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Transforming PSD2 from a threat into an opportunity for
Nordea

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*“Banking is necessary;
banks are not”*

Bill Gates, 1990

Summary

The revised payment services directive (PSD2) is a disruptive piece of legislation set to remove incumbent banks monopoly on customer account information and payment services. Along with the EU's General Data Protection Regulation, PSD2 compels banks to make much of their valuable data shareable with designated third parties, allowing new players to enter the market.

The main objective of this papers is to shed light on how the directive affects Nordea Bank from a strategic perspective. The specific research questions the study addresses are what the implications of PSD2 are for Nordea, and what strategy Nordea should pursue to maintain a sustainable competitive advantage.

In our largely qualitative research, we gathered primary source information from legislative drafts, an interview with a Nordea-spokesperson, and from official statements by Nordea. Secondary sources like industry white-papers and strategic management literature were also extensively used.

To tackle the research questions the study considers the implications of PSD2 for Nordea, conducts an external and internal analysis of the company regarding PSD2, and explores strategic options Nordea can pursue to respond to the new directive. The analysis results in three strategic options; Defensive, Opportunistic and Transformative. The key differentiating point between these is the degree of commitment to Open Banking, Defensive being full rejection and Transformative being full commitment, Opportunistic falling somewhere in the middle. These strategic options are in turn evaluated based on certain criteria. We dismiss the Defensive approach, as we believe a full rejection of Open Banking would cause Nordea to quickly fall behind its present and incoming competitors. Taking into consideration long-term sustainability, a changing competitive landscape, and the companies capabilities and resources we perceive a Transformative approach to be the best option for Nordea.

Preface

Economic growth in the well-developed countries of today is to a large degree driven by improvements in Information Technology. As free markets have won out as the way to organize economies, incumbent monopolists have been disrupted by firms wielding new innovations, sometimes at the aid of governments. One of the last industries to be truly revolutionized by new information technologies, is the financial industry.

Banks are all about avoiding unnecessary risk and creating stable profits.

Therefore, they have compounded new technologies on top of old ones throughout history, creating complicated legacy systems. The internet has over time technically enabled other organizational entities to perform banking tasks, but they have been hindered by legal barriers.

Europe has a long and proud history of banking, with some banks having been run continuously since the middle of the second millennium. Although there have been great economic benefits to these traditional, trusted connections between European banks and the societies from which they were born, this has left the European financial industry fragmented, especially in comparison to its American and emerging Chinese counterparts.

Financial technology innovations are best described as *technology-push innovations* as opposed to *market-pull innovations*, meaning that they are not demanded by the consumers. On the contrary, they must be pushed onto the market by innovators. The problem with this is that banks have low incentives to take risks, which is truer than ever in the aftermath of the 2008 financial crisis, with consumers and governments worldwide demanding less risky behaviour from banks. There is a conflict of interest hindering progress here. Banks are expected to minimize risk, but also push innovations onto the market, which is inherently risky. The European Union is aware of this, and has been taking regulatory action to resolve this for quite some time. This has been done in the form of the Payment Services Directives 1 and 2.

Abbreviations

AISP	Account Information Service Provider
API	Application Programming Interface
ASPSP	Account Service Payment Service Provider
CI	Credit Institutions
EBA	European Banking Authority
EEA	European Economic Area
EMI	Electronic Money Institutions
EU	European Union
PI	Payment Institutions
PISP	Payment Institution Service Provider
PSD	Payment Service Directive
PSD2	Revised Payment Service Directive
PSP	Payment Service Provider
RTS	Regulatory Technical Standards
SCA	Strong Customer Authentication
SEPA	Single Euro Payment Area
TRA	Transactional Risk-Analysis
TTP	Third Party Provider
XS2A	Access to Account

1.0 Introduction

The financial industry is facing a radical change with the introduction of the *Revised Payment Services Directive*, hereinafter referred to as PSD2. The directive forces all banks that hold payment accounts to facilitate third-party access to customers' accounts for the purpose of consolidating account information and making payments. The changes will usher in a new era of customer control, forcing banks to allow third parties to access their customer data, effectively leveling the playing field in financial services. To showcase how PSD2 impacts incumbent banks, this paper takes shape of a case study of Nordea Bank. The study focuses on Nordea because of their multinational profile and broad range of viable strategic options in relation to the directive. An obvious threat for Nordea is one of disintermediation, where financial technology companies (FinTechs) hold the customer relationship and Nordea simply serves as a utility, providing necessary infrastructure. Conversely, there is also massive opportunity for Nordea to turn the directive into a competitive advantage by rethinking how the organization uses data and how that affects their business.

Research Problem and Objectives

The main objective of our paper to shed light on how PSD2 affects Nordea. We aim to explore and analyze which implications PSD2 will have for Nordea and identify Nordea's relevant strengths and weaknesses in relation to the upcoming directive. Further, we present the most significant opportunities and threats the changes constitute for Nordea, as well as discuss how Nordea's unique strengths and weaknesses affect their ability to seize and mitigate the respective identified opportunities and threats. In the final chapter, we will bundle these strategic actions into three distinct Strategic Options, characterized by various levels of commitment to *Open Banking*. Lastly, we evaluate these options and their implications against each other based on certain criteria, and present our opinion on which option Nordea should pursue. The specific research questions of this study are thus as follows:

- 1) What are the implications of PSD2 for Nordea?
- 2) What strategy should Nordea pursue to maintain a sustainable competitive advantage?

Scope of the Study

In this study, we limit the scope of our analysis to Nordea, primarily describing and discussing how PSD2 will affect the bank in the strategic dimension. The paper does discuss some compliance aspects of PSD2, but mainly focuses on the strategic implications for Nordea going forward as well as how PSD2 will affect strategic positioning in relation to other post-PSD2 players in the banking industry.

Research Methods

This thesis contains a literature study and qualitative research techniques. The literature study focuses on official payment services directive documents, industry white papers, and strategic management literature. Qualitative research was conducted in the form of an interview with a senior business developer at Nordea's Open Banking function, as well as participation at an industry workshop with representatives from Finanstilsynet, Nordea, and BankID. Information exchanges have also been made with other industry experts, particularly authors of prominent white-papers relating to PSD2 and Open Banking.

Structure of the Report

The thesis follows a structure that first introduces PSD1 and PSD2 in Chapter 2, with the goal of providing a contextual understanding of the revised directive. Next, Chapter 3 provides insight on strategic management literature, presenting the theories and frameworks serving as the basis of our analysis. The methodology is introduced in Chapter 4, and in Chapter 5 an analysis of Nordea in light of PSD2 and strategic management theories is conducted. Chapter 6 presents strategic options Nordea may pursue in relation to PSD2 and Open Banking. Our recommendations are presented in Chapter 6, which aims to discuss and answer the research questions. To wrap up the paper, we present a nuanced conclusion at the end of Chapter 6.

2.0 Background

This chapter aims to contextualize the thesis and describe the current and upcoming regulatory environment for payment services. It starts with outlining the European Union's payment service guidelines enforced by the first Payment Service Directive. Next, it moves on to explain the upcoming Revised Payment Services Directive, the rationale behind the revised directive and new types of players enabled by the changes. Lastly, it gives an overview of Nordea Bank, their current position, services and innovative outlook.

Payment Services Directives

Payment Service Directive (PSD1)

The *Payment Services Directive* (PSD1), was a European Union directive that became law in 2009. It was written with the intent of integrating financial markets and increasing competition among banks in the EEA (EU + Norway, Iceland and Lichtenstein), unifying rights and obligations of European consumers and suppliers of financial services, as well as fostering innovation in an industry with weak incentives to renew itself. PSD1 was a major initiative by the European Payments Council to achieve the envisioned *Single Euro Payments Area* (SEPA). A project with the purpose of harmonizing the way cashless payments are made in Europe, allowing European consumers, businesses and public administrations to make and receive credit transfers, direct debit payments and card payments under the same basic conditions, making payments within the EU as easy as domestic payments.¹

To accomplish these ambitious goals, PSD1 defined new legal entities, namely Payment Institutions (PIs). Any organization, except those already labelled as *Credit Institutions* (i.e. Banks) or *Electronic Money Institutions* (EMIs), that wished to offer payment services and met certain capital and risk management requirements could apply for authorization as a PI. This exposed payment solutions, one of the banks' major functions and sources of revenue, to competition. PSD1 has been deemed successful in making payments faster, easier and more legally consistent across EU member states, as well as making sure the

PIs are taking necessary financial precautions, considering how they will be providing important everyday functions. However, PSD1 did not sufficiently reduce costs of payments for consumers, nor did it make many new multinational players emerge. The market for payment solutions continued to be dominated by regional banks that spread their new solutions to a couple of neighbour states at best.²

Revised Payment Service Directive (PSD2)

The *Revised Payment Service Directive* (PSD2) was adopted by the European Parliament on 8. October 2015, entered into force in January 2016, and the changes are set to be applicable and thus be in full effect in EU law in early 2018.

At the core of PSD2 is the *access to accounts* proposal (XS2A), which gives authorized third parties other than the customer or bank limited access to the customer's bank accounts, allowing them to check account balance and initiate payments, as well as perform other services at the customer's request. This enables non-banks, like for example Facebook, Google or Amazon to act as *Third Party Providers* (TPPs), allowing them to transfer your money, pay your bills or analyze your spending, while having your money safely placed in your current bank account.

PSD2 widens the scope of the original directive so it covers new types of services that have emerged since PSD1 became law in 2009. The revision intends to advance the initial SEPA agenda by making clarifications and additions to the directive, thus further harmonizing the way payments are made across EEA member states. The European Commission have stated their goals in relation to the directives on their websites, and in the following paragraphs we summarize them as making payments *cheaper*, *safer* and *easier*, and list the initiatives and actions taken to reach the respective goals.

PSD2 makes payments *cheaper*, by harmonizing rules across member states to make cross-border banking more attractive, thus increasing competition and lowering prices. Direct action has also been taken to address high prices by

introducing EU regulation 2015/751 alongside PSD2, which effectively capped interchange fees for consumer debit- and credit cards to maximums of 0.2- and 0.3% respectively, while still allowing individual member states to set them even lower.³

PSD2 makes payments *safer*, by additions and clarifications to the standards and guidelines of the *Regulatory Technical Standards on Strong Customer Authentication and common and secure communication under PSD2* (hereinafter simply referred to as the RTS), the final draft of which was published by the EBA, 23. February 2017.⁴ Aside from XS2A, Strong Customer Authentication (SCA) is one of the most significant parts of the new directive. By *strong* customer authentication, the EBA means *two-step authentication*, which requires customers to authenticate themselves by providing two of the three following pieces of information:

- 1) proof of knowledge (password, pin-code...),
- 2) bodily proof (fingerprint, voice- or face recognition...), or
- 3) proof of possession (cellphone, code chips like the BankID chips in Norway...)

The RTS forces banks to share their authentication mechanism with TPPs, ensuring high safety standards for all services permitted to access large, sensitive datasets relating to the customers.

There will be exemptions from the requirements for SCA though. The rules for these exemptions are where some of the biggest changes have been made from the previous version of the RTS, as value thresholds and concessions for performing transactions without SCA may have large impacts on businesses profitability. Thus, the rules on SCA has been subject to a great deal of organizational lobbying. For a player to be eligible for exemptions to SCA, it must track transactions risk of fraud in real-time using Transactional Risk Analysis, as well as let an independent auditor evaluate their methods and results.

PSD2 makes payments *easier*, by lowering barriers for which kinds of organizations can initiate payments on the user's behalf, effectively cutting out an intermediary in many transactions. Due to the nature of the newly enabled TPPs,

like for example big technology companies (BigTechs), we will likely see at least some incremental innovations improving how payments are made, making payments easier.

The main difference between PSD1 and PSD2 is that the revised directive widens the scope of the directive by covering new services and players, extending the area of existing services and enabling their access to payment accounts. The directive provides the legal basis for the creation of an EU-wide single market for payment services. This empowers citizens and businesses to make cross-border payments safely and easily, and with the same charges as domestic payments.

