banking, to embark on a journey to take personal banking to the next level, allowing customers to serve themselves on state-of-the-art digital platforms when performing their daily banking transaction, while offering more service and tailored counseling to customers with complex needs (Qvartz 2015).

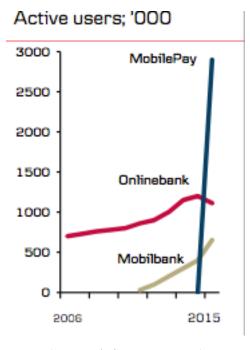
The dual strategy of Danske Bank enabled the bank to assess its current situation, while also evaluating the future of the bank (B. T. Christensen, MobilePay - disrupt or be disrupted 2016). It was through the new strategic focus towards disruptive innovations that an opportunity, for creating a disruptive

P2P payment tool was recognized (B. T. Christensen, MobilePay - disrupt or be disrupted 2016).

The new strategy for taking personal banking to the next level was first introduced in 2012. It can be argued that Danske Bank, prior to the new strategy, had made similar attempt at changing personal banking, by introducing Mobilbank. Mobilbank was in all its simplicity, a slimmer version of the webbased Netbank, but by allowing users to access netbank from their smartphones, Danske Bank offered its customers, more flexibility (Korsgaard 2016). The thing that speaks against Mobilbank, as a next level personal banking tool is, that it was no different from the already existing tool Netbank (Korsgaard 2016).

The big breakthrough and the real innovation came in May 2013 where Danske Bank launched MobilePay (Korsgaard 2016). MobilePay was the first P2P payment service, which enabled users to transfer money to each other with the same ease as sending a text (Sixhøj 2015). The app was developed by the software engineer Rasmus Korsgaard, the business developer Peter Gregersen, and Bo Tolstrup Christensen. The small team grew under the development phase of MobilePay, but the three held leading roles in different areas of the development process (Korsgaard 2016).

The success of MobilePay is unprecedented with regard to Danske Bank. 25,000 users had downloaded MobilePay the first day. 4 months later 500,000 active users were registered, and in 2016, 3 years after launch, Danske Bank could announce, that +3 million users were actively using MobilePay, making it a great success (B. T. Christensen 2016):



(B. T. Christensen 2016)

The fast adoption rate along with the number of users also underlines the image success of MobilePay for Danske Bank, and as Kim Jong Andersen said, when Bo Tolstrup Christensen was announced as the digital pioneer of the year, "The results speak for themselves, and today MobilePay is proof that durable digital products are, without a doubt, better for a brands image, than a image campaign" (Engholm 2014).

7. Analysis

Having now introduced the case of MobilePay and to some extend established MobilePay's success, at least in terms of fast a adoption rate, looking at the empirical data collected through an analytic and theoretical lens, is crucial to provide an understanding of the factors that led to MobilePay's success.

In this regard, the following analysis will approach the data using the language and understanding provided by the theoretical framework previously outlined. As previously mentioned, the analysis will be structured in the chronological order of events and strategic choices that led to the development of MobilePay.

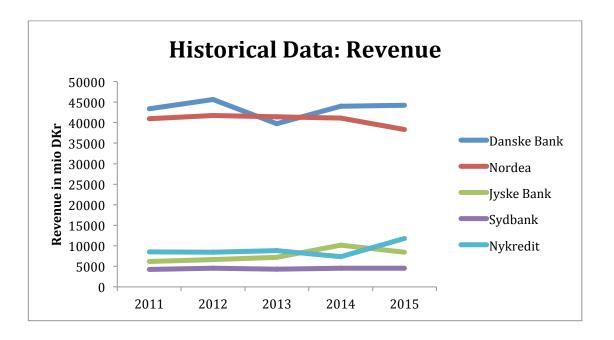
7.1 Organizational Change: A Shift Towards Organizational Ambidexterity

The big organizational change that Danske Bank made in 2012 has to be analysed with regard to the development of MobilePay, in order to see if it had an effect on the development process. As stated in the case description, Danske Bank created an agile virtual department with the soul purpose of transforming the bank for the future (Qvartz 2015). The organizational change, transformed Danske Bank into an ambidextrous organisation by allowing most of the company to focus on "business as usual", while simultaneously creating a division, which would focus on taken Danske Bank to the next level through "moonshot" projects (B. T. Christensen 2016).

In transforming Danske Bank into an ambidextrous organisation, Danske Bank had two structural choices, either create a new division or implement it in such a way, that it is the responsibility of all employees to be ambidextrous (Raisch og Birkinshaw 2008). Danske Bank decided to create a new division, because the management of the bank did not want the two different focuses to mix (B. T. Christensen 2016). The reason for this was, that management still valued the core business as most important (B. T. Christensen 2016), which is understandable given that, for a business to be successfully ambidextrous, a business need an optimized and effective revenue stream, which in turn finances the explorative activities (Raisch og Birkinshaw 2008). Looking at the decision critically, it could be argued that the reason for the choice of structure was a disbelief in the majority of the employee's ability to be ambidextrous. Another reason might be, that Danske Bank had little or no idea of how to manage ambidexterity and therefore chose the "easier" structure (Raisch og Birkinshaw 2008).

The transformation of Danske Bank, enabled the bank to focus on taking banking, especially personal banking, to the next level (Qvartz 2015). Doing so indicates that Danske Bank, after the organizational change, would have an advantage compared to banks that was not ambidextrous. This is follows the study of Tushman and O'Reilly, whom suggests that ambidextrous organisations are superior to others in the market (Tushman og O'Reilly 1996). Looking at

historical revenue data from the 5 biggest banks in Denmark (Finansrådet 2015) the following graph is the result:



The revenues used for the above graph, has been found in the respective banks annual reports, and the raw data will be added as an exhibit to this project. Looking at the graph it can be observed that the revenue of Danske Bank declines the year of the organizational change (2012). The decline can be explained by turmoil resulting from the organizational change, along with the new strategy, which resulted in many customers abandoning the bank (Elghiounane 2013). The revenue begins to increase, and surpasses that of Nordea in the period 2013-2014, which can be an indication, that the transformation into an ambidextrous organisation has been completed, and Danske Bank has become superior to its biggest competitor Nordea, whom experienced a declining revenue from 2014-2015. What argues against concluding that the increase in Danske Banks revenue, are due to the ambidextrous transformation, is the increase in Nykredits revenue, which was caused by a very low rate (Plesner 2016). What supports concluding that it is in fact the organizational change, that has made Danske Bank superior, are the comments made by the CEO of Danske Bank, whom credited the increase in revenue to the new broad business model, brought forward by the organizational change, along with the

new strategy of Danske Bank (Iversen og Brahm 2016), which included transforming Danske Bank into an ambidextrous organisation.

The reason for this project using revenue as a comparison between the banks, instead of the result, is that the result might be affected by investments made years before. Therefore, it is the belief of this researcher that using the revenue as a comparison is more accurate for comparison than the result.

Looking at the organizational transformation of Danske Bank, two things can be deduced. First of all transforming the bank into an ambidextrous organisation enabled the bank to look at the market in new ways, and come up with new ideas for how to service customers or fill gaps, which might exist in the market. Furthermore the change is credited with increasing the revenue of Danske Bank, surpassing the revenue of the biggest competitor Nordea.

It cannot be concluded, that organizational ambidexterity has made Danske Bank superior with regard to performance. Arguments for and against have been presented, but it has to be taken into account, that the revenue prior to the organizational change in 2012 was higher than that after. There can be many explanations for this, but the fact of the matter is, that future revenues cannot be calculated, and therefore it cannot be finally concluded, that the organizational change has made Danske Bank superior. The only thing that this project can due is to make the reference to theory, that Danske Bank over time will be superior to the banks in market that are not ambidextrous.

7.2 Choosing a Strategic Approach

It was established in the above section, that Danske Bank was transformed into an ambidextrous organisation after the organisational and strategic change. The strategic change implemented a dual strategic, with one strategy focused on classical banking, and the other focused on developing disruptive innovation (B. T. Christensen, MobilePay - disrupt or be disrupted 2016). The strategy for classical banking was focused on "business as usual", while the new division with a focus

on disruptive innovation had to create new ideas, moonshots that could disrupt the sector (B. T. Christensen, MobilePay - disrupt or be disrupted 2016). It is the choice of strategy approach for the disruptive innovation department, which will be the focus of this section.

In order to determine, which strategy approach, Danske Bank used to deal with the uncertainty associated with MobilePay, the presentation given by management to Rasmus Korsgaard and Peter Gregersen, has to be assessed.

Recall from the case description, Rasmus Korsgaard and Peter Gregersen was picked from IT to attend a meeting regarding a new P2P payment solution. At the meeting, Rasmus Korgaard and Peter Gregersen were introduced to the initial thoughts behind MobilePay (Korsgaard 2016). The initial thoughts behind MobilePay was, "We want to make it easier to transfer money person to person", "MobilePay should be extremely simple and available for all", and "We want it to be as easy as cash" (B. T. Christensen, Finansdagen - MobilePay 2014). Rasmus Korsgaard and Peter Gregersen were then shown examples of solutions from other countries in order to kick-start the creative process (Korsgaard 2016). Furthermore, the emphasis on being first on the market was introduced, and shared by both Gregersen and Korsgaard. It was within these boundaries that Gregersen and Korsgaard was given carte blanche to develop the best product possible (Korsgaard 2016). Gregersen and Korsgaard scaled up the development team to include 10-15 people who all saw the potential in the idea and shared the excitement of developing a completely new product to the market (B. T. Christensen, Finansdagen - MobilePay 2014). Furthermore, the development team developed MobilePay with the user, at the heart of the product (Krog 2014).

Now if we apply the data collected regarding the process behind MobilePay and hold up against theory, it should be possible to determine the strategic approach that the management team behind MobilePay used. If the framework depicted in the theory section is recalled, the four approaches was made up of two factors, how much an organisation can predict the future outcomes, and how much control an organisation has about the future (Wiltbank, et al. 2006). The left hand

side of the framework are strategic approaches with low to no control of the future, but with some ability to predict what is going to happen. The two approaches involves either trying harder to predict the future and position the organisation accordingly, or create a dynamic organisation that can adapt to a fast changing environment. Both of these approaches regards organisations that seek to stay within the market where they are already competing, and is therefore not applicable to the case of MobilePay. This means that the strategic approach has to be found on the right hand side of the framework, where a focus on controlling factors that shape the future is in focus. Assessing the visionary approach, it is based on the knowledge that an organisation can predict the future and control it, because the organisation in fact shapes the future. Looking at the data collected on the MobilePay case, it cannot be said that Danske Bank could predict and control the success of MobilePay, because that would imply that Danske Bank could make the market use MobilePay. In the data collected there is nothing that can support that claim, which very strongly indicates, that Danske Bank did not use the visionary approach.

