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The Disintermediation of the Traditional Bank

Modelling a conceptual framework for the incumbent retail bank business model strategy, post Open Banking.

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Authors: Ditte Dueholm (13268), Rasmus Lindgreen (84254) & Martin Olsen (36705)
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Abstract

To fill out an identified gap in academic literature, this thesis demonstrates how increasing digitalisation in the financial sector will impact the business model strategy of the incumbent retail bank. In doing so, the thesis illuminates the transformation in the traditional banks' business model strategy, currently and as it is impacted by key digitalisation drivers, to effectively bring forward strategic avenues the bank can pursue to remain competitive. Historically, the incumbent retail bank business model strategy has been characterised by having direct control of its entire value chain, pushing products and services to its customer segment(s), operationalised in a highly monopolistic industry.

Guided by an explorative research design, this thesis adopts a qualitative interview-based methodological approach with primary data collected from industry experts. Based on a critical literature review of related academic research in combination with selected theoretical conceptualisations, the empirical data was coded and analysed to effectively bring forward a broad conceptual framework. The structure of the findings was based on the selected theoretical conceptualisations, altogether enabling a comprehensive overview of the current incumbent bank business model strategy, as well as the expected impacts from increased digitalisation, with primary reference to the business model canvas. In compliment to this, the notion of ambidexterity was used to portray the business model activities in relation to the bank's strategic intent, customer orientation and drivers, enabling the canvas model activities to be put into a broader perspective. Four predominant facets of business model strategy transformation were identified, including 1) Data becoming a strategic resource, 2) Platform as a strategy, 3) Customer loyalty and brand affiliation and, 4) Industry structure.

Resulting from the findings, the discussion brings forward a conceptual framework outlining four business model strategies available to the incumbent traditional bank, post Open Banking, enabling it to gain/sustain competitive advantage in the industry. These are represented on a two-by-two matrix consisting of four quadrants, based on the degree to which the bank is owning or outsourcing respectively its production and/or distribution of its products and services. Subsequently, the concept of ecosystems is relied upon to relate business model strategy findings in relation to external impacts and dynamics from the environment. This resulted in two identified pre-requisites for competing on either of the four strategies. Consequently, the thesis concludes by explicating the implications to the conceptual frameworks' practical application, the contributions to academic literature, the methodological implications, and proposals for future research on the phenomenon.

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1 Introduction

The financial sector in Denmark is currently undergoing significant changes enabled by information technologies and EU regulations. The sector itself and retail banks within it, are immensely being influenced by factors from the external environment. Technology is enabling start-up companies to enter the market and provide services that can substitute those offered by the established retail banks (Danske Bank, 2017). Agile financial technology organisations (from here on referred to as FinTechs) are entering the financial market, often with very appealing user experience services that facilitate either payment services or an online banking user interface.

The newly implemented Payment Services Directive 2 (PSD2) and "Access-to-account" (XS2A) legislation in European financial industry, will allow for third parties to withdraw application programming interfaces (APIs) from the retail banks based on a customer approval (Cortet & Lycklama, 2015). This legislation is set to increase the innovation and competition in the financial services industry previously known for its lack of transparency (PriceWaterhouseCooper, N/A). The regulative changes in the industry do not simply relate to compliance but the business model of traditional banks. Third party companies will now be able to produce and distribute services and products around the infrastructure of the established banks, which in turn forces banks to reconsider their business model strategy and related activities in the changing environment. Albeit, this business model configuration towards open-ended value-chain with third-party providers has proven successful for incumbent full-service companies in other industries, it remains highly uncommon in the financial industry (EBA Working Group, 2016).

According to Chishti and Barberis (2016) computer scientists, coders, investors, entrepreneurs, governments, and consumers are turning to FinTech innovation to challenge what has been the status quo for decades. Furthermore, entirely new business models are starting to emerge that in particular, are driven by technical innovation, customer experiences and European regulations, which further disrupt the status quo. The global FinTech sector is growing by a 200% year-on-year growth in capital, and in the UK alone the sector generated more than £20 billion in revenue in 2014. In addition to this, new dominant players are showing an interest in the financial services industry. Established companies like Google, Apple, Facebook, and Amazon (GAFA) are initiating their own payment services build around established banking infrastructure (Accenture, N/A).

In the available literature, only a limited set of insights exist that regards the direct impacts of digitalisation on the financial industry and, in particular, the incumbent banks in the Danish and European financial landscape. The majority of the literature takes its focal point in answering specific questions such as how distinct technologies will impact the operative efficiency relative to product

portfolios or customer loyalty on a given set of parameters (Yakhlef, 2001). As with digitalisation and digital technologies in general, even less academic efforts have been made in illuminating the effect that increased digitalisation will have on the business model strategy and related activities for incumbent retail banks. Despite the absence of a comprehensive body of literature about the increasingly digitally-enabled transformations that are occurring in the financial services industry, literature does exist for various related, yet separated fields. Academic literature within the field of digitalisation makes clear distinctions between the related domains of respectively digitalisation and digitisation, which have revealed how digital technologies and digital strategy making increasingly is, and will be, fused with the business strategy of modern organisations (El Sawy, 2003).

Empirical evidence from practice points to the need for the traditional incumbent banks to establish new business models, due to increased digitalisation impacts on the industry for financial services. On this matter, the academic contributions of the notions digitalisation and digitisation become even more prominent in relation to business model strategy-making, as it explicates that it is not sufficient for banks to solely adopt new IT and digitally-driven solutions into their existing processes of implementing a variety of technologies in order to improve them. Rather, the traditional banks need to rely on complete transformative alterations throughout their entire value chain and business models. Looking to the literature on this topic, however, it becomes apparent that little to none of the academic research directly addresses the impacts digitalisation (or digitisation) has on the business model strategy and related activities for the incumbent traditional banks in the financial sector. Whilst vast amounts of literature point to the opportunities available to the banks by adopting specific digital technologies or undergoing distinct digitisation efforts, little research address the direct implications or opportunities these have for the transformation of the traditional incumbent banks' current business model strategy.

Whilst academic research identifies the need for fusing the business strategy with that of the digital business strategy, there still appear to be a discrepancy in the approaches for how to accomplish such an integration (Rambøll, 2017). Despite discrepancies in approaches and findings on the digitalisation impacts on the financial industry and the digital strategy of the bank, an overall consensus seems to be present, explicating a need to integrate the business strategy with that of the digital strategy (Bharadwaj et al., 2013). Across the academic findings in the field of digitalisation trends within banking, three overarching waves for digital strategy emerge (Rambøll, 2017). The first concerns that of implementing IT and digital technologies as an enabling entity for efficiency gains, with a primary focus on the intra-organisational aspects of the business model and strategy. The second wave revolved around the optimisation of already existing processes or services that would be optimised and or made possible by IT. The last wave represents a shift currently taking place, but largely unfulfilled by many, which portrays the shift from enablement to a tendency towards viewing the digital strategy as part of the business and the business strategy as opposed to the "IT Strategy" (Rambøll, 2017, p. 22). This third

wave illustrates a need for businesses, herein banking services, to orient the digital business model strategy towards external relations and ecosystems in which they may participate, in order to fully grasp the benefits and gain competitive advantage (Rambøll, 2017). The waves of digital strategy tie in well with the current state of traditional banking and IT developments. Historically, traditional banking has been impacted heavily by new technology-driven innovations. Particularly, mobile banking offerings have been implemented, which is changing the current picture of transactions. This development is forcing banks to reconsider their processes, product offerings, and the future industry in its entirety (Yakhlef, A, 2001; Gascoyne and Ozcubukcu, 1996; Furash, 1999). The adoption of the internet in the financial services industry has benefits for the transaction costs, which can be delivered at a significantly lower cost than traditional means. Additionally, using the internet for banking activities is greatly benefiting trading parties, as transaction costs are lower whilst offering more innovative possibilities (Yakhlef, A. 2001).

As the financial industry is undergoing significant changes, mainly caused by new regulations and emerging competitors in effect of increased digitalisation, the question of how the traditional banks should adapt and compete in the new reality in the Danish financial sector naturally arises. This thesis defines "traditional banks" as retail bank institutions serving the general public and not banking activities for other organisations, corporations, governments or institutions (Levesque & McDougall, 1996). Thus, the function of traditional banks is to facilitate deposits of assets provide loans and mortgages for individual customers. This traditional way of operating as a retail bank is now being heavily influenced by digitalisation, third-party providers, new regulations in the industry but also shared banking initiatives by traditional banks such as MobilePay, ATMs, Online Banking, Mobile Banking, and other self-service solutions (Waupsh, 2017). The rapid growth in new services is mainly driven by IT enablement and utilization of bank data that can be acted upon by third-party providers (Rambøll, 2017). This is especially becoming a predominating reality which traditional incumbent banks have to face, with new regulations pointing to the need for compliance with Open Banking initiatives (Cortet & Lycklama, 2015). Practitioners have tended to regard FinTechs as direct competitors to the traditional bank, however, this is slowly being altered as more traditional banks begin partnering up with these to co-produce and distribute their products and services to customers (Chishti & Barberis, 2016). Hence, taking the historical development and emerging digitalisation drivers in the financial industry into consideration, this project will specifically illuminate the under-researched gap in the literature addressing how the business model strategy of the traditional bank is influenced by key digitalisation drivers in the financial industry. This has led to the following research question:

How is the business model strategy of the traditional bank impacted by increased digitalisation in the financial sector?

Throughout this thesis, the investigation of the above research question will be operationalized by answering the following related sub questions:

- How is the traditional bank defined?
- How are emergent digital drivers affecting the role of the traditional bank?
- How can banks address these changes?

To narrow the scope of research, this paper specifically addresses the European industry for financial services having the Danish market as its focal point. In order to answer the research questions, we look specifically to open banking as we see this as an expression of the key digitalisation drivers, as it encapsulates the primary drivers of digitalisation in the financial services industry, which will be further specified later. In providing a comprehensive investigation of the research question, this paper will seek to gain insight into how key drivers of digitalisation in the financial industry impacts the business model strategy of incumbent banks. By relying on empirical evidence from the industry and industry expert opinions, this research will seek to uncover the implicit assumption made in the question on how digitalisation drivers transform business model strategy, namely that the business models will change. The main postulation of this paper is that digitalisation drivers are increasingly impacting the incumbent traditional banks' business model strategy, leaving behind four business model strategies available for adoption, if the incumbent traditional banks wish to gain and/or sustain competitive advantage in a changing industry. Drawing on concepts from literature on digitalisation in the financial sector, this research seeks to gain insight into the pitfalls of current literature, failing to highlight and address this specifically and the direct influence of digitalisation on business model strategy. This will form the foundation for proposing a conceptual framework for the transformation of the business model strategies available to the traditional bank. In the conduct of this research, the paper is structured as follows.

The first sections will seek to describe the landscape of digitalisation in the financial sector and incumbent banks business models, in order to place this research and its related concepts within it. This will conclude by proposing an overarching framework representing the transformations as identified by empirical evidence and expert opinions. Following this, the overarching framework embraced for the analysis is presented, following the proposals of respectively Andriopoulos and Lewis (2009), Osterwalder and Pigneur (2005) and Iansiti & Levien (2014). The results of the empirical data will be presented using the aforementioned frameworks, in order to display how digitalisation drivers are impacting the business model strategy of today's traditional banks. The empirical findings will then be embraced as the basis for exemplification of how a classification framework potentially could bridge the identified gaps and give rise to new business models. Lastly, this research concludes with a

specification on how this thesis contributes to academic research, the implications of the conceptual framework's practical application, and the methodological implications of this research in relation to the results generated.

2 Background

Since more of the transaction processing load is taken over by technology, banks are concentrating on strengthening their marketing approach and re-inventing their business model. In this context, traditional bank branches, with an infrastructure supporting transaction processing, are slowly moving into being transformed into an open-space interface within which bank experts engage intimately with their customers, delivering specialised, advisory services (Yakhlef, 2001). Hence, this section looks to the financial services industry and the role of which the traditional bank is playing in this, and how it thus far has been changing and impacted, due to increased digitalisation.

2.1 The Financial Sector & Retail Banking

The concepts of banking can be traced back 4,000 years to ancient Greece, where it was observed for the first time that people would entrust their assets to be safeguarded by a professional, as well as these professionals would issue loans. Vaults in temples have been uncovered, and it is believed that temples were used as the early banks, due to the religious respect that surrounded these buildings. This made them secure from plunder and raids, which helped to create a trusting foundation on which banking could emerge (Hoggson, 2007). The modern bank today, that is based upon fractional-reserve banking (a practice where the bank can issue loans, facilitate investments and alike, but it must at all times hold reserves equal to a fraction of its deposit liabilities (Abel, Bernanke, & Croushore, 2017)), arose amongst the goldsmiths of London, whom in seventeenth century started to issue the first banknotes with security in gold reserves. In 1695 the first bank, The Bank of England, was founded in London, and the concepts of banks used back then are largely the same as can be seen today.

At its heart, the traditional banks are intermediaries that facilitate the transfer of money between depositors and loan-takers. Lending and investing is a complicated and risky affair, that most people do not have the time nor expertise for, so intermediation from a bank ensure proper management of financials (Asmundson, 2017). The traditional banks operate this process by taking money from depositors, who get compensated in an agreed interest rate and then use that money to issue loans to customers who are in need of liquid assets. In this process, banks take on the risk of the depositors, as it is the responsibility of the bank that the deposits are still available when the depositors need them, including the risk that the loaners might not pay their interest and/or instalments. To fund this the bank

charges the loaners an interest rate on the loan, that is higher than the one given to the depositors and thereby creating a profit and sustainable business for the bank (Asmundson, 2017).

2.1.1 Retail Banking & the Role of the Incumbent Banks

For the sake of clarity, this research will be focused solely on the incumbent retail bank. A retail bank is best defined as banking to the general public, and hence, does not include banking activities for organisations, corporations, governments or other institutions (Levesque & McDougall, 1996). The retail bank is occupied with banking activities for individuals, and for the main population of the given nation that the bank operates within and facilitates the deposits and loans of assets on the behalf of individuals. Examples are the safeguarding of liquid assets, issuing of mortgages and, car loans etc. Furthermore, it provides a wide array of financial services alongside its core business, such as mobile banking, advisory services, insurance, and issue of credit and/ or debit cards (Asmundson, 2017). Traditionally, the bank has had a full-service portfolio strategy, entailing that the banks business model strategy rests on its ability to facilitate all of the customer's financial services needed. In other words, the customer should only have one banking relationship, independently of the financial services being provided. A key driver behind this is founded in the complex process of switching banks, and the lack of transparency across banks, ensuring that banks are able to lock-in their customer base by providing a full-service solution. For decades, the process of switching banks has been known for its complexity and this complexity has helped to lock in customers (Klemperer, 1987). Furthermore, this has been reinforced by the bank's offerings. When a potential new customer would request a quote on a loan, the bank would present multiple versions of the loan depending on how much of the finances the customer will bring in to the bank (Klemperer, 1987). If the customer does not intend to move his/her finances to the bank when taking a loan, then the terms of the loan are likely to be unfavourable compared to if the customer would transfer all of his/her financials. This has contributed to a de facto monopoly on banking services in favor of the incumbent traditional banks (Klemperer, 1987). For the purpose of this paper, we will classify the traditional bank as an incumbent retail bank in the Danish financial industry, acting as an integrated full-service banking services provider, directed by European and Danish regulations.

2.2 Digitalisation in the Financial Industry

The financial services industry is in many ways already impacted by increased digitalisation, which may be seen by the adoption of new digital technology-driven solutions such as the shared initiative between traditional banks (MobilePay), Online Banking, Mobile Banking, ATMs, and other self-service solutions (Yakhlef, A, 2001). Further to this, FinTech organisations are digitally embarking on the competitive landscape, by the introduction of new services, through the collection and utilization of data from the customers and the marketplace. Aside from digitalisation of direct traditional and new banking solutions, an increased tendency is seen towards banking solutions being adopted by a multitude of retailers (off- and online shopping for loans) but also from larger un-related corporations

such as Facebook, Google, Amazon, and alike who are starting to facilitate monetary exchanges and loans through their services Accenture. (N/A). This is operationalized by providing favorable fees and personalized products and services to the existing consumer base of the traditional bank's, as these have the capacity to work with data and leverage benefits from this in new unforeseen and successful ways. Aside from these examples of increased digitalisation of payments, loans and transfers in the industry, other initiatives such as those introduced by regulatory establishments are also somewhat indirectly impacting the need for digitalisation of the traditional banking services and business model stragegies, through mandating a minimum level of digital data to be shared through e.g. open banking initiatives and reliance on APIs (Cortet & Lycklama, 2015).

2.2.1 "Forced" Digitalisation - The PSD2 Initiative

PSD2 may be regarded as an expression, or even accelerator, of digitalisation and an increased focus on digital technologies. To facilitate the information exchange required by the new directive, banks must implement *APIs,* that provide access to customer accounts. An API is the interface through which programs give access to their functions to other programs, a typical example being a database giving other programs access to its data, letting them utilize and change it, with the consent of the owner. An API can be more or less "open", meaning it can have varying degrees of accessibility, ranging from closed APIs only accessible by predetermined insiders in the company that owns the API, to public APIs that can be utilized by anyone who is willing and capable. In the PSD2 context, banks will be required by law to provide at least one API giving authorized Third-Party Payment Services Providers controlled access to the customer's data. The APIs will allow banks to securely share functions and data from their systems, and enable third-parties to build services on top of the data and infrastructure of the bank (Sandrock & Firnges, 2016).

Open Banking broadly refers to the new banking environment being established in the industry, aiding to allow banking customers to have better access to, and control over, their data as well as to share it with third-parties. The envisioned Single European Payments Area (SEPA) will be a big part of how Open Banking manifests itself in Europe. The European Union is accelerating the movement towards Open Banking by forcing banks to incorporate open APIs. As new financial technologies may be considered technology-push innovation i.e. game-changers that the market does not initially demand, but demand is created as the market learns the value of the innovation and improvements that are made. However, banks prefer incremental, less risky improvements to their services and as a consequence pan-European institutions are altering the rules to strengthen banks' incentives to innovate and digitally renew themselves (Sandrock & Firnges, 2016). The goal is to establish a playing field where it is in the best interest of the individual banks to implement open APIs, and ideally commit to the vision of Open Banking by going beyond immediate compliance (Sandrock & Firnges, 2016). The speculation in the industry now, however, is that the Open Banking initiative with the demands produced by the PSD2

directive, will lower the competitive barriers of the industry for financial services and the previous monopoly in the marketplace for traditional banking, specifically by enabling FinTechs and others to compete on not only new innovative services, but also on the traditional banks' existing services. (Sandrock & Firnges, 2016).

2.3 Payment Services Directive 2 & Access to Account

This section will be providing an overview of the Payment Service Directives (PSD1 and PSD2) as well as a description of the notion of "open banking" which will be referred to throughout this thesis. The PSD1 directive was the frontrunner followed by the PSD2 directive, which includes the related Open Banking initiative that enables Access-to-account (XS2A). The PSD1 directive was implemented in 2007, in order to improve a legal foundation for the European market payments as well as establishing safer and more innovative payment services within the European Union, making cross-border transactions as easy and efficient as national payments. The European Commission proposed to review the PSD1 and published the proposal to modernize it in July 2013 (FinTech Future, 2017). The PSD1 did not take new payment methods into account such as payment initiation services, or payments made via the internet. However, by bringing such services into the PSD2 legislation, they will now be officially regulated which will allow for more transparency, security, and innovation within the EU (European Commission, 2018).

PSD2 was agreed upon in 2015, as a means to increase innovation and competition in the European financial industry and de-monopolize the financial sector which was heavily driven by the banks at that point in time. It has been argued that banks have recently been comparable to "*vertically integrated monoliths*" (owning their entire value chain) in the European marketplace (McIntyre, 2017). Hence, the European Commission has implemented measures in the revised PSD directive to change that picture. The PSD2 will take advantage of Application programming interfaces (APIs). APIs can be explained as s set or requirements which allows different software applications to communicate with each other (EBA Working Group, 2016). APIs can enable a controlled, secure and cost-effective access to the banks' data. To clarify, this means that the established banks will be forced to open up their data in the form of APIs to third-party providers. Third parties or new players in the industry will be registered, licensed and regulated at EU level and former barriers will be removed, hence enabling them to withdraw customer's financial data. This means that data can be withdrawn from the accounts of the customers provided that third parties have obtained customer consent. This process is also referred to as the "access-to-account" (XS2A) (Cortet & Lycklama, 2015; FinTech Future, 2017).

The XS2A element is relevant when it comes to open banking. Open Banking demands standardization and provisioning of banking data to an open banking platform as well as regulations for how this may be utilized by banks themselves and third parties. APIs are not a new technology, it has been around for more than 20 years (EBA Working Group, 2016; Sylvest, 2018) however, implementing APIs in the financial service industry is new. Opening up APIs for third parties will open up for a whole new competitive landscape. Third-party providers are enabled to develop micro services around the existing services of the banks, both in their production and distribution of services, which can be hosted through other platforms than what is owned by the traditional banks themselves. Consequently, the traditional incumbent banks will face value chain transformations and consequently will have to revise their business model strategy and related activities to gain and/or sustain competitive advantage in a changing marketplace (McIntyre, 2017).

3 Literature Review

In the following section, a critical literature review will be constructed in order to develop "a clear argument about what the published literature indicates is known and not known about the research question" (Saunders et al., 2012, p. 73). Based on the identified key topics of our research question (digitalisation in the financial sector and the traditional bank business model strategy), the following sections aids in 1) delimiting the scope of the research, 2) framing our theoretical grounding, and 3) points to the current insights and pitfalls readily available for us to build our research upon. Thus, the following sections provide insights into the foundation on which the research is built, enabling the development of a good understanding and insights into relevant previous research and the trends that have emerged (Saunders et al., 2012). As the research question lends itself to a highly explorative research approach, such findings will reveal valuable insights and a well-grounded foundation guiding the areas of which to explore, based on what has been explored and what is left under-researched. As the research is explorative in nature the data relied on, throughout this paper, will be used to explore and develop a conceptual framework. However, there is no predefined theoretical lens or concept to guide this and, hence, the literature review will aid in identifying and providing the frame of reference for the research project (Saunders et al., 2012).

In investigating the research question, and in particular conducting the literature review, it is acknowledged that there is a multitude of factors and conditions for the incumbent retail banks potentially impacting the business model strategy as well as related activities in addition to those of digitalisation, also mentioned in the literature review. As an example, these could include inflation, general laws, and regulations, generic competition, different types of consumer preferences and needs, etc. For the sake of relevance in relation to the scope of the research paper, it is deemed necessary to

not include these, albeit such factors further contribute to the business model strategy and transformations being adopted by the traditional banks in the financial sector.

In addition to this, the following sections will not go into all aspects of the individual banks' service portfolios, although it is recognised that the respective retail banks also deviate/distinguish themselves from one another and conduct their business model activities different from one another. Hence, we will not go into details on equity, size of the bank, whether they are both retail and B2B players, the number of countries they respectively operate in, etc. but rather solely focus on the key digitalisation drivers impacting the business model strategy of the traditional bank. Thus, instead of listing all the activities of the traditional banks and their distinct service portfolios, partnerships and product bundling, this research rather looks at the general activities across the traditional banks that all-together characterizes the business model strategy of retail banking on a general note. In conclusion, this research paper focuses specifically on defining the digital impacts influencing the business model constellation and activities in the competitive landscape of the financial sector historically, current and in the near future. This will be reflected in forming the scope of the literature review below.

3.1 Operationalizing the Structured Review

The goal of the literature review was to develop an understanding of the impact of increased digitalisation of the traditional banks in Denmark. This implies looking at "the phenomenon as a whole, its overall meaning, and its relationships from the parts to the whole and reciprocally" (Rowe, 2014, p.243). Hence, it both surveyed the field, looking at what has been said previously about digitalisation in the financial sector, and the impact on traditional banks' business model as a broader practice, and in doing so position how our research will contribute to this field (Webster & Watson, 2002). In this process, we adhere to several principles of systematic reviews, systematicity, transparency, and synthesizing, aiming to *"report as accurately as possible what know and not know about the questions addressed in the review"* (Briner & Denyer, 2012, p.112). As stated in our background section, there is not an overwhelming body of literature to draw on that directly addresses our research focus, and thus we have had to draw on several related fields, building consolidation of the literature on our given topic (Rowe, 2014).

Goal	Summative - Review the body of work and integrate.
Breadth	Phenomena centric – our research question manifested in many fields (IT, Finance, ecosystems, business model generation, etc.)
Article Selection	Database drive, combined with forward and backward search
Argumentative strategy	Bottom-up Analysis, coding from articles to derive a scheme

Table 1 - Literature Review Approach

Initially, when we choose the topic a number of preliminary searches were performed, in order to uncover their prevalence in academic work. When this revealed little literature on the topic we developed a more systematic strategy to include a broader range of texts. Following Toppenberg and Henningsson (2014) we define the scope of our research along three dimensions; outlets, the time span and the search terms used, but we also add the language and a number of specific criteria to our case. These criteria are vital to literature reviews to ensure they are both systemic, but also transparent, and replicable (Briner & Denyer, 2012). The chosen criteria for inclusion and their respective justifications are listed below.

Criteria	Justification
Post-2000	As we are discussing digital phenomena, which has drastically evolved over the past few years, we need to look to more recent literature.
English Articles Only	To not include papers in languages not understood by the researchers.
Include examples where digitalisation was an indicator prompting a response decision on banking services	To secure relevant data in relation to the scope of topic
Must be regarding traditional (retail) banking	If not it is not applicable for generation of insights into the business model transformation of the retail bank.
Has to address the impact on one or several business model building blocks	If not it is not possible to describe any distribution or production activities internal or external to the retail bank

Table 2 - Criteria & Justification for Literature Sampling

With criteria in place, we relied on two separate rounds of search be performed, the initial search, and a forward and backward search using the Web of Science to see who has both cited, and been cited by the core identified articles (Webster & Watson, 2002). For the initial search, we adopted a structured database-driven search (using Google Scholar & Ebscohost's Business Source Complete) to ensure reproducibility (Rowe, 2014). Searches would be done addressed to the specified selection criteria, based on relevant search terms (see Table 2), and extracted through the chosen databases. Once core papers were identified the forward and backward searches was conducted using the Web of Science to investigate any relevant links or gaps in the identified body of work to be included in the review (Webster & Watson, 2002). Overall our search strategy returned a complete set of literature to proceed with, representing a comprehensive strategy (Webster & Watson, 2002).

Search terms	Variations
Digitalisation	digitalisation OR digitalization OR digitisation OR digitization
Financial Sector	banking industry OR banking sector OR banking system OR financial services industry OR financial sector
Digitalisation impacts	digitalisation PLUS impact OR effect OR influence OR impacts OR effects OR consequences
Business model strategy	Business model OR business model canvas OR business activities OR business model operations OR business model strategy
Ecosystem	Financial ecosystem OR financial services ecosystem OR value chain OR bank industry OR competition
Search strings	
First	digitalisation OR digitalization OR digitisation OR digitization AND banking industry OR banking sector OR banking system OR financial services industry OR financial sector AND (impact or effect or influence) OR (impacts or effects or consequences)
Second	digitalisation OR digitalization OR digitisation OR digitization AND banking industry OR banking sector OR banking system OR financial services industry OR financial sector AND (impact or effect or influence) OR (impacts or effects or consequences) AND ecosystem or industry relations or banking infrastructure or competitive landscape or value chain activities

Table 3 - Search Approach for Literature Review Sampling

After searching, 250 papers were downloaded based on abstracts, and of these 27 were deemed relevant to include based on all the criteria, and are included in the literature review. The papers were coded by all authors individually, to ensure coding validation through code comparison. This enabled us to work concept-centric, avoiding simply listing authors and their contributions, and creating synthesis (Webster & Watson, 2002). We categorized and outlined our results by creating a matrix based on key themes,

categories, and concepts (Webster & Watson, 2002), this takes each of the concepts as categories with which articles can be grouped and coded accordingly. The categories were derived bottom-up from the literature. Based on the literature search and coding, the following sections will address the findings identified from the selected academic research on the topic.

3.2 Digital Strategy - Digitalisation and Digitisation

Historically, technologies with transformational potential have often been regarded in silo, and an isolated strategy for its potential has been developed, prior to it being embedded into the overall business strategy (Rambøll, 2017). The debate has been most profound in the context of IT and IT strategy-making (Bharadwaj et al., 2013), however, despite it being far more comprehensive, digital strategy making is no different (Rambøll, 2017).

One author, El Sawy (2003), supports this and further explains that different views are adopted by organisations, respectively the immersion and the connection view, which both to some degree separates "digital" from that of the organisation and its direction. To overcome the above-mentioned barriers to silo-based strategy making, he proposes for corporations to adopt the fusion-view, in which it is acknowledged that IT and digital means is not a tool nor an interdependent in the organisation, but rather that it is, and should be acknowledged, as deeply fused with the business environment, and thus cannot be taken apart. It is not simply a matter of transforming existing products into digital as a way to support a business activity or service, nor is it a matter of simply producing new services and activities in same or different markets, rather it introduced the notions of mixed reality fundamentally fused with all business activities in transforming organisations (El Sawy, 2003). Digital strategy, thus, is a complementary approach to both digitisation and digitalisation efforts (Rambøll, 2017). Digitisation may be classified as the "application of digital technologies to form differentiating business capabilities" whereas digitalisation regards the "utilization of the abilities and conditions those technologies create" (Rambøll, 2017, p. 17). Together these fundamentally alter the way in which customers are able to act, and companies compete, in respective marketplaces. Even more profoundly, there appear to be an overall agreement that both digitisation and digitalisation altogether are blurring the lines between industries, and as a consequence shifts operational-, value chain- and competitive dynamics (Rambøll, 2017; Nsouli & Schaechter, 2002; Joseph & McClure, 1999; Gautam, V., 2012). In summary, digitisation and digitalisation may be regarded as two different, yet highly complementary approaches to business strategy success.

3.2.1 The "Historical" Development of Digital Strategy Making

In line with the academic incoherence in the distinctions, classifications, and characteristics of digitalisation and digitisation, there seem to be somewhat of a disagreement too regarding the historical development of "digital" (Rambøll, 2017; Gautam, V. 2012). From the literature on the topic, however, there seem to be three overarching approaches or "waves" paving the way in which firms historically have been approaching digital strategy making.

In the first digital strategy wave, organisations seemed to regard digital strategy merely as digital technologies, through reliance on IT facilities, as a means to enable and support intra-organisational functions and processes, much like the connection view proposed by El Sawy (2003). Here, the focal point was to utilize IT and digital technologies as resources for automation and effectiveness inside the organisation, in order to, in an efficient manner, produce better quality solutions for the customers (Alter, 2003; Dickson, Benbazat, & King, 1980; Markus & Robey, 1988). In the second digital strategy wave, organisations' orientation rather evolved around optimisation of activities, such as the transformation of pre-existing activities into being digitally enabled (and optimised), whilst simultaneously further introducing new activities and services elsewhere impossible without IT and/or digital means (El Sawy, 2003). In this context, digitisation denotes the ongoing work of automating and optimising existing processes and business by integrating technology into them (Rambøll, 2017). In the third wave, digital strategy and the notion of digitalisation moves beyond the technologies themselves and IT as such (El Sawy, 2003). In this view, much like the fusion view, digital strategy becomes fused with the business in its entirety and, hence, the business strategy itself (El Sawy, 2003). In this wave, digitalisation demands the simultaneous involvement of the capabilities digital technologies create and how they change the conditions under which companies conduct their business processes relative to the expectations of customers, partners, and employees to an organisation (Alter, 2003; Andriopoulos & Lewis, 2009). Digitisation creates value by enabling companies to do business in a better, quicker and smarter manner (Rambøll, 2017). Achieving digitalisation that creates real value for organisations in today's society, also for the financial services industry, requires fundamental changes in company mentality, strategy, value-chain, operations and business model, thus, *"Going digital is no different and needs to become an integral part of a company's overall business strategy"* (Rambøll, 2017, p. 17).