New types of legal entities

The main purpose of PSD2 is to encourage new players to enter the market by opening up access to bank accounts to third parties for the purpose of consolidating account information and making payments. These TPPs are divided into two types:

1. Payment Initiation Service Providers (PISPs)
2. Account Information Service Providers (AISPs)

PISP

A PISP is a provider that can initiate payment transactions at the customer's request. It does this by establishing a software "bridge" between the debtor's and creditor's bank accounts in order to initiate payments.

Today, when a consumer makes a purchase from a retailer, the retailer collects the customer's payment card details, and then requests and receives the payment through its bank, a card scheme and the customer's bank (*Illustration 1: Before*).

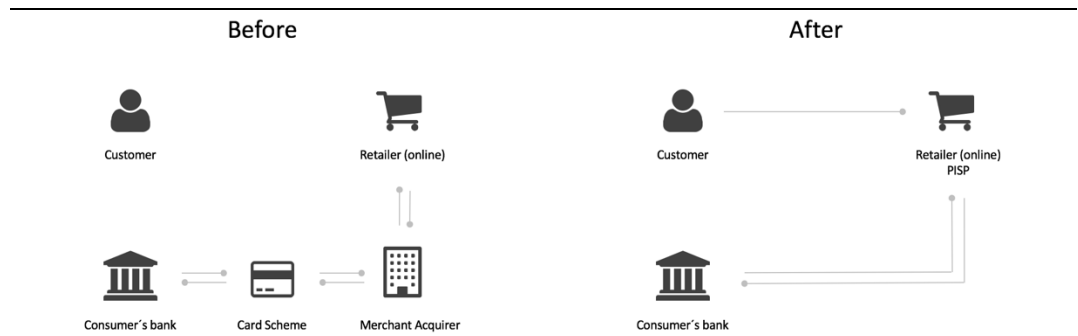


Illustration 1: Payment flow before and after the introduction of PISP

After the implementation of PSD2, a PISP service can be used for the transition. The PISP creates a software “bridge” between the customer’s and the retailer’s accounts where the necessary information is exchanged to make the transaction. This solution involves fewer parties and does not require customers to reveal their payment card details. The introduction of PISPs will enable retailers to offer their own payment platforms (becoming a PISP), reducing commission fees, strengthening customer relationships and positioning themselves as identity providers.

AISP

AISPs are providers that can connect to bank accounts and retrieve information from them. AISP acts as an aggregator of data relating to a payment service users accounts held across one or many different Account Servicing Payment Service Provider (ASPSPs, i.e. institutions allowed to hold funds for the customer, namely banks), to typically present the information in a single dashboard for the user. The AISP can offer direct insight in all products and transaction across banks.

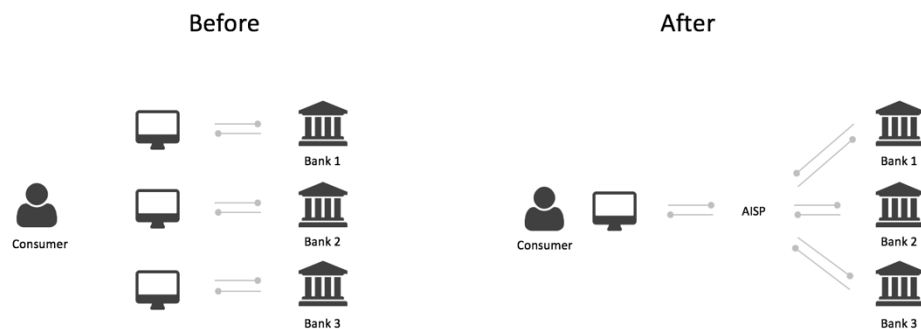


Illustration 2: Access to accounts before and after AISP

Today, if you have multiple debit and credit accounts with various banks you need to log in separately for each one of them. With the introduction of AISPs, all your account information can be accessed through one single dashboard. Both banks and TPPs will be able to build tools that, given the user's consent, may aggregate data and account information from banks and potentially other services such as social media platforms, search engines and more, and thereby presenting the user with useful synthesized insights in a unified interface.

PISP and AISPs need permission from regulators to take on these roles, and consent from the user to perform their services.

APIs

To facilitate the information exchange required by the new directive, banks must implement *Application Program Interfaces* (APIs) that provide access to the customers' 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 consent from 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 pre-determined 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 TPPs 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 bank's data and infrastructure.

Compliance

Key dates are approaching fast, and banks need to make sure they comply with the requirements of the directive. PSD2 is set to be effective in Norway in mid-2018, while the RTS will be enforced all over the EEA from early to mid-2019. This means that European banks will have to open their APIs by early 2018, as it is in their own interest to make sure that their API complies with the upcoming standards by which they will be held accountable. So, what exactly does complying with the RTS entail?

For banks, the most significant part of the RTS is the requirement of providing TPPs with access to their customers' accounts (XS2A). Since contemporary banking interfaces are merely websites, TPPs would have to resort to "screen-scraping", a practice that conveniently is being outlawed in 2018, to gather banking data. This leaves banks with only one practical way of complying with the RTS; integrate at least one modern Open API into their infrastructure, either by designing a tailored one in-house, or outsourcing the API from another provider.

The RTS will require APIs to let approved PISPs perform all sorts of payments, including domestic and international ones, as well as fixed payments. No matter which type of payment, PISPs are entitled to access and display relevant information such as fees, exchange rates, value date when transaction was effected, and status of payment.

To enable TPPs to give bank customers better insight into and oversight over their personal economy, the RTS also forces banks to grant AISPs access to all the other information the customer has access to on the bank's websites. This includes the balance value of all accounts licensed to make payments, transaction history for said accounts for the past 90 days, as well as other available information.

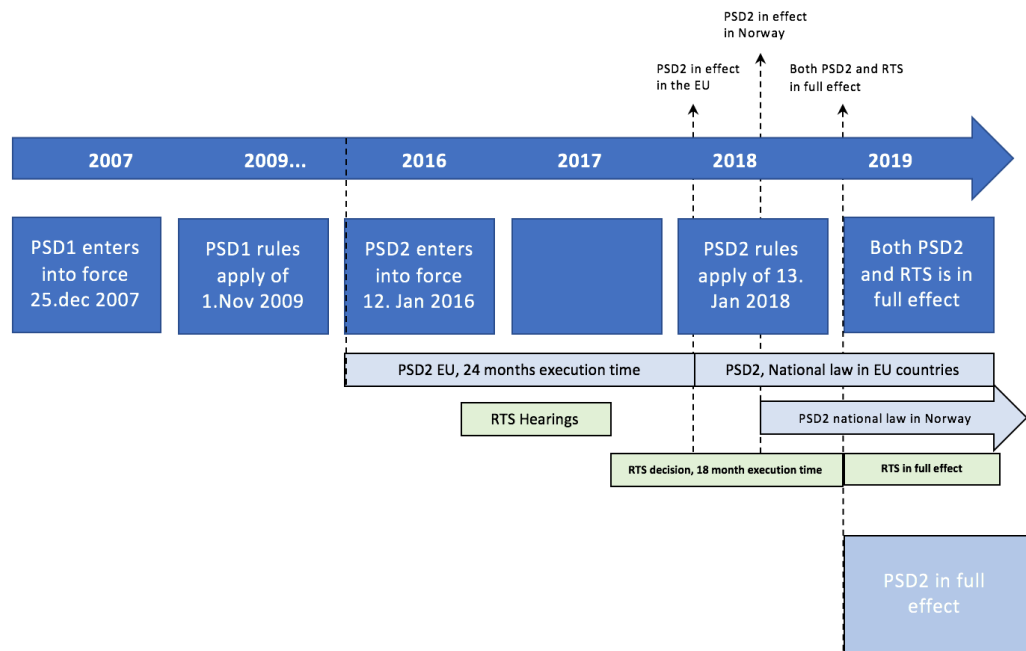


Illustration 3: Payment services directive timeline

Open Banking

Open Banking is a broad term that refers to the new banking environment the world is moving towards, where banking customers have better access to- and control over their data, and may choose to share it with third-parties. The envisioned SEPA will be a big part of how Open Banking manifests itself in Europe. The EU is accelerating the movement towards Open Banking by forcing banks to incorporate open APIs. As new financial technologies may be considered technology-push innovations (“game-changers” that the market does not initially demand, but demand is created as the market learns the value of the innovation and improvements are made) but banks prefer incremental, less risky improvements to their services, pan-European institutions are altering the rules to strengthen banks’ incentives to innovate and digitally renew themselves. The goal is to establish a playing field where it is in the individual banks best interest to implement open APIs, and ideally commit to the vision of Open Banking by going beyond immediate compliance.⁵

Nordea Bank AB

Nordea Bank AB is the leading bank in the Nordic countries and a major European bank represented in 16 countries throughout the world.⁶ With approximately 11 million customers, Nordea offers a wide variety of financial services including personal banking, commercial & business banking, wholesale banking and wealth management. The Retail Banking segment conducts full-service banking operation while the Wholesale Banking segment provides banking and other financial solutions to Nordic and international corporate, institutional and public companies. The Wealth Management segment offers investment, savings, and risk management products. Nordea is among the ten largest universal banks in Europe in terms of total market capitalization and operates through numerous full-service branches, subsidiaries, and representative offices with more than 30.000 employees.⁷ The company was founded in the 1820s, and is as of 2. June 2017 headquartered in Stockholm, Sweden.

In terms of technology innovation, Nordea is one of the leading European banks. In 2017 Nordea received the Global Retail Banker award for its simplification program.⁸ Nordea was recognized for undergoing the largest technology modernisation project in European banking, investing in core banking and payment platforms. The digital transformation aims at making Nordea more agile and resilient, and is a clear move to meeting the requirements set by PSD2. Nordea has quite openly stated that they view the new directive as an opportunity to embrace the changing landscape.⁹ Their goal is to strengthen collaboration with FinTechs and go beyond bare regulatory compliance.

3.0 Literature

This section introduces literature on models and frameworks used in our analysis of how Nordea is affected by PSD2. It provides the foundation for an external and internal analysis by introducing the following frameworks; PESTEL, Porter's Five Forces, VRIO, and SWOT.

PESTEL analysis

PESTEL is a framework used to analyze the macro-environmental factors that may impinge on an organization's competitive advantage, and thereby its profits. The analysis looks at six factors; political, economic, social, technological, environmental and legal to identify potential threats and weaknesses in the external environment. A firm's external environment consist of all the forces that can affect its potential to gain and sustain a competitive advantage. The model provides a framework for scanning, monitoring and evaluating important external factors to leverage or mitigate (Rothaermel, Strategic Management 2e 2012 page. 58-64).

The political environment describes the processes and actions of government bodies that can influence the decisions and behavior of firms. The government can affect firm performance by exerting political pressure on companies e.g. government policy, foreign trade policy or trade restrictions.

Economic factors impact the economy and its performance, which in turn directly impacts the organization and its profitability. Factors include growth rates, interest rates, levels of employment, price stability and foreign exchange rates.

Social factors, also known as socio-cultural factors, are the areas that involve beliefs, norms, and values. These factors include population growth, demographics, trends and consumer preferences etc. Because sociocultural forces not only are constantly in flux but also differ across groups, managers need to closely monitor such trends and consider the implications for firm strategy.

Technological factors capture the application of knowledge to create new processes and products. It relates to innovations in technology that may affect the operations of the industry, favorably or unfavorably. Factors could include changes in digital- or mobile technology, automation or artificial intelligence.

Legal factors capture the official outcomes of political processes manifested in laws, mandates, regulations and court decisions, all of which can have a direct

bearing on a firm's profit potential. An example could be industry-specific legislations, such as PSD2. Political factors do cross over with legal factors; however, the key difference is that political factors are led by government policy, whereas legal factors must be complied with.