The elimination of the three above approaches indicates that the transformative approach was the one used by Danske Bank. Looking at the case of MobilePay, there are factors that support the indication of a transformative approach. One factor that supports the transformative approach is the fact, that the development team behind MobilePay had creative freedom to develop the app how they saw fit. Furthermore, by having the user at the heart of the development, the MobilePay team attempted to "control" the future, by focussing on the factor, users, that develop the market. Breaking down the MobilePay into components, it also becomes clear, that Danske Bank did not create a completely new product, but instead used already existing components, but put it together in a completely new way (B. T. Christensen, Finansdagen - Mobile Pay 2014). This shows that the MobilePay development team used the existing means within Danske Bank, and the market, to develop MobilePay, further suggesting the use of the transformative approach. What can be argued as deviating from the approach is the set of guidelines given to the MobilePay development team (B. T. Christensen, Finansdagen - MobilePay 2014). If the theory of Sarasvathy is recalled, she stated that the approach should be solely means driven, which would result in a number of different ends (Sarasvathy 2001). Whether or not the strategy team used existing means, in coming up with the guidelines to the development team, cannot be determined from the data collected. If the guidelines were developed based on an assessment of the current market, or the preferences of the strategy team, it would mean a brake from Sarasvathy's theory, and would support the work of Kraaijenbrink, who states that alterations to Sarasvathys model can be applied without the model failing (Kraaijenbrink 2012).

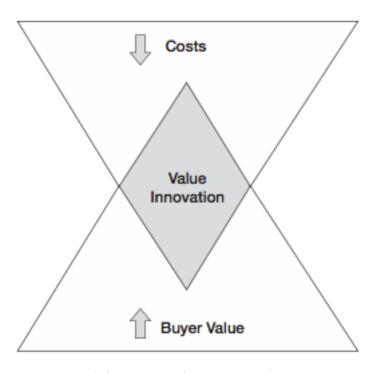
From the above section it can be deduced, that the data collected on the MobilePay case indicates that Danske Bank used a transformative approach to strategy. The data cannot determine whether or not Danske Bank used a modification, in the form of a guideline, to the classical theory, on what the transformative approach is based on. What supports this thesis project's assessment, that Danske Bank used the transformative approach is, that other theory suggests, that the transformative approach can still be used even though it deviates (Kraaijenbrink 2012).

7.3 Developing a New Market: Blue Ocean Strategy

The transformation into an ambidextrous organisation enabled Danske Bank to explore new solutions, in order to take banking to the next level. The new dual strategy, which created ambidexterity within Danske Bank, combined the classical bank, with disruptive innovation (B. T. Christensen 2016). By having a division working exclusively with disruptive innovation, led the division to view the market in new ways in an attempt to change the way banking was done (B. T. Christensen 2016). This led to the idea of MobilePay. Since MobilePay disrupted the market, by introducing the first P2P transaction tool that worked across all banks in Denmark, it becomes interesting to look at strategy behind MobilePay using Blue Ocean theory.

7.3.1 Analytical Tools for Blue Ocean: The Four Actions Framework

The cornerstone in blue ocean strategy is value innovation, which is the region where a company's actions favourably effect both its cost structure and its value proposition to buyers. The cost savings are made by eliminating and reducing the factors and industry competes on (Chan og Mauborgene 2005):



(Chan og Mauborgene 2005)

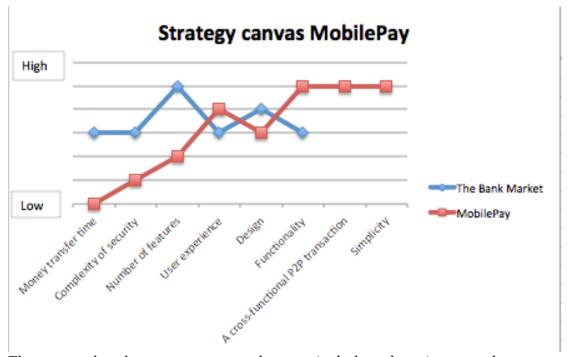
This is where the case of MobilePay becomes very interesting, because while it was increasing buyer value, Danske Bank raised its cost, which goes directly against theory. This dilemma will be addressed later in this section, but for now, this project will look at the tools that Danske Bank could use to reconstruct a new value curve for buyers.

The four-action framework is one tool that can be used to create a new value curve (Chan og Mauborgene 2005). If the framework is applied to the case of MobilePay, the following table can be created:

Eliminate	Raise		
 Money transfer time 	User experience		
	• Design		
	 Functionality 		
Reduce	Create		
 Complexity of security 	A cross-functional P2P		
 Number of features 	transaction tool		
	• Simplicity		

The above table is based on the interview with Rasmus Korsgaard, along with information gained from the guest lecture by Bp Tolstrup Christensen.

If the four-action framework is applied to the strategy canvas it becomes clear how different the new value-curve is compared to the old one. The values given each of the factors are based on a personal evaluation:



The reason that the strategy canvas does not include tech options are, that even though options, such as PayPal and Amazon, had come up with solutions, which were popular on a global scale, it had not reached the Danish market yet (B. T. Christensen 2016).

According to theory it is the two first factors, eliminate and reduce, where an organisation gains insight into how to bring down its cost structure. The two last one's, raise and create, gives organisations insight into how to raise buyer value (Chan og Mauborgene 2005).

Money transfer time: So far on the market, users were left with two options when it came to transferring money to each other, which was their respective online-bank or smartphone application, if the users bank had developed one (Korsgaard 2016). One of the issues with these solutions were the time it took for money to be transferred from one bank to another, which at that time would take 1 business day, unless it was weekend, which would mean the transfer would first be completed on the first business day after the weekend (Korsgaard 2016). The transfer time was due to the fact, that these types of transfers were using the account infrastructure, which at the time was slow. Theory tells us, that an organisation should seek to eliminate the factors taken for granted even though they don't present value or even detract from value (Kim og Mauborgne 2005). The money transfer time was one such factor. Therefore, Danske Bank decided to base MobilePay on the card infrastructure instead. The card infrastructure transferred, unlike the account infrastructure, money instantly (Korsgaard 2016). The downside of this choice was, that it was a very expensive solution (Korsgaard 2016). The need for instant transfer of money was such a crucial feature of MobilePay, that it trumped the expense of basing the app on the card infrastructure. The decision even meant abandoning the Swipp project that Danske Bank originally had been a part of. Swipp was ultimately based on the account infrastructure (Korsgaard 2016).

Complexity of security: Another important factor that Danske Bank wanted to address was the complexity of security. Online-banking demanded users to use NemID, which is a key card with multiple different passwords associated to a specific key. Along with NemID, the user also had to use his/hers social security number along with a personal password. For the bank smartphone application, the security for logging on was a little less rigorous, but if a user would like to

transfer money, he/she would have to use NemID (Korsgaard 2016). Danske Bank wanted to change this. This did not mean, that Danske Bank wanted to abandon security all together, but instead rely on the security features of a users smartphone, along with a 4-digit personal code (Korsgaard 2016). The reason for this choice was that Danske Bank saw the need NemID as an unnecessary obstacle that kept people from using the products already available (Korsgaard 2016). Swipp on the other hand decided to make their users verify their account using NemID (Korsgaard 2016).

Number of features: Another factor Danske Bank wanted to reduce with MobilePay, was the overall number of features combined in the app. Online-banking has multiple features such as transferring, investments, account overview, paying bills etc. Bank applications for smartphones had almost all of the features seen on online-banking. Danske Bank realised, that the products on the market had too many features that was not used on a daily basis, but was instead lacking a simple P2P transaction tool (B. T. Christensen 2016).

User experience: The aim of the MobilePay development team was, to create a simple and easy user experience. By setting up different user scenarios, Danske Bank attempted to anticipate all possible scenarious that a user might end up in, in order to create the best possible experience for that scenario (Korsgaard 2016). By basing user experience on user scenarios, Danske Bank would attempt to increase the user experience.

Design: Danske Bank wanted to create a solution that was simple and easy to use for everyone, not just Danske Bank customers. This meant, that MobilePay had to change in design, compared to the highly customized products, created by each individual bank, for their own customers (Korsgaard 2016). The requirement of simplicity, meant that the design team behind MobilePay had to simplify the layout of MobilePay, compared to the more complex solutions such as Mobilbank (Korsgaard 2016). Therefore, the "reduction" of design, does not mean, that MobilePay is worse compared to the existing solutions on the market. Instead it means, that the design is different in the way that it is simpler.

Functionality: The mantra within the MobilePay development team was, MobilePay as easy as cash (Korsgaard 2016). This meant, that MobilePay had to work regardless of day or time, because money is only functional if you can use them (B. T. Christensen 2016). The existing bank solutions on the market, such as online-banking and mobilbank had downsides when it came to functionality. For example, users could not transfer money instantly from one bank to another, outside the banks opening hours. This was also the case in the weekends were banks are closed, all transactions made would not be finalised until the first business day after the weekend. This was an issue that Danske Bank wanted to solve, which is why MobilePay is based on the card infrastructure, instead of the account infrastructure (Korsgaard 2016).

A cross-functional P2P transaction tool: Until the development of MobilePay, the market was used to banks only "catering" to their own customers needs and demands. Danske Bank wanted to change that. Danske Bank also recognised, that the available products on the market were too complex to access and use, and had too many features, than what was needed on a day-to-day basis. Therefore, Danske Bank chose to create a new P2P payment tool, which should be as easy as cash (Korsgaard 2016). Furthermore, the solution should not only be for Danske Bank customers, but should, for the first time, be available for all customers regardless of what bank they had (Korsgaard 2016).

Simplicity: As has been mentioned before, the available solutions had a complex security system, along with multiple features. Danske Bank would, with MobilePay, separate one tool from the existing solution, make it faster, more functional, and easier to use (B. T. Christensen 2016).

After creating a new value curve and identifying the new sources of buyer value, then faced the challenge of formulating the blue ocean strategy:

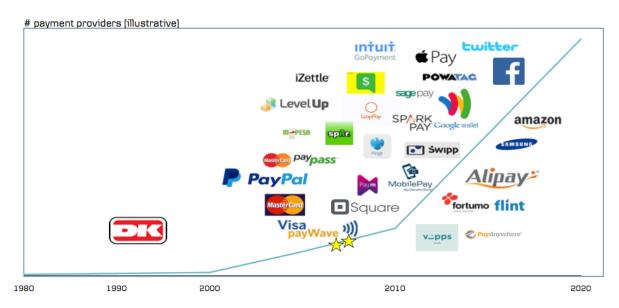
7.3.2 The six principles of Blue Ocean strategy implementation

In order to formulate and execute a blue ocean strategy, an organisation has to evaluate 6 principles (Kim og Mauborgne 2005). The following section will analyse how Danske Bank assessed the 6 principles, and what affect their choice had on MobilePay and the apps success.