3.2.2 Digital Strategy-Making and the Business Model of Traditional Banking

Theorists commonly make a distinction between technology-driven and market-driven innovations (Levy, 1998). Whereas the impetus for technology-driven innovations is assumed to come from the availability of new technology or a combination of new technologies, market-driven innovations are meant to be a response to a perceived customer need. The former argument finds support in the assumption that organisations "do not invent themselves their technology but import them from the environment" (Scott, 1998, p. 229). Along the same lines, Pennings (1998, as cited in Galliers, R. 1998).

Banks do not have much choice in adopting new technologies and that joining the bandwagon with respect to IT innovation is a strategic necessity, rather than a move to implement advantageous competitive choices. As an example, a traditional (retail) bank would isolate itself if it were to refrain from joining an ATM network back at the beginning of the emergence of Internet-based banking services. The mere fact that imitations are abundant, renders diffusion of innovation in the financial sector prototypical of *institutional isomorphism* (DiMaggio & Powell, 1983). Widespread mimicking suggests that first movers' advantages might be small, that adoption is motivated not only by the quest for product or service differentiation but also by a need to signal conformity to *"widely held beliefs about banking services"* (Pennings, 1998; Yakhlef, 2001).

The latter account assumes that new customer needs have emerged as a result of changes in lifestyles and working habits, such as convenience and ease of transactions above all else in selecting banks (McKechnie, 1992 in Devlin 1995; Yakhlef, 2001). Arguably, individuals are becoming increasingly affluent, preferring to spend more time on leisure, dedicating less time to financial matters (Devlin 1995; Yakhlef, 2001), and requiring more convenient access and availability. By and large, firms seem to adopt the Internet and new digital technologies and applications because they regard it first and foremost as a means for marketing, reducing transaction costs, achieving a higher degree of customer-orientation, and transforming their core businesses. Through close relationships with customers, firms can learn better about the customers' habits, needs, and taste.

3.3 Dynamics of Digitalisation Impacts in the Financial Sector

In the literature on digital strategy making in the financial sector two distinct dynamics appear to emerge as central when bearing in mind the notions of digitalisation and digitisation, as presented above. One dynamic involves the adoption of new technologies to enable efficiency and transformation of current practices from physical and manual handling into being technology-driven. The other involves the transformation of the business model and related operations due to increased demands and trends based on digitalisation in the financial services industry. In his study on the impact of adoption of the Internet in Banking, Yakhlef (2001) supports this overall findings by bringing forward the concept of "adaptive response" to explain the extent to which banks *"recognize the significance of the Internet for their businesses, apply it to improve the efficiency in handling transaction, enhance their relationships with customers, extend their business prospects, transform and redefine their core and business models in innovative ways"* (Yakhlef, 2001, p. 273). Findings from the study showed that banks are relying on the Internet to achieve two main purposes, namely that of 1) depending on the Internet as means to improve interaction with customers, by offering digitalized handling of previously manually handled activities, such as carrying out transactions online, and 2) utilizing it as a *"device for redefining their core business*

and transforming it altogether" (Yakhlef, 2001, p. 277). This again relates back to the different digitalisation approaches corporations can adopt. The below sections will thus present some of the literary findings on these dynamics in practice.

3.3.1 Digitalisation in Banking: Two Dynamics

In the recent years, traditional banking services, and transactions banking services, in particular, has been impacted greatly by a multitude of different technology-driven advancements, especially different mobile money solutions and the Internet (Yakhlef, 2001). This trend along with new mobile money providers has historically been forcing traditional banks to re-evaluate simultaneously their processes, product offerings, and the future of the industry as a whole.

3.3.1.1 Adopting the Internet for Customer Interaction and Services

Despite discrepancies in approaches and findings on the topic, there appears to be a consensus regarding the fact that the Internet has altered the financial services industry, along with the role and activities of the traditional bank significantly (Yakhlef, A, 2001; Gascoyne and Ozcubukcu, 1996; Furash, 1999). This has allowed many of the activities previously undertaken manually by traditional bank-employees, to rather be outsourced for digitalized self-service facilities or be mediated through online digital facilities. The financial rationale for many banks lies in many of the transactional financial services to be informational, and thus amenable to digitisation, lending the Internet to be an inexpensive transaction, delivery and communication channel for the traditional bank (Peterson et al., 1997; Furash 1999; Mols, 1999; Yakhlef, A, 2001). Evidence for this has been found, amongst others, by Yakhlef, A. (2001), presenting the difference between traditional payment transactions costs amounting to $1.08, in oppose to the significantly lower cost of 13¢ or less when processed through the Internet. Arguably, this may be one of the main drivers behind the traditional banks early adoption of the Internet, namely to cut the cost of interaction that may be summed by the "searching, coordinating, and monitoring that people and companies must do when they exchange goods, services, or ideas" (Nevens, 1999). The reliance on the Internet is not only related to the customer-facing digital solutions but has also, like in many other industries, been adopted in the internal landscape of the traditional bank for purposes of e.g. increased effectiveness, efficiency, security and innovation (Nehmzow, 1997; Hilal, 2015). The Internet has in many ways introduced new avenues for the traditional banking enabling not only more efficient transactions at a lower cost, it has provided the foundation for a new industrial order (Gascoyne and Ozcubukcu, 1996; Furash, 1999), changing the distribution channels of retail banks (Tilden, 1996), and shaking the traditional banks medieval foundations (Nehmzow, 1997; Yakhlef, 2001).

3.3.1.2 Adoption of New Technologies for Customer Interactions and Services

Examples of the trends are seen by the advent of digitally enabled facilities and initiatives, such as e.g. a diversity of self-service solutions (introduced automated teller machines (ATM), Online banking/E-Banking, Mobile Banking, and Applications). Thus, increased digitalisation and the adoption of the Internet into traditional bank operations and services, has thus far created increased digitalisation of

manual processes and user interfaces, but has furthermore proved to be a catalyser for the removal of many physical (brick-and-mortar) bank-branches, lending these to become so-called e-branches, offering online self-service programmes and online advisory (Danske Bank, N/A; Lån & Spar Bank, N/A; Nordea, N/A).

For traditional banks, E-banking has been a predominating result of the increased digitalisation thus far. As previously explained, e-banking provides benefits to consumers, such as ease and cost of transactions, either through Internet, mobile or other electronic delivery channels (Nsouli & Schaechter, 2002; Alin, 2013). During the past couple of years, the predominant technology embarking the traditional bank, and the financial services industry more broadly, has been that of mobile banking applications (Alin, 2013; Nsouli & Schaechter, 2002). The services introduced by mobile banking applications are many but for retail banking mostly spans over transfers, withdrawals of deposits, consultation of the bank account records and transactions history, consultation of exchange rates or other banks, and general exchanges (Alin, 2013; Nsouli and Schaechter, 2002). Leveraging ubiquitous cellular networks, through mobile banking (branchless banking), traditional banking services are now being deployed as smartphone apps offered by the banks, providing an electronic payment infrastructure where alternatives such as credit cards generally used to exist (Nsouli & Schaechter, 2002).

The market for the traditional banks has, arguably, been stable for a number of decades with well-defined roles, business models, and industry players (Reaves, Scaife, Bates, Traynor, & Butler, 2015). However, numerous digital payment solutions, which rely on new disruptive technologies, are emerging on the payment market, transforming the payment area from being established into a state of flux (Staykova & Damsgaard, 2015). The traditional banks' increased reliance on the Internet and adoption of digital technologies supporting their service portfolio has introduced new market players into the landscape. Mobile payments function as a digital platform (Kazan & Damsgaard, 2013) and thus possess characteristics quite different from previous innovations in the finance area. The digitalisation of services lowers significantly the barriers of entry, as digital solutions have significant economies of scale and are very easy to replicate and less costly (Staykova & Damsgaard, 2015). FinTechs are now starting to leverage the trend towards increased digitalisation in the financial sector, by introducing new customer-faced digital innovations into the service portfolio offered by the industry, including a multitude of different mobile applications. Currently, in Denmark, there are 140+ FinTech start-ups, working on a better customer experience by increasing transparency, lowering costs and experimenting with new and innovative ways of distributing financial products and services using technology, as an extension to the digitized services provided by the traditional banks (Berlingske Business, 2017).

3.3.2 New Business Models Enabled by Digitalisation

As previously mentioned, through the concepts of digitalisation, digitisation and digital strategy making, the different waves of history on the concept of "digital" advocates that it is not merely a matter of traditional banking adopting a wide range of new technologies to transform current processes and services into digital endeavours, banks are (or have to) also be realizing transformations across its entire value chain and business model activities. The increased digitalisation in the financial sector, in particular, in many ways demand the fusion of digital strategy with that of business strategy, in order for traditional banks to succeed in gaining and sustaining a competitive edge, in an ever-changing digitally-driven marketplace. Although not directly touched upon in literature, findings display indications of alterations to the business model of traditional (retail) banking already taking place. Bearing this in mind, the following section will seek to shed light on how increased digitalisation in the financial services industry has already impacted the traditional bank in a number of ways.

Many large financial institutions in Denmark are in the early stages of transforming themselves into more agile, digital-age companies. Under increased competitive pressure from FinTechs and other technology-driven companies, as well as facing a future of slower economic growth and depressed returns, traditional banks are identifying ways to leverage technology to improve customer service, increase efficiency, simplify structures and operations, and make better use of their data. Even more profoundly, they find data to be the key strategic resource in their digital transformation process (PriceWaterhouseCooper, 2013). The leading financial institutions have a history of following a growth by acquisition strategy, where full ownership over activities in their value-chain has been considered the key strategic advantage in effectively being able to deliver full-banking-services portfolios (Danske Bank, 2012). However, with the adoption of a wide-range of online-, mobile-, and self-service solutions banks are starting to realize the shift in the competitive landscape and their business models, making them realize the benefits associated with external partnerships beyond traditional vendors in their upstream value chain. The digitalisation in the industry already by now has demanded changes to the way in which banks conduct their business, specifically when looking to their competitors and partnerships, in their pursuit to build a successful platform in the future marketplace for financial services and banking (Nordea, 2013). Already by now, large traditional banking institutions are realizing the value chain beyond their own organisational boundaries to also include those that used to simply be regarded as competition. One Example is the MobilePay solution, an online mobile payment application platform that now is a function of a multitude of traditional banks forming an independent partnership with its own e-payment license agreement (Ernst & Young, 2016). Hence, the increased digitalisation in the financial services industry has significantly lowered the entry barriers for new competitors, but also amended the way in which traditional banks are interacting, cooperating and competing. Whereas the traditional business model of a bank relies on direct interaction with its customer-base, albeit through different technology-driven mediating channels and interfaces, the

MobilePay initiative is one driving the bank to become more of an underlying infrastructure to the platform, instituting a mediating factor between the respective banks and their customer base. This trend arguably changes both the form and function of the bank through placing the data-platform as a mediating factor and interface (Pigni et al., 2016). This is a trend, speculatively, increasing with the increased reliance on digital technologies. It is furthermore an example of the financial services industry and traditional banks moving into a more fused sphere, in terms of blurring the line between digital- and business strategy. FinTechs are furthermore one example supporting this, not necessarily taking over the services of the traditional bank or by making banks non-mediators, but rather by the fact that these organisations introduce new services for customers (business and private in retail banking) by integrating services for the customers across banks. Although there is not much literature to be found on the topic of how increased digitalisation in the financial services industry impacts the market for traditional banking, there is empirical evidence pointing to the business model of the traditional bank being highly impacted already.

3.4 Review Summary

In order to enable a comprehensive analysis of the research question, this research looks at digitalisation of the financial services industry, exemplified through the notion of the "traditional bank" (retail-banks), its business model, and the relationships in the value-chain to see how this may be impacted, and changed in terms of digitalisation, due to increased digitisation. Thus, we look to the transformation of the traditional bank through its key business model activities, customer relationships, and role in the ecosystem(s), in order for it to gain and sustain a competitive advantage through forced and chosen digitisation.

In relation to this, it becomes apparent that there are three primary drivers at play that *"will impact bank's financial services and payments propositions in particular"* that together disrupt the otherwise established position of incumbent banks in Europe (Cortet, Rijks, & Nijland, 2016). These are respectively *"changed consumer behaviour and customer relations focus, technology-driven innovations and digitalisation, and European regulatory intervention"* (Cortet, Rijks, & Nijland, 2016). This largely appears to be driven by consumer behaviour increasingly being geared towards *"personalized and seamless payments and financial services anytime, anywhere, on any device"* (Cortet, Rijks, & Nijland, 2016). From the literature, it appears that many studies have attempted to look at the impact of distinct technologies on operational efficiency in retail banking (Vikas Gautam, 2012; Joseph & McClure, 1999). It furthermore becomes apparent, however, that few attempts have been made to look directly at how increased digitalisation, or even distinct technology and/or digital data-driven initiatives, products or processes, have or can impact the business model of the traditional bank. This appears evident despite the recognition of the fact that many new technologies, customer interfaces, and

"digital" competitors have entered the marketplace for traditional banking and, as a result, the operations, role, and strategy of the form and function of the traditional bank (PriceWaterhouseCooper, 2013).

4 Theoretical Framework

Based on the findings identified in the literature review, three overarching theoretical conceptualisations stood out as appropriate for investigating our research question. As the focal point of the research revolves around the business model strategy of the bank, it was deemed relevant to investigate the building blocks that together constitute a business model and the way in which value is created and delivered for the bank. Further to this, additional theoretical perspectives are chosen to complement the business model canvas in order to provide a comprehensive analysis that also allows for investigation of the incumbent traditional bank's strategic intent and positioning in the marketplace. This will be specified in detail in the sections below.

4.1 Business Model Canvas

In order to provide a comprehensive analysis to our research question, this investigation will adopt the business model canvas as a generic reference point, as it is a framework portraying nine distinct activities/areas of a business to reach its strategic intent. The relevance of the business model canvas in our research becomes apparent, as it provides us with a tool enabling us to represent the key elements of what we term the "traditional bank", and in subsequently "*describe, analyze and design business models*" (Osterwalder & Pigneur, 2010). Hence, this provides a material foundation for the identification of the business model of the traditional bank along with how digitalisation in the financial sector may impact this, and as a result how the design of the future of *traditional banks'* business model may be envisioned as a result of its centrality to business strategy making (Osterwalder & Pigneur, 2010).

The business model canvas present a diagram and tool comprising nine distinct building blocks, which are generated on the foundation of a review of previous conceptualisations of business models, with an overall objective to support task modelling and process management in a manner that applies to the strategic levels of a business too, "due to its flexibility, which makes possible creative thinking and user-friendly interactions" (Fritscher & Pigneur, 2010, p.28; Osterwalder & Pigneur, 2010, p. 4).

As this portrays the main objective of the business model canvas, we further adopt Osterwalder (2005) definition of a firm's business model to be *"a conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money. It is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams"* (Osterwalder, 2005, p. 10). Hence, a business model describes the rationale of how an organisation creates, delivers, and captures value (Osterwalder et al., 2010)

The nine building blocks of the business model canvas are, according to Osterwalder & Pigneur (2010) related to four generic areas of the business named Product, Customer Interface, Infrastructure Management and Financial Aspects. The first area covers the notion of "Value Proposition" which describes the products and services being offered and the combinational results of this in relation to competition (Osterwalder, 2004). In the second area, the Customer Interface lies the building blocks of respectively Customer Segments, Customer Relations, and Channels (Osterwalder, 2004). The third area is comprised by the building blocks of Key Partners, Key Activities, and Key Resources, which altogether determines a company's logistical complexities and key partners in its value chain (Osterwalder, 2004). Finally, the fourth area encompasses the Cost Structure and Revenue Streams of the business model, thus representing the financial constellation and relationship between cost and revenue (Osterwalder, 2004).

It has also been proposed, that the model may be divided into two overarching classes, which are respectively the business financial scheme and the business activity system. The former regards the underlying principles in the building blocks of funding, revenue streams and cost structure and, hence, describe the processes involving the investments, loans, and alike that the business is undertaking to advance its activities and the revenue streams. This is done in order to generate financial capital and return on equity, and consequently, ensuring that these, as a minimum requirement, are balanced out, but also where direct financial alterations should be directed in order to e.g. minimize costs or expand revenue streams (Osterwalder, 2004). The latter represents the seven remaining building blocks, which operationally are more directly related to one another. In combination, these elements design the activities that must be completed in order to deliver the desired value proposition to customers and ensure the revenue streams delivering its maximum, through a number of activities, processes, resources, and partnerships throughout the value chain activities. As previously specified, the value proposition summarizes the services and products, and their combinational benefits, being delivered to the customer base and new potential segments that are going to consume the offered products.

The nine framework building blocks, as proposed by Osterwalder & Pigneur (2010), may be specified as follows. The Customer Segments building block defines the different groups of people or organisations an enterprise aims to reach and serve. It is imperative for survival that businesses make conscious decisions about which segments to serve and which segments to ignore, as on the basis of this decision, *"a business model can be carefully designed around a strong understanding of specific customer needs"* (Osterwalder & Pigneur, 2010, p. 20). Customer segments can further be distinguished into several types such as Mass Market, Niche Market, Segmented, Diversified, or Multi-sided (Osterwalder & Pigneur, 2010).

The Value Propositions Building Block *"describes the bundle of products and services that create value for a specific Customer Segment"* (Osterwalder & Pigneur, 2010), and forms the reason for why customers turn to one company over another, by satisfying a customer need. Each of a business' Value Propositions encompasses a selected bundle of products and/or services that cater to the requirements of a specific Customer Segment (Osterwalder & Pigneur, 2010). In this sense, the Value Proposition may be regarded as an aggregation or bundle of benefits, that a company offers customers. Some Value Propositions may be innovative and represent a new or disruptive offer, whilst others may be similar to existing market offers, but with added features and attributes (Osterwalder & Pigneur, 2010). A Value Proposition creates value for a Customer Segment through a distinct mix of elements catering to that segment's needs. Values may be quantitative (e.g. price, speed of service) or qualitative (e.g. design, customer experience), (Osterwalder & Pigneur, 2010) such as newness, performance, customization, design, risk-reduction, cost-reduction, accessibility, brand or price.

The value propositions are said to be delivered to customers through communication, distribution, and sales Channels (Osterwalder & Pigneur, 2010). The Channels building block describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition. Communication, distribution, and sales channels comprise a company's interface with customers. Channels are customer touch points that play an important role in the customer experience. Channels serve several functions, including *"raising awareness among customers about a company's products and services, helping customers evaluate a company's value proposition, allowing customers to purchase specific products and services, delivering a value proposition to customers, and providing post-purchase customer support"* (Osterwalder & Pigneur, 2010). Channels have five distinct phases. Each channel can cover some or all of these phases. One can distinguish between direct Channels and indirect ones, as well as between owned Channels and partner Channels (Osterwalder & Pigneur, 2010). Finding the right mix of channels to satisfy how customers want to be reached is crucial in bringing a value proposition to market (Osterwalder & Pigneur, 2010). The channel phases are respectively: awareness, evaluation, purchase, delivery, and after sales (Osterwalder & Pigneur, 2010).

The Customer Relationships Building Block describes the types of relationships a company establishes with specific customer segments. Within this, there may be distinguished between a multitude of categories "which may co-exist in a company's relationship with a particular customer segment" (Osterwalder & Pigneur, 2010). Amongst others, these include self-service, personal assistance, automated services, co-creation with customers, communities, and alike (Osterwalder & Pigneur, 2010). Customer relationships may be driven by motivations of e.g. customer acquisition, customer retention or boosting sales (upselling activities) (Osterwalder & Pigneur, 2010).

Revenue streams result from value propositions successfully offered to customers. The revenue streams building block represents the monetary return a business generates from each customer segment. If customers comprise the heart of a business model, revenue streams are its arteries (Osterwalder & Pigneur, 2010). Each revenue stream may have different pricing mechanisms, such as *"fixed list prices, bargaining, auctioning, market dependent, volume dependent, or yield management"* (Osterwalder & Pigneur, 2010, p. 10). There are several ways to generate revenue streams, which amongst others include *"subscription fees, asset sale, usage fee, lending/renting/leasing, licensing, brokerage fees, and advertisement"* (Osterwalder & Pigneur, 2010).

Key resources may be described as the assets required to offer and deliver on the building blocks in the business activity system (Osterwalder, 2004). These are the main assets that your company, in particular, requires creating the end product, and these are usually differentiated from the key resources being utilized by your competitors (Cleverism, 2015). These may be either tangible or intangible resources available to a firm and can be categorized into classes of respectively intellectual resources, human resources, physical resources and financial resources (Cleverism, 2015). Further to this, a company has the option of leasing its key resources or owning them as well as taking on key partners who would provide access to these resources (Cleverism, 2015). The quality and nature of an organisation's key resources command how well the business is able to fulfil its value proposition (Cleverism, 2015). For key resources, the main issue is to define key assets required to make a particular business model work (Osterwalder, 2004).

Intellectual resources may be described as those non-physical resources such as *"brand, patents, IP, copyrights, and even partnerships"* (Cleverism, 2015, p. 2). In addition to this, customer lists, customer insights, and employees represent a form of intellectual resource (Cleverism, 2015). Such resources may take a tremendous time and effort to generate, but once developed, these provide unique advantages in producing the products and services being offered (Cleverism, 2015). Human resources are most often represented by the employees of an organisation, despite this type of asset often being overlooked (Cleverism, 2015). This is specifically an important resource (or asset) in knowledge-intensive services industries as these require a great deal of creativity and an extensive knowledge pool, human resources

such as customer service representatives, software engineers or scientists are pivotal (Cleverism, 2015, p. 2). Physical resources may best be regarded as those tangible resources a company has available to create its value proposition and includes the *"equipment, inventory, buildings, manufacturing plants and distribution networks that enable the business to function"* (Cleverism, 2015, p. 2). Financial resources encompass *"cash, lines of credit and the ability to have stock option plans for employees"* (Cleverism, 2015, p. 2). Despite all business having key resources in finance, *"some will have stronger financial resources than others, such as banks that are based entirely on the availability of this key resource"* (Cleverism, 2015, p. 2).

The key activities are the most important actions a company must take to operate successfully. Like key resources, the key activities *"are required to create and offer a value proposition, reach markets, maintain customer relationships, and earn revenues [...] and like key resources, key activities differ depending on business model type"* such as supply chain management (Osterwalder & Pigneur, 2010). Key activities can be categorized as either production, problem solving or platform/network (Osterwalder & Pigneur, 2010). Production activities *"relate to designing, making, and delivering a product in substantial quantities and/or of superior quality. Production activity dominates the business models of manufacturing firms"* (Osterwalder & Pigneur, 2010, p. 37). *Problem-solving* activities "relate to coming up with new solutions to individual customer problems. The operations of consultancies, hospitals, and other service organisations are typically dominated by problem-solving activities" (Osterwalder & Pigneur, 2010, p. 37). Platform/network business models, where the platform is the key resource related activities, makes key activities "relate to platform management, service provisioning, and platform promotion" (Osterwalder & Pigneur, 2010). Business models based on platforms/networks may recognise that "networks, matchmaking platforms, software, and even brands can function as a platform" (Osterwalder & Pigneur, 2010).

The key partnerships building block depicts the network of suppliers and partners that make the business model work. Businesses forge partnerships for a multitude of reasons, increasingly making partnerships a cornerstone of many business models (Osterwalder & Pigneur, 2010). Some key activities are outsourced and some resources are acquired outside the enterprise, however, often companies create alliances to optimise their business models, reduce risk, or acquire resources (Osterwalder & Pigneur, 2010). The different types of Key Partnerships a business may undertake can distinguish between four different types, which are respectively strategic alliances between non-competitors, coopetition (strategic partnerships between competitors), joint ventures to develop new businesses, and buyer-supplier relationships to assure reliable supplies (Osterwalder & Pigneur, 2010). The distinct type of key partnership(s) being adopted may be motivated by one of following three drivers; optimisation and economy of scale, reduction of risk and uncertainty, or acquisition of particular resources and activities (Osterwalder & Pigneur, 2010).

The cost structure describes all costs incurred to operate a business model (Osterwalder & Pigneur, 2010). In the activities of creating and delivering value, maintaining Customer Relationships, and generating revenue there are associated costs. These may be calculated relatively easily after defining key resources, key activities, and key partnerships. Some business models though, are more cost-driven than others (Osterwalder & Pigneur, 2010). It should be recognised, however, that "naturally enough, costs should be minimised in every business model" (Osterwalder & Pigneur, 2010). Low-cost structures are more important to some business models than to others, and therefore, it can be useful to distinguish between two broad classes of business model cost structures: cost-driven and value-driven (Osterwalder & Pigneur, 2010).

Hence, the generic framework of the business model canvas as proposed by Osterwalder and Pigneur (2010) will provide the reference-base for analysing the business model of the traditional bank and its potential transformation due to an ever-increasing digitisation in the financial sector, by looking specifically at the nine building blocks and their interrelations. As it is recognised, however, this framework may be too simple in nature, as it does not account for industry relations and the competitive landscape, nor does it provide a specification of the strategic intent itself or the actual business strategy it supports. Bearing this in mind, other theoretical conceptualisations will be adopted throughout the analysis. Specifically, as the framework of the business model canvas does not account for industry structures and how the model is sought to compete and be put in practice in the industry within which it is applied, ecosystems theory will be applied too. Furthermore, as strategy of innovation/effectiveness is not included, this will be looked at in relation to, and as an additional component of, the business model canvas to ensure a comprehensive representation of the traditional banks' business model, the impact of digitalisation, and its potential consequential impact and transformation.

It is recognised, that there is a difference between strategy and business models albeit scholars and practitioners often are using these terms interchangeably (Osterwalder & Pigneur, 2010). A practical distinction describes business models as a system that shows how the pieces of a business fit together, while strategy also includes competition (Osterwalder & Pigneur, 2010). There is an ongoing discussion on the difference between strategy and business models (Stähler 2002; Seddon and Lewis 2003), however, in our paper, the discussions governing this topic will not be addressed. To overcome the barrier of the business model canvas not addressing the strategic intent of the business, however, we will simply look at the business model canvas as the translation of a business strategy into a blueprint of the company's logic of earning money.

4.2 Organisational Ambidexterity

The conceptual framework applied in addition to the business canvas model in this paper takes a starting point in Andriopoulos & Lewis (2009), as a means to illustrate the strategic intent of the traditional banks and how this may be generated and balanced through the notion of ambidexterity. This is applied as a complementary lens to that of the Business Model Canvas throughout the analysis.

In order to account for the missing element of the business strategy, and strategic intent, the notion of ambidexterity as a way to consummate the business model canvas activities with regards to the strategic intent is embraced. For this, the framework of Andriopoulos and Lewis (2009) will be adopted. Despite this framework with its notion of organisational ambidexterity being developed for intra-organisational activity, it is applied to the traditional bank and in relation to their organisational transformation. Shortly, the notion of organisational ambidexterity will be applied to account for the capability to simultaneously explore knowledge and resources to identify new innovative opportunities for the business and to exploit the same, in order to capitalize on firms' existing capabilities. According to Andriopoulos and Lewis (2009), ambidexterity is an organisation's ability to *"excel at exploiting existing products to enable incremental innovation and at exploring new opportunities to foster more radical innovation"* (Andriopoulos & Lewis, 2009, p. 696)

Andriopoulos and Lewis (2009) present what they term *"nested paradoxes of innovation",* which comprises respectively *"strategic intent (profit-breakthroughs), customer orientation (tight-loose coupling), and personal drivers (discipline-passion)"* (Andriopoulos & Lewis, 2009, p. 696). In so doing, they further introduce concepts deriving from innovation and paradox literature, integration tactics and differentiation tactics, in order to theorize on how such tactics may support management of the interwoven paradoxes fuel cycles of ambidexterity (Andriopoulos & Lewis, 2009). As integration tactics positions tensions as interwoven and synergistic, whereas differentiation tactics focus actions on each pole separately. Andriopoulos and Lewis (2009) theorise on how *"interplay among the paradoxes and their management fuels virtuous cycles of ambidexterity"* (Andriopoulos & Lewis, 2009, p. 697).

Innovation denotes intricate knowledge management processes of identifying and utilizing ideas, tools, and opportunities to create new or enhanced products or services (Subramaniam and Youndt 2005). To prosper, or even survive, firms must excel at both exploitative and exploratory innovation (Tushman and O'Reilly 1996), yet tensions emanate from their different knowledge management processes (Andriopoulos & Lewis, 2009, p. 696). Organisational ambidexterity signifies a firm's ability to manage these tensions (Duncan, 1976). Hence, the framework will be adopted to aid in portraying how the different activities in the current business model of the traditional bank is balanced. This is done in relation to innovation and efficiency with regards to the business strategy, as well as how this may shift

along with the transformation of the business model of the traditional bank, due to increased, and distinct, digitalisation trends in the financial sector. Overall, ambidextrous business models represent a firm's capability to rely on simultaneous, yet contradictory, processes, *"exploiting current competencies and exploring new domains with equal dexterity"* (Andriopoulos & Lewis, 2009, p. 696)

While a dominate bent towards exploitation may engender *"competency traps"* (Gupta et al. 2006), as leveraging current capabilities may enable immediate profits, but foster eventual stagnation, leaving firms vulnerable to market and technological changes. Likewise, Gupta et al. (2006) describe *"failure traps"* emanating from gravitating toward exploration solely (Andriopoulos & Lewis, 2009, p. 698). Failure traps may, hence, be enacted when firms narrowly seek exploration take escalating risks, attempting to negate past innovation failures while ignoring core competencies (Andriopoulos & Lewis, 2009). In their conceptualisation, Andriopoulos and Lewis (2009) postulate that organisational ambidexterity is prized as a means of managing such innovation tensions, and further stipulate that *"such balance does not denote a mediocre split or bland compromise, but truly excelling at both exploitation and exploration"* (Andriopoulos & Lewis, 2009, p. 697).

Andriopoulos & Lewis (2009) postulate that successfully balancing tensions of exploitation and exploration enables organisational survival, allowing firms to *"excel at exploiting existing products to enable incremental innovation and at exploring new opportunities to foster more radical innovation"* (Andriopoulos & Lewis, 2009, p. 696). In this regard, three paradoxes of innovation are identified as respectively *strategic intent*, a balance between profit focus and breakthrough seeking; *customer orientation*, which is a balance between tight vs. loose couplings; and lastly the *personal drivers* on an employee level, presenting a tension between discipline and passion. In this case, customers are regarded as anyone interacting with the bank, and the employees as those involved in Key Activities directly.

Strategic intent experiences tensions between profit and breakthrough emphasis (Andriopoulos & Lewis, 2009). While a profit emphasis seeks stable revenues and efficiency, a breakthrough emphasis is about building reputation and long-term adaptability through innovations, new product, and services offerings (Andriopoulos & Lewis, 2009). Strategic intent in its most basic sense may be seen as *"a firm's reason for being, often encompassing contradictions"* (Andriopoulos & Lewis, 2009). In expanding on this, it is proposed by March (1991) that exploitation and exploration seek opposing goals, by seeking stable revenues that enable higher mean performance or frame-breaking opportunities that foster greater performance variation, respectively. Taylor and Greve (2006, cit. in Andriopoulos & Lewis, 2009) elaborate on this by stating that *"product extensions fuel positive and consistent returns. In contrast, radically new products are characterized by high risk and uncertainty, resulting in varied mixes of high-visibility successes and dismal failures"* (Taylor & Greve, 2006, cit. in Andriopoulos &

Lewis, 2009, p. 703). **Customer orientation** is the balance of tight and loose coupling between an organisation and its customers, in the process of product innovation (Andriopoulos & Lewis, 2009). Specifically, the paradox of grappling with the need to be tightly and loosely coupled to the client, simultaneously (Andriopoulos & Lewis, 2009). On the one hand, by building close ties with clients, businesses can meet market demands, but at great expense as myopic vision curbs longer-term potential (Andriopoulos & Lewis, 2009). At the opposite extreme, businesses and products *"driven predominantly by future-oriented designers can lack clear targets and become wasteful"* (Andriopoulos & Lewis, 2009, p. 705). **Personal drivers** describe the balance between a discipline and passion among employees (Andriopoulos & Lewis, 2009). Employees are driven through control with deadlines and clear structures, personal passion is guided by intellectual challenge and pride for work (Andriopoulos & Lewis, 2009). Product development challenges exist in that *"clients seeking exciting, new products in short time frames with limited budgets […] demand both sides of the coin. Successful projects require knowledge workers who live and breathe design, but also take advantage of streamlined processes to speed development"* (Andriopoulos & Lewis, 2009, p. 706). Discipline is denoted in terms of *"control, accountability, and structure […] and how well- defined processes empower individual contribution, targets help ensure project execution, and explicit roles enable focus",* whilst passion is characterized by the openness towards reliance on creativity, empowerment and less rigidity to produce novel outputs (Andriopoulos & Lewis, 2009, p. 706).