Porter's Five Forces

Porter's Five Forces is a framework for analyzing the level of competition within an industry. The model draws upon five forces; industry rivalry, bargaining power of suppliers, threat of new entrants, bargaining power of buyers and threat of substitutes, to determine the attractiveness and overall industry profitability. An attractive industry, in this context, is a result of low presence of these factors. The model is a powerful tool for understanding the strengths and opportunities of a company's current competitive position. It can be utilized to identify whether new products, services or businesses have the potential to be profitable (Rothaermel, Strategic Management 2e 2012 page. 64-75).

Threat of new entrants describes the risk of potential competitors entering the industry. Potential new entry depresses industry profit potential in two major ways. First, the threat of additional capacity coming into an industry, incumbent firms may lower prices to make entry appear less attractive to the potential new competitors. Which consequently could, in turn, reduce the profit margin of the overall industry, especially industries with slow or no overall growth in demand. Second, it may force incumbent firms to spend more to satisfy their existing customers, thereby makes it harder for the customers to switch sides. Larger investments in value creation further reduce the industry's profit potential if prices cannot be raised. The more profitable the industry, the more attractive it is for new potential competitors to enter. However, incumbent firms can benefit from several important sources of entry barriers such as economies of scale, network effects, customer switching costs, capital requirements, advantages independent of size, government policy and threat of retaliation.

Bargaining power of suppliers captures the pressure that the industry's suppliers can exert on an industry's profit potential. The force reduces a firm's ability to

obtain superior performance for two reasons: Powerful suppliers can raise the cost of production by demanding higher prices for their inputs, or by reducing the quality of the input factor or service level delivered. Powerful suppliers are also a threat to firms because they reduce the industry's profit potential by capturing part of the economic value created.

Bargaining power of buyers may in the case of banks be considered the flipside of the bargaining power of suppliers. The bargaining power of buyers concerns the pressure an industry's customers can put on the producer's margins in the industry by demanding a lower price or higher product quality. When buyers successfully obtain price discounts, it reduces a firm's top line.

The threat of substitutes refers to competitor substitutes that can be used in place of a company's product or service. The threat of substitutes is an idea of the products or services available from outside the given industry which will come close to satisfying the needs of current customers. A high threat of substitutes reduces industry profit potential by limiting the price the industry's incumbents can charge for their products and services.

Industry rivalry refers to the level of competitiveness among existing competitors and the intensity with which companies within the same industry strive for market share and profitability. The other four forces—threat of new entrants, bargaining power of suppliers, bargaining power of customers and the threat of substitutes—all pressure upon this rivalry. The stronger the forces, the stronger the expected competitive intensity, which consequently limits the industry's profit potential. The intensity of rivalry among existing competitors is determined largely by the following factors; competitive industry structure, industry growth, strategic commitments and exit barriers.

The VRIO framework

In analyzing the resources and capabilities Nordea possesses, we will utilize the VRIO framework to determine which of these constitute a significant part of their competitive advantage, and thus should be considered one of Nordea's

“strengths”. The VRIO framework starts off evaluating whether a strength is “Valuable”, proceeding to evaluate whether it is “Rare”, “Imperfectly Imitable” and lastly, “Organized”. If the strength satisfies all four criteria, it can be said to constitute a *sustained* competitive advantage for the firm. (Rothaermel, F. T. (2012). *Strategic Management: Concepts and Cases*. McGraw-Hill/Irwin, p. 104-108)

Valuable

When a strength is valuable, it helps a firm increase the perceived value of its products and service in the eyes of consumers. This can be done by two factors; either by adding attractive features, or by lowering price, because the resource helps the firm lower its cost, which consequently would increase the firm’s profitability. If a firm’s strengths cannot be considered valuable, the firm will be at a competitive disadvantage.

Rare

For a strength to be considered rare, fewer firms possess it than the number of firms required for the market to be considered close to the state of perfect competition. If the strength is valuable but not rare, there will be “competitive parity” between the firm and its competitors.

Imperfectly Imitable

For a strength to be considered *imperfectly imitable* it should be too costly for competitors to imitate, develop or acquire the strength for themselves. If the strength in question is valuable and rare, but not imperfectly imitable, the firm will enjoy a *temporary* competitive advantage.

Organized

Finally, the framework considers whether there are organizational structures, processes, and systems in place to fully capture value and exploit the competitive potential of the strength in question. If the strength in question is valuable, rare, and imperfectly imitable but *not* organized, the owner will enjoy a *temporary* competitive advantage.

SWOT analysis

SWOT analysis is a framework for analyzing an organizations strengths, weaknesses, threats and opportunities. It enables an evaluation of a firm's position by considering both internal and external aspects to identify relevant factors that might affect the firm's current and future competitive advantage. Using environmental data to evaluate the position of a company, a SWOT analysis determines what assets the firm may utilize to accomplish its objectives, and what obstacles must be overcome or minimized to achieve desired results (Rothaermel, Strategic Management 2e page. 117).

Internal factors refer to a company's strengths and weaknesses. A company's strengths describe what an organization excels at and what separates it from the competition. E.g. strong customer base, brand loyalty, and strong investment capacity. Weaknesses are factors that stop an organization from performing at its optimum level, areas where the business needs to improve to remain competitive, e.g. old technology or high levels of debt.

Threats and opportunities are external factors. Threats are factors that have the potential to harm an organization. Common threats include things like increasing competition, rising cost of input and changing technology. An opportunity refers to a favorable external factor that an organization can use to give it a competitive advantage. This could be location, growth potential, increasing demand in other areas, etc. Opportunities help to get a better understanding of what and where there is potential for future growth.

The purpose of a SWOT analysis is to present possible routes for a company. By looking at the organization and competitors using the framework, potential strategies can be created to leverage and mitigate both internal and external factors.

4.0 Methodology

The main purpose of this chapter is to present the methodology used in the study by addressing the research methods, research questions, literature study, data collection and data analysis process.

Research Method

The study is conducted through the means of qualitative research, from primary and secondary information gathering and analysis. The underlying methodology has been chosen for several reasons. First, the early stage PSD2 is in and the absence of academic research call for descriptive analysis, because it is unclear how PSD2 will affect incumbent banks. Secondly, there is a lack of quantitative data on PSD2 as the directive is yet to be in effect. Thirdly, the method was driven by the research questions.

Research Questions

The impending changes in payment services makes it very suitable for studying potential ramifications. The ongoing change in legislation is opening new opportunities and threats. The changes will also entail major structural changes in the field. Thus, the main objective of this paper is to shed light on how PSD2 affects Nordea, by exploring the following research questions:

1. What are the implications of PSD2 for Nordea?
2. What strategy should Nordea pursue to maintain a sustainable competitive advantage?

The research attempts to answer the questions in the context of PSD2 and primarily looks at the strategic dimension. Regulatory requirements and the compliance aspect of PSD2 is largely disregarded.

Literature Study

The literature study was aimed at gaining a more comprehensive understanding of the changing EU legislative environment and how PSD2 affects incumbent banks. As a result, a review of EU legislation on payment services was conducted with studies of research articles from academic journals related to payment services,

regulations, and third-party service providers. In addition, whitepapers and supplementary books on the topic were studied to get a deeper understanding of the more complex contexts. Later in the literature study, strategic management theories were included in order to implement models and frameworks for analyzing Nordea in light of legislative change.

Data Collection

The primary source of information on Nordea was an interview with a senior business developer at Nordea's Open Banking function. The interview was semi-structured following the template in Appendix 1. The interview questionnaire included questions related to how Nordea has been addressing PSD2 with specific actions and responses. In addition, secondary sources with news articles, press releases, industry white papers, annual reports and EU legislation were used. Most of this supportive data was found in reports from key players in the financial industry. Moreover, an industry workshop hosted by BankID presenting thoughts on PSD2 was attended with representatives from Nordea, Finanstilsynet, and Bits.

Data Analysis

The data was analyzed by applying models and frameworks from strategic management literature. An external analysis was conducted by utilizing a PESTEL-analysis and looking at the competitive environment through the Porter's five forces model. An internal analysis of Nordea was performed through the VRIO framework to determine the company's strengths. Lastly, a SWOT analysis was utilized to identify potential strengths, weaknesses, opportunities, and threats.

5.0 Analysis

This chapter conducts an analysis of Nordea regarding the changing legislative environment and draws upon strategic management literature to conduct the study. It starts off with a PST-analysis, derived from the PESTEL-framework, of the external forces affecting the banking industry. Next, it looks at the competitive environment through the Porter's Five Forces model to assess the changing

competitive landscape. Lastly, an analysis of Nordea's strengths, weaknesses, opportunities, and threats is conducted to identify potential strategic options.

PESTEL-Analysis

The PESTEL-analysis (*Exhibit 1: PEST-Analysis*) has been conducted to analyze the relevant macro-environmental factors that are affecting Nordea. The model provides a framework for scanning, monitoring and evaluating important external factors to leverage or mitigate.

Political/Legal

The biggest external threat to Nordea's competitive advantage is PSD2 in itself, as it is an ongoing political process in which large affected players such as Nordea are involved. After the EBA has had its final say in terms of demands and guidelines, PSD2 is to be transposed into national law, a process which Nordea may exert even more influence on. How PSD2 manifests in the national laws of Nordea's host country will have a huge impact on Nordea's competitive advantage, as there still are uncertainties around how national governments will interpret the EBA's somewhat vague guidelines.

According to industry experts, the directive will end banks monopoly on their customer's information.¹⁰ As PSD2 requires banks to share their customer information with third parties through API's, banks will have to bear increased costs of providing the API and the security infrastructure around it. These TPPs can then build their services using the banks data, which will result in a dramatic increase in competition in the financial sector.

Legally, there are still uncertainties surrounding how governments will interpret and transpose PSD2 and the RTS into national law. Concessions and thresholds for payments without Strong Customer Authentication, are still not fully agreed upon and these factors will affect Nordea's competitive advantage.

Another law being introduced alongside PSD2, is the General Data Protection Regulation (GDPR), which aims to harmonize rules on data protection across the

EEA. GDPR gives European citizens more control over their personal data, extending data protection to include foreign companies handling data concerning European citizens, making the foreign companies liable for penalties of up to 5% of global turnover if they mishandle data according to the regulation. As the GDPR is a regulation and not a directive, it does not have to be transposed into national law, leaving the rules fully harmonized across Europe and already in force as PSD2 takes effect. The GDPR introduces the right to data portability stated in article 20, which has similarities with the access to information that PSD2 provides for AISPs. The right to data portability includes the right for the data subject to receive all data “provided knowingly and actively by the data subject as well as the personal data generated by his or her activity” which may include more information than AISPs are given access to in accordance with PSD2. This may for example include a person’s search history, traffic data or location data. The data subject shall also have the right to have the personal data transmitted directly from one controller to another controller in a machine-readable format, which enables an AISP to customise a service based on the data subjects right to data portability.

The GDPR will incur costs for Nordea by forcing them to enhance data-handling security. At least, GDPR will present a risk in the sense that if a data breach were to occur, the penalties would be financially devastating.

Sociocultural

In the age of social media, both the consumer’s expectations and their ability to seek better alternatives or perhaps even negatively impact businesses if they do not meet customers’ demands, have risen sharply. Among the sociocultural factors that impact Nordea’s profits are some persistent cultural factors that are characteristically Nordic, such as trust. Norway and the other Nordic countries can be described as high-trust societies, the inhabitants having relatively high trust in each other as well as societal institutions. This leaves Nordea in a better position than similar banks in other regions of the world.