7.3.2.1 Reconstructing market boundaries

The first principle that Danske Bank has to assess, is reconstructing market boundaries. This principle is crucial to developing a blue ocean, because it is within this principle that Danske Bank has to identify what possibilities that will help MobilePay break away from the competition (Kim og Mauborgne 2005). In theory a number of different paths are outlined, that an organisation can take in order to identify the possibilities (Kim og Mauborgne 2005).

In the case of MobilePay, the first path taken was that of looking across alternative industries. At the first meeting between management, and the MobilePay development team, the team was presented with examples of solutions made by other banks and tech companies. The below depictions gives an idea of how many solutions actually existed before MobilePay:



(B. T. Christensen 2016)

In assessing the solutions developed by both other banks in other countries, such as Barclays, but also tech companies solutions, such as PayPal and Amazon, it became evident to the MobilePay team, that these solutions were not satisfactory to what the bank wanted to achieve (Korsgaard 2016). The problem with existing solutions was that it was based on the account infrastructure (Barclays), or demanded a separate account outside of the bank, from which transfers then could be made (PayPal/Amazon) (Korsgaard 2016).

Instead the MobilePay team turned their attention to another path, which were the users. Keeping in mind, that MobilePay was a product that should boost the image of Danske Bank, this decision makes sense. Furthermore, putting the values of the users first, Danske Bank would increase the chance of people using MobilePay, increasing the chance for success. As described using the analytical tools, Danske Bank identified the possibility of creating new value for the users, by making a P2P payment product that was available to everybody. Since this had never been done before, Danske Bank would separate MobilePay from the existing market, and change the entire payment structure of the banking sector (Krog 2014).

7.3.2.2 Focus on the big picture not the numbers

After assessing, and picking the path used to create the blue ocean, Danske Bank had to align the strategy process to focus on the big picture instead of the numbers. This principle in the process refers back to the strategy canvas and the four-action-framework. Using those tools, the MobilePay team had identified market factors that could be eliminated, reduced, or raised. Furthermore, the MobilePay team had identified factors where MobilePay could create new buyer value to the value curve. In this principle though, it was identified, that MobilePay had to be first to the market, regardless of the costs (Mortensen 2014). It can be argued, that the criteria was made, because the management of Danske Bank had identified first-mover advantages, that was critical to ensure MobilePay's success. The first-mover advantages will be analysed later in the

thesis. Another indication, that the MobilePay team was looking at the bigger picture instead of the numbers, was the choice of basing MobilePay on the card infrastructure, which would mean a much higher cost for Danske Bank, but would ensure functionality and speed for the users (Korsgaard 2016).

7.3.2.3 Reach beyond existing demand

After identifying the path to create a blue ocean, along with aligning th strategy to focus on the big picture. The MobilePay team had to find out how they would maximize the size of the blue ocean. This is done by challenging two classical strategy practices; focusing on existing customers, and focusing on finer segmentation to accommodate buyer differences (Kim og Mauborgne 2005)

As mentioned earlier, the banking sector was offering two different products; online-banking and mobilbank. In addition to this, tech-solutions also existed such as PayPal and Amazon. The bank solutions were exclusively focused on the customers of the respective banks, and the tech solutions required users to create an account to which money from a bank account could be transferred (B. T. Christensen 2016). The narrow focus of the bank-solutions had also been the case for Danske Bank, but the MobilePay team recognised an opportunity to reach beyond their market and capture users from the other banks, by basing MobilePay on the card infrastructure instead of the account infrastructure (Korsgaard 2016). Furthermore, MobilePay would also capture users from PayPal, who used PayPal as a payment tool on for example Den Blå Avis. In short, MobilePay would reach beyond its existing market, by disrupting the entire payment infrastructure (Korsgaard 2016). This combined with the importance of being first to the market, was believed to be key elements, in maximizing the size of the blue ocean (Mortensen 2014).

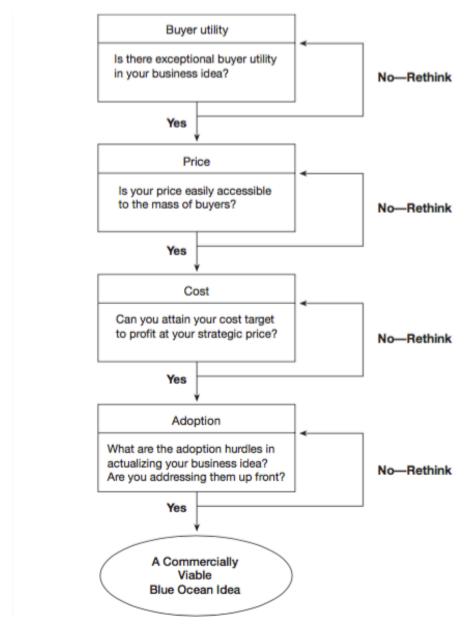
7.3.2.4 Get the strategic sequencing right

Once the above three principles had been assessed, the next step for the MobilePay team was to build a robust business-model, and this is where the case

of MobilePay becomes really interesting. Since the theory is focused on the assumption, that the organisation creating the blue ocean does so in order to make money, this was not the case with MobilePay. Instead MobilePay was created as a product that should boost the image of Danske Bank, by offering something that had not yet been available to the market for free (Krog 2014). As the analysis of this principle will show, the case of MobilePay goes directly against theory of building a strong business model. The reason for this will be analysed, and an explanation for the choices made by the MobilePay team, will be attempted.

The model depicting the questions, needed to be answered by an organization, in order to develop a commercially viable blue ocean idea is:

The Sequence of Blue Ocean Strategy



(Chan og Mauborgene 2005)

Buyer utility: By creating the first P2P payment system available for everyone, Danske Bank would offer something that the market had never had before. This, combined with a less complex security system, than what had been the standard on the market so far, increased the buyer utility even further, and would make MobilePay as easy as cash.

Price: In the case of MobilePay, there was no question. MobilePay had to be free to use for the users. This was mainly due to the fact, that MobilePay was an image stunt, aimed at boosting the image of Danske Bank. Furthermore, by making MobilePay free, Danske Bank increased the chances for a greater adoption rate from the users.

Cost: This is where MobilePay stands out. According to theory, an organisation has to ensure that the cost of the blue ocean idea is low enough, so that the organisation will gain a profit selling the product at the above-mentioned price (Chan og Mauborgene 2005). Since MobilePay was free to use, Danske Bank would not make any money on MobilePay. Furthermore, Danske Bank actively decided to increase the cost of MobilePay, by basing it on the much costlier card infrastructure. The choice of payment infrastructure would further mean, that not only did Danske Bank pay the development cost of MobilePay, they would actually lose money every single time MobilePay was used (Korsgaard 2016). Even though the cost versus price ratio should mean, that the MobilePay project should be stopped, since it no longer represents a commercially viable idea, Danske Bank carried on with the project. The reason for this choice is discussed later in the project. Even though the cost versus price ratio should mean

Adoption: To minimize adoption hurdles, and increase the chances for greater adoption of MobilePay, the development team decided to scrap the need for NemID, registering for MobilePay, and using the application (Korsgaard 2016). Instead, the development team decided, that the only things you would need in order to create a MobilePay user, was a smartphone, a credit card, and a phone number. As mentioned earlier, the MobilePay development team was greatly concerned with making MobilePay as easy as possible in order to cater to all age groups, and technical levels.

Looking at the above sequences, it becomes clear, that MobilePay was not a commercial viable blue ocean idea, but then again, it was not suppose to be.

Except for the cost, MobilePay passed every single sequence mentioned in theory, and is therefore a blue ocean idea, just not a commercial one.

7.3.2.5 Overcoming key organizational hurdles

Once a company has taken the above steps, the company has to execute the strategy. Hurdles exist when executing a strategy. According to theory, managers will face four different hurdles (Kim og Mauborgne 2005). These hurdles need to be overcome in order to minimise organizational risk and resistance. With regard to the cognitive hurdle, Danske Bank overcame this by creating a new department within the Bank. By doing this, Danske Bank ensured that the existing personnel was working of efficiently operating the bank, while the new division would focus on developing solutions like MobilePay, which would transform the bank (Qvartz 2015). Therefore there was no cognitive hurdle regarding the development of MobilePay (Korsgaard 2016). With regard to the resource hurdle, Danske Bank and the MobilePay team also had this under control. Since the MobilePay project was backed by the entire top management of Danske Bank, and therefore the MobilePay team had all the financial resources they needed in order to create the best possible product, along with any personnel resources', which was also at the MobilePay teams disposal (Korsgaard 2016). The motivational hurdle was no problem as well. Since Danske Bank had created a special division to create the bank of tomorrow (Qvartz 2015), the employees within the division were all motivated to create new products, which meant that the people behind MobilePay were motivated to create something new (Korsgaard 2016). Lastly there is the political hurdle. Through the data collected from the people involved in the development process of MobilePay, it has not ben possible to identify any opposition to the MobilePay project within Danske Bank (Korsgaard 2016).

7.3.2.6 Build execution into strategy

This step involves building trust and commitment deep in the ranks, which in turn inspire voluntary cooperation (Kim og Mauborgne 2005). This is achieved by

engaging employees in the management process, explaining what the consequences of the decisions are going to be, and clarify the expectations from both management and employees (Kim og Mauborgne 2005). Prior to the development of MobilePay, Danske Bank had undergone an extensive organizational transformation (Qvartz 2015). Along with the organizational transformation, Danske Bank had also gotten a new strategy, which involved customers helping themselves with their day-to-day banking transaction, while offering more service and tailored counselling to customers with complex needs (Qvartz 2015). This resulted in Danske Bank closing down many of their branches (Juel 2013). The big organisational and strategic change has resulted in a drop in some key areas within employee satisfaction, motivation and loyalty:

Employee survey scale: 0-100	2011	2012	2013
Employee satisfaction and motivation	76	74	74
Employee loyalty	80	79	80
Employee perception of the Group's social involvement and responsibility	78	75	72
Employee perception of whether the Group takes more responsibility for the employees than expected	71	68	66
Social capital	80	79	80
General atmosphere	79	78	80
Physical working environment	72	72	72

(Danske Bank, Corporate Responsibility Fact Book 2013 2014)

The survey indicates that Danske Bank did not manage the change management process, of the organisational and strategic change, in a completely satisfying manner. Even though the above survey shows a decline in some key areas, it is important to mention that the survey includes all employees. According to the data collected from Rasmus Korsgaard, the employees involved in the MobilePay project was all committed to the development of MobilePay (Korsgaard 2016).