Managing paradoxes in the three layers does not imply resolution or eliminating the paradox, but tapping into its energizing potential. This again relates back to the business canvas model and, in particular, the business activity system as the way in which building blocks and activities are constellated and this will reflect the business model's capacity to perform, according to the business strategy and delivery of envisioned value propositions of the company.

4.3 Ecosystem Relations

Neither of the two aforementioned conceptualisations directly address the environment in which the firm operates, its competitive landscape, or strategic positioning. In order to fully grasp how different distinct digitisation initiatives may have impacted the financial industry, lowered the barriers for new entrants, changed customer orientations, and much more. It is imperative to furthermore apply a theoretical lens accounting for such interrelations and industry dynamics, in order to elicit how this may impact the transformation in business model of the traditional bank.

More specifically, the external orientation towards the environment in which a business operates is a necessity to fully understand, identify and create a proper business strategy, as it is recognised that *"stand-alone strategies don't work when your company's success depends on the collective health of the organisations that influence the creation and delivery of your product. Knowing what to do requires understanding the ecosystem and your organisation's role in it"* (Iansiti & Levien 2014, p. 69). Even when looking to lose networks of suppliers, distributors, outsourcing firms, makers of related products or services, technology providers, etc. organisations affect and are affected by, the creation and delivery of a company's own offerings (Iansiti & Levien 2014, p. 69). Best compared to an *"individual species in a biological ecosystem, each member of a business ecosystem ultimately shares the fate of the network as a whole, regardless of that member's apparent strength"* (Iansiti & Levien 2014).

A firm's "own" ecosystem falls within the traditional value chain of suppliers and distributors, that directly contribute to the creation and delivery of a product or service to the firm (Iansiti & Levien 2014). Hence, a firm's' own business ecosystem *"includes, for example, companies to which you outsource business functions, institutions that provide you with financing, firms that provide the technology needed to carry on your business, and makers of complementary products that are used in conjunction with your own"* (Iansiti & Levien 2014, p. 69). It further includes the customers when receiving feedback on delivered products and services, the direct competitors, regulatory entities and media outlets (Iansiti & Levien 2014). As an ecosystem is close to never-ending, it is necessary to *"subdivide a complex ecosystem into a number of related groups of organisations, or business domains",* in which each ecosystem typically encompasses several domains, which it may share with other ecosystems (Iansiti & Levien 2014). For this reason, this thesis will look only to the direct ecosystem of the traditional bank, by emphasizing the business model for "traditional" products and services being delivered by a traditional bank now and in the near future.

In this regard, two measurements are of significant importance, when looking at the environment and the role of the traditional bank and its business model for future survival. Specifically, these are respectively productivity and robustness. Where the former regards a *"network's ability to consistently transform technology and other raw materials of innovation into lower costs and new products",* the latter encompasses the *"benefits to the species that depend on it, a biological ecosystem must persist in the face of environmental changes"* (Iansiti & Levien 2014, p. 72), and this ensures a business ecosystem to be capable of surviving disruptions such as unforeseen technological change. A company that is part of a robust ecosystem enjoys relative predictability, and the relationships among members of the ecosystem are buffered against external shocks (Iansiti & Levien 2014, p. 72). This lens will, in addition, be applied to analyse the role of the traditional bank in its current, and potential future, ecosystem, whether that being of a keystone player or secondary support function (Iansiti & Levien 2014). When participating in an ecosystem one can take on a multitude of roles depending on which part of the value

chain one wants to profit on. In the below section, the three main roles one can take when working within an ecosystem will be outlined.

The **keystone** organisation of the ecosystem is a crucial role as they are most commonly the creators of the ecosystem, and therefore the goal of the keystone is to *"improve the overall health of their ecosystem by providing a stable and predictable set of common assets"* (Iansiti & Levien 2014). The keystone is the entity that creates a foundation in the ecosystem that others can work off. Taking Apple as an example, they created the iPhone and the App Store as a foundation for developers to use in order to build apps for the iPhone and distribute them through the App Store. In this way, the keystone can increase productivity by connecting potential actors in the ecosystem, and in the case of Apple, connecting developers and customers through a shared platform. They can increase the robustness of the ecosystem by constantly developing the platform with innovative technologies (Iansiti & Levien 2014). Furthermore, the importance of the keystone is usually so high that should the keystone be removed, it would lead to a near total collapse of the ecosystem, as other actors would struggle to continue operations without the foundation in place (Iansiti & Levien 2014), and as a by-product of this, it is in the keystones own best interest to see the ecosystem prosper.

Furthermore, one can choose to pursue the **dominator** role. The keystone exercises its power in a fairly indirect way, whereas the dominator wields its power in a direct manner, to better position itself within the ecosystem to exploit it (Iansiti & Levien 2014). The dominator seeks to integrate vertically or horizontally within the ecosystem to take over and manage a large proportion of the ecosystem directly. Should the dominator take over the ecosystem more or less completely, very little of the ecosystem will remain. However, as the dominator has taken over operations within the ecosystem, itself will be made responsible for the value creation (Iansiti & Levien 2014). This makes the above a destructive behaviour seen from the perspective of the ecosystem, however, it is a viable strategy if an actor seeks to take over operations in order to increase efficiency and potential value derived from these operations. Two types of dominators exist. The above mentioned refers to the physical dominator. The value dominator, on the other hand, exercises little power over the ecosystem. Instead, the value dominator seeks to extract as much value from the ecosystem as possible (in contrast to sharing it within the ecosystem), which in the end will leave the ecosystem unsustainable and bring it down alongside the value dominator (Iansiti & Levien 2014).

The third role an ecosystem actor can take is the **niche** role. The niche role is the most commonly used within the ecosystem, as the niche players goal is to develop "specialised capabilities that differentiate it from other companies in the network" (Iansiti & Levien, 2014). The ecosystem allows the niche player to focus their energy on their core product/ service and enhancing the value of it by leveraging the capabilities provided by the ecosystem and/ or keystone. When allowed to operate, niche players make

up the majority of the ecosystem and is creating the vast majority of the value created within the ecosystem. They thrive by leveraging the capabilities that have been established by the keystone, or in the shadow of a dominator that operates to exploit or replace the nice player (Iansiti & Levien, 2014). Due to the nature of which the niche player operates under ie. the capabilities provided by others, the niche player needs to carefully analyse the ecosystem before entering it. They need to asses to which extend they are going to rely on different actors in the ecosystem, in order to understand how much of their business will be relying on the capabilities owned by others, and how actors can exercise power over this relationship. Relying too much on capabilities supplied by a dominator can prove unfortunate in the long run, as the dominator might attempt to displace the niche player. Niche players, however, can counter this by introducing capabilities within the ecosystem that can lose up the coupling between the actors, retaining the ecosystem value, but decreasing the interdependence and thereby reducing the power of potential dominators (Iansiti & Levien, 2014).

4.4 Our Approach

As it was identified throughout the background section and literature review, there are primarily three predominant drivers that appear to impact the business model strategy of the incumbent banks in the European financial sector, respectively regarding changing consumer behaviours, technology-driven innovation and, European regulatory interventions. In the above sections, the theoretical lenses forming the conceptual framework for the analysis has been specified to include the Business Model Canvas as it was proposed by Osterwalder, Pigneur & Clark (2010), which will be further supported by respectively the theoretical framework by Andriopoulos and Lewis (2009) on organisational ambidexterity for digital innovations and Ecosystems theory by Iansiti & Levien (2014). The business model canvas enables a lens from which to investigate the distinct activities, processes, resources and value propositions altogether shaping the way in which retail banks produces and distributes its portfolio of products and services. As this lens, however, does not specify fully why its business model strategy is construed as it is, ecosystems theory provide a lens from which to investigate the external relationships and dynamics that (may) impact the value chain activities and value delivery of the banks. Lastly, as a business model strategy may be regarded as a strategy for how to compete in a marketplace or industry, which in this case is strongly dominated by increasing digitisation, the framework of Andriopoulos and Lewis (2009) with their notion of organisational ambidexterity provides aspects to the framework regarding how and who delivers innovation and effectivisation. Hence, the lens of ambidexterity for digital innovation in combination with the business model canvas and the inclusion of ecosystem/value chain perspectives, provides an overarching conceptual framework for investigating the business model strategy, and how it may be impacted by the three key drivers, taking into consideration factors and conditions internal and external to the traditional bank.

The business model canvas, as a consequence, will be used to respectively uncover the strategic intent of the traditional bank, its customer orientation, and the type of drivers being valued internal and external to the bank. Viewing the banks through the lens of the business canvas model will be done with both the current business model as well as the future business model of the banks. Based on primary data gathered from our interviews as well as secondary sources for supporting arguments, the current and future business model of the retail banks will be outlined. In order to put this into perspective, and to see how increased digitalisation and external factors influence the conduct of the bank, ecosystems theory have aided displaying the traditional banks positioning in its market-place. For all relevant elements in the business canvas building blocks the ecosystem theory will also be evaluated in order to determine its relation to both the current and future business model canvas. Thus, the overarching conceptual framework for this research paper will be based on the nine building blocks of the business model canvas combined with the notion of ambidexterity and ecosystems theory, as it provides a more comprehensive frame of reference for investigating how the business model strategy of the bank is impacted by key drivers of digitalisation in the financial sector. In addition to applying ecosystem theory to the business model canvas' building blocks, elements from the ambidexterity framework will be applied for each relevant building block.

Due to the explorative nature of this research, the combined theoretical lenses will guide the frame of reference for the analysis of empirical data. The insights gained from applying the theoretical framework in analysing the empirical data will subsequently enable us to bring forward a conceptual framework for how the business model strategy of the traditional bank is impacted by recent digitalization trends in the financial sector.
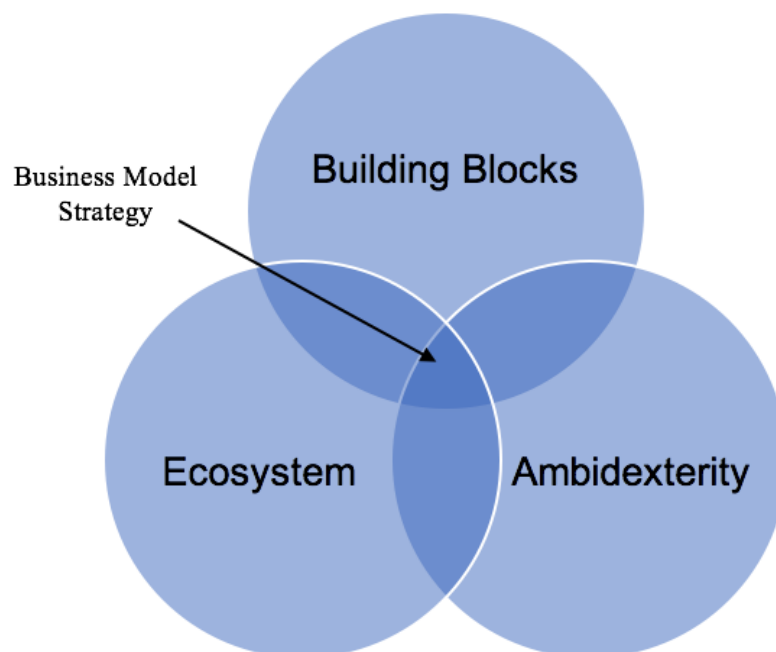
Figure 1 - Theoretical Approach

5 Methodology

5.1 Research Philosophy

To facilitate a comprehensive research project, it is important to consider which research philosophy to adopt by exploring how one sees the *"development of knowledge and the nature of the knowledge",* or in other words, referred to epistemology (Saunders et al., 2009). As we believe that social phenomena are what constitutes *"acceptable knowledge"* (Saunders et al., 2009), the research philosophy adopted for this paper is largely interpretivist, where reality is defined as socially constructed. The results may, therefore, be subject to change, depending on who is interpreting the data and the distinct strategy for data analysis being adopted. By acknowledging our research philosophy, the right research approach to adopt follows naturally. This leads the research to become a qualitative case study, with "in-depth investigations" done from a small sample, again highlighting the interpretivist nature of the research (Saunders et al., 2009).

In order to conduct thorough research, it is imperative to reflect on which research philosophy to adopt, as it relates to *"the development of knowledge and the nature of that knowledge"* (Saunders et al., 2009, p. 107), containing assumptions about worldview, which underpin the research strategy and related methods. In this paper, we adopt the research philosophy of pragmatism, which argues that the research question is the most important determinant of what is considered acceptable knowledge and methods (Saunders et al., 2009). If the research question does not suggest unambiguously that a specific philosophy is adopted *"it is perfectly possible to work with variations in your epistemology and ontology"* within one study (Saunders et al., 2009, p. 109).

This means that the ontological position adopted for this paper, the nature of reality, does not limit itself to being fully committed, to particular views of either objectivism or subjectivism (Saunders et al., 2009). The former concerns itself with the position that *"social entities exist in reality external to social actors"* (Saunders et al., 2009, p. 110). This becomes relevant in the sense that we assume that the distinct drivers for industry change and the increased digitalisation in the financial sector's influence on the traditional banks business model is, arguably, an objective entity when looking across the traditional banks in Denmark. Therefore, we partly adopt an objectivist stance to the study of particular aspects of business models, and their transformation, in the Danish banking industry (Saunders et al., 2009). This view highlights the structural aspects of business models and their strategic options available and further assumes that this is somewhat similar in all alike organisations, but simultaneously acknowledges that certain structures in which to operate may differ depending on the organisation (Saunders et al., 2009). The adoption of this view is somewhat applicable, as the conceptual framework

is believed useful beyond the boundaries of one case study organisation, despite deviations in parts of traditional banks' social worlds (Saunders et al., 2009, p. 110).

The second aspect, subjectivism, *"holds that social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence"* (Saunders et al., 2009, p. 111). Adopting this approach throughout the research allows one to study the details of situations and understand the reality, or *a* reality, working behind actors (Saunders et al., 2009). In order to thoroughly investigate how an increased digitalisation and distinct drivers transform the traditional bank's business model, insights into many detailed industry perspectives and the developments already taking place, in some settings, and not others, are needed. In order for researchers and practitioners to fully uncover the black-box of organisational behaviours, value propositions, norms, processes and practices, one must look into a somewhat detailed level of the situation(s) underpinning choices, and the social constructions existing across organisations (Saunders et al., 2009).

This follows from the interpretivist epistemology that *"it is necessary to explore the subjective meanings motivating the actions of social actors"* as many different interpretations may co-exist (Saunders et al., 2009, p. 111). In our case, however, one social actor is rather seen on an organisational level more than it regards individual employees within an organisational constellation. This allows us to look more broadly on the traditional banks and the industry competitive players, but to a degree where we see differences in behaviours, values, and strategies. With this reasoning, one is enabled access into understanding the meaning behind behaviours of actors, in their social conditions, whilst simultaneously acknowledging that particular parts of social entities largely share structures across different settings. Basically, the idea is that the nature of knowledge *"exists independently of human thoughts and beliefs or knowledge of their existence, but is interpreted through social conditioning"* (Saunders et al., 2009, p. 140).

The epistemological position adopted within this research project, what constitutes acceptable knowledge in a field, resembles that of the critical realist, believing that there is a reality *"independent of the mind"* (Saunders et al., 2009, p. 114). This view is somewhat adopted, although not in its narrow sense, but from the belief that structural aspects may be similar across different social worlds (organisations) and therefore, building a conceptual framework for how to approach business model strategy may be relevant beyond the boundaries of simply one empirical case. Identifying with the epistemology of a critical realist, however, it is concurrently assumed that researchers are only able to understand what is going on in the social world if the social structures giving rise to the investigated phenomena are understood. Thus, the critical realist position is that our knowledge of reality is also a result of social conditioning (Saunders et al., 2009). Leaning towards the viewpoint of a critical realist, this study on the one hand is critical of the positivist tradition, by arguing that the social worlds are far

too complex to lend itself to theorizing by definite "laws" and that rich insights into the complexities of the social worlds are lost if it is reduced entirely to a series of law-like generalizations. On the other hand, however, it is assumed that these social worlds largely are similar and that "law-like" generalizations about the overall structures, goals, and approaches for different corporations are largely similar (Saunders et al., 2009). Thus, a general framework is applicable across different organisations, but the concrete operational activities, perceptions, and phenomenology of situations may deviate according to their distinct preferences and ways of working and, hence, should be embraced (Saunders et al., 2009).
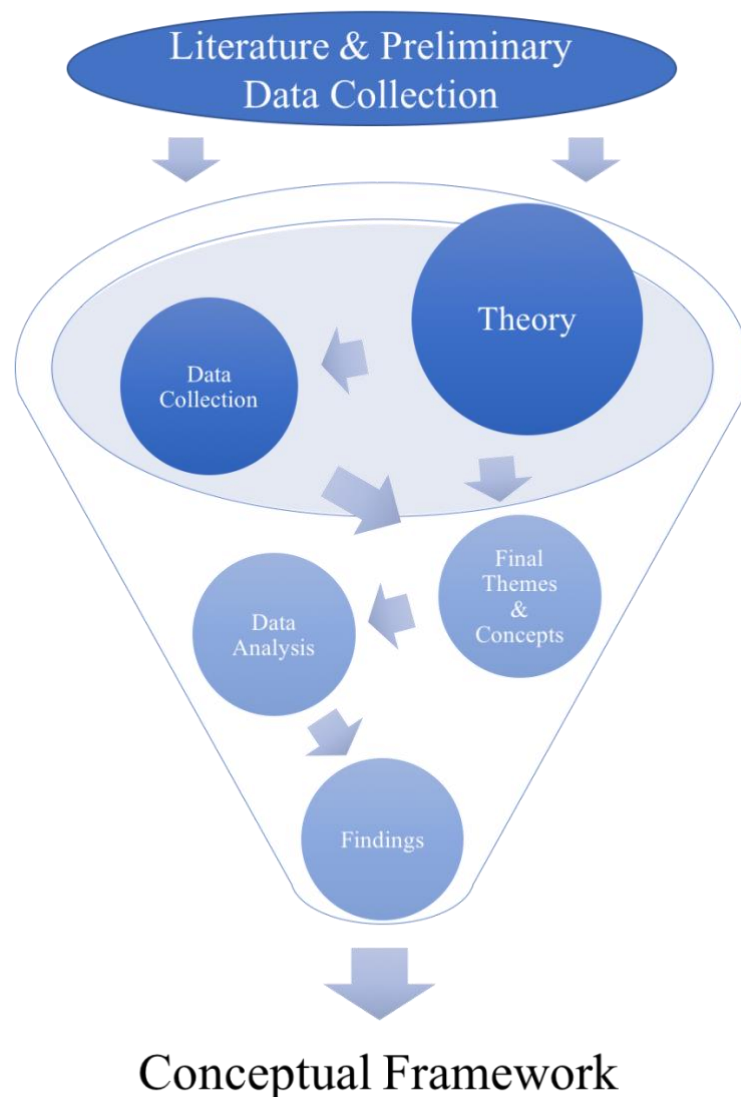
5.2 Research Approach

Aside from the nature of reality and what constitutes acceptable knowledge, it is imperative to consider the research approach being adopted, often referred to as deductive- or inductive reasoning (Saunders et al., 2009). The former concerns the process of testing theory from a set of premises and the latter propose an approach in which data is collected as the basis for developing a theory (Saunders et al., 2009, p. 124). In line with the research philosophy of pragmatism, and relying on mixed epistemological and ontological identifications, the research approach adopted for this case study is rather referred to as abduction (Saunders et al., 2009). An abductive reasoning moves "back and forth, in effect combining deduction and induction (Suddaby 2006, cit. in Saunders et al., 2009, p. 147).

In this specific case, we adopt a deductive reasoning in the effort to test or "demonstrate" that the insights we gain on business model strategy are aligning the viewpoints produced by others, in order to effectively provide a final general business model of the traditional bank (Saunders et al., 2009). This reasoning is addressed throughout the analysis to test the somewhat hypothetical (or at least implied) point that increased digitalisation in the financial sector is, in fact, altering the business model of the traditional bank. These empirical findings will be embraced, leading us into practicing an inductive reasoning approach (Saunders et al., 2009). Taking departure from the findings, the discussion will present the contribution to the conceptual framework of the traditional bank, namely that of its ecosystem presence and the transformational aspects. This will be exemplified with a practice-based solution to the case traditional banking, with a practical example of how the theory we build around what a business model strategy looks is transformed into a classification of three alternative business model strategy constellations in practice (Saunders et al., 2009). The purpose of this is to gain insight into the social conditioning within individual organisations, so as to better understand the nature behind the problem space, in order to formulate a theoretical contribution that later can be tested (Saunders et al., 2009). It is not the objective of this paper to directly test any framework, but solely to develop it and illustrate it by means of a single case study (being that of the traditional bank business model strategy). Taking a realistic perspective to the case further enable us to find the overarching structures

appearing from the findings that potentially could be generalizable and therefore applicable in other corporate settings, making the theoretical contribution widely relevant beyond the boundaries of simply one bank (Saunders et al., 2009).

Figure 2 - Research Approach

5.3 Data Collection

One possible methodological approach for data collection is to conduct an interview based qualitative research, in this case, the concept of the traditional bank. As an interview-based qualitative research is anchored in real life situations, the positive effects resulting from this approach is that it facilitates access to unique situations, and allows the researchers to answer questions of why and how, related to the distinct research phenomena. It allows in-depth knowledge of the contextual background and thus reasoning behind distinct behaviours being observed. In the case of our research, this would enable us to, in a distinct context, qualitatively observe and generate insights into distinct patterns of response

behaviour in relation to deployment of new services, relationships and business model constellations. A possible alternative would have been that of a case study investigation. However, as we set out to investigate the transformation of retail banking business models in more general terms, across one specific context with a distinct set of three impacting factors being analysed, investigating this from a case-study perspective (strictly) would not make sense, as it is not a single case as such we are researching, rather the notion of the traditional banks business model as a focal point and thus "the case" (Saunders et al., 2009). When considering research method and the selected data collection methods there are three main concerns (Saunders et al., 2009). Firstly, the purpose of inquiry must be clear, and how the results will be relevant to the intended audience. Secondly, the method must be aligned with the respondent attributes, and how the data needed will best be collected from them. Thirdly any given method needs to be considered according to resource constraints to determine whether the method can be afforded given the available resource pool. As capture in what ways digitalisation impact the transformation of traditional banking business models, we, therefore, need to capture a broad range of experts in the industry, and elicit responses in an honest and open manner, separating our results to see any contextual factors that may come into play.

This thesis relies on primary qualitative data sources through an interview-method-combination of respectively *structured, semi-structured and unstructured* interviews, as the different types of research interviews exist, serve different purposes depending on what the researcher(s) aim at achieving through the interview (Saunders et al., 2009). For our data collection, we will focus on primary sources, meaning as researchers we are involved in developing the data collection protocol and are the ones actively collecting the data (Saunders et al., 2009). Full reliance on secondary data sources are *"heavily dependent on surrogate measures of concepts, requires significant data cloning, manipulation, and interpretation"* (Saunders et al., 2009), and would be inappropriate as in this case are not readily available as little research has been conducted on the topic. We select this method for rich descriptive expert data, and additionally to take into account any contingencies that could arise during the collection. We will gather rich in-depth *qualitative* data through interviews, based on what we have gathered from our large-scale typology resulting from the literature review. Interview themes may be derived from literature, theories, experience with a particular topic, and conversations with experts in the field of interest (practical or theoretical) (Saunders et al., 2009). In order to come up with appropriate interview themes for the interviews, we have been through a process of exploration into domain-related literature, expert interviews and casual conversations (Rosengaard, 2018) and preliminary interviews with domain experts (Anonymous Employee, 2018).

As the *unstructured interviews* are informal in nature, these were relied on in the early processes of data collection aiding to explore areas of interest more freely than what would be possible under the confines of other approaches (Saunders et al., 2009). This form is also more co-lead by the person being interviewed as they can help shape the conversation. As a general rule, the interviewer still needs to have a clear idea of what it is that he/ she seeks to explore in order to obtain the value (Saunders et al., 2009). Although we did orient ourselves in the literature on the topic and generated preliminary questions to for analysis, the unstructured interviews were based on industry experts with many years of experience in the industry, with the purpose of providing us with further insights into the trends, dynamics, and influences related to the research topic. This enabled a more focused search strategy prior to the execution of our systematic literature review.

There has been obtained knowledge about the research area prior to the interview process in order to understand the context of the financial industry's rapidly changing dynamics, relative to digitisation and third-party companies, as well as the role of the traditional bank. Published Academic and Consultancy papers have been investigated to generate an overarching understanding prior to engaging in any interviews with industry experts. Relevant papers have been identified through Google Scholar, Business Source Complete and other relevant databases. Based on relevant keywords, research papers were selected and domain-relevant findings extracted, in order to provide a thorough understanding of specific dynamics and trends of digitalisation impacts on the traditional banks, the business models of traditional banks, as well as of the financial industry in itself. Additionally, themes were developed, which was evolved around the literature presented in the literature review which will be covered later.

Based on the systematic review of the field-related literature and the unstructured interview, a deeper knowledge into the domain and important dynamics and influencers were identified and defined, it was deemed necessary to rely on a more structured approach for data collection. The *structured interviews* were an adopted approach with reliance on predetermined questions, which can also be known as interviewer-administered questionnaire (Saunders, Lewis, & Thornhill, 2009). This leaves little room for exploration, as all questions should be presented identically to increase generalizability, but allowed us to test out our research themes and their appropriability. This was, however, relied on to provide a few more nuances and thus to complement the findings from the literature. With the research being highly explorative in nature, it was deemed necessary for the remaining interviews to be less rigid and open up for more nuances to be explored (Saunders et al., 2016).

To supplement the structured interviews, we relied on semi-structured interviews, which builds upon open-ended questions, which allows the interviewees to bring forward their individual, subjective viewpoints on the topic (Flick, 2014). Semi-structured interviews are planned with questions produced prior to the interview but allow researchers to omit questions and partake in new avenues throughout

the process. This grants the potential to generate novel insights throughout the process and thus a more comprehensive framework for the impact of digitalisation on retail banking business model transformation. This would allow for new variables influencing the transformations, which could not be specified in advance (Flick, 2014). Disadvantages for both structured and semi-structured interviews, are the required continuing physical access to respondents during the study, meaning they are costly, and also related to biases with the phrasing of questions during the interviews, conflicting with the objectivity of the results.

*Semi-structured interview*s are in reality a mix of the structured and the unstructured interviews. The unstructured interview sets out to cover specific areas in a non-specific way, by having the researcher prepare key topics and some broad questions that are important to cover. However, the interview might change in nature compared to the expected, due to answers that were not foreseen, and this can change the context of the conversation. By embracing this, one embraces the semi-structured approach, and if used correctly it can yield answers that were not anticipated, and these can then be further investigated (Saunders et al., 2009). For this thesis, it has been chosen to follow the semi-structured interview approach for the majority of the interviews. This approach was chosen primarily based upon the experts that were chosen for being interviewed. In the process of how to obtain empirical data that could provide explanations *of how the business model and strategy making of the traditional bank is impacted by recent digitalisation in the financial sector* it can be concluded that the nature of the approach is inductive and exploratory, as the aim of the thesis is to explore and explain rather than test and verify (Saunders et al., 2009). And that is where the semi-structured interview has its strengths, as the interviewer is able to explore throughout the interview with unplanned follow up questions that can build on the empirical data that would not have been possible with a more rigid approach like the structured interview.

We were continuously aware of the importance to note the pitfalls of this approach to interviewing, such as *reliability* which means that different researchers might not get the same result from the same data (Saunders et al., 2009). This also ties into the notion of Interviewee and interviewer biases. *Interviewer biases* occur when different verbal tones are applied to different questions in order to force a specific answer from the interviewee. The *Interviewee* or *response bias* can occur as a result of perceptions of the interviewers. Although *interviewee bias* may not be caused by the interviewer, perceptions of the interviewing party can still influence the respondent (Saunders et al., 2009).

Credibility can be prompted for the interviewer by supplying relevant information to interviewees in advance of the interviews (Saunders et al., 2009). Prior to interviews, interviewers have contacted interviewees to provide relevant information to establish a degree of credibility towards interviewees. In this regard, it was deemed necessary not to reveal too much but rather provide the interviewees with only the relevant level of context, to reduce the likelihood of bias introduced by the researchers.

Appropriateness of location is important since it can influence the data being collected (Saunders et al., 2009). For this thesis, authors have offered to visit interviewees at the company they represent for their own convenience and comfort. Furthermore, authors offered phone interviews, Skype calls and email correspondence as a second option in case the interviewee was unable to host a physical meeting. This was done to ensure privacy and comfort in accordance with the interviewee's preferences, as well as enabling them to speak freely. It has been a constant focal point to maintain appropriate use of different types of questions throughout the interview processes with all interviewees. Some questions are desirable to ask while other types of questions are better to avoid (Saunders et al., 2009). For the interviews for this thesis, the majority of questions have been *open questions* to encourage interviewees to provide answers to complex dynamics as well as add additional knowledge. For complex answers *probing questions* have been used to follow up, whilst maintaining a neutral and non-judgmental tone on interviewer's part. *Specific and closed questions* have been used but largely limited to clarifying very specific questions on e.g. customer/subscription figures. *Other means to further questioning* have been following up questions, due to the nature of the open-ended questions, new questions would arise during the majority of the interviews conducted for this thesis.

5.3.1 Data Collection Strategy: Selection of Participants

A multitude of sampling techniques are available at hand. Respondent sampling for the primary data collection is necessary, as it enables one to *"reduce the amount of data you need to collect by considering only data from a sub-group rather than all possible cases or elements"* (Saunders et al., 2009, p. 213). Again, in aligning with the pragmatist philosophy, the type of research question being adopted will guide which sampling techniques are deemed more or less relevant (Saunders et al., 2009). In cases where generalizations need to be made the sample needs to be representative of the entire population, in order to ensure inferences can be made, in order for us to build an overall understanding of the topic. In our research, we have chosen to collect data from fewer cases, which allow us to *"collect information that is more detailed"* (Saunders et al., 2009, p. 213). This is primarily based on a non-random sampling technique, lending us to select samples based on our subjective judgment of what type of respondents that are deemed more or less relevant. This naturally leads to bias in the selection of which findings may be impacted. As our research in many ways is regarded exploratory in nature, *"a non-probability sample may be the most practical, although it will not allow the extent of the problem to be determined"* (Saunders et al., 2009). In many ways, our sampling technique could be classified as

somewhat self-selected, as we were *"asking them to take part"* and *"collected data from those who respond"* (Saunders et al., 2009). Unfortunately, we did not have full access to a multitude of organisations which reduced the level of control we had over who should contribute with insights to our project. Further to this, as we are investigating at an industry level, this type of data would not be the most appropriate. Hence, our data sample resembles a wide-range of industry experts where we have had the ability to control the diversity in the scale, ensuring that the experts may be able to represent appropriately the experts and actors in the industry and, thus, provide reliable results for the analysis. This is deemed acceptable, as the *"choice of sampling techniques is dependent on the feasibility and sensibility of collecting data to answer your research question(s) and to address your objectives from the entire population"* (Saunders et al., 2009, p. 213). The scheme below is an extract illustrating the interview participants.