Other cultural factors are moving more rapidly, and are typical of modern societies in general. After years of becoming accustomed to “personalization” in the digital sphere, consumers are now expecting personalized banking services and the ability to bank at their own convenience, from wherever they want, on any device, and at any time of the day.¹¹ For instance, the Turkish bank DenizBank enabled simple banking functions such as payments, asset management, and customer service through Facebook back in 2012, to great success. After two weeks, over 150.000 people had installed the app, and 10% of DenizBanks customers were using the app as of 2015.¹²

As convenience is growing in importance to consumers and means of comparing suppliers are more readily available (AISPs displaying banks terms), customer loyalty is waning. A survey of American millennials (from teens to people in their thirties) revealed that young people are increasingly looking to outsiders of the financial industry to innovate, in that 73% of them would be more excited about a new offering in financial services from Google, Amazon, Apple, PayPal or Square than from their own nationwide bank, and 33% of the millennials surveyed even thought that they will not need a bank at all within five years.¹³

This means that Nordea must realize that their advantage in terms of information asymmetry over the customers will not last, and that proposing better terms now rather than when they must, may be smart in terms of securing a large customer base before PSD2 releases the storm of competition upon the banks. Post-PSD2, when banks lack their monopoly on XS2A, their customer base will be a highly valuable asset.

Technological

Technology is improving at a rapid rate, and a lot of recent innovations will have an impact on Nordea’s profit potential.

As mentioned in the Social factors segment, convenience is becoming the determinant factor in customer satisfaction with banks. What led to this expectation of convenience was the high adoption rate of smart phones, which enabled access to the internet 24/7, from wherever. A 2016 study by Fujitsu

revealed that over a third of European consumers would switch banks if not offered up-to-date technology for interactions.¹⁴

When banks allow XS2A through their new APIs, TPPs will likely drive an increase in service innovation, leading to easier means of handling our personal economy. This is at the core of the issue around PSD2 for Nordea, because these service innovators will be in direct competition with traditional banks for performing all kinds of money related services, inevitably affecting Nordea's profits.

Advances in payments technology will, if not utilized by Nordea, be a tool for tech companies of all sizes to outcompete them. These technologies include incremental, reinforcing technologies such as two-step authentication mechanisms, but also radical, disruptive ones such as "blockchain" technology, which looms as a highly disruptive alternative to traditional banking functions in the long-term.¹⁵

Porter's Five Forces analysis

It is likely that the competition within the financial sector will be dramatically increased, due to the introduction of PSD2, changing consumer preferences and technological innovation¹⁶. There are several potential reasons for this¹⁷. Firstly, the new directive removes some entry barriers to the financial market, and hence, more competitors will be inclined to enter. Secondly, consumers can more easily choose other financial service providers with the introduction of the new directive. This enables consumers to create their own collection of smaller service providers instead of choosing one specific bank for all financial needs.

This segment utilizes Porter's Five Forces to analyze the changing competitive environment in the banking industry. We have identified the following six types of competitors as relevant for Nordea; Challenger banks, BigTechs, traditional banks, white-label banks, other non-traditional banks, and FinTechs.

Threat of New Entrants

BigTechs

Big Technology Companies (BigTechs) like Facebook, Google and Apple could become serious contenders as they have an incentive to provide traditional banking services. They can integrate and leverage their traditional products to create new customer value in financial services by adding account information and payment-functions to social media profiles and guiding the decision and buying processes with social rankings of products and services. Moreover, they can use this information to enhance their ability to focus marketing. BigTechs have the ability to add increased context, relevance and engagement to the service they provide by combining financial data, spending patterns, and online behavior with locational data. By building on apps and websites consumers are already using on a day-to-day basis, BigTechs banking services become integrated in daily life events and interactions in consumers' context. In addition, facilitating the sending and spending of money helps generate data, which strengthens and reinforces BigTechs business models and value proposition.

The threat of BigTechs disrupting the banking industry is legitimate, and many speculate if we will have a "Google Bank" or "Facebook Bank" in the near future. In Early December Facebook acquired an e-money and payment services out of Ireland and with Facebook Payments already operative in the US, the next step would be to launch this service across Europe.¹⁸

Challenger Banks

A breed of new digital-only challenger banks is on the rise, and they are going after incumbent banks revenues. Challenger banks are competing with well-established national banks by offering superior service, better deals, or even both. Challenger banks in the United Kingdom are outperforming the big banks on growth, cost-to-income and return on equity by offering personalization and technology as a key differentiator.¹⁹

Atom is a digital mobile-only bank that offers a transparent and low-cost banking experience. Opening an account with Atom requires just a few finger-taps and

users can verify themselves with “selfies”. The mobile-application gives the user a seamless user experience with customer service that is constantly optimizing itself using machine learning.

These sorts of banks have the advantage of not being tied up in old legacy systems. On the contrary, a lot of challenger banks are being established now because the banking environment is being forcibly altered in favor of banks with modern, digital infrastructure, going as far as penalizing the banks that do not implement sufficient open APIs within early 2018. Integrating an API with their current infrastructure is a huge, expensive undertaking for big banks like Nordea, while young challenger banks can optimize their infrastructure to suit the upcoming Open Banking environment. This leaves challenger banks with a cost-advantage over Nordea, letting them give customers better banking terms, while simultaneously providing a modern digital banking experience, making challenger banks a significant threat in the time to come.

Competition from Industry Rivals

Traditional banks

Traditional European banks are very aware of the impending directive and most large banks are expected to respond by taking a proactive approach.²⁰ DNB has stated that they, as a big player in the Scandinavian market, will actively participate in the changes in order to facilitate new and better solutions.²¹ The launch of Vipps, a PISP service by DNB, clearly illustrates their intent and is a clear move to compete for the market. The level of competition among large European banks, like Deutsche Bank and Barclays, is expected to increase as the market becomes more transparent. Moreover, large investments in internal capabilities and innovative solutions in advance of PSD2 is a likely outcome, resulting in increased competition from industry rivals.

White-label banks

Some banks positioning themselves in the market have a more pessimistic outlook on the future role of banks. These players, the “white-label banks”, are preparing for a future scenario where banks will be marginalized, left as back-end utilities

only performing core functions such as supplying transaction accounts, loans, and underwriting.²²

These banks will compete on being as lean as possible while offering a top-notch API, embracing their role as a platform on which other players such as FinTechs will utilize their competitive advantages to perform other functions previously reserved for banks.

An example of a bank positioning themselves in the background like, is the Bancorp, a US-based company that provides core banking infrastructure while letting the buyers of their services specialize in customer relations and fulfillment of the other, less core banking functions the customers need.

Other non-traditional banks

The growth of alternative banking services has greatly increased in the last decade. Non-banks offering financial services have become more common. In Norway, the multinational supermarket chain Rema 1000 sells insurance products, and Komplet.no, a large Nordic e-commerce company, launched its own bank in 2014.

Offering banking services is a way to leverage the company's customer base to increase sales and to lock in potential new customers. By re-bundling services under their own roof, they increase top line growth. For traditional banks these initiatives draws away customers.

Bargaining Power of Buyers

To which degree the consumers influence the price is generally dictated by the number of consumers, how significant each of them is to the business, and how they perceive the switching costs in taking their business to another supplier.

In retail banking, consumer bargaining power can traditionally be said to be relatively low, since the vast majority of customers are regular individuals as opposed to high net-worth individuals. This majority of customers have not traditionally organized themselves to demand better terms, and have been the victims of asymmetric information, the banks having a significant advantage in

bargaining in terms of information on the prices and interests offered by themselves and their competitors. Retail banks are not obligated to inform its customers if they have leeway to give them better terms. This will most likely not be the case soon for European consumers, as we believe AISP's comparing and displaying the terms of retail banks through mobile applications will spur from PSD2, reducing informational asymmetry and increasing the consumer surplus in the retail banking market. Thus, the bargaining power of buyers rising.

Nordea, and retail banks in general, do not have "suppliers" in the traditional Porter's Five Forces sense, so we chose to omit this segment from our analysis.

The Threat of Substitute Products

The threat of substitutes influences the consumer's ability to change to the same service or product within the same industry provided by another player.

Consequently, benefiting the customer in terms of efficiency, cost etc.

Threat of substitutes has grown significantly large within the banking industry in recent time. Mainly because companies outside the industry has begun to offer specialized products and financial services that were traditionally provided by banks. Such substitute products include payment processing and transfer services such as PayPal and Apple Pay often referred to as PISPs. On the other hand, institutions who provide prepaid debit cards and online peer-to-peer lending has also made a big impact on the bank's revenue as well.

FinTechs

Financial Technology Companies (FinTechs) have been gaining increased attention and investment in the past few years. Many FinTech start-ups have emerged using technology to make it easier for people to invest make payments and acquire loans. Their services often focus on a specific part of a bank's value chain, specializing and making their service more flexible and user-friendly. Moreover, their infrastructure is new which means it is more efficient and cheaper to operate than bank's legacy systems. FinTechs represent increased competition for banks and in many cases, we already see examples of start-ups "stealing"

customers from banks in areas such as lending, payment and wealth management.²³

Estimates vary, but some believe that by 2023 FinTech revenues will account for 17% of consumer banking services in North America.²⁴ The rapid growth FinTech start-ups and the disruptive nature of many FinTech ventures might perhaps represent the number one threat facing large banks today. Many FinTechs use customer friendly applications that are designed with customer-interaction and -experience in mind. They are aiming to capture the front-end of a banks value chain by supplying the interface through which the customers interact with their finances and bank account. By capturing the customer relationship, FinTechs are reducing the banks to mere back-end utility providers who only process low-margin transactions.

SWOT analysis

The SWOT analysis (*Exhibit 2: SWOT analysis*) has been conducted to obtain synthesized insights from an internal analysis of Nordea's strengths and weaknesses, with those from an external analysis of the company's opportunities and threats. The insights help determine what strategies Nordea should pursue in order to sustain their competitive advantage.

Strengths

The key strengths that have been identified from our VRIO analysis (*Exhibit 4: VRIO*) are Nordea's position as a multinational large trusted bank, their customer base, strong investment capacity, regulatory expertise, and FinTech accelerator program.

Nordea is the leading Nordic Retail Bank and ranks 41 by capital among the world's credit institutions.²⁵ According to Moody's, Standard & Poor's and Fitch, Nordea has the highest reliability rating in the European market and in 2014 Nordea received the "Bank of People Trust".²⁶ Nordea builds trusted relationships through strong engagement with both customers and society and has more than 10 million personal customers.²⁷ Being a multinational trusted bank and having a

large loyal customer base is one of Nordea's greatest strengths in terms of PSD2. It enables Nordea to leverage their customers and reputation as a trusted provider to introduce and promote new services and products more effectively than their competitors. This results in greater reach and adoption of Nordea's services, which can be leveraged to take advantage of the opportunities created by the new directive. Moreover, the company has access to a huge capital asset base due to commercial banking deposit which means that Nordea has the capacity to invest in new business and technology solutions.

Nordea has decades of experience with the implementation of operational requirements of risk management, compliance, and security regulations. They are used to dealing with the legislative environment and has the required expertise to maneuver the impending revisions to the PSD. This poses as an advantage for Nordea as there are strict compliance requirements imposed by PSD2 and the increasingly complex legislative environment.

Another strength that has been identified in our SWOT analysis is Nordea's network of FinTech companies. Nordea started the Nordea Startup Accelerator in 2015, which focuses on new innovations for customer experience and touchpoints in digital, value opportunities around payments and savings by other means.²⁸ According to BCG, enormous opportunity exists from the collaboration of established capital market players with young FinTech companies.²⁹ Nordea has the capital, a vast customer base, trusted brand name and the know-how to maneuver the legislative environment and build scalable financial business models. FinTech start-ups have the innovative ideas and vision to disrupt the market by challenging core business models through new technology. By having an accelerator program, Nordea creates valuable relationships with FinTech companies, which could ensure value-added services and investment opportunities are created for Nordea.