The above analysis of the strategy behind MobilePay has revealed, that it does in fact follow that of blue-ocean strategy on must points. Using the data collected, it was possible to illustrate the strategy canvas for MobilePay, as well as create the four-action framework for MobilePay. The above analysis also revealed how

MobilePay would create new value to the market, and also showed what features of MobilePay, would increase the chances of adoption. What the analysis also showed was, that the original idea behind MobilePay was not a commercial viable one. This underlines the need for a deeper analysis of this choice. Overall, the analysis showed exactly how the MobilePay team formulated the strategy for creating a blue ocean.

7.5 MobilePay: A Case of Disruptive Innovation

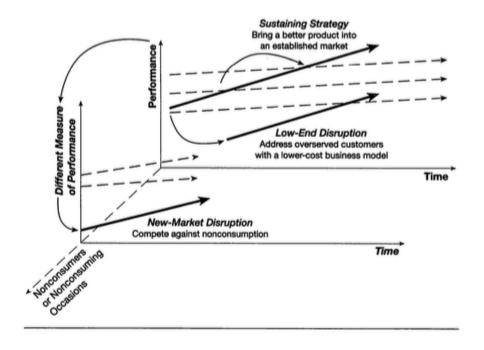
After positively assessing that the MobilePay development team developed a blue ocean strategy, analysing what type of innovation becomes interesting. When using blue ocean strategy an organisation seeks to create a new market. Therefore, it would be fair to assume, that MobilePay could be classified as newmarket disruption. The following analysis will attempt to determine this.

To determine what type of innovation MobilePay is, a litmus test can be applied to the innovation (Christensen og Raynor 2003). If the questions regarding a potentially new-market disruption, the following can be deduced:

Is there a large population of people who historically have not had the money, equipment, or skill to this thing themselves, and as a result have gone without it altogether or have needed to pay someone with more expertise to do it for them? As has been described throughout this thesis project, Danske Bank wanted to take one feature from online-banking/mobilbank, P2P transactions, and make it easier and faster to use. Now the question asks if there is a large population that has gone without it. This is not the case for MobilePay, but it can be argued, that online-banking and mobilbank was "forced" on the users, with no other real alternative. Therefore no there was not a large population not using the available products on the market, but they might not be satisfied with the solutions. The dissatisfaction with the existing solutions where identified by the MobilePay team as being, an unnecessary overcomplicated process to do a simple thing, which was P2P payments (B. T. Christensen 2016). The interesting thing about the case of MobilePay is the element of uncertainty that plays a big role in the

case. The role of uncertainty is also present when attempting to apply the litmus test to MobilePay, because the MobilePay team bet on the possibility, that users where fed up with the complicated process to transfer small amounts from one account to another, but they did not know for a certainty.



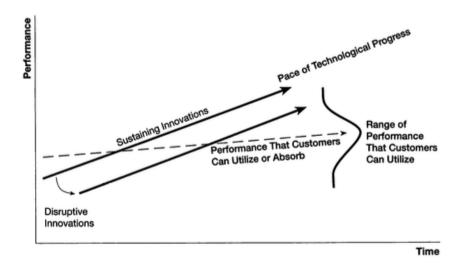


The other question that has to be answered is, if the user had to go to an inconvenient centralized location. This question, compared to the first, is easier to answer. Since every bank on the market only made products for their own customers (Korsgaard 2016), there were multiple centralized locations. The banks developed an option to their users by developing an application, such as Danske Mobilbank (Dilling og Svarrer 2010), but in reality it was just a lighter version of the original online-bank (Korsgaard 2016). So yes users had to go to an inconvenient centralised location on either a computer or a smartphone.

Now, if the questions regarding low-end disruption are applied to MobilePay it becomes clear that MobilePay does not fall into this category. The first question regards whether or not, a large group of users exist, that would be happy with a cheaper product with less performance. The reason MobilePay cannot answer yes to this is, that the question emphasizes that the new product's definition of

performance is the same as the existing. This was not the case for MobilePay. MobilePay did not want to disrupt their existing online-bank/mobilbank, instead the purpose was to create a different way to do P2P payments (Korsgaard 2016). This is where the difference in definition of performance appears. For online-banking/mobilbank, the performance was measured by how many features could be created within, enabling the user to service him/her self (Bank 2016). It can be argued that MobilePay on the other hand, measured performance on how simple, fast, and reliable P2P payments could be done. Since the first question was answered no, the second automatically is also no, because it also expects the innovation to have the same definition of performance.

The Disruptive Innovation Model



Once it has been determined that MobilePay had the potential of becoming a new-market disruption, the overall important question, is the innovation disruptive to all the significant incumbent firms in the industry? (Christensen og Raynor 2003), has to be answered. In the case of MobilePay this question can be answered affirmatively. Danske Bank actively decided to base MobilPay on the card infrastructure, which made MobilePay available for the entire market (Korsgaard 2016). According to data from Danske Bank after the launch, it becomes clear that MobilePay disrupted the whole market, since 70% of users where customers of other banks (Danske Bank, Historien om MobilePay og lidt fakta 2016).

In the theory section of this thesis project, the technology s-curve was introduced in combination with the disruptive innovation approaches. As explained in the case description, Danske Bank viewed it as critical to be first to the market (Korsgaard 2016). By being first to the market with a completely new product, MobilePay would create the first technological s-curve on the new market. If MobilePay would also prove to be a success, it would then be up to the competition to create a technology that either had a steeper curve, or create a technology that would raise the technological limits of the existing. Looking at the case of MobilePay, Danske Bank did in fact manage to be first to the market (Kirk 2014), thereby creating the first s-curve on the new P2P payment market. This meant that Swipp had to either introduce a technology could perform better at less effort, or a technology that had a higher technology level than that of MobilePay. Unfortunately for Swipp this was not the case. Swipp was launched a month after MobilePay (Mobilsiden, Swipp er en ny Mobilepay konkurrent 2013), but did evidently not introduce a technology that did the above-mentioned criteria's, in order to beat MobilePay (Rossau og Pedersen 2013).

7.2 The New Product Development Process: Using Multidisciplinary Team

After analysing and deducing that Danske Bank did in fact transform into an ambidextrous organisation it becomes interesting to look at the new product development (NPD) process that led to the development of MobilePay.

Recalling the case description, the new division tasked with transforming the bank, was created to be agile (Qvartz 2015). The decision to create an agile division has implication on the NPD process, and especially the decision on how to develop.

Classical literature tells us, that an organisation is divided into departments or silo's such as R&D, marketing, IT etc, which was also the case for Danske Bank (Korsgaard 2016). In a classical scenario, Danske Bank would have appointed a project champion, whom then would coordinate the work, between the different

departments, needed to develop MobilePay (Schilling 2010), but this was not the case. Danske Bank intentionally separated the new department from the "classical" bank activities, in order not to "distract" employees (B. T. Christensen 2016). Therefore Danske Bank decided to use a team structure for the NPD process of MobilePay.

The "founding" team of MobilePay consisted of Rasmus Korsgaard, Peter Gregersen, and Bo Tolstrup Christensen (Korsgaard 2016). When using a team structure it is important to have diversity, in order to have multiple perspectives when developing a product (Schilling 2010). Therefore it is important to look at the background of the "original" team.

- Rasmus Korsgaard: Was a software engineer who had experience with developing apps. He was the head developer of Danske Mobilbank, which was launched in 2010 (Korsgaard 2016).
- Peter Gregersen: User interface expert, whom also has experience with design. He was also involved with the development of Danske Mobilbank and had worked closely with Rasmus Korsgaard during that project (Korsgaard 2016).
- **Bo Tolstrup Christensen:** Was a management consultant who was put in charge of the development of MobilePay.

Looking at the original team, it is clear that it posse's diversity with both a software engineer, and a UX expert meant that the team could coordinate both what MobilePay should be able to do, but also how it was going to do it (Korsgaard 2016). This combined with a experienced manager is, with regard to theory (Schilling 2010), a recipe for success. The fact that that Peter Gregersen and Rasmus Korsgaard had already worked together developing an app before minimised the risk, of not reaching a common understanding of the NPD project. The "original" team was also given a sense of ownership by management, since the requirements to the MobilePay project was, that it should be a P2P transaction tool that was as easy as sending a text. The requirement was also that Danske Bank had to be first (Korsgaard 2016). Other than those

requirements, the team had creative freedom to develop MobilePay the way they saw fit (Korsgaard 2016).

As the development of MobilePay began, the MobilePay team grew (Korsgaard 2016). This meant that Rasmus Korsgaard assumed the role as team leader for development, and Peter Gregersen became team leader of design (Korsgaard 2016). Other than a standing team of 10-15 people, the NDP process of MobilePay involved over 100 people within Danske Bank (Krog 2014). In order to minimise any "red tape" or resistance from the different departments, the MobilePay team had carte blanche from the top management to use any resources necessary to create MobilePay (Korsgaard 2016).

Danske Bank decided to use a team structure, but it has to be determined and analysed what team structure they used. Looking at the data collected in this case, it can be determined that Danske Bank used one of two different choices: Heavy Weight Team structure or Autonomous Team structure. What speaks for these two team structures is the fact that the original team, along with the 10-15 that joined the team, was allocated and worked solely on developing MobilePay (Korsgaard 2016). Looking at the structure of the team, with Bo Tolstrup Christensen as the team leader, Rasmus Korsgaard, and Peter Gregersen as functional heads, it suggests that the team structure fits that of a heavy weight team structure, more than the autonomous structure. What supports this is, that if we look a little further, than the scope of the project, MobilePay is turned into a department within Danske Bank, and is no longer a team. This is aligned with theory, which states that the team is not permanent (Schilling 2010). When it comes to team size, the MobilePay team kept it relatively small by "only" including 10-15 people in the team. Taking into account the speed in which MobilePay was developed, the size of the team did not slow down the project, which in turn suggests that the team size was appropriate for the MobilePay project.

One of the cornerstones in the classical NPD literature is to involve users in the development process (Schilling 2010). Danske Bank decided not to do this. The

reason for this is was, that the development team did not believe the users could add anything to the project, because they simply did not now or understand the possibilities that Danske Bank was able to create (Korsgaard 2016). With that said, the users was central to the development of MobilePay, which will be discussed and analysed later in the thesis project.