5.3.2 Overview of Interviewees

Name, Professional Role & Organisation
Niklas Weckesser Nicklas Weckesser functions as an Innovation Catalyst for Copenhagen Fintech. His role entails partnering up different universities with Fintech companies in order to create smart IT financial solutions for customers. The second part Nicklas' responsibilities involve helping start-ups, not as a consultant, but in order to connect them with the right people. Copenhagen Fintech hosts events where start-ups can get a chance to talk to people that are very knowledgeable within specific areas. At these events, Fintechs will have a chance to ask questions to e.g. law professionals about PSD2 and GDPR to mention a few examples.
Kasper Sylvest Kasper Sylvest is the Head of Financial Market Infrastructures in Danske Bank. His role involves leading a team of experts within payments, credit cards and digital ID, such as NemID. The team is concerned with surveying the infrastructures that Danske Bank is using as a financial institution. His team is representing Danske Bank when different banks, using the infrastructure, is meeting up to discuss the effectiveness of the infrastructure and whether it is cost-efficient and compliant. Furthermore, the team is responsible for evaluate new regulations such as the PSD2 initiative and evaluate if new rules and regulations will impact Danske Banks current product and services. Another responsibility of the team is to communicate the knowledge that they generate to the correct business developers in Danske Bank and ensure adjustment of products, service and internal processes. Furthermore, the team works with the business developers of Danske Bank.
Frederik Murmann Frederik Murmann is the CEO and Co-Founder of LendMe, a company he started in with his associate in the spring of 2016. Murmann started his career in law after receiving his diploma in 2006. He worked in SAXO BANK for two years. After that, he was headhunted to a company named EnterCard, a consumer financing company specialised in credit cards, consumer loans, and other financing services. Murmann was employed at EnterCard for 8 years and became the Head of Legal for Denmark, Sweden, and Norway, before founding LendMe Murmann is an entrepreneur and finance industry expert. Among his specialisations, we find the ability to drive aggressive profit and growth strategies, management and control, payment and credit card services.

Sebastian Akselsen Sebastian Akselsen is a Business Development Manager for Lunar Way. Sebastian's primary tasks is to develop new products and features within the application. Additionally, Sebastian works with improving already existing features of the Lunar Way application. Sebastian has been driving the processes of moving Lunar Way's activities from Københavns Handelskasse to Nykredit as their new and current partner bank.
Christian V. Larsen Christian Larsen is the CEO and founder of the Fintech NewBanking. He has 15 years of experience in banking, financial law, FinTech and payment solutions. Larsen has been a speaker for numerous conferences within blockchain, payments, and finance. He is a member of the EU Commission: Payment System Market Expert Group. Some of his accomplishments to date is to join Coinfy as the CFO and head of strategy when it was still an unknown player in the blockchain word. During the next eight months, the company raised to become the 4th biggest player in the world. Conify is today the largest European payment gateway.
Rune Mai Rune Mai is the CEO and founder of the FinTech Spiir. Before establishing Spiir Mai was head of development at Den Blå Avis (DBA) a Danish second-hand online trading service for private users and companies looking to sell their possessions. Mai is a specialist in agile methodology, rapid development, business model canvas and business engineering to mention a few.
Morten Rosengaard Morten Rosengaard is an entrepreneur advisor employed by Nordea. He has held various positions within retail banking in the past 11 years. He has been part of establishing e-branches as well as identifying how to cooperate with third-party providers in Nordea.
Anonymous Bank Employee IT Management professional, working with big data and big data governance in the banking sector, supporting "building data-as-a-service" model for the traditional banks. Working within the common data platform management team.

Table 4 - Overview of Interviewees

5.4 Data Analysis

This section outlines the overall logic we will engage in to analyse our collected data. While in practice a certain amount of abduction is done. This is not a practical way to present the research as it is reported in a linear fashion through a report. Therefore, while a certain amount of iteration would be done between theory and data in the following sections we outline our logic in either inductive or deductive terms. Firstly, we performed a literature review on the topic of which was used as the conceptual foundation and thematic framework, for undertaking the interviews. Secondly, we revised our thematic categorization based on a structured interview approach, to bring forward the final interview-guide for the semi-structured interviews. The below sections aim to specify the details of this process as it was performed.

5.4.1 Coding the Primary Data from Interviews

The interview data will be initially coded inductively. Inductive reasoning involves generating broad generalization from specific observations (Eriksson & Kovalainen 2015). While we have largely selected the relationship, pairs based on the literature review findings, in the interview analysis we will instead look for patterns starting with outcomes, impacts on traditional banks' business models. Subsequently we will seek explanations in terms of digitalisation, regulations, consumer behaviours and general industry trends, and more fine-grained contextual patterns such as platform, temporal factors, insights and so forth. This allows us to get a more in-depth account of the factors influencing business model transformations, which includes much more contextual considerations. From the category and themes derived from literature, in combination with the initial structured interviews, the qualitative data analysis enables us to create first order codes. Herein, through a process similar to grounded theory, we generated loose categories from which we performed second order coding in the attempt to link these codes, to create more generalizable patterns (Miles & Huberman, 1994).

The recording sheet containing the interview questions is used as a form of "off-the-shelf" coding (Saunders et al., 2009). Off-the-shelf coding is a method used for *"recording interpersonal interactions in social situations",* by highlighting key points during interviews (Saunders et al., 2009:305). Therefore, it applies in this research situation, as we are using personal interviews as our primary data. This type of coding has enabled us to record the data during the interviews, essentially analysing while collecting data. Throughout the interviews, a distinct set of areas emerged to be of particular interest; digitalized innovations, external relationships and the business model, and the value proposition banks will deliver to their (changing) target audience(s). These areas make up the foundation for the analysis, and the relevant quotes were therefore added to a final coding scheme, which only contained the five focus areas: *Business model, industry structures and external relations, digitalisation drivers and impacts, European regulations, and consumer behaviours and preferences*, as can be seen below:

Business model building blocks	Industry structures and external relations	Digitalisation drivers and impacts	European regulations	Consumer behaviours and preferences
The key function of the banks is not only the financial services, it's just as much the ability to look out for customer data. In a sense, acting like a "data broker" who can take care of customer's data and money. It is something that we have done for many years, also before everything become digital. We're really good at it and we will continue to be good at it for the next hundreds of years" (Sylvest, 2018).	"People will not have just one relationship, they will have relationships with 5, 6, 7 banks. You'll have a credit card from one bank and some fancy stuff somewhere else, and then there will be the bank that has your mortgage, which can be changed all the time" (Murmann, 2018)	"I believe that we will move away from the banks believing that they have to be an all-in-one provider." (Mai, 2018)	"The competition will become much greater and PSD2 will enable that" (Murmann, 2018)	"Those that are 5-10 years younger than me, they have from the day they were born been sitting with a smartphone in their hand, and we have seen trends where some young people talk more frequently on messenger than they do face to face. So, I believe that there is a larger trust from the younger segment to do these things digitally" (Akselsen, 2018).

"Initially I believe that the banks will always be around. I can't see the scenario where the safety that they provide will not be needed" (Larsen, 2018)	"Well, I would say that, the traditional bank as we've known it for the past 1000 years and maybe a modern Danish bank the last 20 years will not exist in the same way as it does now. We see this just within the last 2 years through our dialogue with the banks. Their mind-set has changed relative to their own role and how they are creating value for their customers" (Murmann, 2018)	"That's the fear going forward, that the customers will rather use Google Pay instead of Danske Bank every day, in which case they will completely forget that they are out customers." (Sylvest, 2018).	"Data is very relevant, so I could imagine that a middle way would be devised with a minimum effort model and then a subscription model where one can purchase premium data on these customers, because as far as I know, it isn't decided on EU level, on which data to open up for" (Weckesser, 2018)	"If we think back to the financial crisis, there was a lot of small players that went down, so I think that people generally have more confidence in us, even if we're a small company, we do have the Brand Nykredit behind us, so people think, it must be OK." (Akselsen, 2018)
"If you say that you would like to keep one of your products with your current bank, then they will say that they can no longer offer you a package gold solution or something else that actually makes the relationship beneficial for the customer" (Murmann, 2018)	"I believe that the banks will play a major role to play in supplying services in these ecosystems that are emerging" (Mai, 2018)	"Look at Spar Nord, they have a declared target of becoming a data platform, or a back-end bank as they call it. A kind of tech platform who deliver banking in a variety of different products" (Mai, 2018)	"Yes, that is this whole third-party area, because today it is a non-regulated area that is being legalized here with PSD2, and that opens up for a whole new line-up of actors, because all these third parties now have a legal claim to get access to customer data, which they didn't have before PSD2" (Sylvest, 2018)	"One can argue that the services that the banks provide in addition to safety be challenged. This be because one might not want to place ones pension savings in a new start up, I don't think people will be willing to do that as the risk will be too high" (Larsen, 2018)
"Today we [the bank] has its own products and services, which are distributed through owned channels. now, third parties will enter this landscape and will, e.g. begin to distribute the bank products "(Sylvest, 2018)	"The customers [for FinTechs] will become big financial institutions" (Larsen, 2018)	"The fact that you can start looking at customers that spend 500DKK every Friday evening on Østerbro in Copenhagen is very interesting for the restaurants" (Sylvest, 2018)	"You can say that what PSD2 does is that it increases competition within the payment domain on the so-called payment accounts" (Sylvest, 2018)	"I think we will begin to see much less loyalty from customers [towards banks] in the future" (Akselsen, 2018)

Table 5 - Data Segmentation

The answers to the interview questions were discussed between all authors, in order to reach a consensus on the meaning behind each answer, and thereby code it *"correctly"* (Saunders et al., 2013). Following the coding, and the decision to use the selected theoretical frameworks as the overarching idea tying the paper together, a business model and ecosystem diagram was developed. It is recognised, however, that more interviews could have provided further insights, and allowed for a different representation, had this been completed.

6 Findings

In order to see how the business model strategy of incumbent retail banks are impacted by increased digitalisation and distinct drivers of digitalisation in the financial sector, the following sections will shed light on the business model, strategic intent and industry structures. This will be executed by relying on empirical evidence, through the lens of the conceptual framework. The pursuit is to investigate the current business model strategy of the traditional bank from the selected theoretical perspectives, in order to clarify and demonstrate the baseline for the role of the bank and its strategy as it is currently portrayed. This will lay out the foundation for identification of the transformations already seen, as well as those deemed to emerge as the retail bank is impacted by key digitalisation drivers in the industry, in the future. The analysis will be structured as follows. First, a presentation of the current business model strategy and role in the industry will be brought forward. Second, empirical evidence will base the foundation for presenting the future business model strategy and the distinct transformative components of the business model and how this may influence the role of the traditional bank and industry structures. Last, the overarching transformations identified will be presented through four overarching themes explicating the most predominant impacts on the business model strategy and related activities to be expected as a consequence of increased digitalisation and in particular open banking in the industry.

6.1 Current Business Model

Based on the background information and empirical evidence, the below illustration depicts the business model canvas in its current state for the incumbent retail banks. Following the illustrations, each building block component will be analysed and described in detail.

Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
• Credit/ Debit Card Companies • Regulatory Entities • Pension Funds • Data Centrals	• Asset Transfer Management • Advisory Service & Investment Management • Compliance • Own Bank Data Analytics • Internal Coordination	• Full-service provider & owner of value-chain • Advisory to customers on full-bank-service portfolio • Easy and coherent banking experience produced in-house • Breakthrough Innovation and low-cost banking services provider • Compliant and secure banking services	• Brand contribution to relationship • Concentrated customer relationship • Direct Customer Demand	• Private Customers
	Key Resources • Financial Customer Data • Human Resources & Intellectual Resources • Brand Value • Branches • Infrastructure • Processes • Financial Resources		**Channels** • Direct Channels • Indirect Channel	

Cost Structure	Revenue Stream
• Human Resource Compensation • Supplier Compensation • Compliance Cost • Product Portfolio Cost	• Interest on Loans and Securities

Figure 3 - Business Model Canvas: Pre Open Banking

6.1.1 Key Activities

One of the key banking activities is the transfer of assets between parties. These assets can be of varying kind, and may be standard money transfers between known parties, on the request of one of the parties. However, it can also be of a more complex nature in the shape of loans issued to a party, which is funded by the deposits made by other unrelated parties (Asmundson, 2017). Here, the bank mediates between those parties while taking on the risk of the loan in exchange for an agreed interest rate. Furthermore, the bank coordinates with other banks, domestically or internationally in order to facilitate interbank transfers (Mai Interview, 2018). All of the above can be synthesized down to network/ platform management where the bank is utilizing its banking infrastructure as a platform in order to connect parties, related or unrelated (Asmundson, 2017). Due to the nature of asset transfer and the means by which is it performed, asset transfer falls under the category of Platform/Network business models. In Platform/Network business models the platform is the key resource related to activities (Osterwalder & Pigneur, 2010, p. 37).

Another aspect is that of advisory services. The traditional customer interface between bank and customer has been the bank adviser, whom customers could visit in one of the branches of the bank in order to seek guidance on financial products that the bank might be offering. For any larger acquisition of financial products, that are too complex for self-service through online banking, customers would book meetings with an adviser in their local branch. The adviser would then guide them on which product(s) in the bank's portfolio would fit their need the best (Mai Interview, 2018). This approach however, needs to be perceived as a salesperson as much as an adviser, as the customer is only receiving

guidance in what the current bank can offer, and not what is currently available on the market (Mai Interview, 2018). This type of activity falls under a different category than that of asset transfers, as there is a move away from platform/network enabled services and towards personal guidance. Advisory services and investment management involves coming up with new solutions to individual customer problems and hence can be classified as a ***problem-solving*** activity (Osterwalder & Pigneur, 2010, p. 37).

This problem-solving activity sets out to ensure that the bank at all times are compliant to the legislation that is imposed. This is one of the most important activities of the bank, as the consequences of not living up to it, can be as severe as a discontinuation of their banking license (Larsen Interview, 2018). Banks therefore spend a lot of resources on meeting the requirements asked of them, in order to protect their customers, and the overall stability of the economy. Compliance activities can be tricky as they might not be easy to incorporate into the banks existing processes and ways of working (Weckesser Interview, 2018; Larsen Interview, 2018).

Furthermore, when transactions are made, data is created as a sub product, and everything that is handled by a bank creates a paper trail in the shape of data. This data can be used in many different ways, for both analysing consumer behaviour and optimising processes, but it can also be utilized in order to create new services, that create new value for the customers (Akselsen Interview, 2018; Larsen Interview, 2018; Mai Interview, 2018) as can be seen with for example the ability to categorize transactions automatically for customers. Traditionally, the bank has been known to use the data that was created by its customers in-house, due to tight regulations on how banks, could use customer data, and has therefore not used externally available data to a significant extend (Larsen, 2018).

Traditionally, the banks have been known for running the majority of their processes in-house. This has been supported by the "full-customer-relationship" strategy that most banks have been pursuing, in order to retain all the customer finances (Murmann Interview, 2018). This is partly a strategic move, as it makes it difficult for customers to change bank. The reason behind this is that if customers would like to maintain a product with their current bank, the new bank will not offer the customer a good offer, which makes it all fall apart (Murmann interview, 2018). This has created a lot of emphasis on internal coordination, which requires internal resources to handle the coordination requirement (Douma & Schreuder, 2013). This need creates a workload on internal coordination, in the shape of different banking entities to coordinate across the organisation in order to ensure the flawless transaction.

6.1.2 Key Resources

As above-mentioned, data plays a vital part in how banks operate, as modern banks are based on data, and keeping track of that data (Larsen Interview, 2018). The data, however, is far from simple and comes in many shapes and forms. The traditional bank deals, primarily with internal data, created and organised by internal coordination, but also draws on required externally available data in order to support certain processes. This data can be governmental data, such as tax information, which for example can be used to create a credit rating (Murmann Interview, 2018). It can be data from key partners, which needs to be used in order to fulfil the goal of the partnership. But in common, is the need to tie this data to the customers in order to provide the necessary service, and this makes that data sensitive resulting in traditionally heavy regulation regarding how the bank data is used, and how it is shared, and with whom (Larsen Interview, 2018). Financial data in this case is a key resource required to offer and deliver the end product of the banks to the customers (Cleverism, 2015).

As with most modern organisations, human resources are the spine of the organisation, and this is especially true within knowledge driven organisations (Cleverism, 2015). Today's challenges for banks to deliver services to customers and be compliant at the same time require a qualified knowledge pool which is made up by employees. Human resources are required at every layer in the organisation, from the strategy setting executive team, all the way down to the advisory employees in the branches. All in all, without human resources, a bank would not exist. Furthermore, the bank has traditionally been very capable within the area of compliance, providing a strong pool of intellectual resources to draw on, in this area (Murmann Interview, 2018; Larsen Interview, 2018). These are largely **intellectual resources** that the banks rely on, both for day to day operations and in achieving long term goals. These resources are important to any organisation as they significantly influence how well the organisation is able to fulfil its value proposition (Cleverism, 2015).

In addition to this, trust is essential for economic stability (Abel, Bernanke, & Croushore, 2017) and for banks intellectual property is an essential tool to convince customers that the bank in questions is a safe and trusted place to store assets (Akselsen Interview, 2018; Larsen Interview, 2018). In the banking industry, the majority of the brand value is created by two distinct factors: size and age (Mai Interview, 2018). The size creates trust within the bank, as most customers worst fear is that the bank will go bankrupt, and the bigger the bank is, the more capital it will have backing it, effectively reducing the risk of a bankruptcy. The same applies for age. A well-established brand increases its brand value by displaying efficient and safe operations over a period of time (Murmann Interview, 2018; Akselsen Interview, 2018). Further to this, the brand value emanates from its distinct reputation as an innovator, differentiator and competitive pricing.

The bank branches are, together with online banking, the interface towards customers. Branches set out to advice customers on the bank products available to them, ensuring that the customer receives the product that will fit their need, while simultaneously, serving the banks interest (Mai Interview, 2018). Traditionally, branches have been pervasive across the operating area of the bank, where customers will not have to stray far from their home in order to find a branch. This has helped to secure customers and create a trusting relationship between the customer and the bank. Branches can in this case be identified as physical resources containing human resources that have enabled banks to deliver value for their customers, hence allowing the business to properly function (Cleverism, 2015, p. 2).

The foundation of the bank builds around the infrastructure which includes all technical requirements that the bank has in order to successfully deliver its value proposition and key activities. Given the state of digitisation that the traditional bank is at, the infrastructure has become quite complex in order to facilitate everything from asset transfers, to credit rating, to customer relationship management systems. All these needs are fulfilled by the bank in close collaboration with the banking data centrals, in order to be able to facilitate these needs seamlessly (Sylvest Interview, 2018; Weckesser Interview, 2018). As the infrastructure is tangible it constitutes a *physical resource* needed for the banks to deliver their value proposition to their customers (Cleverism, 2015, p. 35).

Supporting the infrastructure, is the internal processes of the bank that are linking the key activities. The processes constitute the way of working that is applied within a given area in order to achieve a predefined goal with the help of the infrastructure. Examples can be, process to create new customers, process to create credit rating and process to issue loans. Processes can be both operated by the infrastructure itself in fully automated processes, or by a mix of infrastructure and human resources. Processes without infrastructure involvement are rare (Larsen Interview, 2018; Sylvest Interview, 2018).

Financial resources are important for all organisations and, even more so, for the banking industries as they are dealing with the transferring of financial resources. Regarding the financial resources of the bank, this includes deposits made by customers, and the financial resources owned by the bank, which is gained through revenues. As a bank, having financial resources is essential, because, if it has no financial resources, then it is incapable of issuing loans, and it cannot pay out deposits, effectively diminishing the value proposition. In order to avoid this, nearly all banks in the western world are operating under the practice of fractional-reserve-banking (Asmundson, 2017; Mai Interview, 2018)

6.1.3 Key Partners

Most banks have partnerships with credit card issuers such as MasterCard, Visa and Nets, in order to offer easy payment solutions globally. Furthermore, such partners can have various services attached to them such as insurances and bonus point schemes depending on what type of card (Mai Interview, 2018; Sylvest Interview, 2018). In this partnership, the card company is functioning as a supplier to the bank. This partnership is driven by a desire to optimise the services of all involved parties utilizing the network and hence can be classified as an optimisation driver (Osterwalder & Pigneur, 2010, p. 39)

Furthermore, most banks are affiliated with a pension fund, be it a subsidiary or an external partner. But in both cases the bank requires a working partnership in order to seamlessly handle the dependencies between a customer's main financial assets and a customer's retirement savings (Larsen Interview, 2018). In most cases this function as a strategic alliance, as they are not competitors. Furthermore, many of the established banks are owning pension funds under a similar or different brand.

As mentioned previously, the financial sector is heavily regulated in order to maintain economic stability. This entails close collaboration with regulatory entities such as Financial Services Authority, National Banks and European Union Financial Oversight, in order to ensure compliance to current financial legislation (Murmann Interview, 2018; Larsen Interview, 2018). This relationship can be more or less active or passive depending on the relationship between the bank and the regulatory entity. But in both cases, a partnership is required in order for the bank to be compliant and thereby function within the national and international boundaries (Akselsen Interview, 2018; Larsen Interview, 2018; Sylvest Interview, 2018; Weckesser Interview, 2018). Regulatory entities can be classified as a **reduction of risk and uncertainty** as described by (Osterwalder & Pigneur, 2010, p. 39) partnership and is largely driven with the purpose of securing compliance in the sector. In the current landscape a multitude of regulations need to be complied with, however, one of the more prominent regulations for the retail bank to adopt soon is one highly impacted by the increased digitalisation, and the PSD2 directive.

Most banks have a partnership with a data central which is responsible for the operation of the basic banking infrastructure. This partnership is essential for the bank to operate, and the only alternative to not have a partnership with a data central is to have the infrastructure in-house. In this partnership, the data central is a supplier to the bank (Sylvest Interview, 2018; Weckesser Interview, 2018).

6.1.4 Cost Structure

In the building block for costs, four types of costs emerged as the most dominant for defining the cost structure of the traditional (retail) bank, and may be defined as respectively *human resource compensation, supplier compensation, compliance costs, and product portfolio costs.*

The *human resource compensation*, entails all salaries paid out to employees, and also includes any bonuses and employee perks that employees may be entitled to. This is the most basic cost of running the organisation. The *supplier compensation*, on the other hand, includes compensation provided to suppliers for the services that they perform for the bank. This includes the data centrals that keep the infrastructure of the bank running. But also, potential vendors in the shape of consultancies and other vendors. The amount of money paid out to vendors is also indirectly influencing the innovation of the bank, as the data central needs to be actively involved in changes to the infrastructure and the services it supports. Therefore, banks need to calculate that into the supplier compensation, otherwise suppliers will only have compensation that covers operations cost (Weckesser Interview, 2018). The *Compliance costs* refers to cost that is associated with keeping the bank compliant to current legislation. This cost can be indirect and overlap with both human resource compensation and supplier compensation in the shape of consultancy work or partnerships with external solutions (Larsen Interview, 2018; Weckesser Interview, 2018). Empirical evidence suggest that compensate suppliers collectively for both operations and innovation (Weckesser Interview, 2018). The cost that banks incur as payment towards suppliers will be allocated to compliance and innovation. The majority of the costs spend on managing data goes out to compliance activities, and in fact only *"97 percent of the money goes directly to compliance, leaving behind three percent for innovation"* (Weckesser Interview, 2018). Lastly, the Produ*ct portfolio costs* regards the costs associated with the banks (substantial) product portfolio offerings. This product portfolio requires people educated in the product, and is therefore a cost to maintain (Mai Interview, 2018). Again, this overlaps with other cost such as human resource compensation.

6.1.5 Customer relationships

Trust is the foundation for the relationship of the customer to the bank, as cannot be compromised if a trusting relationship is to be maintained (Larsen Interview, 2018). This is further acknowledged when looking historically at the incumbent banks during the financial crisis, where small players was made redundant and down prioritized, and the small market players that succeeded was due to customer confidence, as asserted by Akselsen: "*even if we're a small company, we do have the brand Nykredit behind us, so people think, it must be OK*" (Interview, 2018). Thus, having a strong brand is the primary way of building the customer relationship through branding. The brand is created by multiple factors, where credibility plays the main role (Larsen Interview, 2018). If a banks appear to be credible and trustworthy then it will have its foundation of trust in place. When this is achieved other factors such as competitive pricing and innovation come into the equation as well. This combined with the fact that the

majority of banks are quite similar, it is details that determine which bank one is a customer at, and this increase the importance of having a strong brand, in order to build a sustainable relationship with the customers (Larsen Interview, 2018).

Currently there is a full-service-provider practice from banks towards its customers. Customers are incentivised to collect all their financials in one bank and it is not uncommon that customers will have to centralize all activities with one bank in order to obtain full service benefits. If they do not do this they might miss out on lucrative benefits from having everything from mortgage to pension and insurance with the same provider (Murmann Interview, 2018). This has traditionally been reflected in the banks strategy where it has been a key pillar. This has created a practice within the bank where the bank is not interested in acquiring new customers, unless they would centralise their financials within the bank in question (Murmann Interview, 2018). Furthermore, this has resulted in a relationship where the bank has pushed services towards the customer instead of letting the customer drive the demand, by *"providing services that advises in the they current product offerings"* not the similar banking products available in the marketplace (Mai, Interview, 2018).

The customer relationship with the traditional bank is direct. The majority of bank customers obtain the majority of their financial services from banks such as loan and depositing services and combined with their partners, potentially also retirement savings and insurance. Despite the fact that the traditional bank is already becoming *"something that lies in the background [and] studies show that people are decreasingly having direct contact with their banks",* a direct relationship between banks and their customers, where the bank is interfacing directly with its customers without intermediary involvement, is still dominating (Mai Interview, 2018). The personal advisory that banks provide to their customers can be credited to their advanced services such as loans and hence the direct relationship can be argued to fall under dedicated personal assistance (Osterwalder & Pigneur, 2010). There is a direct relationship between the bank and its customer base, whether it being through personal advisory, call-centre support, mobile banking applications, online banking, and so forth. The affiliation that a customer has with its bank, transactions with business or private, is intermediated by the retail banks themselves. The traditional banks' customer orientation, in the sense of relationship with its current or potential customer base, may be classified as a tightly coupled one, with the aim of generating *"great client respect [...] and seeking to ensure their satisfaction and loyalty"* (Andriopoulos & Lewis, 2009, p. 705).

6.1.6 Channels

Direct everyday channels from bank to customers include local branches, call-centres, mobile banking & online banking. These are the most easily available channels a bank can use in order to stay in contact with their customers, either directly as with mobile and online banking, or indirectly as with payment cards.

Banks have physical branches dispersed through their geographic operating area that assist customers in making payments, taking out loans, etc. (Mai Interview, 2018). Branches are one of the most traditional physical channels that banks have to their customers. Branches also serve as a place for depositing and withdrawal of money and other assets. Branches can be classified as a *direct channel* that the banks have to their customers (Osterwalder & Pigneur, 2010) Furthermore, call-centres are direct support lines for the banks, and they can assist customers with urgent matters that should arise outside the regular opening hours of their local branch. Like with branches, call-centres can also be classified as a *direct channel* between the banks and their customers (Osterwalder & Pigneur, 2010).

Additionally, customers will use service such as mobile banking and online banking on a regular basis in order to handle their finances through self-service. One may distinguish between mobile banking and online banking as: mobile banking is occurring through a bank developed app that is downloaded and used through a smart phone, whereas online banking is occurring through a web browser. Both of these are very direct channels as the customer is interacting directly with bank developed services (Osterwalder & Pigneur, 2010; Sylvest, 2018).

Indirect channels are means for the bank to interface with their customer through a third-party intermediary. Indirect channels include payment cards and third-party provider software such as Mobile Pay or Lunar Way. Credit card payments is one of the primary everyday touchpoints that banks have to some customers, and serve as an indirect channel towards their bank as it is a branded artefact issued by the bank to sustain the relationship with the bank (Sylvest Interview, 2018). This may be classified as an indirect channel, as no direct interaction between the customer and bank occurs when the card is used, but the branding applied to the card aid the bank in identifying the customer with the bank that has issued it, and is therefore a valuable tool to strengthen the customer-bank relationship on a daily basis (Sylvest Interview, 2018).

Third parties can also function as a channel between the banks and their customers. Lunar Way is one of the companies that actually delivers a service on behalf of the bank Nykredit (Akselsen Interview, 2018). In this case the channel is an *indirect* channel as it is facilitated by a third party (Osterwalder & Pigneur, 2010; Sylvest Interview, 2018). Additionally, The Danish MobilePay application has more than 3.7 million regular users of their service whilst 9 out of 10 smartphones in Denmark have the

application installed (Mobile Pay, N/A). Empirical evidence suggest that this type of channel can for a large part of the partner banks be considered an *indirect* channel as the partner banks are not owners of this application, even though their infrastructure is utilized as part of the asset transfer (Osterwalder & Pigneur, 2010; Sylvest Interview, 2018).

6.1.7 Customer Segments

Banks appeal to everyone. Everyone in Denmark has one or several banks to take care of their assets. The segments will thus be identified based on customer needs rather than demographics. One could argue that the banks are largely targeting the mass market, which can be defined as business models where companies do not target specific segments but rather focus on hitting the entirety of them market (Osterwalder & Pigneur, 2010)

First, it should be recognised that banks are targeting the entire spectrum of customers. Almost everyone is customer at a bank with an attached bank account where a credit card is connected. Within the mass market, companies typically have a large group of customers with broadly similar needs and problems, which is seen in the industry today (Osterwalder & Pigneur, 2010). Fundamentally this broad spectrum of customers requires (1) trust in the bank, a certainty that your assets within the bank are safe (Mai Interview, 2018; Murmann Interview, 2018). (2) Low cost associated with the services, competitive prices of services offered by the bank (Akselsen Interview, 2018). (3) Ease of use and coherence between the services, services that are intuitive and transparent and compliment other services (Akselsen Interview, 2018; Mai Interview, 2018; Weckesser Interview, 2018). (4) Innovative solutions that will make their everyday life more comfortable (Mai, 2018; Murmann Interview, 2018; Weckesser Interview, 2018).

6.1.8 Revenue Streams

Revenue streams is a result of the value propositions successfully offered to customers. The revenue streams building block represents the monetary return a business generates from each customer segment. Each revenue stream may have different pricing mechanisms, such as "fixed list prices, bargaining, auctioning, market dependent, volume dependent, or yield management" (Osterwalder & Pigneur, 2010). Looking to the case of the traditional bank, prices may best be listed as a mix between volume and market dependent. E.g. banks will issue loans and analyse if customers are able to pay back their loans based on historical data on how their money is spent each month. Likewise, algorithms are deciding what kind of loans people will be able to take (Sylvest Interview, 2018).

For the customers, the price of receiving a loan will also depend on societal factors such as the national economy, the agenda of the national bank, and inflation. If the national economy is believed to prosper the interest rate will typically increase and vice versa (Asmundson, 2017; Nsouli & Schaechter, 2002). Similarly, when the economy is prospering an increased inflation which will be seen to also impact the

price of financial services, loans in particular. As previously specified, the primary customers of retail-banks are private customers seeking to either loan or deposit money in the bank. The primary revenue streams for the traditional banks in this process, stems from generating a profitable revenue stream, by offering lower interest rate to the depositor and higher interest rate to the borrower/loan-taker. Hence, to make the money from the interest rate differential (Asmundson, 2017; Nsouli & Schaechter, 2002; Waupsh, 2017).

6.1.9 Value proposition

A Value Proposition creates value for a customer segment through a distinct mix of elements catering to that segment's needs. Values may be quantitative (e.g. price, speed of service) or qualitative (e.g. design, customer experience), such as newness, performance, customization, design, risk-reduction, cost-reduction, accessibility, brand or price (Osterwalder & Pigneur, 2010). Retail banks offer different value propositions to different customer segments. To retail customers, banks offer mortgages, education loans, auto loans, and personal loans. Corporate customers in different industries have different loan requirements (BMIMATTERS, 2012). With that, the primary objective of a traditional bank has historically been to offer a unique value proposition based on the ambition to make banking and financial decisions *"easy and coherent for our customers"* (Andersen, 2014). In order to deliver such, the traditional banks have integrated activities throughout the value chain, in order to be the best possible full-service providers of a wide-range of products in the overall financial services product portfolio, to make it easy and coherent for their customer segment seeking different kinds of financial services through one service provider.