Weaknesses

Nordea's legacy banking system has been identified as a weakness, as their core banking technology has disadvantages that reduces Nordea's ability to compete in

today's digital world. The complex nature of Nordea's current banking system makes it expensive and time-consuming to maintain. Legacy systems are known for high maintenance cost, manual processes and greater integration- and maintenance efforts.³⁰ In Nordea's case, their banking system runs on a host of legacy platforms, including Misy's, Midas' and Tieto's Core Banking Suite, that is costly to maintain and requires manual processes with inputs from 5.000 staff members.³¹

Core banking systems do not only drive day-to-day operations but also serve as the core IT platform for new capabilities and growth. Customer expectations are changing towards online and mobile solutions that offer a personalized real-time experience. Self-service platforms with real-time updating of accounts, instant transfer of funds and peer-to-peer payments are becoming the norm. Integration of new systems on top of legacy banking technology is difficult and prevents Nordea from adapting to meet the demands of the customer. Furthermore, PSD2 requires Nordea to open up their infrastructure to third parties through APIs. The inflexibility of legacy infrastructure severely limits Nordea's capabilities to provide required access to their data in a secure and robust manner and makes complying with the new directive strenuous.

Nordea started the implementation of a new Core Banking Platform in late 2015.³² The transformation is expected to take about five years and cost €1 billion. Even though Nordea has started an overhauling process, their legacy structure still poses as a weakness due to the high current operational costs, the cost of implementation, and time to market. Compared to other retail banks, Nordea might be in the same or even in a superior position. However, new entrants are not hindered by legacy systems.

Opportunities

PSD2 presents significant opportunities for Nordea to grow new revenue streams, capture customer ownership, and progress towards an extended ecosystem centered on the everyday bank. We have identified monetizing data and insights,

creating AISP/PISP services, strategic partnerships, banking as a platform and first mover advantage as Nordea's greatest opportunities.

Monetization

Although complying with PSD2 requires allowing controlled payment initiation and sharing of account information, Nordea holds a vast amount of additional data they may leverage in a monetization strategy. By monetizing access to raw data and customer insight Nordea could create additional revenue by selling it to interested third parties like corporate customers. A good example of this is the sharing of a customer's credit history for a fee, which is not a mandatory requirement under PSD2. Monetizing access to wider information (such as credit history) and deeper information (more granular data) as well as access to core banking services that have traditionally been bundled under the bank's roof makes for a great opportunity for Nordea to reshape its business model and make up for some of the revenue that will likely be captured by other players in the new environment.

Several prominent figures have been accredited with the phrase "Data is the new oil", which alludes to the falling importance of oil and rising importance of data as a resource. While having monopolistic access to customers economic and financial data has long been beneficial for banks, there is significant profit potential in supplying private and corporate consumers alike with more data and insight. To do this, Nordea would have to develop premium APIs that deliver more than what PSD2 requires them to. The additional data TPPs then would have access to could be combined with their own data to perform collaborative analytics, providing new valuable insight, which even Nordea could use to drive better decision-making internally. An example of this could be the customer letting Nordea and Facebook pool their data. Both collaborators could harness insight from the others' data to improve their respective businesses. Corporate customers could also benefit a lot from collaborative analytics, letting innovative Business Intelligence providers easily integrate banks' data with other data relevant to the business. Business Intelligence already has a lot of technological tailwind, and PSD2 will help accelerate the conversion from centralized, report

building IT-departments, to accessible and intuitive Self-Service analytics solutions.

Other than monetizing data, Nordea can earn additional revenues by licensing access to some of its core functions, such as its authentication mechanisms, or its risk management function. These functions can be combined with a TPP's data and functions to create value through services offered by the TPP, Nordea or even a joint venture.

Creating AISP/PISP

There are opportunities for Nordea to create AISP/PISP services to compete with new entrants. According to EY Banking & Capital Markets actively taking part in supplying customers with innovative payment solutions and aggregated information services represent a substantial opportunity for banks.³³ Considering the high “relevance” of Nordic banks in general, as well as consistently high satisfaction and loyalty scores Nordea gets in Norwegian customer studies, Nordea is uniquely well-positioned to take an active part in the new financial ecosystem.³⁴

When it comes to acting as an AISP, there are numerous opportunities due to Open APIs being developed by banks and other players trusted with personal information. As these become accessible, Nordea may create their own AISP service to aggregate account information from multiple banks, as well as other sources. With this information, Nordea can perform collaborative analytics in combination with its own data, creating new insights which can be used to provide customers with a new look on account balance information, categorization of transactions, budget spending and more, through modern data visualization tools. Nordea could potentially create a one-stop banking portal for multi-banked customer to view all accounts and transactional details, as well as non-financial data and collaboratively synthesized information.

By establishing a PISP service Nordea creates the opportunity to capture an additional slice of transaction revenue, while also providing opportunities for

customer loyalty schemes and cross-selling. Instead of being a pure payment processor, Nordea could move up the value chain by offering online payment initiation services from their banking portal. The current situation requires a retailer to provide a customer's payment card details and then request and receive the payment through its bank, a card scheme and the customer's bank. But with a PISP service, this process requires fewer parties and it does not need card scheme to be involved in the transaction. Peer-to-peer transfers between friends and bill payments are also likely PISP services that are Nordea could implement.

Considering Nordic citizens' relatively high trust in banks, they may be more inclined to let banks collect, analyze and display information than giving a TPP access to their banking data. After all, the bank already has access to the information, so why allow more eyes on your personal information if the bank can offer you the same services? If Nordea effectively acts as an AISP, they seize the opportunity to monetize information derived from collaborative analytics with data from other players, as the party performing analytics will have ownership rights over the generated integrated insights. These insights can be monetized, for example by combining social media data or search engine data with bank information to cross-sell products in targeted advertisements tailored to the customer.

Nordea leveraged its wide Nordic presence in its approach to the deregulated payments environment that followed PSD1 by collaborating on MobilePay with Danske Bank. Although MobilePay, as well as Vipps, Swish and other bank developed new payment applications can be argued to be a temporary step towards the future of payments, this approach of consecutive adaption to the environment provides Nordea with a reasonable starting point to compete with other emerging PISPs.

Strategic Partnerships

As the financial industry is in a relatively fluid state at the moment, there are great opportunities to partner up with new and old industry players alike. Collaboration with external parties brings together resources, more variety of expertise and ideas

that have the potential to create synergies. E.g. FinTech start-ups with innovative ideas and visions to create disruptive business models partnering with Nordea that has the investment capacity, regulatory expertise and customer base to facilitate such ideas.

Nordea has already teamed up with Danske Bank in competing for the Scandinavian market for payment apps, their app “Mobile Pay” being the most promising incumbent bank-backed contender for becoming the single payment app of choice in the Nordic countries.

Nordea has taken a proactive approach to the legislative demands of putting forth an API, with their Open API pilot program attracting a lot of interest from FinTech developers. Through interacting with developers leading up to the release of the API, Nordea is able to get a better understanding of which new solutions are likely to be proposed by the FinTechs. Nordea may then choose to partner up with or acquire the most promising of these hopeful new industry players. Alternatively, they could incorporate these new solutions in their own app to the extent this can be done without infringing on the FinTech’s intellectual property. By playing to their strength of having a relatively large FinTech ecosystem already, Nordea can seize opportunities to form strategic partnership, bracing itself for a possible competition to become the leading service-aggregating platform.

Banking as a platform

The essence of a platform business model is to create an ecosystem that allows multiple participants (producers and consumers) to connect to it, interact with each other and create and exchange value.³⁵ Digitalization is driving a platform revolution, as exemplified by companies like Uber, PayPal, and Airbnb. But the power of platforms is not just for these digital natives. Banking as a platform represents an opportunity for Nordea to provide core infrastructure that enables third parties to connect to their platform in order to provide new services and offerings. Nordea possesses the infrastructure and a large customer base while third parties provide new services that strengthen customer experience and

improve Nordea's own offerings. The connection would be enabled through open APIs.

A banking as a platform model presents opportunities for a more integrated partnership between Nordea and TPPs from within and outside the financial services industry. Such partnerships could materialize as new products or services owned by third parties but offered via Nordea, or customer data stored by third parties but presented on Nordea's online portal. Nordea could, for example, facilitate a new FinTech company's peer-to-peer currency exchange service by leveraging their trust and reach. FinTech-startups are key to bringing new valued added services and delightful user experiences on Nordea's platform. These sorts of collaborations with financial and non-financial companies could transform Nordea's online banking portal into a platform reflecting the customer's everyday needs. Nordea becomes a complete digital player, competing and collaborating for customer relevance in payment and information services.

First mover advantage

When it comes to the competitive advantages Nordea has over non-banks regarding PSD2, already being a licensed, established bank means Nordea does not have to wait until PSD2 is fully implemented to make their move on the market. Nordic banks have already taken pro-active measures. DNB launched Vipps summer 2015, which quickly became the most popular P2P transfer service in Norway.³⁶ Nordea partnered with Danske Bank in creating Mobile Pay, which has been a popular P2P service in Denmark and Scandinavia in general.³⁷ Already being an established bank thus is a significant opportunity for Nordea in relation to PSD2, since pre-established, licensed banks may choose to roll out open APIs and Open Banking style services before third parties are allowed to. Nordea has realized this, and has made pro-active strategic moves by collaborating on Mobile Pay, a PISP-like service. They have also launched an Open API pilot program, to gain insight on what the FinTechs are doing, and how they perceive Nordea's APIs. These early initiatives leave Nordea in a stronger position for when PSD2 enters full force and the competition intensifies.

Threats

It is hard to deny that PSD2 fundamentally is a threat to incumbent banks such as Nordea, as it forces them to make huge infrastructure investments just to avoid penalties for not complying with the RTS. In this segment, we argue that the biggest ways in which PSD2 will threaten Nordea will be through the loss of customer relationships, increased competition from a more unified European financial market and new entrants.

Loss of customer relationship

One of the key threats that emerged from our SWOT analysis is the undermining of customer loyalty. Banks have traditionally played a central role in the customer's lives, but the advent of PSD2 and XS2A fundamentally changes this dynamic. The formal introduction of PISPs and AIPS present a possible scenario where banks are completely side-lined and relegated to a mere deposit-holding role. A worst-case scenario for Nordea would be that consumers starts relying solely on TTPs to provide the day-to-day financial services that Nordea currently provides. In the advent of PSD2, 68% of leading European banks are concerned about losing the customer interface.³⁸

The introduction of PISPs as new legal entities enables third parties to initiate payment transaction at the customer request without using the bank's interface. According to McKinsey, 80 percent of customer interaction with their bank is through paying for goods and services.³⁹ Payments are a key revenue stream for Nordea and they are of strategic importance as they work as a gateway for selling a range of other products, such as loans, credit cards, savings account, and mortgages. With PISPs possibly taking over the customer interaction, Nordea merely becomes a servicing infrastructure with no opportunity to cross-sell these services.

Moreover, AISPs enables a scenario whereby customers could fulfill their typical banking needs such as viewing transaction histories and account balances from a third-party online portal. AISPs can analyze spending behavior or aggregate user account information from several banks into one interface, rendering traditional mobile and online banking solutions obsolete. In doing so, Nordea could very

quickly let AISPs and PISPs overtake the front-end interaction with customers, and thus lose a large part of their relationship with the customers.

Unified financial market

In a survey conducted by the European Commission, 80% of respondents revealed that they would not consider buying a financial product from another EU Member State because “they can purchase all the financial products they need in their own country, or they prefer to do so”.⁴⁰ Fewer than 3% of European consumers purchase banking products such as credit cards, current accounts, and mortgages from other member states, which represents the lack of effective mechanisms supporting cross-border banking in the current market.⁴¹ You might think that this is explained by homogeneous prices and services among EU member states. But, statistics show that average prices among consumer finance products vary greatly from country to country.⁴² There are great discrepancies on price, but despite this, consumers do not seem to have cross-border banking relationships.

This could be a consequence of European Banking lacking the required effective mechanisms supporting cross-border banking, such as harmonized regulations, clear communication of benefits and smooth on-boarding processes.

Differentiated domestic legal frameworks has been identified as the main barrier for both providers and consumers to enter foreign markets.⁴³ The European Commission’s aim of PSD2 is to unify the European market and it does so by reducing the cost of regulatory understanding and compliance related to multinational retail banking, and by facilitating the creation of a single EU-wide market for consumers, as well as all banks and TPPs now eligible to perform financial services. This will result in increased competition and transparency.