The analysis of the NPD process has revealed, that Danske Bank used a team structure to develop MobilePay instead of attempting to coordinate between different units within the bank. Furthermore, it was deduced that the team structure implemented by the development team was that of a heavyweight team structure. Looking at the background of the leading team-members also showed that the team possessed a great deal of diversity, which allowed for the team to look at MobilePay from different angles.

7.2.1 Collaboration with In2Media and Trifork

In the above analysis, the NPD structure chosen by Danske Bank was determined. Furthermore, the "original" development team was introduced, which underlined the diversity and expertise of the development team. What was not included, in the above section, was the realisation of a lack of competencies within app design and app development (Korsgaard 2016). Therefore, it becomes interesting to analyse how the development team tackled this problem.

A stated in the theory section of this project, an organisation has various reasons to collaborate (Schilling 2010). In the case of MobilePay, it was Danske Banks first venture into creating a radically new product, which meant that Danske Bank had no idea what the success of MobilePay might be (Korsgaard 2016). This meant that management was reluctant to spend large amount of capital on new employees with the necessary competencies, which was lacking in the existing development team. This meant that the cost of collaboration had to be relatively low. From the case description, it is also given, that speed was one of the most

important factors in the entire NPD process. Therefore, the collaboration mode chosen, should allow for the collaboration to be fast.

Reviewing the different types of collaboration, it can be concluded, that the only collaboration form that fits the requirements, are outsourcing (Schilling 2010). This was also the decision made by the MobilePay development team, who decided to outsource the designing and the development of MobilePay, to In2Media and Trifork respectively (Korsgaard 2016). The reason the two companies were chosen was based on the fact, that the two companies had been involved in a previous successful collaboration project Danske Mobilbank (Korsgaard 2016). By choosing collaboration partners, who had already been a success, the MobilePay development team minimised some of the obstacles associated with picking the right collaboration partners, such as ensuring that the collaboration partner has a resource fit and a strategic fit (Schilling 2010). Furthermore, the development team, especially Rasmus Korsgaard and Peter Gregersen, knew the way the two companies worked (Korsgaard 2016), which can have further improved the overall speed of the collaboration.

Even though the development team had minimised must of the concerns regarding collaboration, one issue about outsourcing remained, and that is the lack of developing new competencies (Schilling 2010). This was a deliberate choice, since Danske Bank wanted to see if MobilePay was a success, before investing in acquiring the lacking resources. Furthermore, the requirement of speed of the project, made the trade-off necessary (Korsgaard 2016).

If the collaboration mode of MobilePay, is roughly compared to that of Swipp, the positive effects of the choices made by Danske Bank becomes more clear. The collaboration mode chosen by the banks behind Swipp fits that of a strategic alliance. Assessing the characteristics of a strategic alliance, it becomes clear, that it is a more complex type of collaboration (Schilling 2010). The speed and cost of a strategic alliance varies, which indicates, that there are many factors affecting the two variables. Furthermore, the control of every organisation in the strategic alliance is relatively low, which might mean, that a project moves in a

direction that is not necessarily wanted by all the involved organisations, which was the reason for Danske Bank leaving the strategic alliance early on (Korsgaard 2016). Looking at the difference between the collaboration modes chosen by Danske Bank versus the one chosen by the Swipp banks, it indicates that this might be one of the key reasons that MobilePay beat Swipp to the market.

7.2.2 The Developing Method of MobilePay: A case on SCRUM

Until now, we have established the team structure and its implication on the development of MobilePay. Furthermore, it has been established, that the development team of MobilePay lacked some competencies, which was resolved by collaborating through outsourcing. A decision not yet analysed, is the developing method used by the MobilePay development team. The development method chosen by the development team plays an import role in the entire NPD process, and could have implications on the speed of the development process.

Reviewing the literature on development methods, it was outlined in the theoretical section, although very simplified, can be split in two different types, the classical method, and the agile method (Rose 2010). In the case of MobilePay, the development team chose to use SCRUM, which belongs to the agile method (Korsgaard 2016). The reason for this choice can be traced back to the one of the requirements in the charter for MobilePay. In there were the criteria, that the development team should be first to the market (Korsgaard 2016). This meant, that the developing method used was designed for speed. Reviewing the work of Rose, he states that the agile method is best suited for speed (Rose 2010). This supports the decision of the development team, and could be a direct reason for MobilePay being the first product on the market.

Choosing the agile method has some very important implications on the development team. Schwabe and Sutherland underlines in their work, that SCRUM is fast, lightweight, and easy to understand, but on the other hand incredibly hard to master (Schwaber og Sutherland 2012). In order to master the SCRUM method, certain roles has to be clearly defined and followed (Schwaber og

Sutherland 2012), In the case of MobilePay, Peter Gregersen was the product owner. And Rasmus Korsgaard was the SCRUM master (Korsgaard 2016). The development process began with Peter Gregersen activating different design agencies. After activating different desing agencies, In2Media was chosen as the collaboration partner (Korsgaard 2016). Once the design partner had been chosen, Peter Gregersen tasked In2Media with coming up with ideas of what MobilePay could look like based on some criteria created by the development team (Korsgaard 2016). Once In2Media had created a visual presentation of how MobilePay could look like, the development team and Trifork began developing the app (Korsgaard 2016). As SCRUM master, Rasmus Korsgaard's main responsibility was to make sure that the SCRUM method was understood and followed. The SCRUM master is also responsible for assisting the product owner if anything is needed (Korsgaard 2016). Peter Gregersen's job as product owner, was to create the product backlog, order the items in the product backlog to best achieve goals and missions, optimize the value of the work the development team performs, ensuring the product backlog is visible and understood by the development team.

The product backlog created Peter Gregersen, was a list including all the tasks that needed to be done in order to have a final product. The tasks were then developed one by one going from most critical to least. The work is then carried out in sprints, which in the case of MobilePay lasted 2 weeks (Korsgaard 2016).

If we compare the agile method used by the MobilePay development team, to a classical method such as the waterfall method or stage-gate it becomes clear, why the SCRUM method was used. The stage-gate and waterfall method perceives the development process as linear and includes a number of stages, which has to be fulfilled before moving to the next step of development (Rose 2010). This can result in a long process, where the development of a new product is halted because of trouble with the design. In the SCRUM method, both design and coding, in this case, is done simultaneously, and then put together at the end. This means that a problem in the design does not halt the technical development of the product, in this case MobilePay. Using the SCRUM method also meant, that

the collaboration form, which was determined to best fit the outsourcing mode, did not follow the standard criteria's. Instead there was a much closer relationship between the MobilePay development team, and the collaboration partners, In2Media and Trifork, than you would expect in a traditional outsourcing collaboration (Korsgaard 2016).

The use of SCRUM as the development can be a reflection of the strategic approach, which was determined earlier in the analysis. The SCRUM method is build around the idea that it is a never-ending process. This is underlined by the fact that the product backlog is never done. Instead the product backlog evolves as the product evolves (Schwaber og Sutherland 2012).

From the above analysis of the NPD process, it has been revealed that Danske Bank used a heavyweight team structure in the development of MobilePay. The core team evolved from involving two IT guys (Korsgaard 2016), to a total team of 10-15 dedicated people with diverse backgrounds such as design, IT, communication etc (B. T. Christensen, Finansdagen - MobilePay 2014). Even though the team had diversity, they were still lacking competencies. By collaborating with In2Media and Trifork, the MobilePay development team gained the competencies they were lacking. Looking at the NPD process as a whole, it becomes evident how much affect the strategic approach choice has affected the whole process.

7.4 First mover advantage

As has been described earlier in the project, it was a key criterion for the management in Danske Bank to be first on the market with a P2P payment solution. Therefore it becomes interesting to look at first mover advantages, since it seems to be very important for Danske Bank.

In the theory section of this project, a number market and technological uncertainties associated with being a first mover (Robinson og Min 2002). The first part of this section attempts to uncover which uncertainties were present in

the case of MobilePay, and how the development team minimised these uncertainties. One first mover uncertainty is R&D expenses. In the case of MobilePay, Danske Bank was not inventing the wheel. Apps were becoming more and more popular (Wijas-Jensen, It-anvendelse i befolkningen - 2012 2012). Now according to theory, as a technology becomes more and more used, the cost of development decreases (Schilling 2010). Therefore, it can be assumed, that even though cost was still present, the uncertainty of the expenses was not as large as it would have been, if Danske Bank were the first one to ever develop an app. Another uncertainty associated with first mover, is that of user ambiguity. Danske Bank had already created an app with great success (Dilling og Svarrer 2010). Furthermore, statistic regarding It-use in Denmark showed that the number of people using Mobilbank had gone up form 7% in 2011 to 18% in 2012 (Wijas-Jensen, It-anvendelse i befolkningen - 2012 2012). Even though this does not mean, that MobilePay would be a success it showed a basis for the assumption, that the market liked app based solutions. The obstacles regarding supplier markets and distribution channels, was not a big issues in the case of MobilePay. Danske Bank already had created apps in collaboration with In2Media and Trifork before, thereby overcoming the supplier markets, and the existence of both Apple App store and Google Play, made the obstacle of distribution channels obsolete. The obstacle of enabling technologies not being mature enough, was also small, since the smartphones, since the launch of the Iphone in 2010 (B. T. Christensen 2016), had only gotten more advanced.

The biggest obstacle of being a first mover though, is the uncertainty of costumer requirements (Schilling 2010). As the above section has revealed, many of the obstacles faced by Danske Bank could be minimised by analysing the individual factors. This factor on the other hand was very present in the case of MobilePay. To minimise this obstacle, organisations can chose to include users in the development process (Schilling 2010). Danske Bank did not do this. Instead the MobilePay team analysed the available solutions on the market, and attempted to create a new value chain, which was shown in the blue ocean section of this project. Furthermore, the development team behind MobilePay used user scenarios in an attempt to enable MobilPay to be used in any possible scenario

that the user might need (Korsgaard 2016). Even though the development team made this attempts to minimise the uncertainty of customer requirements, Danske Bank did not know if people would use MobilePay (Korsgaard 2016).