Aside from the traditional bank producing value for its customer segments through the delivery of unique financial services packages, they are furthermore increasingly competing on price, making their value propositions increasingly dependent on the delivery of favourable prices and benefits based on the business volume of their customers, regulations, inflation and market prices (Andersen, 2014), thus delivering better quality services through ease and coherence, at the best possible price, dependent on the volume sought to deliver. This further tie back to their pricing strategy, relying on pricing mechanisms that are market dependent and volume dependent (Osterwalder & Pigneur, 2010). The more business (loans, investment and savings), the more benefits and favourable interest rates and prices being offered. Furthermore, in terms of primary touchpoints, the service model ranges from direct personal advisers to direct contact advisory services (Andersen, 2014), all of which are generally produced, owned, and distributed directly by the bank throughout their value chain.

Traditional business models have included full service large retail banks offering mortgages, lending, savings and current accounts, building societies focusing on mortgages and savings, and credit unions. These business models have been relatively static. A few large firms have held high and stable market

shares for many years with little or no new entry or innovation from new types of business models (Andersen, 2014; Financial Conduct Authority, 2017).

As the banks have prided themselves in being full-service providers, by producing, owning and distributing themselves all of their products and services, this has led their role in the ecosystem for traditional financial banking services and, as a result, they generate value, to be reliant on owning all of the upstream and downstream activities in the value chain (EBA Working Group, 2016; Mai, 2018). Arguably, the traditional banks may be classified as "integrators" in the ecosystem for financial services, as they in many ways are taking on the role as full-service providers owning, producing, and delivering their own products and services (EBA Working Group, 2016). In this role, the offering to the customer is exclusively created and distributed by a single party (EBA Working Group, 2016). The result is that distribution and products are provided under one brand and that the customer experience, the value proposition, is fully controlled by the bank. Currently, most banks play the role of integrator, as they control the whole value chain, and have also done so in the digital space since the early days of the Internet. For instance, account information and payment services are distributed via the online and mobile channels of the bank to the consumer (EBA Working Group, 2016).

As depicted by Andriopoulos and Lewis (2009), the notion of "strategic intent" represents a firm's reason for existing, often encompassing contradictions. This also appears to be prevalent in the case of the traditional banks value propositions, being that of altogether ensuring simultaneous efficiency gains and innovation capabilities (Weckesser Interview, 2018). This may be supported by one expert stating that *"a director of a bank in Denmark […] said that they had bank data [as a data central partner], of which they spend 97% of the money directly spend on compliance leaving behind 3% for innovation"* (Weckesser Interview, 2018). Thus, in the traditional bank business model, the strategic intent appears to be directly nested in the very paradox as explained by Andriopoulos and Lewis (2009) in trying to balance both creativity and innovation along with conformity to compliance, efficiency and best practices. The customer orientation in the traditional bank, historically, has been focused on keeping a direct, tightly-coupled relationship with their segment to be served (Mai Interview, 2018; Sylvest Interview, 2018). The banks have been producing themselves and owning their innovative capabilities and distributing directly their products to their customers, deciding upon and pushing their innovations to their customers as part of their overall product portfolio whilst keeping their customers close through the direct user-interfaces. By keeping R&D in-house ensures that the bank owns and decides upon which products to produce for the marketplace and which products the customers have available to adopt, keeping the product development somewhat loosely coupled to market demands whilst having a tightly-coupled relationship with their customer base in the user interface. Arguably, due to product development challenges and a dual strategic intent stemming from distinct market demands, namely that *"clients seeking exciting, new products in short time frames with limited budgets"* the traditional

bank has to balance simultaneously interwoven processes of *"discipline and passion"* (Andriopoulos & Lewis, 2009, p. 706).

6.2 Future Business Model

As with the former figure 4, the below figure is an illustration based on empirical evidence from primary sources presenting the business model strategy components of incumbent retail banks in the future. Again, this highlights the overall characteristics of the business model of the retail bank. It will be expected that other elements will be present in the business model strategy and constellation, however, on a generalizable representation of key components and activities across the range of incumbent retail banks in the marketplace, these are identified as the most prominent and relevant for the paper.

Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
• Third-Party Providers • GAFA • Credit/ Debit Card Companies • Regulatory Entities • Pension Funds • Data Centrals	• Asset Transfer Management • Decrease in Advisory Services and Full Customer Relationship • Compliance • External Bank Data Analytics • External Coordination • Focused Product Portfolio • Acquisition of third-party providers	• Service provider on key banking services • Easy and coherent banking experience, produced and delivered by third-party providers • Breakthrough Innovation and low-cost banking services provider, in collaboration with third-parties • Compliant and secure banking services • Data platform and infrastructure provisioning	• Economic Stability Brand Focus • Fragmented Customer Relationship • Indirect Customer Demand	• Private Customers • Third Party Providers
	Key Resources • Financial Customer Data • Human & Intellectual Resources • Shift in Purpose of Brand Value • Decrease in Branches • Infrastructure for Open Banking • Processes for External Coordination • Financial Resources		**Channels** • Decrease in Direct Channels • Increase in Indirect Channels	
Cost Structure • Human Resource Compensation • Increased Supplier Compensation • increased Compliance Cost • Decreased Product Portfolio Cost			**Revenue Stream** • Interest on Loans and Securities • Data Brokerage Fees	

Figure 4 - Future Business Model Canvas Visualization

6.2.1 Key Activities

All indicators point towards the bank itself, and the infrastructure it is based upon, will continue to be responsible for the handling of transactions to and from the account of the customers. These might be requested by third parties with the consent of the customer, but it will still be the bank that is responsible for the account, and therefore also responsible for the transfer (Akselsen Interview, 2018; Larsen Interview, 2018; Mai Interview, 2018; Murmann Interview, 2018; Sylvest Interview, 2018; Weckesser

Interview, 2018). In this case the transfer management can be identified as a *Platform/Network* activity that allows for the transfer of assets for the banks customers (Osterwalder & Pigneur, 2010).
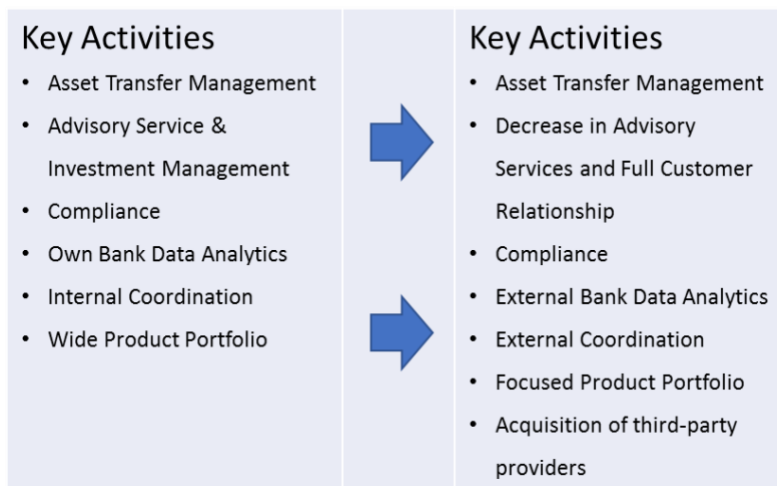

Figure 5 - Key Activities: Current & Future

However, as new flexible ways of receiving bank advisory services emerges, a trend towards a reduction in the number of banking branches. The bank will move towards online advisory where web chatting and video conferencing will be preferred by the customers due to its flexibility, and the bank will seize it as an opportunity to reduce cost by not having dispersed branches that require locally tied human resources which might not be fully utilized (Mai Interview, 2018; Murmann Interview, 2018).

Furthermore, we will see third parties start to launch competing banking services which will force the bank to rethink its full customer relationship strategy. This is further highlighted by the fact that *"people will not have just one relationship, they will have relationships with 5, 6, 7 banks […] the competition will become much greater and PSD2 will enable that"* (Murmann Interview, 2018). This will be enabled by emergent technologies which will make it easier to have a dispersed financial landscape, without losing transparency. (Larsen Interview, 2018; Murmann Interview, 2018; Weckesser Interview, 2018).

The strength of the bank has traditionally been compliance-related, as they have matured these capabilities through many years, linearly to the demand for compliance increasing. Emergent third parties on the other hand, often drown in the need for compliance when attempting to compete with bank services (Weckesser Interview, 2018). The empirical evidence show that the bank will continue to excel within compliance and will act as a support pillar for any third-party organisation of which it will enter into a partnership with (Larsen Interview, 2018; Mai Interview, 2018; Murmann Interview, 2018). One example explicating this regards how *"the key function of the banks is not only the financial services […] in a sense, acting like a "data broker" who can take care of customer's data and money"* (Sylvest Interview, 2018). This will strengthen the banks position as a strong player within compliance and serve to differentiate the bank within the new market (Larsen Interview, 2018).

Banks show a shift from relying on internal coordination data activities and what data is analysed. As customers start to engage in third party financial services data, will be created with these third-party organisations. The banks will have a vested interest in aggregating this data and analysing it, in order to retain an understanding of their customers, which will be partially lost when the full customer relationship is diminished (Murmann Interview, 2018; Weckesser Interview, 2018). These activities can be argued to support the *Platform/ Network* business models of the banks as this will affect the user experience when using their platform (Osterwalder & Pigneur, 2010).

Furthermore, as third-party services emerge in the landscape which customers will interface with, banks will enter into partnerships with these organisation in order to maintain their customers and retain a place within the value chain. This will require a shift in coordination, as the bank will be forced to refocus its coordination efforts with external partners rather than internal departments (Akselsen Interview, 2018; Larsen Interview, 2018; Weckesser Interview, 2018). As new emergent services appear in the competition landscape, banks will be challenged on their product portfolio, as third-party competitors will launch services that can compete with the services offered by the bank. This will force the bank to refocus their services in order to bring down cost and provide the optimal value within their core competencies where they can differentiate themselves relative to the emergent third-party providers (Mai Interview, 2018).

Additionally, when the bank is faced with new competition that threaten their operation, growth by acquisition is an easy choice in order to implement these new capabilities into the bank itself, rather than developing them in-house. Therefore, some banks are likely to monitor the third-party provider market for mature competitors whose capabilities they can integrated into the bank itself if they find it more lucrative than a partnership (Murmann Interview, 2018; Weckesser Interview, 2018).

6.2.2 Key Resources

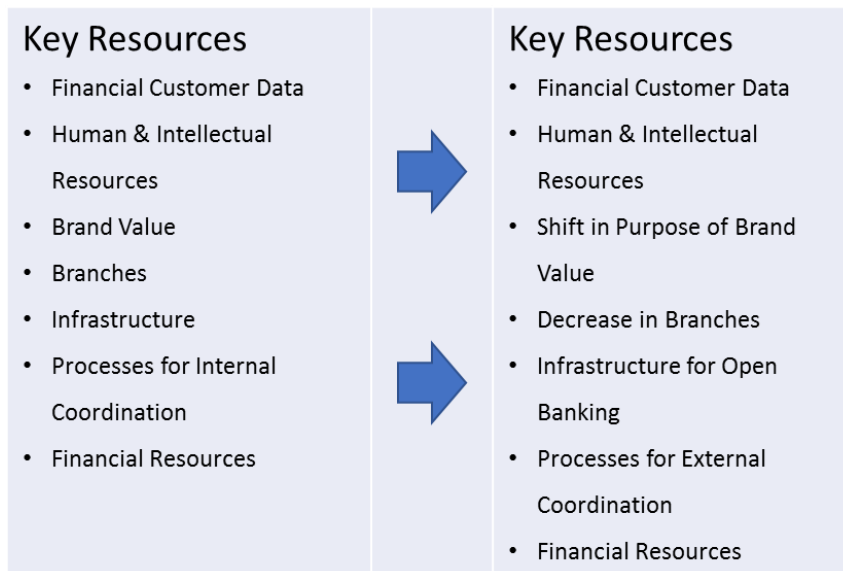| Key Resources		Key Resources
• Financial Customer Data	→	• Financial Customer Data
• Human & Intellectual Resources		• Human & Intellectual Resources
• Brand Value		• Shift in Purpose of Brand Value
• Branches		• Decrease in Branches
• Infrastructure	→	• Infrastructure for Open Banking
• Processes for Internal Coordination		• Processes for External Coordination
• Financial Resources		• Financial Resources

Figure 6 - Key Resources: Current & Future

The bank will continue to rely on their customer data in order to maintain the customer relationships. However, banks will rely increasingly on external data aggregated from partners, as they will take over some of the interfacing with the customers through new emergent services (Mai Interview, 2018; Weckesser Interview, 2018). In this scenario, bank data becomes a key asset for the banks. This is becoming even more evident as some banks have already declared a vision of becoming a data platform rather than an actual banking business. Banks will in that case only retain customers' money but will not be responsible for any user interface experiences but merely support the back-end operations (Mai Interview, 2018). Furthermore, data will continue to play a bigger strategic role as the banks will create, and own, data that third party providers will be dependent on in order to achieve their value proposition, which will provide the bank with a competitive edge in this new setup that can be used in order to sustain the business long term (Mai Interview, 2018; Weckesser Interview ,2018).

Human Resources constitute intellectual resources (Osterwalder & Pigneur, 2010) and these resources will continue to play a major part within the bank. However, a shift in what these resources will be aimed at is likely to be seen, as banks will redefine their strategies and focus on strengthening their core, enter into new partnerships with third-party organisations, and/or acquire these organisations. As a consequence, the knowledge and capabilities of the human resource pool will change as well to accommodate these changes (Mai Interview, 2018; Murmann Interview, 2018; Weckesser Interview, 2018). Since the bank might be moving away from traditional advisory services from the banks, data analytic skills might play a more important role in the future.

Furthermore, brand value can be identified as an intellectual property for the banks (Osterwalder & Pigneur, 2010) and the brand value of the bank will continue to play a major part as a resource as the bank will still be responsible for storage of financial assets, be it digital or physical. And this tie directly into the matter of economic stability. If the bank has a renowned brand, then customers are more likely

to deposit their assets with the bank. However, as customer facing services emerge outside the bank, this could decrease the customers interfacing with the bank, and thereby reduce the degree to which the customer identifies him/herself with the bank. Therefore, a shift will take place, making the bank move from customer oriented brand value where the services and innovation of the bank was in focus, to economic stability brand value, where a stable foundation is in focus, consequently allowing partnership services around the bank to take over the rest (Larsen Interview, 2018; Weckesser Interview, 2018)

As the demand for flexibility goes up and the bank risks losing customer interfacing to third-party providers, the number of physical branches will decrease as a natural response to this, and to the organic decrease that has already been happening as a consequence to digitisation. The service provided in the branches will migrate to online advisory services and/or be taken over by third party providers in a more dispersed landscape (Mai Interview, 2018). However, a few banks are attempting to retain the customer interfacing by opening up new branches to exploit this niche market short term (Seerup, 2014)

The infrastructure of the bank will remain largely unchanged as the demand for data transferring will remain the same. Some notable changes are to gear the infrastructure for Open Banking through APIs as the PSD2 and future legislation goes into effect (Sylvest Interview, 2018). Since the environment is changing experts predict that some processes will change in the banks. First, the banks will have a lot more work outsourced to external parties as was identified at Lunar Way which will require different and more externally focused processes than what the bank is used to. Second, the banks will engage in more partnerships which will require new functions and processes in place within the banks, in order to maintain and govern these relationships. This shift from internal coordination to external coordination will require new processes within the banks (Akselsen Interview, 2018; Murmann Interview, 2018).

6.2.3 Key Partners

As new services emerge around the bank, it will enter into partnerships with third-party providers in order to stay part of the value chain that is supporting the services. This will cost them customer interfacing for the service(s) in question, but ensure that they are still the bank provider further up the value chain and therefore the owner of the customers and the infrastructure provider (Akselsen Interview, 2018; Weckesser Interview, 2018).

Furthermore, Google, Apple, Facebook, Amazon (GAFA) are moving into the financial market as well. Apple is introducing Apple Pay, and both Facebook and Google are planning similar solutions (Accenture, N/A). However, they do not have bank licenses and are unlikely to acquire one within all operating areas, and will therefore need to enter into partnerships with banks in order to fully deliver their payment services. Again, this will result in the customers starting to identify themselves more with the payment provider, rather than the bank. However, the bank will ensure that they stay part of the

value chain (Larsen Interview, 2018; Sylvest Interview, 2018; Weckesser Interview, 2018). Osterwalder & Pigneur, (2010) identifies several reasons to enter certain partnerships with other companies, this one can be argued to belong in the risk reduction category as a partnership with GAFA might be necessary for the banks in order to still have some influence over the customers in the future.
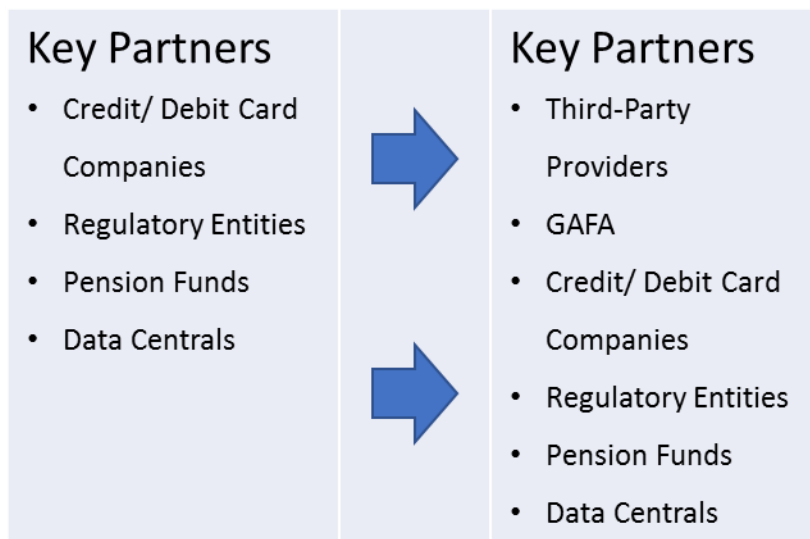

Figure 7 - Key Partners: Current & Future

As new third-party providers start to offer payment services, they can start to offer payment cards as well, which will draw business away from the banks, who traditionally worked with the payment card companies. Players like Lunar Way are already offering this to their customers with Nykredit as their backing bank. This results in Lunar Way being the customer interface (Akselsen Interview, 2018). As with GAFA, this particular example can also be argued to be a *risk reduction* move. If Nykredit did not engage in the partnership with Lunar Way, then Lunar Way might partner up with a competitor and acquire more customers on that bank's behalf. Additionally, this can also be seen as an *acquisition* of a particular resource. According to Akselsen Interview (2018), Lunar Way is actually engaging with a customer segment that Nykredit is not very good at communicating with.

Finally, regulatory entities, pension funds and data centrals will experience no noteworthy changes, as banks will continue to be required to be compliant to local and international legislation. Furthermore, the relationship to pension funds will also remain largely unchanged as both will still be end responsible for the customers. Both might lose customer interfacing, but is unlikely to affect the partnership. And finally, the partnership with the data centrals will also remain largely unchanged as the bank still need to support its infrastructure in order to offer banking service.

6.2.4 Cost Structure

Human resources will continue to require compensation, regardless of the shift in strategic focus of the work performed. However, supplier compensation is likely to be expanded in scope as banks will enter into more partnerships with third party providers and thereby increase their cost base. To what extent is difficult to predict as the nature of these partnerships is unknown (Larsen Interview, 2018; Mai Interview, 2018; Weckesser Interview, 2018) There are several kinds of cost structures that companies

can have for different expenses (Osterwalder & Pigneur, 2010). For this one, it can be hard to determine since it will probably differ depending on the agreement between the bank and the individual third parties.
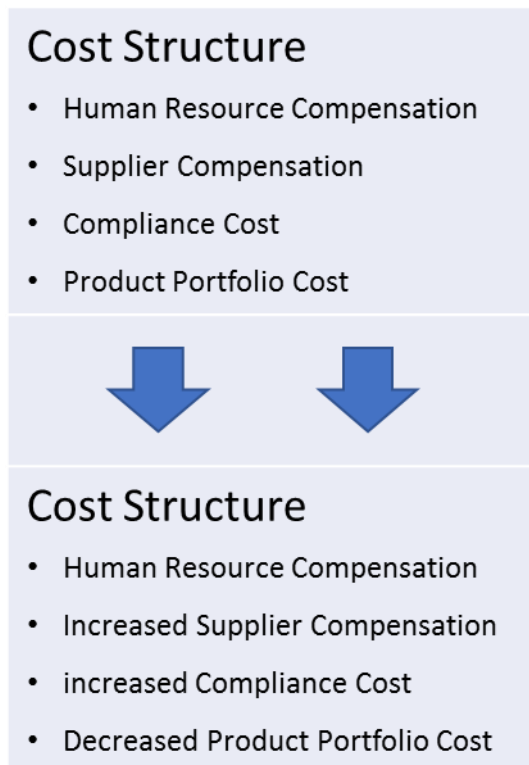

Figure 8 - Cost Structure: Current & Future

Furthermore, as the banks are entering into partnerships with third-party providers, they will be expected to support these partners in terms of compliance, which might drive up cost for the bank as they are allocating resources to support (Larsen Interview, 2018; Weckesser Interview, 2018). This cost will typically be seen as a *Variable cost* since it is not something that will be fixed for each month depending on the scope of the partnership (Osterwalder & Pigneur, 2010).

Also, as more services are starting to emerge outside the bank, the bank will need to refocus its product portfolio in order to make it more lean and focused. This will drive down cost on maintaining the product portfolio, as fewer educations need to be facilitated in order to train employees in the products of the bank (Mai Interview, 2018). Banks will not necessarily be creating all products, or distributing them (owning channels for distribution), as there will be a greater cost associated with external coordination, and less with production.

6.2.5 Customer Relationships

Banks have for a long time had a reputation for being good at keeping data and assets safe on behalf of customers. This capability will continue in the future. This is a key promise for the banks and it is the foundation of their entire operations, and it can therefore be deduced that this focus will continue as regulations will remain unchanged or even stricter (Sylvest Interview, 2018*).* Since Nykredit is Lunar Way's back end provider, the customers have a different trust level in the company, even though it is a newly started company. In the end, this will mean that the bank will change its brand focus from being a service provider to an economic stability provider, which will shift the way customers identify themselves with the bank.
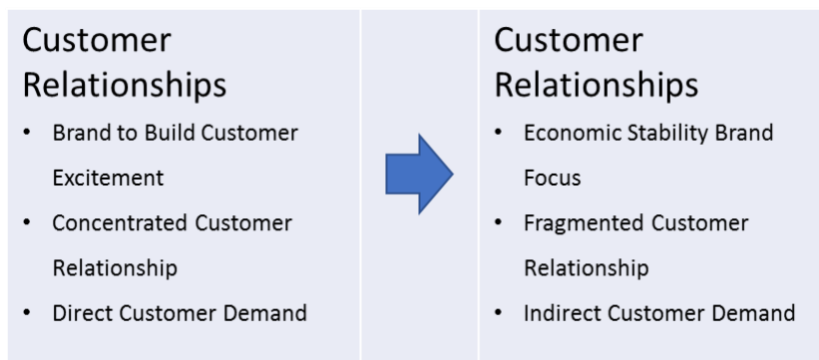
Figure 9 - Customer Relationships: Current & Future

Additionally, the next generation of customers for financial services has been up brought with technological advances and mobile applications always readily available, independently of the service being offered to them, which is likely to introduce a shift in the trust for using third party applications and less direct brand affiliation to the traditional banks necessarily. This is further stressed by industry experts stating that *"we have seen trends where some young people talk more frequently on messenger than they do face to face. So I believe that there is a larger trust from the younger segment to do these things digitally"* (Akselsen Interview, 2018).

In addition to the increased trust in third party providers, the relationship that banks can deliver in the future will be that of security, compliance and stability for third parties to develop innovative solutions around. The empirical data does not support the notion that banks as institutions will be obsolete, in fact *"the banks will always be around. I can't see the scenario where the safety that they provide will not be needed"* (Larsen Interview, 2018). Albeit additional services to that of safety for customers will be challenged, the incumbent retail banks will stay competitive on security services as *"one might not want to place ones pension savings in a new start up [...]as the risk will be too high"* (Larsen Interview, 2018). As a consequence of these changing dynamics, one tendency that may be expected is the fragmented customer relationship that will arise as a consequence of the emergence of third party providers. As a consequence of these changing dynamics, one tendency that may be expected is the fragmented customer relationship that will arise as a consequence of the emergence of third party providers. In the future, it can be argued that customers will look at individual products from individual providers instead of an all in one solution, provided by the bank. New emergent technologies provided by third parties, will introduce solution that will increase the transparency through the financials services market, which in turn will reduce the switching costs for changing your bank, or part of the services that customers have with the bank. (Murmann Interview, 2018).

Today there is a tendency for banks to provide a substantial amount of services. According to Mai Interview (2018) the UK market has upwards of 900,000 banking products where only 3,000 have been sold more than 1,000 times, and even though it might not be as excessive in the Danish market, it can safely be assumed that a similar trend is apparent from the close proximity of the markets. Going

forward, banks will be forced to reduce this number of services, and move from being a push provider to a pull provider (Mai Interview, 2018).

Third party providers are focused on only a few services each, and the result of this is that these services are of a higher quality than what the bank can offer, as the bank has to maintain and develop a wide portfolio of products (Mai Interview, 2018), and therefore do not possess the resources to obtain the same level of quality. This will require the bank to shrink its portfolio into its core services and focus on these in order to deliver, and refocus into delivering what the customer is expecting, instead of delivering what is possible, (Weckesser Interview, 2018). Hence banks will most likely seek a more explorative way of handling customers and instead focusing on their core activities.

This changes the customer interface relationship from that of being tightly coupled through direct distribution of products and services to one of a more loosely coupled orientation in relationship towards the traditional customer segment (Andriopoulos & Lewis, 2009). Reversely, there is a trend towards new services, aiming at providing better solutions for the customers, matching their needs through greater personalization, enabling a more tightly coupled customer orientation towards product demands, instead of simply pushing services (Andriopoulos & Lewis, 2009). Based on the above, the current tight relationship that banks have to their customers drift more towards *self-service and automated services* (Osterwalder & Pigneur, 2010)**.** Because of this, and the above-mentioned point about transparency between institutions, the customer relationship will become more neutral in the future, and customers will cease to identify as strongly with the bank, as new services around the bank will be introduced (Sylvest Interview, 2018; Mai Interview, 2018). This resembles a *"fear going forward, that the customers will rather use Google Pay instead of Danske Bank every day, in which case they will completely forget that they are out customers."* (Sylvest interview, 2018).

6.2.6 Channels

As third-party providers emerge in the competitive landscape and draw away the customer interfacing, banks will need to reconsider their customer relationship and how to get to them. As the services that the banks offer will be mediated by third party providers, so will the need for advisory services. This combined with the general digitalisation wave where basic advisory services have been moved online or into call-centres with greater flexibility, the need for physical branches will diminish and force the bank to close branches throughout their geographic operating area. (Mai Interview, 2018; Sylvest Interview, 2018;

Figure 10 - Channels: Current & Future

Weckesser Interview, 2018). Additionally, other direct channels such as payment cards and online/mobile banking can be substituted by third party providers, as it is already demonstrated by Lunar Way, and reduce the banks interfacing with customers and indirect channel.

As third-party providers move in and take over part of the customer interfacing, services that will substitute those of the banks will emerge. However, these services will still be tied into the banks infrastructure, and the customers will in the end still be tied in to the banks. This will mean that these new services will be indirect channels for the banks to channel their services (in a substantially downsized portfolio) to the customers (Akselsen Interview, 2018; Mai Interview, 2018; Weckesser Interview, 2018)

6.2.7 Customer Segments

Although the empirical evidence predicts changes in the financial services landscape, some things will also remain the same. Companies like Lunar Way might replace the user UI and take over that part of the banking business. However, the customers are still customers of the banks and "users" of e.g. Lunar Way (Akselsen, 2018). So even if the relationship might change, the customer segment will for the most part be identical to the current situation.

Figure 11 - Customer Segments: Current & Future

As third-party providers enter the market, these will be dependent on the infrastructure of the bank and the data that it provisions, and will therefore become customers of the bank as well. Certain services will be required by legislation to be open as part of the PSD2 directive, however in order for third party providers to truly provide services that can substitute that of banks, they will need access to the infrastructure and data provisioning which will need to be done in partnership with the bank. This is part of the shift of the retail banks from being focused on private customers, to also embrace new partnerships with third party providers in order to stay part of the value chain and therefore remain competitive (Mai Interview, 2018; Weckesser Interview, 2018)

6.2.8 Revenue Streams

Revenue gained on loans will continue to be the primary source of income for the banks as the loans will continue to be issued by the bank. Third party providers may be facilitating the service of issuing loans (Murmann Interview, 2018), but in the end, it will be the bank that is issuing the loan and taken on the risk alongside it and therefore also collecting the interest (Mai Interview, 2018).
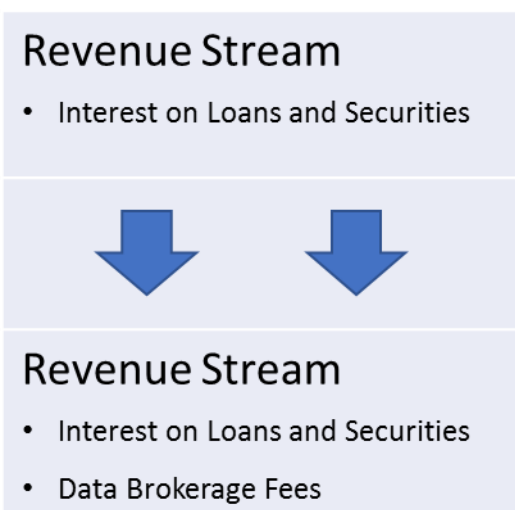
Revenue Stream

• Interest on Loans and Securities

Revenue Stream

• Interest on Loans and Securities
• Data Brokerage Fees

Figure 12 - Revenue Stream: Current & Future

Each Revenue Stream may have different pricing mechanisms, such as "fixed list prices, bargaining, auctioning, market dependent, volume dependent, or yield management" (Osterwalder & Pigneur, 2010). When it comes to pricing, new pricing mechanisms stemming from better insights into the marketplace supplied by better utilization of data may make pricing mechanisms less fixed or volume dependent, and arguably more market-dependent and yield-management oriented. Better data provision results in better insights into the marketplace, competition, and other parties functioning as intermediaries, but also the mere fact that complete personalization/customization to distinct customer groups will be made possible to improve customer insights (Weckesser Interview, 2018)

Furthermore, in the future, the bank revenue model will also be based on subscription fees to data, usage fees to data, or even "asset sale" of strategic data sources or licensing on data sources. As the banks will not only serve the customer segment (private customers) they will also have another customer segment being B2B market for private customers/clients, such as transactions behaviours of customers being put to use for unrelated firms, one example of this is *"the fact that you can start looking at customers that spend 500DKK every Friday evening on Østerbro in Copenhagen is very interesting for the restaurants"* (Sylvest Interview, 2018). The relationships with third parties may, naturally, require other forms of pricing mechanisms and ways to generate revenue streams. Naturally because it is also a different kind of product being sold to that specific customer base (Larsen Interview, 2018; Weckesser Interview, 2018).