For Nordea, this entails more competition from European- and international banks, as well as non-banks. As the competition intensifies, transparency in price and financial services offered will increase, empowering the consumer to consider offers from abroad. As seen from international e-commerce, consumers are increasingly open towards purchasing from international companies.⁴⁴ The increased competition will ultimately hurt Nordea’s profit margins. As many

banking services are homogenous products, consumers will choose the cheapest product and Nordea must lower their price to compete.⁴⁵

New entrants

As previously explored in the Porter's Five Force analysis there is a threat of entry from new market players such as Bigtechs, Challenger Banks, and FinTechs. The implications for Nordea is not inconsequential. Estimates vary, but up to 60% of profits and 40% of revenues in retail banking (excluding mortgages) could be lost to new entrants in the next decade.^{46 47}

6.0 Strategic Options

The analysis of Nordea identified loss of customer relationship, increased competition and a unified financial market as the main implications of PSD2. This chapter aims at exploring the most appropriate strategies for Nordea to take advantage of the strengths and opportunities identified to mitigate the threats and weakness (*Exhibit 4: SWOT Matrix*). We have explored three strategic options Nordea can take:

Strategic option 1: Defensive

The first strategic option entails making minimal additions to current infrastructure in order to reach minimum-compliance with PSD2. Giving third-party providers access to data and providing a basic level of open API are the basic requirements set by PSD2 and represent the bare minimal action required by Nordea.

A Defensive strategy focuses on compliance with PSD2 in an efficient and cost-effective manner while reducing the cost for running the associated infrastructure. By taking time and observing the shaping of the market, Nordea could mitigate the risk of doing poorly investments by gaining better knowledge about the market, consequently, investing better, and more safely. To justify a Defensive approach to PSD2, one would have to assume that other key players in the financial industry will be reluctant to change, thus making the threat of being out-competed on terms of innovative technologies less worrisome. If executed, the

Defensive approach would save Nordea large investment costs associated with developing API capabilities beyond compliance. If taking a Defensive approach, Nordea could avoid dealing with the uncertainties of which products and services will be in demand in the new environment, letting other players take the risk involved with trying to be first to market. Thus, a Defensive approach would be profitable in the very short-term. Nevertheless, there are other huge risks related to taking a Defensive approach to PSD2.

While this option requires the least effort and investment by Nordea, it increases the risk of the company becoming a bare-utility player. The Defensive option does a poor job of addressing the likely threats of loss of customer relationship and increased competition. Pursuing this approach could reduce Nordea to a utility bank, processing payment transactions, managing underlying customer accounts and providing liquidity and credit services offered by TPPs and other banks who own the customer experience. The major risk of this strategy is Nordea's long-term future success as market expectations and demographic trends are changing. While a compliance-only approach to PSD2 is an option, it will most likely lead to Nordea becoming a utility provider of underlying banking infrastructure. Furthermore, it is hard to argue that the upside of reduced investment costs could weigh up against the long-term loss of relevance a Defensive stance would likely lead to, as we expect other forward-leaning players would aggressively go after Nordea's market shares with new digital offerings if Nordea refuses to move towards Open Banking. However, it should be said that Nordea's scale advantage, customer base, and brand recognition could help mitigate some of the biggest losses.

Strategic option 2: Opportunistic

An Opportunistic approach involves going beyond the Defensive strategy by adding a more advanced API platform to monetize certain assets and release a Nordea branded PISP/AISP. Instead of simply becoming compliant, Nordea invests in a modern API capable of delivering more value-adding services and a better customer experience for their clients, keeping more doors open. Although an Opportunistic approach involves embracing some aspects of Open Banking, it

would not equal full commitment. The banking functions and datasets that constitute key competitive advantages and make up high-margin products and services, would still be defended and not made available through Nordea's API.

Opportunistic monetization of data and insights would entail cherry-picking which core functions and what kinds of data should be made available through a premium API. Although PSD2 grants TPPs the right to initiate payments and check the customer's account balance, Nordea holds a vast amount of additional data they may leverage in a monetization strategy. A good example of this could be the sharing of a customer's credit history for a fee, which is not a mandatory requirement under PSD2. API-based services leveraging account information and digital identity are interesting areas to explore, providing potential new revenue sources for Nordea. This measured approach enables Nordea to selectively become part of external ecosystems, providing value-adding data and services to FinTechs and other institutions.

Creating basic payment initiation and account information services could help Nordea strengthen their customer relationships and enhance the customer experience. By creating APIs capable of sourcing data from other banks and third parties such as search engines and social media platforms, Nordea grows their distribution network via the third-party ecosystem, which in turn will make Nordea more scaleable. An example of this could be Nordea offering an application that offers insights into customers spending habits and potential to save money by aggregating information from several datasets relating to the customer. Nordea could significantly improve its ability to sell customer insights by offering PISP and AISP services as well, due to the increased availability of customer data and touchpoints. By selectively creating new services in collaboration with third parties offered through Nordea's own PISP/AISP, Nordea would mitigate the loss of customer interaction, and thereby also mitigate revenue loss.

Simply defending the status quo would only leave Nordea with the huge cost of compliance. By pursuing an Opportunistic approach some of these costs can be

offset by creating new revenue streams. Opportunistically committing to transform where it seems profitable while holding on to certain high margin assets, may very well prove to be the smartest decision. Establishing Nordea branded TTPs could help mitigate the expected decrease in customer interaction with the brand, and facilitate an enhanced online banking position. In terms of increased competition, Nordea's innovative capabilities will be the determining factor. If Nordea manages to create new innovative third-party services that fulfill all customer needs, one may argue that customers will continue to use or adapt to Nordea as a bank. However, it will be hard to compete with multiple agile FinTech companies offering highly specialized services that provide the best service in their niche. Hence, new competitors will be a considerable threat, no matter which strategy Nordea chooses.

Studies show that banking customers in the Nordic region have the highest proportion of their assets in one bank, and strongly believe they will continue to get most of their financial services from their "main bank".⁴⁸ This positive consumer outlook makes the Opportunistic option more attractive for Nordea, being the biggest bank in the Nordics. The Opportunistic approach would thus, arguably, be the most profitable in the medium to short-term, as Nordic consumers would be relatively accepting of Nordea keeping certain high-margin functions and some data to themselves, while embracing the most lucrative parts of the Open Banking model, but limiting investment costs to those associated with compliance and development of API capabilities for the banking functions and sorts of data Nordea chooses to monetize.

Strategic option 3: Transformative

A Transformative strategy has the goal of establishing Nordea as an *everyday bank*, central to a consumers' life. It focuses on pursuing the *banking as a platform* strategy, which aggregates services and products from several providers within and outside the financial services industry.

A Transformative approach leverages partnerships with third parties to build applications and services around Nordea, based on open APIs. Such partnerships could manifest themselves in two ways:

- Consolidation of services: New products and services owned by third parties but offered via Nordea's online portal
- Consolidation of data: Customer data stored on third-party systems but presented on the Nordea's online portal

An ecosystem aggregating value by consolidating data from multiple third parties could transform Nordea's banking portal to a platform reflecting the customers every need. By establishing Nordea at the centre of this ecosystem it becomes a vital part of a customer's daily life, acting as an advice provider, value aggregator and access facilitator. Nordea becomes a complete digital player, competing and collaborating for customer relevance in payment and information services. A Transformative approach enables Nordea to become a one-stop shop for multi-banked customers with a consolidated account overview, permission to initiate payments and offers from third parties.

The benefits of pursuing a Transformative strategy are many. A successful execution of a platform strategy creates new revenue streams, diversification against future downturns in its core business, and build a new type of relationship with the customers. Having a platform with diverse products from multiple providers on their platform enables Nordea to scale to a size that traditional banks cannot. More products and services means more customers and a larger customer base that Nordea can leverage to offer their own services or cross sell products. Moreover, a platform means that customers and third-parties are extending the Nordea brand in innovative ways. Being a digital marketplace for financial products and services puts Nordea at the centre of a consumer's life, a position that can be used to advance strategic partnerships, monetize data and insight, and launch PISP/AISP services. This helps mitigate the potential threat of losing the customer relationship. By adopting a Transformative strategy, Nordea embraces the increased competition by incorporating new competitors, like FinTechs, into their ecosystem to mitigate the threat. In addition, it puts Nordea in a stronger

position to compete with incumbent banks and new sorts of competitors alike by providing a stronger value proposition to their customers.

While this model could create the most value if executed well, becoming a banking platform is hard and requires significant capital investment in new technology and capabilities to attract innovative partners to the platform. Due to Nordea's legacy banking system, such a vision could be too ambitious. However, strong investment capacity has been identified as one of Nordea's key strengths. In addition, regulatory expertise, large customer base and being a trusted provider helps facilitate such a strategic option. Since Nordea, as a bank, represents trust and security, it has a unique position to become an identity broker and financial life coach centred around customer's everyday finances. Partnerships with third-party providers are a key requirement for a platform strategy. FinTech companies are especially important as they could bring innovative value added services to the platform that help differentiate Nordea from other banks. Nordea's FinTech accelerator program puts the company in a favourable situation to find and partner with innovative FinTech companies to add to their platform. Moreover, being a multinational bank helps create a unique offering by incorporating third-parties from multiple countries to their ecosystem and by distributing their offerings to a large network of customers. The process of transforming Nordea into a financial ecosystem could be long and painful, where economic returns takes time to materialize. It will require commitment and persistence to be able to transform, but the potential results of a successful Transformative strategy are tremendous.

7.0 Recommendation & Conclusion

Recommendation

In our strategy evaluation (*Exhibit 5: Strategy evaluation*) the following criteria were used to evaluate the strategic options; sustainability, execution complexity, feasibility, and acceptability. Our evaluation determines that a Defensive strategy has low execution complexity and associated cost, but fails to address major threats and capitalize on identified opportunities. We believe that with Nordea's current position and capabilities, such an approach would be wasteful.

The major difference between a Transformative and Opportunistic approach is the long-term sustainable potential. An Opportunistic approach leverages opportunities to create new revenue streams but neglects sufficiently reacting to the changing competitive environment. While both options are feasible to implement, we believe that only the Transformative approach will meet the acceptability criteria in the long-term.

One may argue that the Opportunistic and Transformative strategies are not mutually exclusive. Combining both strategies could mitigate the cost of compliance in the short term while also laying the foundation for long-term sustainability and success. There are certainly benefits of pursuing both options. However, Nordea should be careful not to over-invest and spread their resources and initiatives too thin. If responding too opportunistically, any service Nordea themselves continue to provide post-PSD2 will be subject to increased competition and will demand investments to stay viable. Not transforming enough also risks missing out on innovative third-party services that could have attracted users to Nordea's platform.

Because of changing consumer preferences, technological innovations and the changing competitive environment, we perceive a Transformative approach to be the best strategy for Nordea. This approach takes advantage of partnerships and a platform model to mitigate loss of customer relationship, increased competition, and a unified European market. Nordea's strengths enable this approach, and by successfully implementing the strategy, Nordea can develop a long-term competitive advantage.

Conclusion

Legislative action, changing customer expectations, emerging technologies and new entrants are fundamentally altering the payment landscape. Nordea is in danger of losing not only major revenue streams, but the entire customer relationship. The uncertainty around how the financial industry might look after the implementation of PSD2 is immense. But despite the uncertainties and challenges, there are significant opportunities for Nordea to redefine their business

and operating model to unlock new value and provide innovative customer propositions. We have explored three different strategic options to address the implications of PSD2. The described strategies in this thesis are not an exhaustive list of options, as the reality is that there are many possible levels of commitment to Open Banking, ranging from a Defensive approach to a fully Transformative one. Our three strategic options are meant to embody the most differentiated synergistic bundles of actions Nordea may consider. We do not believe merely complying with the directive is a long-term viable option, PSD2 will have to be met with a proactive transformation. Based on our findings, we believe that Nordea possesses the capabilities and resources to pursue a Transformative strategic shift towards a “banking as a platform” business model. This approach, if successful, puts Nordea at the center of a customer’s everyday finances and creates a competitive advantage for long-term success. We are also aware of how our negligence of other dimensions than the strategic one limits the real-world applicability in decision-making for Nordea, as there are many stakeholders and other aspects that need to be considered.