Now that the obstacles and uncertainties associated with being a first mover, this section will now look at the advantages of being a first mover. MobilePay was the first P2P payment solution of its kind on the Danish market. By making it available for the entire market, Danske Bank did not only cater to their own customers, but also all the other banks. Looking at the adoption rate of MobilePay (B. T. Christensen 2016), it becomes clear that Danske Bank did in fact benefit from the short-term monopoly on the market. Furthermore, Danske Bank established stron brand loyalty from the users. This was revealed when Swipp was launched only a month after MobilePay (Mobilsiden, Swipp er en ny Mobilepay konkurrent 2013). When Swipp was launched, the adoption rate did in no way match that of MobilePay (Børsen 2014). The slow adoption rate of Swipp could indicate brand loyalty towards Danske Bank and MobilePay. Another advantage of being a first mover is the reputation of technological leadership (Schilling 2010). MobilePay unquestionably achieved this since Bo Tolstrup Christensen was awarded as digital pioneer of the year in 2014 (Engholm 2014).

Now as there are advantages of being a first mover, there are also advantages of being a fast second mover (Johnson, Whittington og Scholes 2011). Swipp was a fast second mover, launched only a month after MobilePay (Mobilsiden, Swipp er en ny Mobilepay konkurrent 2013), but did not achieve the advantages, which are theoretically possible. Some advantages of being a fast second mover, is the failure of the first mover, at dealing with the uncertainties analysed earlier in this section (Schilling 2010). The analysis of these uncertainties showed that MobilePay had addressed almost all of the uncertainties. This meant it was up to the Swipp-group to actively try to take back market share from MobilePay, but Swipp failed at doing so.

One of the mistakes made by the banks behind Swipp was that it was exclusive. Because Swipp was based on the account infrastructure, banks not a part of the Swipp project was excluded, which also meant their customers (Korsgaard 2016). This extended the competitive advantage held by MobilePay, and it is something that Swipp has had to adapt to, by opening up and also accepting the card infrastructure (Birkeslund 2016). Furthermore, the banks behind Swipp had overestimated the brand loyalty of their customers. The banks behind Swipp collectively had around 3,3 million customers, but only 470,000 used Swipp in 2014 (Børsen 2014). In fact the group of banks behind Swipp was actually expecting a ketchup effect to Swipp (Anneberg 2014), but it never came. The reasons for the lack of a ketchup effect are many. One reason could be found in launch of Swipp. Since Swipp is a consortium of different banks that went into, what can best be described as a strategic alliance. Now the reason to form a strategic alliance was necessary since Swipp was account based. The problem with the alliance that the banks went into was, that the banks did not really share capabilities. Instead they shared the cost associated with linking an account with a phone number, but each bank had to developed their own Swipp app (Korsgaard 2016). This choice meant giving the individual customers from the different banks different experiences. Comparing this to the mobilbank solutions already offered by banks, it can be argued, that the Swipp app did not change this experience. Furthermore, the individual development of Swipp apps, meant that the banks did not coordinate when the individual apps were done, which resulted in different launch times such as Nordea being delayed with the launch, which presented a serious problem given that Nordea was the bank with the biggest customer base (Mobilsiden, MobilePay-konkurrenten Swipp klar til Windows Phone 2013). This problem was addressed in 2015, when the banks came together and developed a collective app for everyone involved.

Swipp also had the challenge of persuading the market to adopt Swipp. As mentioned earlier, the adoption rate of MobilePay was big, and most of the users were non-Danske Bank customers (Danske Bank, Historien om MobilePay og lidt fakta 2016). This meant that the banks behind Swipp had to market the app, presenting a value that MobilePay did not offer the costumers. Swipp did this by raising the limit for how much you could transfer (Swipp 2016). The problem with this was, that Danske Bank followed suit and made it possible for the users

to raise their own limit so it fits their needs. All of the above factors are all explanations for, why the banks behind Swipp did not experience any of the upsides of being an early follower.

8. Discussion

Through the analysis key factors to the success of MobilePay has been identified. First of all, Danske Banks decision to change into an ambidextrous organization was vital for enabling Danske Bank to assess its own organization, combined with the market, and external threats in a new way. Through the assessment, Danske Bank found that a new strategic approach was needed in order to handle the uncertainty associated with the future. Danske Bank recognized a need for a change of focus. Until the strategic change, Danske Bank had focused on their own interests, but by changing the strategic approach, Danske Bank began to place the customer at the heart of their new projects. By changing the focus from self interest to customer interests, Danske Bank acknowledged that some processes, associated with customers self service, needed revision. Furthermore, Danske Bank was able to recognize a need for universal solutions, in a market that was divided into customer groups. Through a new strategic approach, Danske Bank was also able to recognize the need for collaboration with the threat (tech companies), allowing Danske Bank to access competencies they did not yet posses. Therefore, the key findings from the MobilePay case, was Danske Banks ability to recognize a need for change in order to explore and identify new possibilities in the changing environment, enabling Danske Bank to be a first mover and capture a new market.

Putting the findings from the analysis into the context established in the literary review, the findings made in the analysis of MobilePay confirmed two things. Firstly, the findings supported the reports, stating that the banking sector needed to react to external threats and future uncertainties calling for digital innovation when it came to payment solutions. Secondly, the findings made in the case study, provided insights into how an incumbent bank was able to assess, and react to an opportunity made possible by the industry's focus on own

interest instead of the users. Furthermore, the finding from the case study gave insights into what strategic steps were take, in order for the bank to be adaptable to changing environments and become successful first mover.

Through the insights found in this thesis are highly valuable, it can be discussed whether the findings made in this case are able to provide more generalised insights across both the banking industry, as well as other industries facing similar threats. However, in order to effectively be able to make generalisations based on the results found in this case study, more similar studies have to be made, and on the basis of these finding, similarities and differences could be identified providing a foundation for the identification of generalised tendencies to be made. Such studies could include more studies on the Danish, Nordic, European, or even global banking sector, in an attempt to determine common traits that might validate the findings made in this case study in a more generalised context. In this regard, the findings made in this thesis could play a role in generalised findings and possible identification of a framework for how to proactively react to threats in an innovative manner, depending on future research made.

In this regard, it is also worth reflecting on whether studies into other industries could prove useful in terms of generalisation. In order to adequately assess this, one would have to establish what properties about the cases that are the most defining in terms of strategic action in changing environments. If looking at other cases within the banking sector, one would know that core characteristics would be the same, as the banks globally have had a more or less stable business model and that, that business model is now threatened by more or less similar external threats. However, by looking into whether similarly stable and established business models are being threatened by similar threats in other industries, as well as how firms within those industries have reacted and comparing the findings made in those cases to the findings made in this study, one could explore the limits of generalisation across industries.

Furthermore, one could also look into cases of firms that had failed to adequately react to changing environments and consequently lost market foothold. Insights from such studies could potentially also validate the findings made in this study,

should comparison show that these firm had taken opposite actions as opposed to Danske Bank.

However, before one can argue for the generalisation possibilities of the findings made in this project, it is important to reflect on the validity of the insights made in this thesis, exclusively.

In this regard, it seems relevant to first and foremost reflect on the timeframe of study. As MobilePay was developed roughly four years ago, one can discuss the effect the time passed has had on the quality of data that has been collected. Though the data collected is primarily based on two very valid sources that both played a crucial part in MobilePay's development process (Rasmus Korsgaard & Bo Tolstrup Christensen), certain details about the process may have been forgotten and the importance of struggles minimised in the wake of the current narrative focused on the success of MobilePay. Furthermore, the fact that the initial development process, being the focus of this thesis, had already ended also meant that first hand observations made by the researcher directly, was no longer an option. Therefore, all information used for this project has been through a human filter of bias and selection processes, determining what to qualify as important vs. unimportant, before reaching the researcher. In this regard, having had multiple interactions, such as follow-up interviews, may have provided the researcher with a better chance of minimising such biases.

Having conducted additional interviews with Danske Bank's collaborative partners in the development process, Trifork and In2Media, could potentially also have strengthened the data foundation of this thesis and given a more nuanced understanding of MobilePay's development. Having numerous perspectives could also have helped limit some of the human bias, as well as potentially worked as a form of checks, validating the statement made by other informants. However, the data collected from this would primarily provide insight into how the scrum process worked in practice, as the collaborative partners were not a part of the strategic choice making process made by Danske Bank. In regard to the reasoning behind said choices, an in-depth interview with

Bo Tolstrup Christensen, may have provided more insights, but unfortunately, and as previously mentioned, he was not available for an interview.

Despite acknowledging the aforementioned limitations in terms of data collection, it is the researcher's understanding that the findings are still based on a solid and valid empirical foundation. Studying an already ended process will inherently be associated with certain shortcoming in terms of readily available data, but this does not mean that already ended processes are not study worthy. It is exactly because of the successful launch of MobilePay, and thereby an ended initial development process, that the strategic choices that led to the launch of MobilePay, can be deemed successful. Should the development process still have been underway, it would be too soon to assess whether or not the strategic choices made in the process, would prove fruitful.

9. Conclusion

Through the analysis, it was deduced that organizational ambidexterity played a vital role, in making Danske Bank acknowledge the need for new solutions, in order to stay competitive in the future. It was also determined that organizational ambidexterity allowed Danske Bank to be innovative, and recognizing new opportunities.

Organizational ambidexterity also affected the way Danske Bank approached the future. It could be deduced that Danske Bank acknowledged that it could not predict the future, and therefore a different approach was needed. Looking at the findings made in the analysis, it can further be deduced that Danske Bank changed the focus to be customer oriented. Through the analysis made in this thesis, it was determined that the new strategic approach fit that of a transformative strategic approach.

Based on the strategic approach, Danske Bank chose a strategy for MobilePay, which focused on controlling and limiting the uncertainties associated with

creating a new market. In the analysis, strong similarities, between the actions made by the MobilePay team, and blue ocean strategy was found.

The analysis of the development process of MobilePay also showed a strong focus on the use of a multidisciplinary team structure. Furthermore, it was also deduced that strong collaboration and the use of an agile development method played an important role in shortening the development time cycle.

As a result of the process used by Danske Bank, it was concluded that the uncertainties had successfully been minimized, and Danske Bank could therefore enjoy the advantages of being a first mover.

10. Suggestion for Further Studies

This case study of Danske Bank MobilePay, can be used as a foundation for a wide variety of further studies.

Since the focus of this case study was on the strategic and organizational changes beginning in 2012 and ending at the end of 2013, the study does not analyse whether, as well as how, Danske Bank has sustained MobilePay's success post launch. The scope of the case study used in this thesis stops at a point where MobilePay had experienced an adoption rate that far exceeded the expectations of the bank, leaving Danske Bank to once again having to answer, "what do we do now?"

Therefore, a study of what Danske Bank did after the initial success of MobilePay, in order to answer this question, could be interesting to analyse. Looking into what Danske Bank has done to sustain their first mover advantage could be highly relevant, as further innovative development seem imperative for future survival. More specifically, such a study could for example look into how Danske Bank ensures that MobilePay becomes the industry standard.