6.2.9 Value Proposition

Whilst the basic value proposition of a bank towards its primary market segment may not change dramatically in the sense that traditional banks speculatively still seek to serve their customer segments with the best possible easy, coherent, safe and monetary beneficial financial products, the way in which this may be accomplished through their business models may be highly impacted by the changing scene of the industry (increased digitalisation and competition). Thus, whilst the basic value proposition towards the customers in the industry may not change, the change in key partners and key activities may disintermediate the traditional banks in the customer interface (downstream) activities. Thus, the value proposition for the customers as promised by financial services overall may remain somewhat similar. The relationship, services and products will increasingly be mediated by others and product-bundles will be created across banks (co-opetition) (Mai Interview, 2018; Sylvest Interview, 2018). In

this sense, the Value Proposition still may be regarded as an aggregation, or bundle, of benefits that a company offers customers. Some value propositions may be innovative and represent a new or disruptive offer, whilst others may be similar to existing market offers, but with added features and attributes, such as those provided or taken over by third parties, or even created in a co-opetition with other banks (Osterwalder et al., 2010; Mai Interview, 2018; Sylvest Interview, 2018).
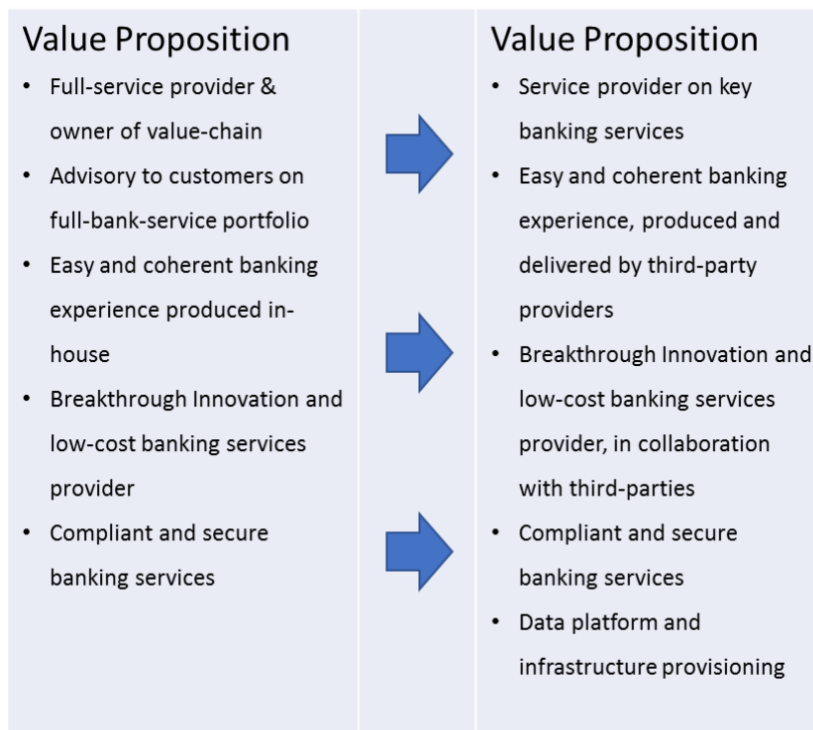

Figure 13 - Value Proposition: Current & Future

Further to this, traditional banks may also find that a new highly important customer segment becomes the new intermediaries, e.g. different FinTechs, of which they will have to serve (Mai Interview, 2018; Sylvest Interview, 2018). The basic value proposition that emerges as significantly prevalent stems from that of the role to play in the ecosystem. The traditional banks value proposition, and supporting business model will, to a much greater extent, be based on which strategic direction and the role in the ecosystem of which the individual banks seek to take on. This would mean a greater deal of value delivered through a business model based on co-opetition by delivering data and services for, and in collaboration with other banks, who used to be solely regarded as competition, as they become part of the value chain of delivering integrated services for the customers (Sylvest Interview, 2018). In addition to this, FinTechs and other non-banks will overtake existing or create new direct user interfaces with customers, leaving behind the traditional banks as vendors in the upstream activities for production for FinTechs, which means that the basic value proposition for banks further becomes that of data-provision, data-platform infrastructure, and compliance partners towards FinTechs and other potential third-parties directly serving the customers. Thus, greater participation, less monopoly on banking services, and disintermediation might be some of the dynamics impacting the business model and subsequently the value proposition of the traditional bank, transforming the main function, role and value proposition of the bank in an altered ecosystem. The value proposition in the future means that traditional banks have to provide products for other companies in the ecosystem (FinTechs), and bundle their products with

these and other banks through coopetition dynamics, making value proposition even more intangible (Sylvest Interview, 2018).

The change, thus, is one moving from creation, owning and distributing themselves their own value proposition, whereas the future prescribes a more cooperative environment with other third parties in the production and distribution customer interfaces for retail banking, but also a completely different one, as a vendor in FinTech upstream value chain activities. This is supported by numerous experts in the industry stating that banks will not seize to exist, as the security that the traditional banks deliver will still be needed. However, *"the services the traditional bank deliver aside from the security aspects, will be challenged"* by other, and new, industry players (Larsen Interview, 2018). The technologies being introduced in the financial sector currently, will have a significant impact, and even be a "game changer", as it will continue to impact prices to decrease and better the user interfaces for financial services (Larsen Interview, 2018). Here, it is argued that the game changer will not necessarily be the prime value proposition of the bank to ensure deposits, loans, security and compliance, but rather that these services will not be directly intermediated by the traditional banks. For this, the disrupter will be brought forward by the *"services that will be coupled up to (and bundled) around these key products"* (Larsen Interview, 2018). This trend is somewhat already seen by upcoming market competitors, such as Spiir, with their newly introduced initiative *Nordic API Gateway,* which provides FinTechs with access to data from the traditional banks, enabling APIs for start-ups (Mai Interview, 2018). In this way, Spiir becomes somewhat of a "broker for (banking) data" making the value proposition altered from that of providing customers directly with all of their services, into one of contributing to upstream activities of the ecosystem, to provide easy and coherent market products. Thus, the value proposition in this case for the banks lies in providing the underlying platform infrastructure from which others can withdraw data (Sylvest Interview, 2018; Mai Interview, 2018).

6.2.10 Ecosystem Relations - Post Open Banking

The traditional bank will be able to, and perhaps even forced to, change its positioning and role in the ecosystem for banking services, due to increased digitalisation in the financial sector. The key function and value proposition of the traditional bank will not simply be that of providing primary banking services and functioning as an integrator, having *"its own services provided to own products of which they themselves distribute through their own owned channels"* but rather, *"...third-parties will begin to distribute the customers products to their customer base"* (Sylvest Interview, 2018). The expectation is that the banks primary function will be to maintain compliance to regulations and secure institution for loans and deposits, whilst they will have to simply play a role in allowing the services around such activities and be disintermediated from the customer interface activities (Mai Interview, 2018). The key challenge here is for the traditional banks to find out how to maintain and create the same value propositions for their customers as they have been previously, through a new business model

constellation where not all upstream and downstream activities are owned, produced and distributed by themselves (Sylvest Interview, 2018). One example of this is Spar Nord, a Danish traditional bank institution, that has "*declared a goal to become a data-platform, or a background bank [...] a type of technological platform that delivers banking in all sorts of products*" in a multitude of ecosystems for financial and banking services (Mai Interview, 2018). With this, the banks move away from being "full-service provider" and should instead orient themselves towards focusing on key activities and resources, whilst lending themselves to the ecosystem for delivering the innovations and additional services (Mai Interview, 2018).

In the future business model of the traditional banks, it is expected that there will be a remained dual strategic intent of both efficiency (profit) and innovation (breakthrough). However, this will be executed through a new business model construction with sharpened efficiency capabilities in-house and outsourcing of innovative capabilities to external parties. On the personal drivers, this means an increased focus on discipline, standardization, and best practices in-house and creativity of "employees" being outsourced, in order to remain simultaneously profit and efficiency oriented *and* breakthrough innovation competitive in the marketplace (Sylvest Interview, 2018).

On the customer orientation, this means moving into a more loosely coupled relationship with customers, by not directly mediating the relationship, in order for the banks to provide more personalized services and, as a consequence, arguably be more tightly coupled (produce tightly-coupled) services for their customers and, hence, balancing the tensions deriving from their dual strategic intent and value proposition (Andriopoulos & Lewis, 2009). This is one of the significant findings in relation to the two tensions, customer orientation and employee drivers. While balancing the tensions is seen as the goal to creating innovation (Andriopoulos & Lewis, 2009), somewhat unbalanced tensions from a pure organisational perspective is identified. Therefore, it seems that in platform organisations being ambidextrous is no longer something they do themselves but rather may be something that happens in another area creating a situation where the employees in the bank may have to focus more solely on efficiency, or loose-coupling and trust that if they do this correctly it will lead to others exploiting.

6.3 Four Facets of Business Model Transformations

Based on the evidential insights into the current business model strategy of the traditional retail bank and, expert opinions on what the increased digitalisation in the financial industry implies of changes on the business model strategy of the future, some overall themes of change emerged as significantly relevant. Hence, the following analysis sections will seek to portray the most prominent changes identified to impact the business model strategy of the traditional bank and the way in which this is perceived to occur. These will be based on the empirical findings from the current business model as well as theoretical and practice-based speculations on the future of banking.

6.3.1 Data Becoming a Key Strategic Resource

The following section will illustrate the changes identified in the strategic resources in the business model of the traditional bank due to distinct digitalisation drivers in the financial services industry.

6.3.1.1 Physical Resources

Local bank branches are one of the most traditional forms of physical resources for the bank, and has for decades been the primary interface between the bank and the customer (Waupsh, 2017). This was where customer would go to withdraw or deposit cash, take out loans or just go and seek advice from their banking advisor (Mai Interview, 2018). However, as digital solutions such as mobile banking and online banking, became available, the need to meet up physically at the bank diminished as one could achieve the majority of the banking needs on phone or laptop. This distanced the customer from the bank. Instead of meeting a person that represented the bank in the flesh, customers will only identify themselves with the bank through the branding in their mobile bank app or on their credit card.

From interviews conducted for this paper, one thing has been quite clear: the number of bank branches seen today will not increase in the future (Akselsen Interview, 2018; Larsen Interview, 2018; Mai Interview, 2018; Murmann Interview, 2018; Weckesser Interview, 2018). As increasingly flexible services are being launched, both by the bank, and by third party providers, that will enable the customer to meet his or hers needs, the necessity to meet up at the local bank branch will diminish (Mai Interview, 2018; Murmann, 2018; Ralston & Beal, 2000). As customers experience these new flexible solutions, they will naturally decrease their trips to the branch, which will force the bank to reduce the density of the branches in order to avoid sunk cost (Murmann Interview, 2018). Sceptics argue that the trust in the bank will decrease as customers will not identify themselves with the bank directly anymore, as the primary interface will be owned by third party providers and/or customers will not interface with the bank in person. However, prior research conducted by Ralston & Beal (2000), revealed that trust in the bank quickly recuperated after visiting branches was no longer an option, and even saw an increase in the amount of loans issued as customers discovered new and more flexible ways of obtaining loans through digital means.

Evidently, a minority and decreasing number of customers will prefer the old ways, and prefer to meet up at their bank branch, and some banks will accommodate this by having a strategy to open up more branches in order to embrace this niche market (Seerup, 2014).

6.3.1.2 Human & Intellectual Resources

As a direct consequence of the decrease in banking branches, the need for human resources to operate mentioned branches will decrease (Mai Interview, 2018), and human resources will be focused on operations excellence within the digital services domain, and running the bank from a more centralized position (Waupsh, 2017). Traditionally, the bank has been very internally focused, when it came to their product portfolio, and focus has been on offering a wide variety of products developed by the bank (Akselsen Interview, 2018; Mai Interview, 2018). This has shaped the ways of working of the bank to be particularly adept at internal coordination, where the focus has been on leveraging internal resources (both human and intellectual) to achieve the desired goal.

However, over the past couple of years, third party providers have been launching financial services to end users, which is or could be in direct competition with services of the bank. Yet, these third-party providers, are dependent on the bank as these services cannot operate independently. They need an entity with a bank license and the complex infrastructure it requires to run a bank in order to create value from their services. Bank licenses and the knowledge to run a bank is simply too expensive and comprehensive for new players on the market to even dream about. This barrier of entry is even deterring giants like Google and Facebook from entering the market as a fully flexed bank (Weckesser Interview, 2018). This puts the bank in a unique situation, where its services are at risk of being outcompeted, as these third-party providers dedicate their entire strategy to develop and mature this solution, and the bank has to focus on a big complex engine and stay compliant at the same time (Akselsen Interview, 2018; Mai Interview, 2018; Weckesser Interview, 2018), but the bank can enter into partnerships with the third-party provider, in order to stay within the value chain at the expense of customer interfacing. This require them to change the human & intellectual focus from internally focused, to externally focused. The main task will no longer be to develop and sustain services and products offered by the bank, but rather to mature and sustain the banking infrastructure and platform. The intellectual resources of the bank have to be remodelled as capabilities within third party partnerships and open banking will need to be acquired and/ or created. At the same time, the primary interface of the bank will shift from being with its customers, into being more engaged with its key partners, which will create new requirements for human resources as the bank will be going from customer service excellence to vendor management excellence.

6.3.1.3 Digital Resources & Digital Data Streams

Increasing amount of data is becoming more and more available to both banks are third party providers, and this development means that the potential for value creation through data analysis increases as well (Waupsh, 2017).

Traditionally, the majority of the data of the bank was created by the bank itself. Customer data was created within the bank when they created accounts, and due to the full-service strategy of the banks, they rarely had to be concerned with customer data from other banks apart from handling interbank transactions (Waupsh, 2017). Similarly, product data, about usage of the banks product portfolio was also created within the banks as both the customers and the services offered to customers resided within the bank. However, as banks are going from being internally focused (owning the entire value chain) to being externally focused (owning part of the value chain), and partnering with third party providers (Akselsen Interview, 2018; Larsen Interview, 2018; Murmann Interview, 2018) data concerning customer (when the bank loses customer interfacing) and about the products offered to customers (when the product is offered by third party providers) will be externally created and no longer within the direct control of the bank. This makes the data resources that the bank does own, the customer data, even more valuable. The bank might need to give up the interfacing with customers, but the customers in the end still reside within the bank, even though the customer might not be fully aware of it. Lunar Way is a good example, where all customer interfacing is done by Lunar Way who provide a platform, but in reality, the customer resides on the Nykredit bank platform (Akselsen Interview, 2018). Through these partnership, an exchange of data could mutually benefit the partners, but as mentioned above, this will require the banks, that traditionally was internally focused, to shift its focus and infrastructure to an external setup (Weckesser Interview, 2018).

Multiple avenues of creating value from this data exists, where selling to externals is the most obvious, but not necessarily the most value generating, nor necessarily the most ethical. An interesting avenue of exploration to apply to this setting to is the notion of digital data streams. As described by Pigni, Piccoli, & Watson *"a Digital Data Stream (DDS) is a continuous digital encoding and transmission of data describing a related class of events. The transmission, or flow, of these digital representations of events is a DDS, which may be human-generated [...] or machine-generated"* (2016, p. 7). This enable *"managers to dissect events in real-time, to shorten the decision cycle, and to deepen their understanding of customers at the same time"* (2016, p. 7). If the banks were to adopt DDS practice both new tactical as well as strategic opportunities would be created for the bank. Tactically the bank would benefit by being able to leverage real time data about "streamed events" which allows the bank to take immediate action without latencies (Dueholm, 2017; Pigni, Piccoli, & Watson, 2016). However, this requires the bank to account for different forms of latencies and especially that of response time latency (Dueholm, 2017; Pigni, Piccoli, & Watson, 2016). Response time latency identifies a loss of

value linked to delays in extraction of data (capture latency), transformation of data (analysis latency), and actionable decision making based on the data (decision latency), and referring back to the above, this will require the bank to both shift technical capabilities but also human capabilities.

However, the benefit is that tactically this will enable the bank to realize real-time visibility and flow of big data for value creation and improved services. The tactical value of DDSs stems from a firm's ability to moderate response time latency to improve the timeliness of decisions and actions (Dueholm, 2017; Pigni, Piccoli, & Watson, 2016). Firms extract value from events in a DDS through practices of either process-to-actuate or assimilate-to-analyse tactics (Dueholm, 2017; Pigni, Piccoli, & Watson, 2016). In the former, the bank would be able to generate and capture value through actions based on real-time data processing in combination with other contextual data, with the result of superior customer service (Dueholm, 2017; Pigni, Piccoli, & Watson, 2016). In the latter, the bank extract value by merging multiple data streams and dissecting the composite dataset, intending to generate insights as basis for decision making as oppose to immediate reactions (Dueholm, 2017; Pigni, Piccoli, & Watson, 2016). Corporations can unproblematically pursue both avenues (Dueholm, 2017; Pigni, Piccoli, & Watson, 2016).

Strategically the bank can benefit from this approach by developing new business models around this concept, by being able to adapt to customer demands, industry changes and innovations around the design of DDS and new forms of network (Dueholm, 2017; Pigni, Piccoli, & Watson, 2016). However, banks that choose to innovate with DDS for business model improvements need to develop or acquire the necessary capabilities as covered in the previous section.

In an ever changing and increasingly digitalisation-driven competitive landscape, the traditional banks need to address their business model strategy by assessing their capabilities and capacity to transform as demanded by the environment, through its current and acquired capabilities around data to generate the desired strategic flexibility (Rindova & Kotha, 2001; Pigni et al., 2016). As the DDS demands the aforementioned type of shift in business model strategy, activities and networks, this can only be accomplished through significant changes in *form* and *function (*Rindova & Kotha, 2001*)*. Where changes in form for the traditional bank implies an ability to reconfigure resources, capabilities and structures, function is the resulting changes in the portfolio of products and services being offered.

6.3.2 Platform as a Strategy

As previously specified, it seems that in platform organisations being ambidextrous is no longer something they do themselves but rather may be something that happens in another area creating a situation where the employees in the bank may have to focus more solely on efficiency, or loose-coupling and trust that if they do this correctly it will lead to others exploiting. This means that the

mechanisms innovation happens through are in general quite different from that of the current value proposition and business model of the traditional bank, with its "integrator" role (Sylvest Interview, 2018). It is more about creating a platform for innovation that many can take advantage of. Part of the way in which the traditional banks are able to create an adaptive strategy is through a platform organisation. This digital business strategy forces them to transcend traditional business functions, and rely heavily on the digitisation of products and services (Bharadwaj et al., 2013). Platform organisations mean that the boundaries in organisations becoming increasingly blurred, as was also seen in our case between employees and customers. Thus, it also follows that loose-coupling is a prevalent condition in this type of organisation, when your customers are no longer a single defined market. However, in doing this, value is instead created through the ability to coordinate action across many business models, particularly if it is the business who controls the industry architecture (Bharadwaj et al., 2013), as is the case with the traditional bank.

Some trends towards platform-based banking organisations in the industry for financial services, used by the traditional banking institutions such as Visa or MasterCard, are already taking place. These organisations function as platforms servicing their respective networks, by following a platform strategy where *"issuers, acquirers, startups, various payments service providers and merchants are symbiotically linked"* (Brear & Bouvier, 2016). The strategy laid out by these organisations has created a network of banks and users, and banks of intermediators, of their services. The trend towards platform based architectures for traditional banks implies transformational changes to be made across the business/technology stack along with fundamental choices dictating how products, services, technology and key resources are articulated and coordinated between what will be delivered internally by the core functions of the business and what is to be delivered by external parties active on the platform (product and distribution wise), thus changing form and function of the business (Pigni et al., 2016).

A Bank as a platform (BaaP) strategy alters the traditional business model of the bank and introduces a less controlled environment. The business model of the traditional banks rests on full control over production and distribution of products and services, making them far easier to manage, as these industry incumbents created and distributed the services themselves, ensuring that *"value was produced upstream by the banks and consumed downstream by the consumer"* (Brear & Bouvier, 2016).

Evidently, expert opinions may be grouped into three clashes in explaining the reasons behind why the financial services industry incumbents have not yet organised as platforms, overall pointing to not having a market demand for it: (1) the current business model of the incumbent bank institutions and insurance companies do not lend themselves directly to network effects. Rather, as it has also been specified previously, these reaps the benefits stemming from economies of scale over network effects, with a financial rationale in owning the stacks entirely instead of sharing this. This further aligns with

the rationale in only having opened up for partners in the linear activities. (2) In addition to this, until recently, banks and insurers have been serving the market as "perfect", or sufficient at least, intermediaries, as these were in the best possible position to make credit or underwriting decisions, ensuring somewhat of a monopolistic marketplace. (3) The traditional banks have intermediated the relationships between corporations, private households through selling of financial services, and being the direct partner between both parties (Brear & Bouvier, 2016).

Unlike traditional models, a Banking as a Platform structure does not just create and push products. The BaaP structure allows users to create and consume value. At the technology layer, external developers can extend platform functionality using APIs. At the business layer, users (producers) can create value on the platform for other to consume. This change may be seen as a massive shift from any form of financial services business model that exists today. Creation of network effects is more important than simply bringing in users or charging all users to make money. In this model for financial services, software and technology are not simply the end product in the value chain, rather, they simply serve as the underlying infrastructure that enable users to interact with each other. Most importantly, the business itself does not create all the value (Brear & Bouvier, 2016).

The shift for the banks, moving into more of a BaaP business model strategy implies moving from a firm-centric approach to strategy with products and services as the central element into a platform centric thinking (Mintzberg, 1994). In the specific case of the bank, the data serves as a platform where the product is enabled through the infrastructure layer, serving as a platform on top of which third parties can come and build their products, thus embracing the dynamics of a whole ecosystem (Iansiti & Levien, 2014). Data thus becomes simultaneously a key asset and the primary product, enabling ambidexterity to take place at different layers of the business model for strategic advantage (Yoo et al., 2010). In this way of thinking, product-centric thinking erodes and ecosystems and platforms becomes the focal point for business model strategy making and generation of strategic advantage, and thus, the basic assumption about what generates value and the value proposition itself (Iansiti & Levien, 2014).

Firms are moving into an ever more turbulent environment where organisational strategizing becomes a continuous, on-going, and adaptable process (Henfridsson & Lind, 2013). However, little is known about how to enable this type of strategy. When firms excel at exploiting the potentials of current products to enable incremental innovation, whilst simultaneously exploring new opportunities to foster more radical innovation, ambidextrous tensions are balanced (Andriopoulos & Lewis, 2009). Thus, ambidexterity is one way to create an adaptable strategy, in uncertain and ever shifting marketplaces. The traditional banks change into more of a BaaP implies a change in business model strategy into a generative data-platform, enabling an adaptable strategy where the data and structure becomes the key point of departure for strategizing, not necessarily the external conditions going on in the environment

nor the direct customer services themselves, as these are deemed uncertain (Mintzberg, 1994). Thus, the BaaP business model strategizes around data itself to create a generative platform that can be adapted multiple ways by different actors in uncertain conditions. Another way to think of this is the BaaP is creating a platform organisation in the hope that it will observe itself and adapt continuously. Creating this type of adaptive strategy in this case the BaaP has designed what could be considered as strategy that is an 'empty vessel'. This is a condition where the strategy can only set it at abstracted levels and thus there are multiple ways to reach the objective (Henfridsson & Lind, 2013). While the BaaP seeks to create strategies of efficiency and innovation, these are at an ambiguous enough level to allow adaptability in their accomplishment.

A data and infrastructure platform business model strategy implies opening up services to third-parties, or at least parties external to that of the organisation, through technologies such as APIs. This demands modularity and generative capabilities across organisational levels, in order to produce generative services (Yoo et al., 2010). Simply by the act of opening up to the organisational environment by enabling APIs, organisations become platforms on top of which others may build services and products. This, however, produces complexities in terms of control and participation across the value chain activities and forces organisations to alter their respective value propositions for the ecosystem(s) in which they participate. Further, this brings forward questions on how to participate and the role to adopt in these ecosystems. One may have control over data by not sharing, but no influence on the ecosystem itself. However, with APIs the traditional banks will be granted access to new customer segments through new business models and also new industries, thus allowing for serendipity at a considerably low cost (Marton et al., 2013). As previously specified, a BaaP allows for products being tailored more personally and accurately to customers as a general intent in oppose to the traditional banks offerings based on an innovation-push model of products and a complete control over what to be offered and how to deliver such (ref: analysis insights). A platform architecture for banks based on modular layers of data and infrastructure implies a shift in business model from highly tailored to owning production and distribution of all products and services into a model based on product agnostic thinking and generalizability, in order to collaborate internally and externally on its services (Yoo et al., 2010).

6.3.3 Customer Loyalty and Brand Affiliation

There are a multitude of industry dynamics effectively impacting the brand recognition and customer loyalty towards the traditional banks. Changing customer demands, increased reliance on technology, and regulations are impacting the business model of the traditional banks. Changing customer behaviour stemming from consumer behaviour shifts to transactions anytime, anywhere, on any device with higher expectations from financial institution (Cortet, Rijks, & Nijland, 2016). At the same time, technology-driven innovations, in the industry for financial services and in general, has lowered the barriers for new entrants to the market place, e.g. in the form of 'FinTech' players, who are capturing market share

by using disruptive technologies (Cortet, Rijks, & Nijland, 2016). Furthermore, European regulatory interventions are impacting the competitive landscape and influences the business models of the traditional retail banks. One example of this is regulatory forces in the form of e.g. PSD2 and the related XS2A, which will disrupt the traditional payments value chain (Cortet, Rijks, & Nijland, 2016). These dynamics and trends effectively demands changes to the way in which customers interact and affiliate with "their" banks.

In the current marketplace for banking services, customers experience a direct relationship with the bank through its channels, and the value proposition of the traditional bank rests on the ability to provide a multitude of products to its customer segments by being a full-service provider (production *and* distribution), which has led to both a direct affiliation to the bank and its brand, but also somewhat of a customer lock-in. This, arguably, creates a strong brand affiliation and loyalty as the customers have assigned a personal advisor (or advisory group) in the bank, but also choses one or several banks specifically for its distinct service portfolio and volume-based value (Larsen Interview, 2018; Mai Interview, 2018; Murmann Interview, 2018; Weckesser Interview, 2018).

Customer orientation is expected to be shifting. Expert opinions point to shifting dynamics, geared towards a more loosely coupled relationship-orientation with the customers whilst a more tightly coupled customer-product orientation could potentially emerge. As noted previously, traditional banks have historically owned the R&D, production and distribution of their products and services and, largely, followed a push-strategy, including these as parts of their product portfolio and value proposition. As the industry structure, overall has been one characterized by monopoly on banking services, high entry barriers and a small selection of competitors, banks have had the possibility to opt in and out of the products and services, which they found relevant to the customers. In the terminology of Andriopoulos and Lewis (2009), this has led to a loosely coupled customer orientation on the products-orientation, whilst the direct user interfaces and services provided at the distribution layer has led to a tight-customer relationship and brand affiliation with the banks.

Banks need to fundamentally rethink a needs-based value proposition, and activate a comprehensive business model strategy that engages customers and prospects, on customers' terms. Most retail banks today are product-first, with all of the products being presented "a la carte". In and off itself, this has influenced the banks development positively in the past, as most people seek banking products when they need them (Mai Interview, 2018). However, the value delivered to the customers are largely dependent on the services they want to offer more than it necessarily is based on the customer needs (Mai Interview, 2018). For example, the process of applying for a mortgage, regardless of whether the customer already has a relationship with the bank, customers are expected to prove that they are worthy of the banks' services.

In the future BaaP landscape, the customer orientation may shift in both parameters, delivering products tailored to the customers whilst not serving them directly. In terms of customer orientation, the BaaP business model may push customers towards a loose-coupling on the relationship parameter, however, with a dependency to still be tightly coupled on the service layer delivering personalised products and services that matches the needs of customers. This change into delivering product-agnostic services to other service layers enable the traditional bank to focus on customer needs. Hence, instead the traditional bank will be focusing on creating the basic building block of products and services in a generative fashion and let third-parties on the platform provide personalised services. This presents interesting challenges for the traditional banks, providing product-agnostic services to match customer needs instead of coupling itself to information specific products and services.

The customer orientation through a layered architecture and BaaP model moves into a more loosely coupled relationship with customers, through the disintermediation of the relationship and services provided by third-parties, with the intent of the traditional bank to provide more personalized services and, thus, be more tightly coupled on the services layer for their customers (Andriopoulos & Lewis, 2009). This may introduce implications, or at minimum changes, to the brand loyalty. The disintermediation of the traditional retail bank implies less direct customer interaction and that the affiliation to a larger degree will be between the customers and the parties on the distribution layers in the value chain.

Due to the user interface moving from direct relations to indirect relations a disintermediation of the traditional bank may emerge. As many services in the BaaP business model strategy will be delivered by third parties across the value chain, the direct customer user interfaces available for banking products and services in the industry will be altered and new players be in charge of this. The direct bank brand affiliation and loyalty may be eroded by the disintermediation of the bank, and the loyalty, to a greater extent, will be geared towards those third-party providers taking over the direct user interface for customers when they receive their services.

Bearing this in mind, the value chain may be altered drastically, as the traditional retail banks will provide products and services for customer indirectly, which means that the general affiliation with the bank may decrease. The BaaP business model strategy denotes greater invisibility of the traditional retail bank institutions as these are being disintermediated and serve as underlying infrastructures and platforms for distribution partners to take over. Further to this, as they will serve B2B markets, their co-operative partners may arguably be the ones to create brand loyalty with, in the aim to become the best and most trustworthy business partner to the third-party institutions and, as a consequence, the most favoured bank platform to collaborate with, which again relates back to the chosen role in the ecosystem.

6.3.4 Industry Structure

This section will look into the shifting focus of the bank from internal to increasingly external, as well as how this affects value chain relations and revenue streams.

6.3.4.1 Internally Focused to Externally Focused

The traditional bank specialised as a full-service provider to its customers with a preference to function as a sole provider of financial services towards its customer-base. This was mainly achieved by offering advantages to customers that would place their entire financial portfolio in the bank (Murmann Interview, 2018; Mai Interview, 2018), but it was also made possible by the fact that having multiple banks was notorious for decreasing transparency on customer finances, as no platform existed to provide one coherent overview (Akselsen Interview, 2018; Larsen Interview, 2018).

However, empirical evidence points to third party providers sprouting in the competitive landscape, launching services that compete with the services of the bank, threatening the business model strategy of the incumbent retail banks. Third party providers are, enabled by PSD2 and the Open Banking initiative, now able to provide this transparency that may direct customers away from the services that was traditionally offered by the traditional bank (Akselsen Interview, 2018; Larsen Interview, 2018; Mai Interview, 2018; Murmann Interview, 2018; Sylvest Interview, 2018; Weckesser Interview, 2018). The uniqueness about this new relationship, however, is that the customers are not drawn away from the bank itself, rather it is the interfacing between customers and the bank that is threatened at this point. Due to the amount of regulations and requirements for banks, very few companies enter the market as an independent bank, and even tech giants like Amazon and Google, whom are on their way to enter the Danish market, will enter it with the backing of an existing Danish bank (Weckesser Interview, 2018). For the traditional bank, this means that its core services (loans and deposits of assets) are not threatened, however its relationship with its customers is, as third-party providers enter the market as intermediaries providing potentially superior substitute services, but nonetheless services that are still grounded in the banks infrastructure (Akselsen Interview, 2018; Mai Interview, 2018).

This introduces a dilemma for the traditional bank based on whether it should attempt to solidify the status quo by outcompeting the services offered by third party providers, or accept that it cannot compete with these services, and instead position itself as a key partner for the third-party providers, providing the customers and the infrastructure needed. Based on empirical evidence, the banks' ability to provide the same quality in its services and products is questioned. The traditional bank has to balance a multitude of products and services, ranging from issuing loans, to ensuring that the banks stay compliant with current legislation and everything in between. This means, that the traditional bank has employed a wide product portfolio strategy in which quantity over quality is weighed (Mai Interview, 2018) and more or less none of the established banks have attempted to change this setup. The third-party providers on the other hand, are small start-ups, founded with the sole intention of creating a

single superior product (Akselsen Interview, 2018; Mai Interview, 2018; Weckesser Interview, 2018), and supported by the PSD2 directive they can get access to bank data more easily than ever before (Akselsen Interview, 2018). On the basis of this, the traditional bank would benefit from entering into partnerships with third-party providers, in order to retain a position within the value chain, but trading off certain aspects of their customer interfacing. By entering into partnership like it has been seen with Lunar Way, New Banking and LendMe (Akselsen Interview, 2018; Larsen Interview, 2018; Murmann Interview, 2018) and offering the banking platform for the third-party providers to work on, the bank would gain access to customers that are attracted to the services offered by these third-party providers and on-board them as customers of the bank. The more partnerships the banks enter the more customers it will get access to. Some sources argue that rather than enter into partnerships, the bank will acquire the third-party providers and integrate them into the bank, taking over the service, or retain them as independently branded subsidiaries (Murmann Interview, 2018). Either way, the traditional bank will have to rely on external partnerships to some extent.