In all cases, moving forward requires becoming compliant, an increased level of openness and investing in existing assets and capabilities. Adapting to customer expectations and providing innovative solutions will be key to compete in the world of Open Banking.

Exhibits

Exhibit 1: PESTEL-Analysis

This exhibit contains the full PESTEL-analysis of Nordea, excluding ecological factors, which we consider irrelevant. In the analysis part of the paper only highly relevant factors for Nordea in relation to PSD2 are included.

Political/Legal:

As the political and legal forces exerting pressure on Nordea are closely intertwined, we will merge the two factors into one segment.

The biggest external threat to Nordea's competitive advantage is PSD2 in itself, as it is an ongoing political process in which large, affected players such as Nordea are involved. After the EBA has had its final say in terms of demands and guidelines, PSD2 is to be transposed into national law, a process which Nordea may exert even more influence on. How PSD2 manifests in the national laws of Nordea's host country will have a huge impact on Nordea's competitive advantage, as there still are uncertainties around how national governments will interpret the EBA's somewhat vague guidelines.

Nordea is headquartered in Stockholm, and the Swedish government has significant influence over Nordea's political and legal environment. So far in 2017, Swedish politicians have been advocating new taxes on the financial industry. At a press conference 1/4-17, Swedish finance minister Magdalena Andersson said that she and the current Social-Democratic ruling government will "continue our work with a tighter bank tax with the aim to decrease the tax advantage that the bank sector has since they don't pay VAT, but also find a bank tax that complies with EU law".⁴⁹ In response to the proposed new taxes, Nordea has threatened to move its headquarters to Finland, the president of the board of directors in Nordea stating that "It would simply be impossible to live with (the) new payment proposed by the Swedish government". Nordea being the biggest bank in Sweden and Scandinavia in general, is large enough of an organization to have a say in government policy, and will most likely work with the Swedish government to find a compromisingly cheaper way for Nordea to contribute to the financial security of the citizens. As Nordea is already indulging in a broader

transformational process, it would not be unthinkable for them to take the extra step of moving their headquarters to for example Finland, a close and significant market where Nordea holds around 30% market share.⁵⁰

Legally, there are still uncertainties surrounding how governments will interpret and transpose PSD2 and the RTS into national law. Concessions and thresholds for payments without Strong Customer Authentication are still not fully agreed upon, and these factors will affect Nordea's competitive advantage.

Another law being introduced alongside PSD2, is the General Data Protection Regulation (GDPR), which aims to harmonize rules on data protection across the EEA. GDPR gives European citizens more control over their personal data, extending data protection to include foreign companies handling data concerning European citizens, making the foreign companies liable for penalties of up to 5% of global turnover if they mishandle data according to the regulation. As the GDPR is a regulation and not a directive, it does not have to be transposed into national law, leaving the rules fully harmonized across Europe and already in force as PSD2 takes effect. The GDPR introduces the right to data portability stated in article 20, which has similarities with the access to information that PSD2 provides for AISPs. The right to data portability includes the right for the data subject to receive all data "provided knowingly and actively by the data subject as well as the personal data generated by his or her activity" which may include more information than AISPs are given access to in accordance with PSD2. This may for example include a persons search historic, traffic data or location data. The data subject shall also have the right to have the personal data transmitted directly from one controller to another controller in a machine-readable format, which enables an AISP to customise a service based on the data subjects right to data portability.

The GDPR will incur costs for Nordea by forcing them to enhance data-handling security. At least, GDPR will present a risk in the sense that if a data breach were to occur, the penalties would be financially devastating.

Economic:

In their press release regarding the economic outlook for the Nordic countries in 2017, Nordea has presented a mild optimism, predicting a growth rate of 3% in the Swedish economy, and a modest rise in housing prices. On the other hand, many are arguing that the Swedish housing market is overpriced, and is at risk of falling if some sort of shock were to hit the Swedish economy. Riksbanken (the Swedish central bank) and the Swedish government have both been pursuing expansive policies the last years, in their attempt to increase inflation and employment. A lot of further economic stimulus is not to be expected though, as economic stimulus through these means also is a key driver for rising housing prices.

Capital has never been cheaper. As interest rates are at a historical low, all sorts of players are seeing their opportunity to invest in order to capture a share of the burgeoning market for financial services. This means that a large number of diverse competitors will impinge on Nordeas profits going forward, using their access to capital to develop specialised applications that aim to disrupt Nordeas traditional banking functions. These low interest rates further enhance Nordeas incentives to invest in getting ready for Open Banking, as there are opportunities with big potential upsides, and alternative cost of capital is lower due to how low interest rates banks get to charge their customers.

Sociocultural:

In the age of social media, both the consumer's expectations and their ability to seek better alternatives or perhaps even negatively impact businesses if they do not meet customers' demands, have risen sharply. Among the sociocultural factors that impact Nordea's profits are some persistent cultural factors that are characteristically Nordic, such as trust. Norway and the other Nordic countries can be described as high-trust societies, the inhabitants having relatively high trust in each other as well as societal institutions. This leaves Nordea in a better position than similar banks in other regions of the world.

Other cultural factors are moving more rapidly, and are typical of modern societies in general. After years of becoming accustomed to "personalization" in the digital sphere, consumers are now expecting personalized banking services and the ability to bank at their own convenience, from wherever they want, on any

device, and at any time of the day. For instance, the Turkish bank DenizBank enabled simple banking functions such as payments, asset management and customer service through Facebook back in 2012, to great success. After two weeks, over 150.000 people had installed the app, and 10% of DenizBanks customers were using the app as of 2015.⁵¹

As convenience is growing in importance to consumers and means of comparing suppliers are more readily available (AISPs displaying banks terms), customer loyalty is waning. A survey of American millennials (from teens to people in their thirties) revealed that young people are increasingly looking to outsiders of the financial industry to innovate, in that "73% of them would be more excited about a new offering in financial services from Google, Amazon, Apple, Paypal or Square than from their own nationwide bank", and 33% of the millennials surveyed even thought that they will not need a bank at all within five years.⁵²

This means that banks must realize that their advantage in terms of information asymmetry over the customers will not last, and that proposing better terms now rather than when they have to, may be smart in terms of securing a large customer base before PSD2 releases the storm of competition upon the banks. Post-PSD2, when banks lack their monopoly on XS2A, their customer base will be their most valuable asset.

Technological:

Technology is improving at a rapid rate, and a lot of recent innovations will have an impact on Nordea's profit potential.

As mentioned in the Social factors segment, convenience is becoming the determinant factor in customer satisfaction with banks. What led to this reasonable expectation of convenience was the high adoption rate of smart phones, which enabled access to the internet 24/7, from wherever. A 2016 study by Fujitsu revealed that over a third of European consumers would switch banks if not offered up-to-date technology for interactions.⁵³

When banks allow XS2A through their new APIs, TPPs will (hopefully) drive an increase in service innovation, leading to easier means of handling our personal economy. This is at the core of the issue around PSD2 for Nordea, because these service innovators will be in direct competition with traditional banks for

performing all kinds of money related services, inevitably affecting Nordea’s profits.

Advances in payments technology will, if not utilized by Nordea, be a tool for tech companies of all sizes to outcompete them. These technologies include incremental, reinforcing technologies such as two-step authentication mechanisms, but also radical, disruptive ones such as “blockchain” technology, which looms as a highly disruptive alternative to traditional banking functions in the long-term.⁵⁴

Exhibit 2: SWOT-analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> - Large trusted provider - Customer base - Regulatory expertise - Strong investment capacity - FinTech accelerator program - Multinational Bank 	<ul style="list-style-type: none"> - Legacy banking systems
Opportunity	Threats
<ul style="list-style-type: none"> - Monetization - Becoming a PISP/AISP - Banking as a platform - Strategic partnership - First-mover advantage 	<ul style="list-style-type: none"> - Loss of customer relationship - Unified financial market - Increased competition

Exhibit 3: SWOT Matrix

	Opportunities	Threats
Strengths	<p>Strength-Opportunity Strategies</p> <p>Which of Nordea’s strengths can be used to maximize the opportunities identified?</p>	<p>Strength-Threat Strategies</p> <p>How can Nordea use the their strengths to minimize the threats identified?</p>

	<ol style="list-style-type: none"> 1. Leverage Nordea’s first mover advantage, investment capacity, reputation, customer base and regulatory expertise to create and introduce PISP/AISP services. 2. Use Nordea’s FinTech accelerator program to identify promising FinTech startups to invest or partner up with 3. Create a banking as a platform ecosystem by using first mover advantage, FinTech network, investment capacity, regulatory expertise and multinational bank advantage 4. Monetizing core services by creating advanced API enables through investment capacity and regulatory expertise 	<ol style="list-style-type: none"> 1. Counter increased competition by creating their own PISP/AISP 2. Counter increased competition and loss of customer relationship by establishing themselves at the centre of a financial ecosystem 3. Counter reduced revenue from unified financial market by monetizing core services 4. Leverage FinTech network to add innovative capabilities that engage users 5. Leverage Nordea’s customer base and reputation to minimize the threat of loss of customer relationship
<p>Weaknesses</p>	<p>Weakness-opportunity Strategies</p> <p>How can Nordea overcome weaknesses that prevent the firm from taking advantage of opportunities?</p> <ol style="list-style-type: none"> 1. Utilizing strong investment capacity to create a new IT platform with premium API’s and capabilities for innovation 	<p>Weakness-Threat Strategies</p> <p>How can Nordea overcome weaknesses that will make threats a reality?</p> <ol style="list-style-type: none"> 1. Utilizing strong investment capacity to renew legacy system

Exhibit 4: VRIO

	Valuable	Rare	Imperfectly Imitable	Organized
Multinational trusted bank	III	II	III	II
Customer base	III	II	III	II
Regulatory expertise	II	I	II	III
Investment capacity	I	I	I	III
FinTech accelerator program	III	II	II	II

(I, II and III refers to our opinion on to which degree the “strength” in question exhibits the characteristic in question, “I” being the lowest and “III” the highest)

Exhibit 5: Strategy evaluation

Criteria	Defensive	Opportunistic	Transformative	Comment
Sustainability	Low	Medium	High	Overall rationale of the strategy. Addressing the strategic issues
Execution complexity	Low	Medium	High	Degree of complexity implementing strategy
Feasibility	High	High	High	Possessing resources required to implement the strategy
Acceptability	Low	Medium	High	Performance outcomes based on return and reaction from stakeholders

Appendix

Appendix 1: Interview guide Nordea

1. How does Nordea view PSD2 in general?
2. Which strategic implications does PSD2 bring to Nordea and which treats and opportunities does these changes entail?
3. How is Nordea positioned today, which strengths and weaknesses does Nordea have in facing PSD2?
4. Which technical challenges does PSD2 and RTS bring for Nordea?
5. What are the costs connected with the technical changes PSD2 may bring?

Bibliography

Literature

Paul Rohan (2016). PSD2 in Plain English: Volume 1 (Payments Landscape for Non-Specialists). Dublin, Ireland. Rohan Consulting services Limited.

Frank T. Rothaermel (2015). Strategic Management 2e. New York. Published by: McGraw-Hill Education.

Kristoffersen, Line. Tufte, Per Arne. Johannessen, Asbjørn (2011).
Forskningsmetode for økonomisk administrative fag. Abstrakt; Opplag: 3.

Geoffrey G. Parker, Marshall W. Van Alstyne, and Sangeet Paul Choudary (2016). Platform Revolution: How networked markets are transforming the economy and how to make them work for you. W.W. Norton & company; 1 edition.

Steigum, Erling (2004). Moderne Makroøkonomi. Gyldendal Akademisk.