Despite the fact that Danske Bank seems to have successfully created and captured a new market, they have yet to turn MobilePay into a profitable

business model. How Danske Bank aim to do so could also prove to be highly study relevant, as making MobilePay profitable is needed to ensure return on investment. Such an analysis could for example include platform theory, and business model theory.

What makes these possible studies significantly different from the one conducted in connection to this thesis, is the fact that these processes are currently happening. Therefore, one would have a chance to evaluate the processes first hand, without being as dependent on key persons recollections, as was the case in this thesis research. This would allow for a more ethnographic research methodology including aspects such as observations, thereby providing a more empirically heavy project.

One could also make a comparative study, as mentioned in the discussion, with the aim of exploring tendencies in similar cases in order to provide a more general framework for how banks within the industry, or other industries with similar characteristics, can react to changing environments.

11. Bibliography

- Andersen, Ib. *Den Skinbarlige virkelighed vidensproduktion indenfor samfundsvidenskaberne.* Forlaget Samfundslitteratur, 2008.
- Anneberg, Mads Nyborg. MobilePay øger forspringet til konkurrenterne.
 24. January 2014. http://stiften.dk/erhverv/mobilepay-oeger-forspringet-til-konkurrenterne (senest hentet eller vist den 20. August 2016).
- Bank, Danske. Mobilbank. 2016. https://danskebank.dk/dadk/Privat/Selvbetjening/mobilbank/Pages/mobilbank.aspx (senest hentet eller vist den 20. September 2016).
- Børsen. Fakta Swipp og MobilePay. 14. October 2014.
 http://borsen.dk.esc-web.lib.cbs.dk/nyheder/avisen/artikel/11/95323/artikel.html (senest hentet eller vist den 22. August 2016).
- Birkeslund, Lene. Danske Banks kunder kan nu bruge Swipp. 17. June 2016.
 http://meremobil.dk/2016/06/danske-bank-kunder-kan-bruge-swipp/
 (senest hentet eller vist den 23. August 2016).
- Bryman, Alan, og Emma Bell. Business Research Methods. New York:
 Oxford University Press, 2011.
- Chan, K, og R Mauborgene. *Blue Ocean Strategy*. Boston: Harvard Business School Press, 2005.
- Christensen, Bo Tolstrup. *Finansdagen MobilePay.* IT Universitetet. 31.
 October 2014. http://video.itu.dk/video/10511161/finansdagen-mobile-pay (senest hentet eller vist den 20. September 2016).
- Christensen, Bo Tolstrup. MobilePay disrupt or be disrupted. Copenhagen,
 31. March 2016.
- Christensen, Clayton M, og Michael E Raynor. The Innovator's Solution: Creating and Sustaining Successful Growth. Boston: Harvard Business School Press, 2003.

- Danske Bank. Corporate Responsibility Fact Book 2013. 6. February 2014.
 https://www.danskebank.com/en-uk/CSR/Documents/2013/Danske_Bank_CR_Factbook_2013.pdf (senest hentet eller vist den 14. August 2016).
- —. Historien om MobilePay og lidt fakta. 17. June 2016.
 http://www.mobilepay.dk/da-dk/Pages/Om-MobilePay.aspx (senest hentet eller vist den 5. August 2016).
- Dietz, Miklos, Somesh Khanna, Christopher Mazingo, og Phillipp Härle.
 The Fight for the Customer McKinsey Global Banking Annual Review 2015.
 Annual Review, NY: McKinsey & Company, 2015.
- Dilling, Søren, og Ole Wejse Svarrer. Danske Banks mobilbank rammer plet.
 20. September 2010.
 http://politiken.dk/oekonomi/privatoekonomi/ECE1063626/danskebanks-mobilbank-rammer-plet/ (senest hentet eller vist den 20. August 2016).
- Elghiounane, Asem. 'New Standards': 117.000 kunder flygter fra Danske
 Bank. 10. May 2013.
 http://politiken.dk/oekonomi/privatoekonomi/art5478527/NewStandards-117.000-kunder-flygter-fra-Danske-Bank (senest hentet eller
 vist den 18. September 2016).
- Engholm, Peter. *Danske Bank-ansat blev årets digitale pioner*. 10. April 2014. http://bureaubiz.dk/danske-bank-ansat-blev-aarets-digitale-pioner/ (senest hentet eller vist den 17. November 2016).
- Finansrådet. Gruppeinddeling af pengeinstitutter. 2015.
 http://www.finansraadet.dk/tal--fakta/Pages/statistik-og-tal/destoerste-pengeinstitutter.aspx (senest hentet eller vist den 14. September 2016).
- Frandsen, Caroline Gerd. *Så er det slut med Swipp: Alle medarbejderne er opsagt.* 01. December 2016. http://nyheder.tv2.dk/erhverv/2016-12-01-

- saa-er-det-slut-med-swipp-alle-medarbejderne-er-opsagt (senest hentet eller vist den 10. December 2016).
- Grebe, Michael, Nicole Mönter, Brad Noakes, Jean-Werner de T'Serclaes,
 Ben Wade, og Ian Walsh. Global Retail Banking 2016: Banking on Digital
 Simplicity. Annual Report, The Boston Consulting Group, 2016.
- Houmann, Anne Louise. Nykredits nye partner vil hente mobilkunder via Snapchat. 17. August 2016.
 http://finanswatch.dk/Finansnyt/article8927875.ece (senest hentet eller vist den 10. December 2016).
- Iversen, Claus, og Kristoffer Brahm. Danske Bank landede overskud på 13,1 mia. kr. sidste år. 02. February 2016.
 http://finans.dk/live/erhverv/ECE8409585/danske-bank-landede-overskud-paa-131-mia-kr-sidste-aar/?ctxref=ext (senest hentet eller vist den 20. September 2016).
- Johnson, Gerry, Richard Whittington, og Kevan Scholes. *Exploring Strategy*. Harlow: Pearson Education Limited, 2011.
- Juel, Frederik M. Store lukkedag hos Danske Bank. 9. January 2013.
 http://www.business.dk/finans/store-lukkedag-hos-danske-bank (senest hentet eller vist den 15. August 2016).
- Kadlec, Dan. Why Millennials Would Choose a Root Canal Over Listening to a Banker. 28. March 2014. http://time.com/40909/why-millennials-would-choose-a-root-canal-over-listening-to-a-banker/ (senest hentet eller vist den 4. August 2016).
- Kim, W Chan, og Renée Mauborgne. *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant*. Boston: Harvard Business School Press, 2005.
- Kirk, Sebastian S. MobilePay stormer frem: Så mange bruger det nu. 26.
 Januar 2014.

- http://www.mx.dk/penge_erhverv/nyheder/story/20730628 (senest hentet eller vist den 20. August 2016).
- Korsgaard, Rasmus, interviewet af Tobias Jørgensen. Interview with Rasmus Korsgaard (23. June 2016).
- Kraaijenbrink, Jeroen. »The Nature of the Entrepreneurial Process:
 Causation, Effectuation, and Pragmatism.« I New Technology-Based Firms in the New Millennium, af Ray Oakey, Aard Groen, Peter van der Sijde og Gary Cook, 187-199. Emerald Group Publishing Limited, 2012.
- Krog, Tommy Brandi. Mød ingeniørernes Mr. MobilePay. 21. August 2014. https://ing.dk/artikel/moed-ingenioerernes-mr-mobilepay-169939 (senest hentet eller vist den 17. September 2016).
- La Monica, Paul R. Banks know that customers hate them. 17. June 2014.
 http://money.cnn.com/2014/06/17/investing/banks-crisis-reputation/
 (senest hentet eller vist den 4. August 2016).
- Leena, Rao. *Apple Pay Now Accounts for Three-Fourths of U.S. Contactless Payments.* 26. July 2016. http://fortune.com/2016/07/26/apple-paycontactless/ (senest hentet eller vist den 10. December 2016).
- Mobilsiden. MobilePay-konkurrenten Swipp klar til Windows Phone. 12.
 September 2013. http://www.mobilsiden.dk/nyheder/mobilepay-konkurrenten-swipp-klar-til-windows-phone,lid.28788/ (senest hentet eller vist den 22. August 2016).
- —. Swipp er en ny Mobilepay konkurrent. 13. June 2013.
 http://www.mobilsiden.dk/swipp-er-en-ny-mobilepay-konkurrent,lid.27652/ (senest hentet eller vist den 23. August 2016).
- Mortensen, Sille Wulff. Mød manden bag Mobilepay. 21. October 2014.
 http://finans.dk/protected/finans/erhverv/ECE7113404/Mød-manden-bag-Mobilepay/?ctxref=ext (senest hentet eller vist den 4. August 2016).

- Olsen, Poul Bitsch, og Kaare Pedersen. Problemorienteret projektarbejde.
 København: Roskilde Universitetsforlag, 2011.
- Perala, Alex. Android Pay Has Millions of Users: Google. 19. October 2015.
 http://mobileidworld.com/android-pay-millions-of-users-10292/#
 (senest hentet eller vist den 10. December 2016).
- Plesner, Morten. Regnskab: Renteswaps sikrer fremgang hos Nykredit. 11.
 February 2016.
 http://finanswatch.dk/Finansnyt/Realkredit/Nykredit/article8436181.e
 ce (senest hentet eller vist den 20. September 2016).
- Qvartz. Bulding the bridge as you walk on it. 2. April 2015.
 http://qvartz.com/buzz/case/building-the-bridge-as-you-walk-on-it/
 (senest hentet eller vist den 4. August 2016).
- Raisch, Sebastian, og Julian Birkinshaw. »Organizational Ambidexterity:
 Antecedents, Outcomes, and Moderators.« Journal of Management, March 2008: 375-409.
- Robinson, William T, og Sungwook Min. »Is the First to Market the First to Fail? Empirical Evidence for Industrial Goods Businesses.« *Journal of Marketing Research* 39 (2002): 120-128.
- Rose, Jeremy. *Software Innovation: Eight work-style heuristics for creative system developers.* Alborg: Alborg Universitet, 2010.
- Rossau, Kathrine, og Signe Frøslev Pedersen. *MobilePay fejer Swipp af banen.* 11. October 2013. http://www.business.dk/finans/mobilepay-fejer-swipp-af-banen (senest hentet eller vist den 4. August 2016).
- Sarasvathy, Saras D. »What Makes Entrepreneurs Entrepreneurial?«
 2001: 1-9.
- Schilling, Melissa A. Strategic Management of Technological Innovation.
 New York: McGraw-Hill Education, 2010.