In essence, this means that the bank will have to shift it service focus from being internally oriented to being externally. If the traditional bank aspires to offer superior products (through external partners or through acquisitions) then it must be open to external partnerships with third-party providers, and this will require a shift in both processes and culture of the bank to excel at external coordination, and potentially that the bank will have to re-evaluate the number of services that it provides directly to its customers. According to Mai (interview, 2018) the market for banking services covers a great variety of products and services of which only a limited set actively are being purchased and used. This resembles a lack of sync between the bank and its customers, as a result of the push-strategy on customers that have shown no demand for these products. Mai (2018) argues that the modern bank should consolidate its products and services that it offers directly to its customers to be more in line with its core business, and then excel at those and accept that it does not need the full-service strategy. This way, the incumbent retail banks will be able to maintain a degree of interfacing with its customers, and create new customers in the third-party providers. This will effectively change the bank from purely being B2C to being a hybrid of B2C and B2B.

6.3.4.2 New Streams of Revenue
The industry changes will furthermore open up for new revenue streams for the traditional bank. First, the bank will be able to solidify its hold in the core services of the bank, and thereby also the customers that are onboarded onto the platform. The data from these customers can be used in a variety of ways (this will be covered in the next section) to create value and develop the existing services (Weckesser Interview, 2018). Second, as the bank make its shift towards being more externally oriented it gradually opens up its banking platform to support the partnerships it has entered in to, which can be a source of revenue, as usage of this platform is not free. In addition, the fact that "tech-giants" like Google and

Facebook require the backing of a bank in order to enter a market, solidifies the position of the bank (Weckesser Interview, 2018). This will enable the bank to offer their platform as an infrastructure in exchange for raw revenue, or for other benefits that the third-party providers might offer. Additionally, as customer financial data is created within the bank, this data is interesting to the third-party providers that have created a business model centred on customer interfacing or production. Despite the fact that the PSD2 directive have opened up the bank infrastructure, prohibiting banks from charging vendors for data that is freely available to the customer, it does not prevent them from creating premium data packages that go beyond this. This can be sold to vendors in order to create value from it, which will indirectly benefit the bank through revenue and enhanced customer experiences through the third-party provider that the bank has partnered with (Weckesser Interview, 2018).

6.4 Conclusion on Findings

In the findings section, the current and potential future business model building blocks for the retail banks was outlined. Throughout the analysis of the business model, several changing elements have been outlined for each individual building block. First, a change in the key partners for retail banks was identified. As the key partnerships change from being largely restricted to: credit card companies, regulatory entities, pension funds, and data centrals to, a wide range of third party providers, including "GAFA", ripples from that change to different building blocks is predicted. One fairly direct consequence of increased third-party involvement will be the relationship, that retail banks have to their customers. As the key partners change towards third-party providers offering services on behalf of the banks the banks will also have to give up some of their customer relationships as a consequence of that. Customers will likely affiliate themselves with the third-party provider hosting the services that customers use as it was seen with Lunar Way (Akselsen Interview, 2018). Hence it is believed that the banks will be forced to adopt a less direct customer relationship as third-parties will increase the transparency as well as being able to facilitate the user experience. Not only will the customer relationship move towards loose coupling on direct relational distribution aspects, third-parties may also provide more personalized services for the customers as they can build services around different banks, hence a more tightly coupled product solution through third party production or intermediation in the distribution layer towards customers (Murmann Interview, 2018). This can be argued to amend the way in which services are produced or distributed by the traditional banks. It further introduces new products and services based on data rather than solely advisory services provided by the incumbent bank, making data simultaneously a key strategic resource and end-customer product, which in turn reflect back on the initially mentioned key activities that banks will have to change as a consequence of industry wide changes that was identified.

The change in key partners does not only affect the customer relationship for retail banks, it is affecting the entire competitive landscape for financial services. As customers are looking to third parties for their innovative services, their data can also be shared and utilized, given that the customer have given their consent. This means that financial data, which has extremely high value, can be shared and utilized, also in different industries (Sylvest Interview, 2018). This enables the incumbent traditional bank to obtain capabilities enabling ambidextrous strategic intends, through third party provisioning of services, making third parties own the customer experiences as well as the opportunity to obtain and exploit customer's financial data. As a consequence of the increased accessibility to data, fundamental changes can be identified in the current and future key resources for retail banks. Data will become an increasingly more important resource for the banks due to the involvement of third-party providers. This is becoming increasingly evident as some banks have already declared an ambition to become data platforms, hence only providing the back-end bank for third-parties to build services around (Mai Interview, 2018). Consequently, the increased focus on data as well as the PSD2 legislation make data a prerequisite for survival for retail banks whether they want to adopt the platform strategy or try to maintain their integrated value chain.

The findings section identified four major themes derived from the most significant changes identified in the business canvas framework, consisting of: Data as a resource, Platform as a strategy, Consumer Loyalty and Brand Affiliation, and Industry structure. Empirical evidence indicates that the data banks possess will play an increasingly important role for the banks in their future business model strategy, as it will realise competitive advantage through DDS. DDS has the potential to open up for new services being developed around the bank that are responding to customer demands, if the right capabilities are acquired. DDS has some benefits to offer for traditional retail banks facing a new reality as the services and products derived from live data can improve the decision making and make banks more capable of taking corrective actions as well as identifying new opportunities. This is important in a changing landscape where third-parties are driving some traditional services away from the banks through digital means. Adopting DDS is one way banks can react to the changing environment. Platform as a Strategy identifies different trends that can be utilized for banks move in to being a bank as a platform (BaaP). Becoming a BaaP will have consequences for the customer relationship as banks will no longer function control the traditional value chain. In the BaaP scenario banks will lose touch with the customers as well as the development of services as they will neither be producers nor distributors of the services, as those roles will be taken over by the third-parties. Some benefits of venturing into a BaaP model have been identified by Iansiti & Levien (2014). If banks venture into BaaP models, it is important to evaluate the productivity, robustness and niche creation of the ecosystem that one is essentially entering. This can help businesses in the system to provide low cost products, lower risk of disruptions as well as developing new functions (Iansiti & Levien, 2014). The BaaP model ties directly into the question of PSD2 and XS2A that are forcing banks to open up their APIs to third-parties with a customer consent.

The previously tight relationship between banks and their customers is now challenged by the digital means by which third-parties can take over the user experience and affiliation with retail bank customers. This is also what can be identified in the current landscape; data reveals a shift in the marketplace as banks are moving from a very internally focused way of operating to an externally focused way. Previously, banks would own most if not all parts of their value chain largely due to a lack of transparency in the industry which limited the overview of ordinary users' financials and choice of services.

In conclusion, the strategic intent of the banks is drastically changing as well as the customer orientation in the financial services industry. The customer behaviour is changing in response to the increased digitisation initiatives caused by regulatory authorities in the form of PSD2 and XS2A. Digital enablers are threatening the traditional banking services who were heavily relying on a lack of transparency and customer lock-in. Furthermore, the changes are forcing banks to reconsider their position in the ecosystem as well as asking them to determine which parts of the value chain that they want to distribute and produce themselves as opposed to moving into a BaaP business model and having third party providers take over those parts of the value chain.

7 Discussion

This discussion will take its offset from the identified findings and discuss how the business model strategy of the incumbent retail bank is impacted by digitalisation in the financial sector. This was further broken into three sub questions: (1) How is the traditional bank defined? (2) How are new emergent digital services affecting the traditional bank? (3) How can the banks address these changes?

This paper defines the traditional (retail) bank as an internally oriented bank developing a wide array of services that it is responsible for distributing on its own through physical branches and/or online banking. Thus, the incumbent retail bank currently has complete control over its value chain, from production of products and services to distribution of these towards its customer-base. Furthermore, the traditional bank excels in compliance due to historically heavy regulations in the financial sector (Klemperer, 1987). Furthermore, three overarching drivers in the industry was identified that impacts the business model of the bank in terms of form, function and focus (Cortet, Rijks, & Nijland, 2016; Piccoli, G., & Pigni, F., 2013). These drivers are: *consumer behaviour, technology-driven innovation, and European regulatory intervention*. In the light of this, two areas of early digitalisation strategies were already established within the traditional bank, these being respectively (1) *"adoption of digital technologies to enable efficiency"* and (2) *"transformation of current practices due to increase in digital demand"* (Cortet, Rijks, & Nijland, 2016). When referring to the first one, early trends were observed where the traditional bank adopted digital technologies to increase internal efficiencies.

Online banking is an example of this with digitisation enabling more self-service, freeing up human resources in local branches. The second trend refers to the adaptations of practices and processes internally in order to adapt to changing environments externally that become increasingly digitally oriented.

Empirical evidence and expert opinions identified four dominant transformational aspects to impacted the current retail bank business model by increased digitalisation in the financial industry, which are respectively (1) shift in industry structure, (2) changes in key resource(s), (3) shifting dynamics and balance of customer orientation tensions impacting brand affiliation and customer loyalty, (4) and how the bank through full business model transformation by appropriation according to the industry dynamics will be able to function as a platform, and thus, a key stone player in the banking services ecosystem(s).

Relying on the notion of ambidexterity introduced by Andriopoulos and Lewis (2009) the findings identified transformations to industry structures as the bank aligns itself more externally in order to adapt to change. The change being, moving from a full-service provision business model strategy of owning the entire value chain, into being a business model strategy increasingly relying on external parties in order to generate the necessary innovative capacity, and hereby also succeed in being ambidextrous. From this follows an increased dependency on the ecosystem of financial services that the bank will enter into when becoming externally focused, and as a consequence also from partnerships that the bank will enter into. This will, in addition, directly shape the strategy and structure of the bank as the bank will need to alter the strategy in order to keep up with the externalisation and the structure of the bank will alongside this process adapt to the change in strategy into a more externally focused organisation (Mai Interview, 2018). Furthermore, this again highlights the impacts of the three overarching drivers; digitalisation, customer demands, and European regulations, as e.g. third-party providers through the new PSD2 mandated data provisioning and Open Banking initiative (Akselsen Interview, 2018; Sylvest Interview, 2018), will be able to provide transparency, which potentially can enable disintermediation of the banks in distributing their services directly to their customers (Akselsen Interview, 2018; Murmann Interview, 2018; Sylvest Interview, 2018).

The external orientation and integration of such functions into the business model of the traditional bank was further seen to enable the generation of new revenue streams, and effectively impacts the value proposition, customer segment, and coordination activities of the bank. Most prominently, however, empirical data and expert opinions led to insights on the key resources available to the traditional bank, and how this may be strongly impacted by the increased industry and digitalisation trends. Here, it became apparent that the role of data will increase and, arguably, become a strategic resource available to the incumbent retail banks. In addition to this, it may also set the standards for their value proposition,

ability to alter the business model, and the role of which they seek to play in the ecosystem(s) for financial services (Cortet, Rijks, & Nijland, 2016). From this point, clear indications of two significant dynamics stemming from increasing digitalisation in the financial sector is represented through the notion of data as a key resource, and PSD2 as it is not simply a regulation imposing conducts on operational and compliance approaches that banks needs to adhere to, rather, it encompasses demands for "access to account" (XS2A), which again drives ongoing technology-driven disruption of incumbent banks, by nonbank third-party operators. These are with PSD2, and specifically, XS2A, enabled to target "not only the payments value chain, but ultimately every single 'piece' of the universal banking model" (Cortet, Rijks, & Nijland, 2016). It does appear relevant to mention, however, that despite minimum mandated data to be provisioned by the traditional/retail banks, it is the banks themselves that level to which extend they want to exceed this minimum-limit (Sylvest Interview, 2018).

Based on the insights gained from the findings, one may be able to firstly classify the traditional (retail) banks based on the above insights, and the level to which they seek to comply and transform to digital drivers, dynamics, and European regulations. These are seen as the primary impacts on the business model's level of transformation which may be expected as a result of digitalisation.

7.1 Strategic Alternatives to the Bank, Post Open Banking

Based on the findings outlined above presenting the variables that will impact the future of the bank, this thesis will present a framework for classification of future business model strategies available to the incumbent retail banks, providing a greater understanding of which direction the traditional bank is moving towards in the future. This framework will be based upon a structure presented by EBA working group (2017), and will condense the findings uncovered through the empirical data, that has been collected through industry experts.

The framework will outline a classification represented through a two-by-two matrix of future business model strategies available to the traditional banks, which will be based upon two variable axes respectively being *"production of services"* and *"distribution of services" (see figure 14)*. Both axes will span from *"in-house"* to *"third-party providers"* displaying value chain relations on a continuum from owned- towards outsourced activities. The *production of services* axis refers to, to what extend the bank is responsible for producing the services that it offers, either directly to its customers or through other intermediaries in the value chain. The *distribution of services* axis refers to, to what extend the bank is responsible for the distribution of its services to end customers. This can be both services that the bank has produced itself, or acquired through third-party providers. By using this approach, the framework will create a two by two matrix that will result in four types of banks that this paper sees as

the future bank types. The four future bank types are: (1) *Traditional bank*, (2) *Customer oriented bank*, (3) *Developer oriented bank* & (4) *Platform bank*.

In the following sections, each quadrant will be specified in detail in terms of what they represent for future retail bank strategies and, herein, the business model processes/activities and ecosystem relations impact. Following this, the practical implications independently of the business model strategy adopted for the incumbent retail banks will be outlined. As a result, this will allow a comprehensive understanding into the impacts of digitalisation on business model strategy for the incumbent retail banks in the Danish industry for financial services.
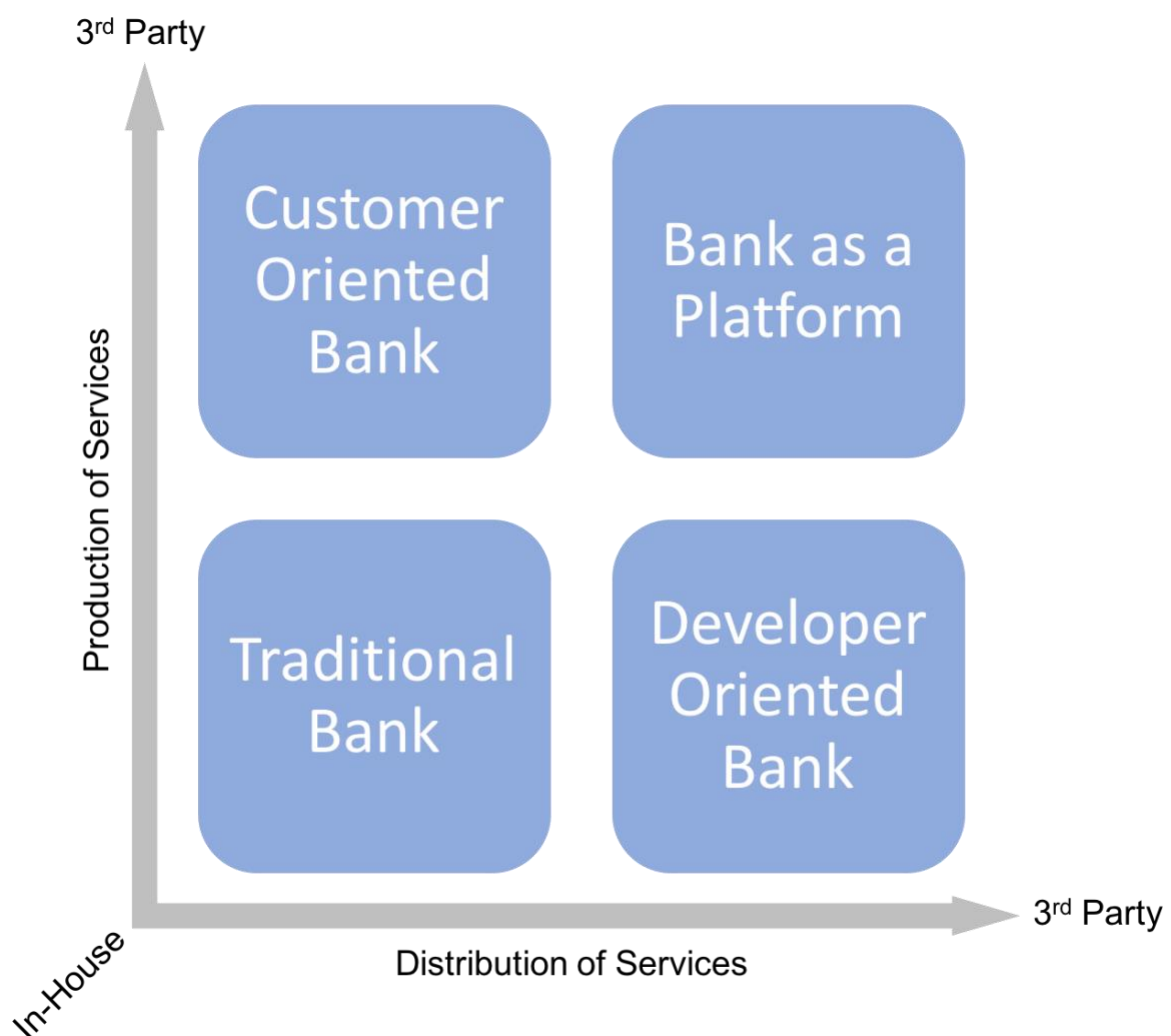

Figure 14 - Four strategic alternatives to the business model strategy of incumbent retail banks

7.1.1 Traditional Bank

The traditional bank strategy, in its most simple form in terms of ownership over production and distribution of its products and services remain in the status quo (Mai Interview, 2018; Murmann Interview, 2018), with no major change made to the bank strategy. However, the status quo will, at a bare minimum level require the bank to make changes, in order to stay competitive.

The *production* of the bank's services will remain as in-house development, meaning that the bank will be responsible for developing the products it has in its product portfolio, the same way as is seen today (Akselsen Interview, 2018; Mai Interview, 2018; Murmann Interview, 2018). This means that the bank will remain internally focused when it comes to developing services, and continue to rely heavily on its existing key resources in the shape of human resources and existing infrastructure in order to continue developing high quality services. However, the bank will need to adjust to new conditions, as the external environment will change, and third-party providers will continue to emerge, and compete with services that the bank offers. This change will require the bank to either acquire or develop internal resources that can develop the same innovative products as third-party providers. Furthermore, the bank might be forced to enable these third-party providers alongside competing with them as new directives, like the PSD2 directive, require the banks to open up their infrastructure, to enable third parties to extract data. This can in some cases, depending on the requirement to bank openness in the future, be counterproductive for the bank, as third-party providers might be able to offer superior services that are in direct competition with the bank, build upon the banks infrastructure and data. This underlines the need for the bank to invest in resources that can ensure high quality services, and it will furthermore affect the cost structure of the bank, as it will have to compensate talented human resources in order to achieve these superior offerings.

Furthermore, the *distribution* of services to customers would also be handled in-house if choosing this strategy, as has been the norm with the traditional bank, and the bank would therefore continue to rely heavily on its channels to its customers in form of owned branches, online banking and virtual banking. In this instance, the customer segment remains the same, private customers, as it will be retaining the status quo. The bank would therefore also be able to utilise its current brand. As the bank is operating under an established brand, this can be used in the banks favour in order to retain customers and encourage these customers to purchase the banks own services, rather than those offered by potential third party suppliers.

Drawing upon the notion of ambidexterity by Andriopoulos & Lewis (2009) this underlines the bank's future need to be ambidextrous: should banks of the future decides to stick with the traditional business model strategy, it will still need to adjust to the changing environment around it, that will force the bank to open up to a certain degree. Therefore, even if the bank intends to retain the status quo, it will need

to be ambidextrous in regard to strategic intent and customer orientation. As covered in the findings, the traditional bank has been known to be profit oriented through its push strategy to customers in order, however with the changing external environments it will have to balance this focus with a breakthrough goal in order to stay competitive and adjust to the new environment. Furthermore, as open banking initiatives is imposed on the bank, third party providers can gain access to a predefined set of data from the bank, meaning that customers that are normally tied to the bank, can opt into services offered by third party providers based on the banks data. This effectively means that the bank will have to balance the traditional tight coupling of customers with a looser coupling as customers can choose services from more financial services providers in the ecosystem.

7.1.2 Customer Oriented Bank

The customer oriented bank relies on a strategy where the focus is on maintaining direct relationships with the customer, at the expense of producing the services in house. Effectively this means that the bank is acquiring solutions and services developed by third party providers, and distributing them to its customers under its own brand name.

For the customer orientated bank the *production* of services will predominantly be outsourced to third party providers, which the bank will enter into partnerships with, in order to provide their customers with the most innovative and value bringing services possible. This entails, from the banks side, a belief that the bank itself is incapable of developing high quality financial solutions for its customers, cost-efficiently relative to the services developed by third party providers. The belief centres around the notion that because third party providers often focus on few things, and getting those right, and therefore the services will always be superior to those offered by the bank that was developed in-house. This choice of strategy would expand the use of third party providers and enter into partnerships with these vendors, which in turn would have a direct impact on the cost structure of the bank, as vendor compensation and service acquisition would increase substantially. Furthermore, the operations and processes of the bank would have to be shifted to an external focus, where the bank traditionally has been internally focused as was covered in the analysis.

This would require a change of mind-set and capabilities to effectively manage the use of vendors rather than managing internal resources, which would also increase the need for legal work, as contracts and service level agreements need to be completed in order for the bank to ensure that the necessary quality is delivered by the vendor. As a consequence of the above, the bank would divest its development operations in order to avoid overlap with the development work now undertaken by key development partners, which would reduce the cost for internal resources.

However, as the bank in this case has chosen a customer oriented approach, where the goal is to stay connected with the customers directly, it will focus on *distributing* these services to its customers themselves. Building the brand of the bank will be the new priority, as the bank will need to establish itself firmly in the industry landscape as an innovative value creator, in order to attract and retain customers. Due to the changing external environment, the bank will need to create and/or sustain a strong brand with equally strong services in order to retain customers, as switching cost is being driven down by advances in technology and new directives imposing a certain level of transparency and openness. The consequence of a weak brand will therefore be immediate as customers are no longer deterred from switching bank due to high switching cost, and retainment of customers will be increasingly difficult. Established banks will have the benefit of a certain level of brand capital already being in their possession which they can rely on, and a reputation as a stable and secure bank can go a long way in the financial sector.

Ambidexterity in this business model strategy scenario is operationalised across organisational boundaries, with external parties producing innovative products and services for the bank, whilst the bank itself will capitalise on distribution efficiencies. Through the concept of ambidexterity by Andriopoulos & Lewis (2009) it becomes apparent that the customer orientation of the bank in this case is aimed at a tight coupling where the bank seeks to be close to the customers and provide them with the necessary products that they demand. However, through the development partnerships that the bank would enter into a more loosely coupled relationship at the same time in order to enable innovation through its key partners in order to prosper. As discussed above, the customers' ability to switch services or banks is becoming increasingly easier with new technologies and directives, and the bank therefore need to exceed the expectations of the customers, and go beyond their demand in order to stay ahead of the curve if it is to retain its customer interface. Should the bank fail at this, customers can easily switch part of their services which would directly influence the banks interfacing with the customers negatively.

7.1.3 Developer Oriented Bank

The developer oriented bank pursues a strategy where the focus is on creating high quality services for customers in house, at the expense of the distribution of services to customers intermediated by external parties. The bank therefore believes that the way to prosper is to focus on creating high quality services for customers, while letting third party partners facilitate the customer interaction.

The developer oriented bank will naturally have a strong focus on the *production* of products and services in-house believing that since they know their banking platform the best and the compliance requirements that they need to meet, they are also best suited to develop services for their customers. Therefore, the bank will drive down external development cost as the bank will take on the cost of

developing services, however the bank will need to educate internal resources in order to achieve the necessary level of expertise that is needed in order to develop high quality services. It is imperative for the success of the bank, that the services that are developed are competitive as the value proposition of the bank relies on the delivery of strong competitive services that are tailor made for the bank in question. Furthermore, acquisition of third party providers is another option for the bank to bring in the needed expertise. This will enable the bank to use an existing solutions(s) developed by a promising company and further develop on it internally in order to reach new levels of quality that perhaps could not have been achieved otherwise. This would also enable the bank to bring in human resources that are specialised in financial services development.

As a consequence, the bank would give up the primary interfacing with customers as it would outsource the *distribution* of its services to a third-party provider. The bank would live after the mantra that it is best served with focusing on developing high quality services, and then let others, that are specialised in customer management, interface with the end customers. This will give the bank a twofold relationship, where the first relationship will be an indirect one to the customers. The second one will be a direct relationship to the third-party provider who will be the interface between the bank and the customers. An example here is Lunar Way who through their partnership with Nykredit provide the user interface experience, whereas Nykredit is providing the banking services that Lunar Way offers to customers (Akselsen Interview, 2018). The consequence of this approach is that customers stop identifying themselves with the bank, and lean more to the third-party provider, which in turn requires the bank to sustain a strong relationship with the third-party provider in order to retain the customers. This in turn transform the third-party provider into a customer of the bank, which requires the bank to transform internal capabilities, in order to deal with the changes that it entails from going from a B2C organisation to a B2B organisation. And as the market matures, and more banks enter into partnerships with third party providers that can take over customer interfacing, the need for the bank to meet the needs of its new customers equally increases as the third-party provider has a wider portfolio of bank options to enter into partnerships with.

If the concept of ambidexterity by Andriopoulos & Lewis (2009) is included, it is quite clear that the customer orientation of the bank will move from being a tightly coupled orientation towards a more loosely coupled, as the bank moves towards the indirect relationship with its customers. However, in order to succeed the bank still need to meet goals that are indirectly asked of the bank by the customer, such as stability and security. The third-party provider might be handling the day to day interfacing, however, customers will still (especially in the early stages of this transition) choose third-party providers who are partnered with a stable and secure bank. This intervenes with the chance of success for the bank and its partners, as they both need to fulfil what is asked of them in order to succeed. This requires the bank to focus on the loosely coupled customer orientation, while also leveraging

capabilities that can enhance the indirect brand affiliation to the bank and nurture a more direct customer relationship, also known as tightly coupled customer orientation.

7.1.4 Bank as a Platform (BaaP)

The platform bank seeks neither to excel at owning the development of quality services, nor does it seek to own the direct brand relationship with customers through service distribution. The platform bank prospers by running a lean organisation that excels at the core banking services, and then let both developers and retailers utilise the platform bank as a platform to create value.

The platform banks' ownership over production and distribution of its products and services by nature is limited in scope, to only the core banking services such as compliance, asset management and issue of loans. In reality, this means that third party providers can freely develop services and distribute them and base them upon the banking infrastructure, as the bank itself is not in competition with these services. This approach alters both the cost structure of the bank as well as part of their revenue model. Cost associated with issuing loans will still exist, as the bank is still the issuer, and therefore need to handle the risk associated with issuing loans. It might not be the bank that develop the services through which the loan is offered, but the bank need to accept it as they are taking on the risk. Furthermore, the revenue model of the bank will change as well. The revenue model of the traditional bank was primarily based upon revenue from B2C relationships, however if the bank chooses a platform strategy, then it changes its business model to be indirect B2C and direct B2B. This entails a new customer relationship for the bank, where both developers and retailers become customers of the platform bank, as they are using the banking infrastructure as a platform. Moreover, the platform bank will retain and indirect link to the end customers as they are on boarded onto the bank platform, however, the customers themselves might not be aware of this, or even care, as they are interfacing with the retailer that facilitates distribution of services. This way, the bank has no public brand, and rely on their professional brand to ensure that developers and retailers are interested in entering into partnerships with the platform bank.

The proposed classification presents four overarching business model strategies available to the incumbent retail bank and how its related business model activities and processes impacted by the adopted strategy. In the following section, each quadrant will be presented in terms of their strategic intent and what it demands from ecosystems relations. Thus, the following section will put the business model strategy and operations in perspective to the ecosystem and value chain activities. This will be executed to demonstrate how ambidexterity is achieved for each of the available strategies.

7.2 Impact of Adopted Strategy to Wider Ecosystem

As it was outlined above how the four business model strategy alternatives available to the banks in the future it was specified how it would be affecting the business model activities and processes of the bank. In the following sections, the theoretical frameworks will be applied to the proposed conceptual frameworks as a reference point to understand the wider ecosystem implications of choosing to adopt one of the aforementioned strategies. Based on a similar quadrant structure the following matrix consisting of four quadrants are presented to display the potential future role of the bank in an ecosystem context. By overlaying this framework on the findings from the above section, the different business model strategies a bank can adopt in relation to the wider impact they will have within an ecosystem will be discussed, as well as their relevance to the three overarching drivers: *changing consumer behaviour, technology-driven innovation* and *European regulatory intervention* (Cortet, Rijks, & Nijland, 2016).
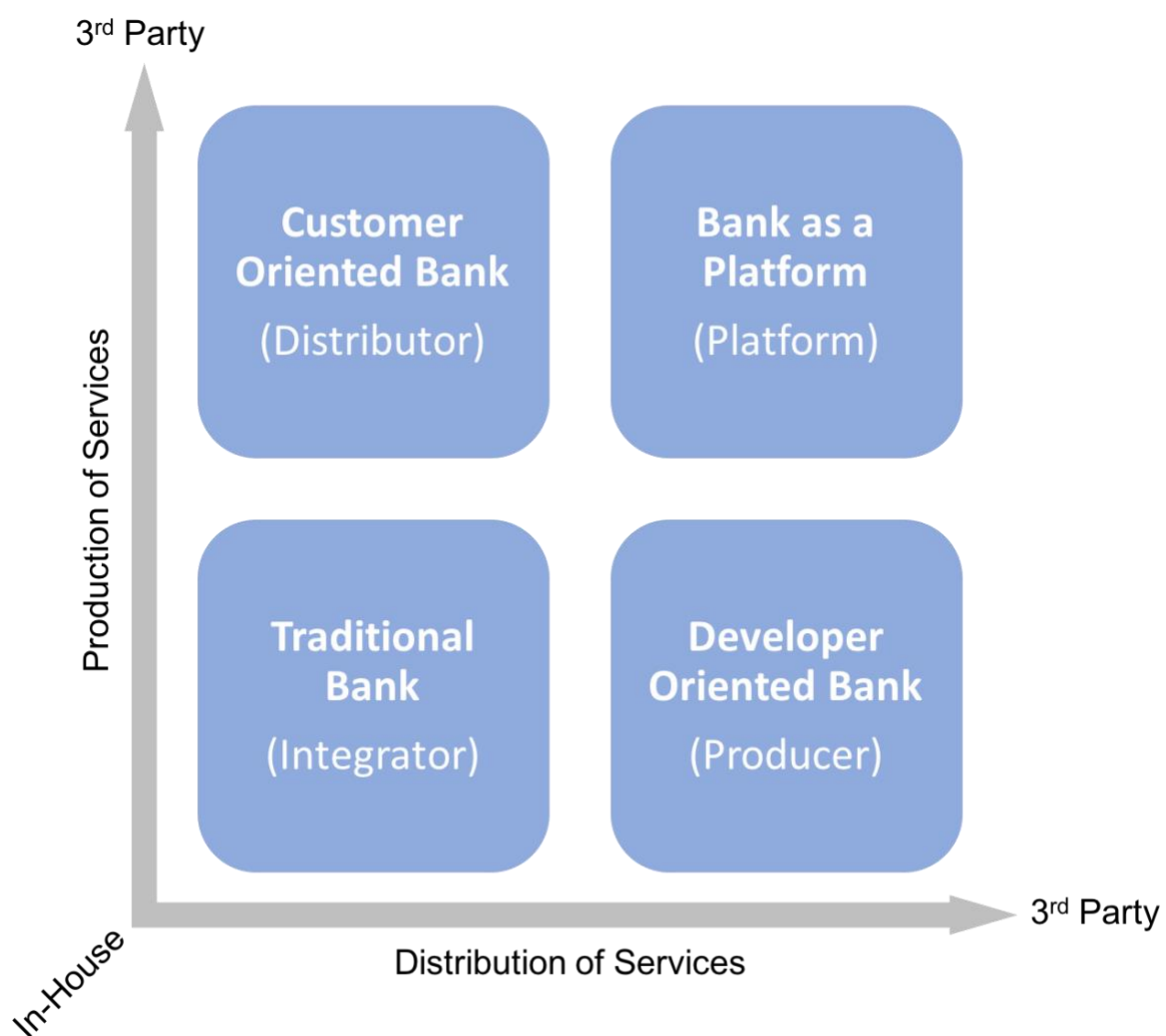

Figure 15 – Business model strategies available to the incumbent retail banks in perspective to ecosystems relations

7.2.1 Integrator

The traditional bank approach takes up the integrator role as this bank strategy seeks to control the entire value chain of the bank, from the product and services creation to its distribution. In terms of impact on the ecosystem, the integrator role is quite straightforward, as it is minimal. As the bank takes on the entire value chain, it enters into no partnerships and does therefore not enter into the ecosystem. This creates an isolated state for the bank where it is in full control of the value chain, and dictate the activities performed herein.

Arguably, the traditional bank internalises the activities needed to produce and distribute products and services into its own ecosystem. Albeit this may appear counterintuitive and isolating for the bank, however, for some of the larger incumbent banks with great capital backing and customer-base this is a viable option, as they have the financial power to develop high-quality services in-house either through internal capability development or through acquisition of third-party providers (Murmann, 2018; Weckesser, 2018). According to experts, it is unlikely that this type of strategy will be widely adopted in the Danish market for financial services, due to the fragmented bank landscape. However, on the international market, banks with a substantially bigger market share exists that have the financial power to develop and sustain an internal ecosystem, which could create value.

Looking at the three primary drivers of digitalisation (changing consumer behaviour, technology-driven innovation, and European regulatory intervention) in context to the Danish market the traditional bank strategy gets challenged. As customers demand more flexibility and higher quality services the middle sized Danish bank could find itself in a situation where it cannot meet this demand as it does not have the resources to develop internal capabilities or acquire externally, and will, therefore, fall short on customer demand. This challenge is further strengthened when new external third-party providers launch products in partnerships with other banks that are in direct competition with the traditional bank, and due to its "isolation" strategy, one of the only ways in which to combat this is to have services that are equal to or succeeds the competition, in terms of value. The last driver, European regulatory intervention does not aid the bank either new regulatory directives such as PSD2 and XS2A are actively working towards greater openness across the financial sector and is, therefore, imposing certain openness requirements on the banks. The traditional bank will, therefore, have to comply with these regulations, effectively countering their strategy. In terms of realising simultaneously effectivisation and innovation gains, all value chain activities are owned and integrated in the business model of one bank, which makes ecosystem relations to external parties non-existing. In the ecosystem for this type of business model strategy only un-related supplementary products and direct competitors exist.

7.2.2 Producer

The developer oriented bank takes up the producer role as the bank is focused on developing products for its customers and less about the distribution of them. The producer is involved in the ecosystem from an upstream point of view, where the bank is supplying the infrastructure and the products while engaging with new partners to distribute them to the end customers. This relationship means that the bank is moving closer towards becoming a B2B partnering organisation than ever before (EBA Working Group, 2016). From an ecosystem approach, this entails that the bank acknowledges that it cannot do everything it needs to for fulfilling customer demands on its own, and has therefore entered into a partnership structure with third-party providers, to fill the gaps of the value chain in which it cannot deliver.

In an ecosystem context, this entails that the bank takes up an upstream value chain role, where it becomes a supplier of services that will reach the customers through an intermediary, which effectively disintermediates the bank from the customers, even though the customers still might be customers at the bank. As outlined in the analysis, this disintermediation can have the consequence that the bank loses brand affiliation with its customers as third-party providers take over the customer contact. This requires the bank to place a great deal of trust in the ecosystem, as over the time the bank will lose brand value and rely on the intermediaries to successfully deliver the banks services to customers, in order for the bank to prosper as and upstream vendor. This places the bank as a niche player (Iansiti & Levien, 2014), as it starts to rely on the services delivered by others in the ecosystem in order to differentiate itself. However, depending on the amount of services that the bank provides in terms of banking infrastructure (infrastructure that needs to be in place in order for the financial services to operate) it can be argued that the bank will function as a keystone as well. This is based on the fact that the ecosystem could not prosper without this foundation in place.

Customer behaviours are changing which has brought with it a greater demand towards flexibility and higher quality from an end-user perspective. By focusing on developing financial services that meet these demands, the traditional bank is addressing the change in environment, while sacrificing customer interfacing by allowing third party providers to distribute these services to customers. However, it is a trade-off that the bank makes in order to be able to fully focus on creating high quality financial services. Furthermore, by outsourcing its distribution, the bank can hope to reach a segment, that they were not able to before, by utilising a distributor brand that different customers identify themselves with. Additionally, as *technology driven innovations* emerge, it becomes increasingly important for the bank to differentiate itself as an innovator in order to retain and attract customers, and the producer bank has fully embraced this by gearing the organisation towards production of financial services, at the expense of direct customer contact, and therefore need to rely on the ecosystem that it has entered into. Finally, *European regulatory interventions* support the ecosystem creation through directives such

as PSD2 and XS2A, and therefore support the bank in its strategy. However, through the producer role, the bank is now not only in competition with other bank, but also with other production third party providers, and these can through the ecosystem and the European directives leverage the data that is mandated to be available.

7.2.3 Distributor

The customer-oriented bank will take up the distributor role as the bank give up financial product development and focus on the distribution of services to its customers. This entails that the bank gives up upstream activities in the value chain that it submits to third party providers instead. By this approach the distributor bank enters into an ecosystem where the bank itself is a customer in a B2B relationship, where it acquires services that it can intermediate to its customer base. It is important to stress that the bank does not give up its core banking services, and remains the institution of deposits and issuing of loans, it just ceases to focus on developing financial services that surround their core banking services (Cortet, Rijks, & Nijland, 2016; EBA Working Group, 2016).

From an ecosystem point of view, the bank is expected to excel at maintaining a strong brand and sustain customer relationships, in order to sell financial services. The more the bank succeeds at this, the more attractive it makes itself within the ecosystem. As previously specified, the incumbent retail bank has the advantage of already established channels to its customers, and therefore has the option to make the change of strategy seamless for their customers, and solely spin it to a success story where the customer wins, without having to change in any way. Furthermore, the bank relies heavily on its ability of third party providers to deliver the demand from its customers, as the bank does not control this aspect any longer. Partnerships with third-party providers in the most common solution as outlined in the analysis, and enable the bank to focus on the distribution, as long as the delivered products live up to customer expectations. This places the bank as a niche player (Iansiti & Levien, 2014) within the ecosystem as it is leveraging services created by others in the ecosystem in order to deliver value to its customers. It cannot, however, be overlooked that the bank will retain keystone capabilities in terms of the infrastructure that it is delivering (Iansiti & Levien, 2014).

Additionally, when drawing upon the three drivers it become apparent, as with the producer, that this shift is a reaction to the *changing customer behaviour* forcing the bank to choose what to focus on. In this case the bank chose the distributor role as opposed to the above section, and in many ways the producer and distributor are similar, with the only difference being that they chose another part of the existing business model to focus on. This is supported by the *technology driven innovation*, where new emergent technologies play a bigger part in creating value for customers, and furthermore, also requires more resources and capabilities from the bank in order to be developed, forcing the bank to narrow its scope, and enter into an ecosystem where different actors can complement each other in order to create

new levels of value. All of this is supported by *European regulatory intervention* when directives are adopted that encourage open banking and ecosystem creation.

7.2.4 Platform

The bank as a platform takes up the platform role, where the bank functions as a mediator between third parties, both producers, and distributors (Cortet, Rijks, & Nijland, 2016; EBA Working Group, 2016). By choosing to be a platform bank, the bank place total reliance on the ecosystem that it enters into, both in terms of producers of financial services and distributors of them. The bank has chosen to focus solely on providing core banking services such as deposits of assets and issuing loans but does not have any direct customer interaction. The customer for the platform bank is third-party providers (either upstream or downstream) that carry customers with them, who are utilizing the bank platform. The bank, therefore, has no end customer brand value, as private customers will not associate them with a bank since all their interfacing is done with one or more third-party providers. The purpose of the bank, therefore, moves towards being a mediator that is facilitating the completion of services between different parties. In other words, the bank provides the banking platform on which other parties can create and distribute service. The bank creates a foundation that is heavily regulated and require substantial financial capital, so others can use it to create value for customer. The value proposition is to create a competitive platform that is easily adopted by third-party providers through APIs. This foundation places the bank as a keystone within the ecosystem, as the mission of the bank is to provide a platform (foundational infrastructure) for others to prosper on (Iansiti & Levien, 2014). In this case the bank creates the necessary infrastructure for others to create financial services on, and hereby making the success of the ecosystem, the success of the bank.

When including the three drivers, it became apparent that the *changing customer behaviour* and *technology-driven innovation* support this business model. Since customers require more flexible services with higher demand to the technological capabilities of the service, while switching cost decreases, customer may want to pick and choose the services that they desire from a multitude of suppliers, which the bank might not be able to equally supply or distribute. As a consequence, the bank adapts to a leaner organisation, where it can focus on what it does best: secure and compliant core banking services. Finally, the *European regulatory intervention* further supports this as directives are being adopted, mandating greater openness from the bank, effectively supporting the platform model, and the use of APIs.

7.3 Implications and Required Actions for the Bank

In the investigation of how the business model strategy of the traditional bank may be impacted by key digitalisation drivers in the financial industry, four alternative ways in which the business model strategy of the traditional bank may be transformed is identified, which makes two significant implications emerge, which should be recognised.

In the above sections, some of the main impacts of digitalisation on the business model strategy of the traditional bank has been specified and, as a result, as two-by-two matrix of respectively the traditional bank business model strategy transformation and the consequential role in the ecosystem has been presented. Hence, four strategic alternatives available to the traditional banks, depending on their level of transformation of business model strategy and related activities, have been identified and represented as quadrants in the above matrices. The business model strategy of any firm, and in particular the banks, is the way in which to gain and sustain competitive advantage in a market place. As depicted in the presented matrices, this can for the traditional bank be endeavoured through adoption of one of four strategies, each presenting ways in which to compete ambidextrously through different business model constellations. Each business model strategy, thus, may be regarded as an expression of how to conceive "strategic flexibility", in order generate the necessary dynamic capabilities to continuously morph. Firms morph "as a means to pursue competitive advantage" in frequently shifting competitive conditions (Rindova & Kotha, 2001, p. 1264).

Independently of which one of the four business model strategies being adopted by the traditional banks in Denmark, and their transformational capacity to pursue it, continuous morphing is a prerequisite for survival and even more so for competitive advantage (Rindova & Kotha, 2001). For firms to effectively generate the ability to engage in the process of continuous morphing, they must look to the dynamic capabilities and strategic flexibility, as it is only effectively accomplished through significant changes in *form* and *function (*Rindova & Kotha, 2001*)*. Changes in form for the traditional banks resemble the ability to reconfigure resources, capabilities and structures opposed to functional alterations, which regards the resulting changes in the portfolio of products and services being offered (Rindova & Kotha, 2001). It is acknowledged, however, that albeit continuous morphing being a prerequisite for competitive advantage, the business model constellation towards dynamic capabilities and strategic flexibility may differ, leaving behind some business model strategies predominantly geared towards reliance on functional alterations whilst others on formational. Based on the empirical findings and presentation of a conceptual framework for business model strategies of the traditional bank, due to increased digitalisation and distinct drivers for such in the financial sector, two predominant requirements for the traditional bank emerges, independently of the chosen business model strategy, in

order for them to be able to continuously morph. Specifically, these relate to the products being offered by the traditional banks and the ecosystem orientation. These will be described in detail below.

7.3.1 Ecosystem Orientation

One of the profound insights from the empirical evidence is that traditional banks need to orient themselves externally through a reliance on market dynamics by lending themselves to ecosystem demands, in order to compete effectively (Clemons et al., 1993). Regardless of choice of business model to operate under, the banks of tomorrow need to live up to higher demands that is imposed on them by both customers and governmental institutions. This requires a certain level of participation into the ecosystem that is surrounding banks naturally. The ecosystem demonstrates how players in an industry can simultaneously cooperate and compete, and how the banks may e.g. "*cooperate at the level of cloud infrastructure and the capabilities that it offers so they can achieve economies of scale, and they compete at the level of the services enabled by these capabilities*" (Eaton et al., 2014 p. 224).

Furthermore, the need for continuous morphing is evident, as no data indicates that the increasing amount of demands imposed on the bank is about to diminish in the near future. The reconfiguration of the traditional banks' form aims at generating dynamic capabilities enabling strategic flexibility, to support rapid changes in strategy required to compete in uncertain environment, and continuously morph (Rindova & Kotha, 2001). Hence, the business model strategy for ambidexterity by the incumbent banks are moving away from being intra-organisationally accomplished into being one achieved by a combination of a multitude of internal and external partners throughout the ecosystem value chain. Even in the 'lowest' levels of business model transformations, as seen in figure 15 (the bank as an integrator), compliance to external demands from European regulations is one way of adaptively morphing the business model to include data and infrastructure to compete in the marketplace. Further to this, external orientations regarding customers, demands that the bank has to transform its ways of working to achieve better personalization of services and providing these digitally.

7.3.2 Generativity in Products and Services Portfolio

Another profound finding from the empirical evidence that was deemed relevant, independently of the business model strategy being adopted regards product generativity as a prerequisite for generating dynamic capabilities enabling continuous morphing. As the incumbent retail bank, traditionally has been characterised by full-service provisioning, empirical evidence suggests that the traditional banks will be required, to some extent, to increase their generative capacity (Avital and Te'eni 2009). As explained, this is prevalent even in the business model strategy scenarios where banks will largely continue to function as closed ecosystems as the European regulations, as one example, are demanding data-as-a-bank-product formatted to allow for ex-post ordering and links to other data and infrastructures, thus making it orderable and linkable (Marton, Avital & Jensen, 2013). It appears that product agnostic components are a prerequisite, as banks need to continuously morph to be compliant.

Generativity in products and services portfolio components design is needed to enable the creation of unique products and services constellations, bundling and for inter organisational compatibility (Sylvest, interview, 2018). This allows for greater ability to compete on digital innovations, serve customers better and adhere to European regulations regarding open banking. Thus, continuous morphing is achieved through the strategic flexibility being provided by generativity in products, a need that has arisen from the three key drivers of digitalisation in the financial industry.

This requires loose coupling between its various service portfolio components, which implies that the banks cannot simply develop customized solutions for each customer they are facing (Andriopoulos & Lewis, 2009). This would also follow due to the need for product agnostic components, where the shift towards open banking requires somewhat of a detachment to the specific context in which data is generated for, so that it may be used generally by all customers through endless combinations and recombination (Andriopoulos & Lewis, 2009). In conclusion, the Open banking initiatives demands a loose-coupling towards customers with data that is open and linkable to ensure that the same data can simultaneously be used for multiple products. Speaking about the banks in terms of their strategic intent to be ambidextrous, however, there is an increased focus on more customized applications of the basic data, driving personalized, relevant products and, hence, interoperability as a consequence/product.

In the remaining three quadrants within the proposed classification, this requirement goes beyond simply that of the data integration and infrastructure (service) level of the traditional banks and further includes generativity transformations to happen across the entire service portfolio level from production to distribution. As all banking products, historically has been tightly coupled by the individual banks to best possibly ensure customer lock-in and providing full-service portfolio benefits (of scope), interoperability is to be achieved through inter-organisational relations in the future open ecosystems. This demands products and services being more loosely coupled to the individual incumbent banks own products base, to ensure generative capacity and, consequently, enable their products and services to partake in ecosystem and a diversity of value chain relations (Sylvest, Interview, 2018; ecosystem article). Hence, independently of the business model strategy being adopted by the traditional incumbent banks, product agnostic components will be a prerequisite to ensure generative capacity allowing for continuous morphing to take place at an inter organisational level based on ecosystem relations, in order to effectively being able to provide customers with products highly personalized, unique and, thus, tightly coupled to their preferences (Andriopoulos & Lewis, 2009). The transition from tightly coupled products, and intra-organisational interoperability of products, into generativity in products for a variety of combinations and recombinations in open ecosystems is depicted in the illustration (figure 15) below.
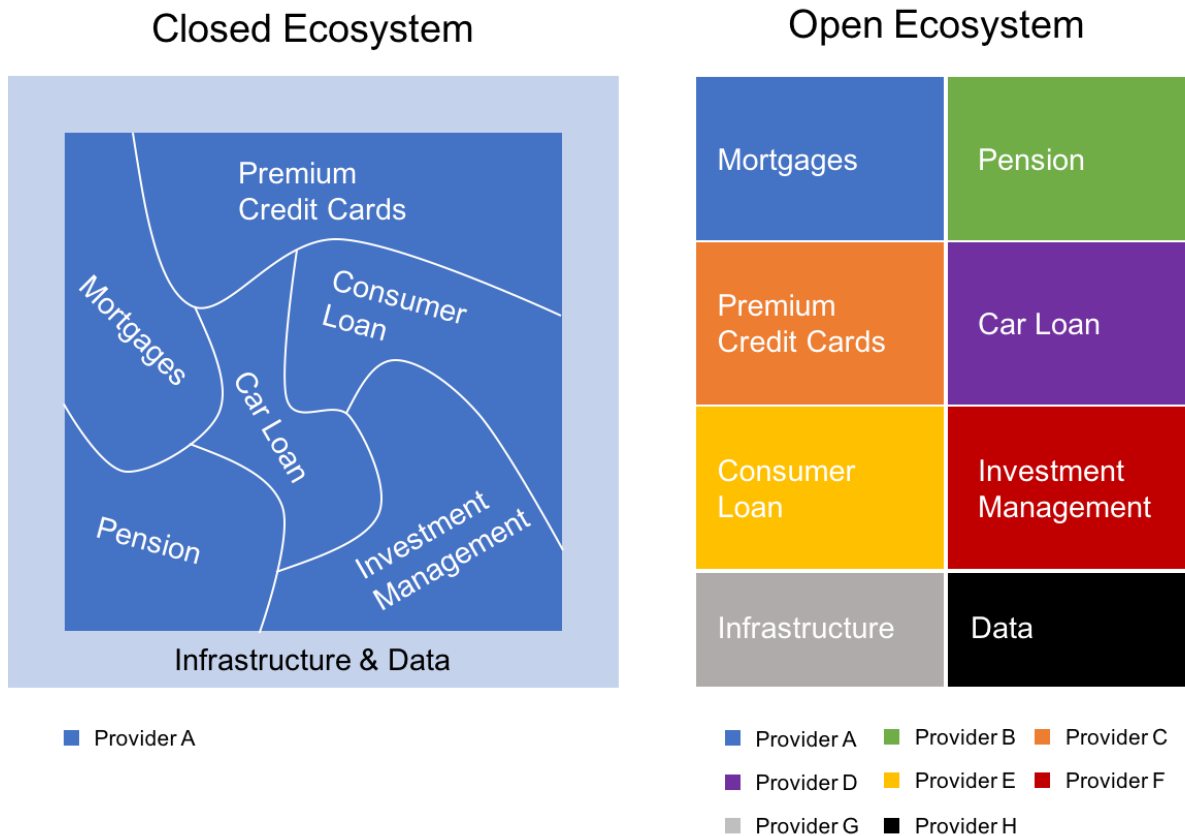
Figure 16 - Closed Ecosystem vs Open Ecosystem

7.4 Implications for Practice

This thesis, through an explorative research approach, relying on a qualitative interview-based method, aimed to identify the current and future scenario business model strategy of incumbent traditional banks in Denmark, as these are impacted by increased digitalisation and key drivers in the industry. This resulted in bringing forward a broad conceptual framework for the business model strategies available to that of the incumbent traditional banks. As this led to (1) a classification of the available business model strategies, and subsequently (2) a specification of the pre-requisite for the banks to adopt either one of the four proposed models, this contributes to practice by pointing out the overarching strategic options available as well as what is required for practitioners to accomplish either one of these setups. Hence, this research identifies implications for practice such as pointing out the key digital innovation drivers impacting the financial services industry and the practical implications for the business model strategies available for these to gain and sustain competitive advantage in an ever-changing market place. This is represented through a classification of the specific strategic options available to that of the incumbent traditional banks and the pre-requisites to be established to do so.

In the context that the Open Banking initiative demanded a minimum level of transitioning for the traditional bank business model strategy, spanning a multitude of production and distribution layers and heterogeneous data contributors, the business model strategies become nested in the ongoing practice

of strategizing instead of simply being the resource to support a strategy. Specifically, this means that instead of controlling, allocating and coordinating the "correct" data, production and distribution activities to form the basis of a strategy, the practitioners should instead focus on acting as facilitators creating the right conditions for a multitude of actors to obtain and use the infrastructure, data, and general products and services. Hence, practitioners have to make data available for autonomous actors in the external environment, in order for those to develop new products. This gives the traditional bank a new role; not simply allowing for effective management of data and other products within organisational boundaries, but also to enable its use outside of organisational boundaries.

The move towards Open Banking has implications for the corporate IT infrastructure and how data is managed. This means that the practitioners need to both focus on standardised procedures and centralised governance to enable coupling between the layers of production and distribution and to cope with the heterogeneity of data sources that are needed to enable innovation. This especially is prevalent for those practitioners seeking benefits of platform-based competition, as it is seen in the production-oriented and distribution-oriented business model strategies. In this position, practitioners need to be actively aware of the needs of the platform, as opposed to needs of the individual customers, and instead actively drive the needed activities, whether this be differentiation, integration, or any number of the tensions, as identified throughout the findings. This highlights the pivotal role, that management of data and information play in this type of organisational arrangement.

This conceptual framework grants managers and strategist a reference from which our theoretical contributions provide implications for its practical applications. One potential implication to its practical application is that findings are based on a broad generalisation, based on primary commonalities across the incumbent traditional banks in Denmark, which makes the framework stand out as a guiding principle rather than a complete recipe. The conceptual framework, hence, outlines potential opportunities available to the traditional bank, however, it is neglecting the detailed context of each individual traditional bank albeit it is recognised that this is a fact.

As the research was conducted to solve a specific problem, practical benefits associated with the solution of the problem was highlighted throughout the paper, consequently making the practical implications of our research related to assisting businesses aiming to enter or compete in the market for financial services to do more informed decision making. This applies directly to those managing the strategic directions for incumbent traditional banks but may further be expanded to include any participant who needs to understand the dynamics of banks and the market place on a broader base to participate and compete.

7.5 Contributions to Theory

The research contributes to the elimination of an identified gap in the current landscape of academic literature on the topic of business model strategy for incumbent traditional banks in the European market place for financial services. Hence, an elimination of this gap in the existing pool of literature is one of the compulsory focal points for the study. While a vast and varied amount of literature have been previously conducted to study various aspects of digitalisation, digital technologies and distinct impacts on aspects of traditional banks business model activities, the selected research topic is far from being exhausted as a research area. Specifically, this contributes to new studies being conducted in the area of business model strategies, to analyse the impacts of key digitalisation drivers, as defined by the three overarching drivers related to consumer behaviours, technologically-driven innovations and European regulations. Thus, this research builds on the existing literary landscape and domains addressing key aspects of the research object, providing further insights and directions for new research to be built on the topic.

The thesis contributes to research by introducing a conceptual framework from which researchers can further investigate the selected research objective to verify and falsify the findings indicated throughout this paper. The conceptual framework provides a reference point and initial insights to be further investigated. Due to the nature of this being an explorative research study approach, the conceptual framework is one of which others can test and build from on different traditional banks, thus serving as a contribution to the under-researched field of our research objective.

In line with the nature of our research objective being explorative, due to the related research domain insufficiently addressing the direct impacts of key digitalisation drivers on business model strategy of the incumbent traditional banks, this research intends merely to explore the research questions put forward rather than to offer final and conclusive solutions, studying an objective that has not been clearly defined yet. Hence, this research is conducted in order to determine the nature of the problem, and to aid in providing a better understanding of the research problem in the landscape of academic literature. As this research has aimed at tackling somewhat of a problem space on which little to none previous academic research has been done, this research contributes to the current literary domains and fields by forming the basis of directing more conclusive research to be conducted by the authors themselves or other authors in the future.

7.6 Delimitation of the Classification

Based on the empirical evidence of historical transformations, current business models, dominating drivers and expert opinions, we are proposing a (somewhat) generic classification of business model transformations, their role in the ecosystem, and what will be the value proposition(s). This is based on

a combination of theory, expert opinions and the empirical data on the historical development of the traditional banks' business model as well as the dynamics and trends already observed in the industry. Hence, what the future will bring remains unknown, the classifications simply serve as an overarching framework for the business model developments and ecosystems participation that are likely to be adopted by the traditional banks, given the aforementioned conditions. Also, we acknowledge that banks business models may, across their products and services portfolio take on different roles (and strategies) in different ecosystems and value chains.

7.7 Methodological Considerations

As this research has adopted a methodological research philosophy simultaneously believing that there is a reality *"independent of the mind",* assuming structural similarities, but also that us as researchers are only able to understand what is going on in the social world, if the social structures giving rise to the investigated phenomena are understood (Saunders et al., 2009, p. 114). This research, thus, assumes that social worlds may be largely similar and that generalisations may be made across organisational settings. The way in which to investigate a research phenomenon, however, may be reliant on a deeper understanding into phenomenology of the particulars, due to the complexity of any situation and perceptions around it being lost if simply reduced to generalisations (Saunders et al., 2009).

In practice, this led to our empirical data being primary qualitative data, predominantly collected through semi-structured qualitative interview with participants in the industry. As the resulting product of this explorative research is to generate a generic classification to be applicable for all incumbent banks in the Danish financial market, the number of selected participants and approach with data that has been gathered, may have created implications for the findings. Other approaches with regards to data collection and the target participant group could have been embraced, also potentially influencing the results of the paper. Hence, the number of selected participants and expert opinions in the primary data collection could introduce methodological constraints, albeit being in line with approaches relevant to explorative research studies. It should be recognised, we could have produced different results from other methodological approaches, whilst still adhering to the research question. As previously stated, this could be based on alternative approaches or expansion in data collection and analysis. It could furthermore be the case, when working largely within social constructivism as an interpretivist, that the analysis will always be a matter of subjectivism. This may be present at the level of collection from a semi structured interview and with a purpose to illuminate perceptions of the particulars in a given situation, but also as it arguably requires an extra layer of subjectivism from the researchers. This subjectivism has, however, been reduced due to our structured coding approach.

Overall, it should be recognised that our data collection is somewhat subjectivist in nature, whilst we are generating a generic conceptual framework, which means we could have relied on other types of data, scopes and scale of data collection and analysis, in order to accommodate some of the methodological limitations of this paper. For future research on this paper, it would be recommended that researchers adopt a more structured research approach and rely on multi-methods, as this may be more appropriate for fully exploring the selected research question.

8 Conclusion

Historically, the financial industry for banking services has been undergoing significant changes. Even more so, technology-driven innovations have caused more rapidly changing industry dynamics, due to increased digitalisation adopted by incumbent bank institutions, consumers, and different legislations demanded by European regulative institutions. Specifically, as a consequence, practice shows that the financial sector and the traditional retail bank immensely is being impacted by increased digitalisation, driven by the external environment. Technology is enabling start-up companies to enter the marketplace, and provide services substituting and/or complimenting that of the incumbent retail banks. In addition to this, the newly implemented European PSD2 legislation with its related XS2A initiative, demands retail banks to partake in Open Banking prescribing a minimum level of data provisioning, allowing for third parties and competitors to access key banking data. This already is changing the incumbent banks monopolistic positioning by altering their strategic product offerings and services portfolio. Furthermore, new dominant players are showing an interest in the financial services industry, such as established companies like GAFA showing an interest in initiating their own payment services, effectively forcing the incumbent retail banks to reconsider their business model strategy in order to gain and/or sustain competitive advantage. As the financial industry is undergoing such dramatic changes caused by new regulations and increased adoption of digital technological innovations, how the traditional bank should appropriate its business model strategy to adapt and compete in the new reality drove the motivation for this research. In surveying the literary fields related to digitalisation in the financial industry and, in particular, the incumbent retail banks in Denmark, it was found that vast amounts of academic literature are effectively addressing the impacts on processes, competitive landscape, product offerings and distinct aspects of the retail banking business. However, a gap in the literature was identified regarding the direct impact of digitalisation on the incumbent retail banks' business model strategy. This led to the overarching research question of how the business model strategy of the traditional bank is impacted by increased digitalisation in the financial sector.

Drawing on concepts from literature on digitalisation in the banking sector, this research sought to gain insight into the pitfalls of current literature failing to discourse specifically the impacts of digitalisation on the business model strategy of the incumbent retail banks, in this research termed "traditional banks". Through an explorative qualitative interview-based study approach, this research proposes a conceptual framework for the transformation of the business model strategies available to the Danish incumbent retail banks as they are impacted by key digitisation drivers in the European financial sector. Primary empirical data has been collected to explore the research question and bring forward the conceptual framework.

Based on the findings identified in the literature review, three overarching theoretical conceptualisations stood out as significantly appropriate for investigating the research question. Hence, the empirical data was analysed using the theoretical conceptualisations of respectively Andrioupoulos and Lewis (2009), Osterwalder, Pigneur & Clark (2010), and Iansiti and Levien (2014) in combination as this enabled analysing the business model, strategic intent, and industry dynamics of the incumbent retail bank in Denmark altogether, allowing a greater level of comprehensiveness for exploring the research question and providing representational findings for this. Thus, the complimentary design allowed for exploration of several key aspects influencing the business model strategy of the traditional bank. The initial insights from the findings showed that three overarching drivers of digitalisation, and two distinct dynamics of digitalisation in the industry already has, and further will be, changing the business model strategy of the incumbent retail banks in the Danish sector for financial services. The findings indicate that the basic value proposition towards its customer base will not change dramatically. However, the way in which this will be achieved may be highly impacted by the changing dynamics of the industry, making the incumbent retail banks' direct customer segment the third-party providers and the current customer base their indirect customer segment. Hence, an increased disintermediation of the traditional bank in the direct customer interface activities is observed. This implies that the basic value proposition will not change, however, the way in which value is produced and delivered, will move from intra-organisationally driven to inter-organisationally driven.

In addition to this, this thesis expects greater ecosystem participation, less monopoly on banking services, and disintermediation of the traditional banks as some of the key dynamics of digitalisation effectively impacting the business model strategy and subsequently the value proposition of the incumbent retail banks. For the incumbent retail banks this entails moving from creating, owning and distributing themselves their services and products into a future scenario prescribing more coopetition in upstream and downstream value chain activities. This further produced insights into a shift in business model strategy, where dual strategic intent geared towards an ambidextrous mode of balancing simultaneously efficiency (exploitation) and innovation (exploration), moving from this being operationalised intra-organisationally into occurring across organisational boundaries. Albeit, this

produces increasingly loose coupling on the direct customer relationship, it arguably produces increasingly tightly coupled unique customer product solutions.

In addition to this, findings revealed four greater areas of transformation for the business model components, activities, and processes. These implies that: (1) data will become ever more of a strategic resource for exploitation and exploration, changing simultaneously the form and function of the traditional bank business model. (2) The traditional bank will, to some extent, be allowed banking as a platform strategy, moving away from fully controlled production and distribution. (3) The customer loyalty and brand affiliation towards the traditional banks may be declining due to the identified dynamics. (4) The industry structure will change to be increasingly geared towards being built around ecosystem relations, cooperation and new value chain constellations further providing new streams of revenue.

Our framework, inferred from academic literature, as it was used to analyse the empirical data enabled us to bring forward a conceptual framework for, how business model strategy of the incumbent retail banks will be impacted, resulting in a classification along the dimensions of production and distribution of products and services and what this means for the traditional bank in terms of ecosystem relations and industry dynamics. This allowed us to identify four overarching business model strategy alternatives available to the incumbent retail banks, if they are to still partake in the marketplace. The classification is presented as a two-by-two matrix along the lines of respectively production and distribution, put in perspective to the industry dynamics and ecosystem relations. In conclusion, this provided the foundation for two overarching alterations serving as prerequisites for adopting either one of the four business model strategy quadrants as presented in the matrix, being that of external orientation and generative capacity in product portfolio offerings.

9 Appendices

Appendix 1 – Table of Interview Transcriptions found on USB Drive

Interviewee	Date of Interview
Sebastian Akselsen, Lunar Way	29/01/2018
Christian V. Larsen, New Banking	02/02/2018
Rune Mai, Spiir	29/01/2018
Frederik Murmann, LendMe	06/03/2018
Kasper Sylvest, Danske Bank	23/02/2018
Niklas Weckesser, Copenhagen Fintech	19/02/2018

Appendix 2 – Please Find Thesis Contract on USB

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