- Schwaber, Ken, og Jeff Sutherland. *Software in 30 Days : How Agile Managers Beat the Odds, Delight Their Customers, And Leave Competitors In the Dust.* Hoboken: John Wiley & Sons Inc, 2012.
- Scratch. The Millennial Diruption Index. 2013.
 http://www.millennialdisruptionindex.com (senest hentet eller vist den 4. 08 2016).
- Sixhøj, Mads. Her er Danske Banks hemmelige mobilplaner. 06. April 2015.
 http://www.business.dk/finans/her-er-danske-banks-hemmelige-mobilplaner (senest hentet eller vist den 15. November 2016).
- Swipp. *Fordele for private.* 10. August 2016. https://swipp.dk (senest hentet eller vist den 20. August 2016).
- Tushman, Michael L, og Charles A O'Reilly. »The ambidextrous organization: managing evolutionary and revolutionary change.«
 California Management Review, 1996: 1-23.
- Weichert, Margaret M. »Payments innovation: A comparison of banks and non-banks and how they can learn from each other.« *Journal of Payments Strategy & Systems*, 2008: 236-249.
- Wijas-Jensen, Justyna. *It-anvendelse i befolkningen 2012 .* 29. November 2012.
 - http://www.dst.dk/Site/Dst/Udgivelser/GetPubFile.aspx?id=17443&sid =itanv (senest hentet eller vist den 10. September 2016).
- Wiltbank, Robert, Nicholas Dew, Stuart Read, og Saras D Sarasvathy.
 »What to do nex? The case for non-predictive strategy.« Strategic
 Management Journal 27, nr. 10 (March 2006): 981-998.
- Zigler, Thomas, Høie C Thomas, og Sofie Rud. *Frøsig: Vi står på en brændende platform.* 12. 10 2015. http://borsen.dk.esc-

web.lib.cbs.dk/nyheder/avisen/artikel/11/123559/artikel.html (senest hentet eller vist den 4.08 2016).

12. Appendix

12.1 Slides from Presentation made by Bo Tolstrup Christensen March 31, 2016



Key take aways

Opportunities arise - as everything is getting connected and online (IoT)

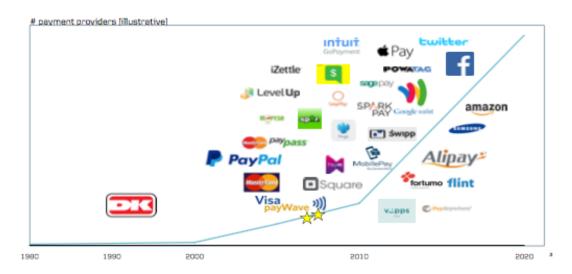
Payments matter - it is a commodity but also an essential building block

Mindset and technology distrupts - software before banking

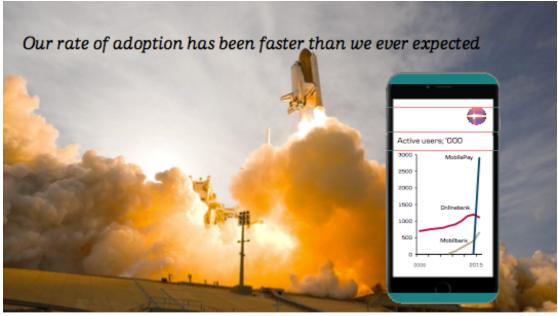


Danaka Llank

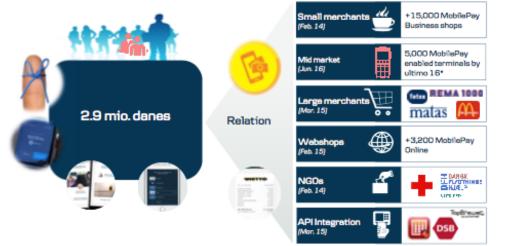
Digitalization has increased innovation and competition in the payments space











Danaka Bank

We keep improving the user experience while maintaining simplicity in the app



96



The biggest threat is global IT companies and fin-tech start-ups experimenting with new disruptive business models



Danska Bank

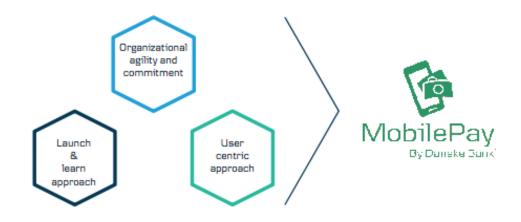
From products to partnerships



97



Our growth is as much a result of our mind-set as it is our imaginative application of technology



Danaka Hank

Understanding the customer is key to success







12.2 Summary of Presentation by Bo Tolstrup Christensen March 31 2016

- Currently 2.9 million users
- Launched May 2012 27000 downloads first day
- The adoption rate surprised Danske Bank
- MobilePay has evolved into a platform
- Danske Bank believes that MobilePay has turned into a business model innovation

- Big retailers such as COOP, Apple, Google are beginning to disrupt the bank industry
- Starbucks has created an app that allows you to use the app to pay for coffee, by-passing the banks
- Digitalization has increased innovation and competition in the payment space
- 2007 changed the industry by introducing the Iphone
- 2006 Amazon webservice was introduced, introducing a new way to do payments
- Dansk Bank has choosen a dual-strategy, which involves maintaining the classic bank, while also investing in disruptive ideas also known as Moonshots. MobilePay was the first dealing with payments. MobileLife is the second step
- Only a small % are being invested in disruptive innovation
- Adoption rate of mobilePay has been much better than expected.
 MobilePay beat the adoption of onine banking and mobilbank exponentially
- Danske Bank was a first mover when it came to mobile payment solutions
- Use customers, merchants, and users to come up with new ideas for MobilePay
- Danske Bank could have developed MobilePay alone, but that would have taken longer and might have resulted in a bad solution
- Business Model:
 - At the beginning it was based on P2P transactions
 - Later Danske Bank introduced it to merchants once they could show a user number of 1 million
- Now multiple merchants ranging from small merchants to online stores and NGO's
- The physical terminals for MobilePay is developed by Danske Bank themselves, because of lack of better options
- Over 23000 merchants has adopted it and MobilePay is now a platform
- Merchants are now switching to Danske Bank

- 10 million transactions a month
- MobilePay uses card infrastructure allowing everyone to use it, compared to account based solution
- 75% of transactions are P2P
- Competitive prices for merchants to have the MobilePay terminal
- The biggest threat is global IT companies and FinTech start-ups experimenting with new disruptive business models
- Danske Bank has changed from product focus to ecosystem focus
- Launch and learn process
 - o Organizational agility and commitment
 - User centric approach
- Understanding the customer us key to success.

12.3 Summary of Interview with Rasmus Korsgaard

- Rasmus Korsgaard: The original project manager of MobilePay
- Peter Gregersen: Business developer
- Rasmus Korsgaard is now a department manager within the MobilePay division
- The project started with a power point outlining the ides behind
 MobilePay including example of other solutions
- Then the team was scaled up and included it developer and it architects
- The development process started in late October, and started out with Korsgaard and Gregersen
- The initial ide abehind MobilePay was created by a strategy group including the CEO Eivind Kolding
- The primary premis og the product was to be new and innovative, and was made with a PR purpose.
- Rapid meetings with the strategy team
- Started out with design and archtecture of MobilePay
- The mandate of the MobilePay team was to be first to the market

- The team had carte blanche to attain all the ressources needed in order to make MobilePay first to the market.
- All departments was told to aplly to the needs of the MobilePay team
- The development process behind mobilbank cannot be compared to the case of MobilePay, because mobilbank was in reality "just" a skinning of the original NetBank
- Trifork was used for app development. Now Danske Bank has an internal app development team.
- Peter Gregersen was controlling the user interface.
- The development of the app started with Peter Gregersen activating design agencies by asking them to come up with designs for how MobilePay could look like.
- In2Media was chosen as the design collaboration partner.
- Once the design concept was in place, the development team engaged with Trifork in regular scrums, using user stories, to develop the components for MobilePay
- A highly collaborative approach with daily interaction between the development team and trifork
- Peter Gregersen was the product owner and had daily interaction with Trifork
- MobilePay was heavely inspired by other solutions. Pingit in the UK was a great inspiration to MobilePay
- The inspiration sources were all concerned with P2P transactions with some kind of ID that wasnt an account number, but the major difference between MobilePay and the other products, was the simplicity of MobilePay.
- The general person just wants his money on his bank account, where he can use it
- Money is only fun if you can use it
- The objective of MobilePay was to be as easy as cash
- One key factor that led to the success of MobilePay was that it was based on the card infrastructure.

- Before MobilePay every bank was creating products for their own customers. No universal products existed
- MobilePay showed that banks can in fact create universal products.
- Swipp based their app on the existing account to account infrastructure to mimic a payment.
- Sector collaboration is great for developing solutions such as account to account, dankort solutions.
- It was the belief of Danske Bank, that creating P2P tools as a sector solution is not the best way, because it is an end-product
- MobilePay sees the user experience as crucial for its success and it is not something you can create as a sector solution.
- In Sweden you have a sector solution called Swish, which came to the
 market in Sweden before MobilePay. It was a great success in Sweden. If
 you compare Swish to MobilePay you will see that MobilePay had greater
 adoption rate both from the users but also from the merchants.
- By standing alone, Danske Bank can move a lot faster than banks involved in sector solutions.
- Sector solutions are not fast enough
- Tech companies are not going to be a part of the sector, they will develop products on their own and disrupt the banking sector
- Threat from tech industry is what drove Danske Bank to innovate and develop MobilePay
- We need to move faster because the tech industry is evolving at an incredible rate.
- It took 10 years to get 1 million user of NetBank, it took 3 years to get the same for mobilebank, it took less than a year to get 1 mil users of MobilePay
- The adoption rate showed the top level management that even though you are at a strong position, in 6 months you can be on the buttom.
- The success of MobilePay led to the creation of MobilLife
- By creating MobilePay, Danske Bank made sure that the customers were engaging with Danske Bank instead of a tech company

- The mindset of the top management has been changed to include new and disruptive ideas.
- Danske Bank has realised, that it is not the existing competition that is going to beat us, it is tech and fintech we should be worried about
- In the initial product development, the MobilePay team knew they had something great, it was confirmed after the release.
- Once the success of MobilePay had been recognised, a business model began to develop in order to gain some revenue from the succes.
- The development of MobilePay mimiced that of a tech start-up
- Users were not used in the development process, but the user was always
 of the center of MobilePay.
- Further development of MobilePay is a result of collaboration with users