Legislation

The SEPA regulation (EU) No 260/2012. Collected from:

https://ec.europa.eu/info/business-economy-euro/banking-and-finance/consumer-finance-and-payments/payment-services/single-euro-payments-area-sepa_en

Payment services directive 2007/64/EC. Collected from:

https://ec.europa.eu/info/business-economy-euro/banking-and-finance/consumer-finance-and-payments/payment-services/payment-services_en

Revised Payment services (PSD2) - Directive (EU) 2015/2366. Collected from:

https://ec.europa.eu/info/law/payment-services-psd-2-directive-eu-2015-2366_en

Regulation (EU) 2015/751 of the European Parliament and of the Council of 29 April 2015 on interchange fees for card-based payment transactions. Collected from:

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32015R0751>

General Data Protection Regulation (GDPR) - Regulation (EU) 2016/679.

Collected from:

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN>

Draft Regulatory Technical Standards – RTS on strong customer Authentication and common and secure communication – Article 98 of Directive 2015/2366 (PSD2). Collected from:

<https://www.eba.europa.eu/documents/10180/1761863/Final+draft+RTS+on+SCA+and+CSC+under+PSD2+%28EBA-RTS-2017-02%29.pdf>

Regulation (Eu) 2015/751 of the european parliament and of the council on interchange fees for card-based payment transaction. Collected from:

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0751&from=EN>

Sources

¹ The European commission (Year). Single Euro Payment Area (SEPA). Collected from: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/consumer-finance-and-payments/payment-services/single-euro-payments-area-sepa_en#rules-on-charges-for-cross-border-payments-in-euro

² The European commission (year). Payment Services. Collected from: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/consumer-finance-and-payments/payment-services/payment-services_en

³ Regulation (Eu) 2015/751 of the european parliament and of the council on interchange fees for card-based payment transaction. Collected from: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0751&from=EN> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0751&from=EN>

⁴ Draft Regulatory Technical Standards – RTS on strong customer Authentication and common and secure communication – Article 98 of Directive 2015/2366 (PSD2). Collected from: <https://www.eba.europa.eu/documents/10180/1761863/Final+draft+RTS+on+SCA+and+CSC+under+PSD2+%28EBA-RTS-2017-02%29.pdf>

⁵ Johnsen, Brynjel (2017). Hva innebærer PSD2 for bankene? BITS. Collected from: <https://www.bankid.no/globalassets/dokumenter/apne-sider/presentasjoner/3-brynjel-johnsen-bits.pdf>

⁶ Nordea AB (2017). Our Markets. Collected from: <https://www.nordea.com/en/about-nordea/where-we-are/our-markets/>

⁷ Nordea AB (2017). Our markets. Collected from: <https://www.nordea.com/en/about-nordea/where-we-are/our-markets/>

⁸ Nordea AB (2017) Nordea recognised for IT innovations. Collected from:
<https://www.nordea.com/en/press-and-news/news-and-press-releases/news-en/2017/nordea-recognised-for-it-innovation%20.html>

⁹ Bäck, Camilla. Nordea AB (2017). Open Banking. Collected from:
<https://medium.com/@NordeaOpenBanking/open-banking-the-perfect-storm-to-shake-up-banking-as-we-know-it-2d05d37efb1>

¹⁰ PwC Strategy (2016): Catalyst or threat? The strategic implications of PSD2 for Europe's banks) Collected from:
<https://www.strategyand.pwc.com/media/file/Catalyst-or-threat.pdf>

¹¹ Evry (2015): Engaging the millennials. Collected from:
<https://www.evry.com/globalassets/insight/bank2020/engaging-the-millennials---labs-whitepaper.pdf>.

¹² Ware, Mikki. (2015) GremlinSocial. The Future is now: Mobile and the social banking branch. Collected from:
<http://gremlin-2510800.hs-sites.com/2015/09/08/the-future-is-now-mobile-and-the-social-banking-branch>

¹³ The Millennial Disruption Index (2013). Collected from:
http://www.millennialdisruptionindex.com/wp-content/uploads/2014/02/MDI_Final.pdf

¹⁴ Fleutiaux, François. Fujitsu (2016). The Fujitsu European Financial service survey 2016. Collected from:
<http://www.newpaceofchange.com/Fujitsu%20European%20Financial%20Services%20Survey%202016.pdf>

¹⁵ Accenture (2016). Seizing the opportunities unlocked by the EU's revised payment services directive. Collected from:
https://www.accenture.com/t20160831T035645_w_/no-en/acnmedia/PDF-19/Accenture-Banking-Opportunities-EU-PSD2-v2.pdf#zoom=50

¹⁶ McKinsey (2015) The Fight for the Customer: McKinsey Global Banking Annual Review 2015

Collected from: <http://www.mckinsey.com/industries/financial-services/our-insights/the-fight-for-the-customer-mckinsey-global-banking-annual-review-2015>

¹⁷ Hellström, Viola (2017). Open banking – a transformational opportunity for banks.

Collected from: <https://www.evry.com/en/news/articles/open-banking2/>

¹⁸ Hernæs, Christoffer. TechCrunch. What Facebook's European payment license could mean for banks. Collected from: <https://techcrunch.com/2017/01/12/what-facebooks-european-payment-license-could-mean-for-banks/>

¹⁹ KPMG (2016). A New Landscape Challenger banking annual results. Collected from: <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/05/challenger-banking-report-2016.PDF>

²⁰ Sopra banking software (2017) PSD2: More a future of banking than a payment directive. Collected from:

https://www.soprabanking.com/Public/Files/file/psd2_more_a_future_of_banking_than_a_payment_directive_part2_e1ea07030f.pdf

²¹ DNB - PSD2 (2017). Collected from:

<https://www.dnb.no/en/business/transaction-banking/cash-management/articles/psd2.html>

²² Joe Fielding, James Hadley, Nicolas Lopes and Gary Turner. Bain & Company.

Collected from: <http://www.bain.com/publications/articles/retail-banks-manage-for-glory-or-cash.aspx>

²³ The Financial Brand (2015) Is the Banking Industry losing the Battle for Customers?

Collected from:

<https://thefinancialbrand.com/54662/mckinsey-banking-fintech-competition/>

²⁴ Stephen Gandel. Fortune (2016). Here is how CityGroup is embracing the FinTech

revolution. Collected from: <http://fortune.com/citigroup-FinTech/>

²⁵ Accuity (2017). Bank Rating – Top Banks in the world. Collected from:

<https://accuity.com/resources/bank-rankings/>

²⁶ Nordea AB (2016). About Nordea. Collected from:

<https://www.nordea.ru/en/about/info.php>

²⁷ Nordea AB (2017). Our Position. Collected from:

<https://www.nordea.com/en/about-nordea/who-we-are/our-position/>

²⁸ Nordea Startup (2017). Collected from:

<http://www.nordeaaccelerator.com/>

²⁹ BCG (2017). Capital Markets. Collected from:

<https://www.bcg.com/it-it/expertise/industries/financial-institutions/capital-markets.aspx>

³⁰ OnBase. The Trouble with Legacy Systems: An Insurance Executive's challenges and options. Collected from:

https://www.onbase.com/~/_/media/Files/hyland/whitepaper/wp_trouble-with-legacy-systems.pdf

³¹ Antony Peyton, Banking Technology (2016). Collected from:

<http://www.bankingtech.com/523322/nordea-launches-new-digital-group/>

³² Kanika Hopes, Temenos (2016). The Future of Retail banking and the case for the core transformation. Collected from:

https://www.temenos.com/globalassets/mi/wp/17/retail-banking-core-transformation-white-paper_fl701w.pdf

³³ EY Bank Relevance Index (2016). Collected from:

<http://www.ey.com/gl/en/industries/financial-services/banking---capital-markets/ey-bank-relevance-index>

³⁴ Handelshøyskolen BI, Norsk Kundebarometer (2017). Collected from:

<https://www.bi.no/forskning/norsk-kundebarometer/bransjerresultater-2017/>

³⁵ Pipes to platform (2017). The platform stack: For everyone building a platform and for everyone else. Collected from:

<http://platformed.info/platform-stack/>

³⁶ David Nikel (2015). Norway's DNB was inspired by Danish bank for new app.

Collected from:

<http://www.computerweekly.com/news/4500248821/Norways-DNB-look-to-Denmark-with-new-payments-app>

³⁷ MobilePay. The story of mobile pay – and a few facts. Collected from:

<https://mobilepay.no/nb-no/pages/The-story-in-English.aspx>

³⁸ PwC Strategy (2016): Catalyst or threat? The strategic implications of PSD2 for Europe's banks) Collected from:

<https://www.strategyand.pwc.com/reports/catalyst-or-threat>

³⁹ McKinsey by; Oliver Denecker, Sameer Gulati, and Marc Niederkorn. The Digital Battle that Banks must win. Collected from:

<http://www.mckinsey.com/industries/financial-services/our-insights/the-digital-battle-that-banks-must-win>

⁴⁰ European Commission (2012). Special Eurobarometer 373. Collected from:

http://ec.europa.eu/internal_market/finservices-retail/docs/policy/eb_special_373-report_en.pdf

⁴¹ Sylvian Bouyon and Karel Lannoo (2015). Relaunching the European retail finance market. Collected from:

<https://www.ceps.eu/system/files/No%2020%20Retail%20Financial%20Services-0.pdf>

⁴² Viola Hellström (2016). PSD2 – The directive that will change banking as we know it.

Collected from:

<https://www.evry.com/en/news/articles/psd2-the-directive-that-will-change-banking-as-we-know-it/>

⁴³ Sylvain Bouyon and Karel Lannoo (2015) Relaunching the European Retail Finance Market Comments on the Commission's Green Paper. Collected from:
https://www.ceps.eu/system/files/No%2020%20Retail%20Financial%20Services-_0.pdf

⁴⁴ Marlene Ten Ham (2015). Global e-commerce turnover grew by 24% to reach \$1,943bn 2014. Collected from:
<https://ec.europa.eu/futurium/en/content/global-e-commerce-turnover-grew-240-reach-1943bn-2014>

⁴⁵ Steigum, Erling (2004). Moderne Makroøkonomi. Forlag: Gyldendal Akademisk.

⁴⁶ McKinsey & Company (2016): Cutting Through the FinTech Noise: Markers of Success, Imperatives For Banks. Collected from:
<http://www.mckinsey.com/~media/mckinsey/industries/financial%20services/our%20insights/cutting%20through%20the%20noise%20around%20financial%20technology/cutting-through-the-fintech-noise-full-report.ashx>

⁴⁷ Arnold, M. (2015), Financial Times: McKinsey warns banks face wipeout in some financial services. Collected from:
<https://www.ft.com/content/a5cafe92-66bf-11e5-97d0-1456a776a4f5>

⁴⁸ EY Bank Relevance Index (2016). Collected from:
<http://www.ey.com/gl/en/industries/financial-services/banking---capital-markets/ey-bank-relevance-index>

⁴⁹ Niklas Magnusson and Johan Carlstrom (2017). "Big Profits justify new bank measures." Collected from:
<https://www.bloomberg.com/news/articles/2017-02-25/-big-profits-justify-new-bank-measures-swedish-government-says>

⁵⁰ YLE (2017). Nordea could move HQ to Finland if Swedish governments raises taxes.

Collected from:

http://yle.fi/uutiset/osasto/news/banker_wahlroos_nordea_could_move_hq_to_finland_if_swedish_govt_raises_costs/9516230

⁵¹ Ware, Mikki. (2015) GremlinSocial. The Future is now: Mobile and the social banking branch. Collected from:

<http://gremln-2510800.hs-sites.com/2015/09/08/the-future-is-now-mobile-and-the-social-banking-branch>

⁵² The Millennial Disruption Index (2013). Collected from:

http://www.millennialdisruptionindex.com/wp-content/uploads/2014/02/MDI_Final.pdf

⁵³ Fleutiaux, François. Fujitsu (2016). The Fujitsu European Financial service survey 2016. Collected from:

<http://www.newpaceofchange.com/Fujitsu%20European%20Financial%20Services%20Survey%202016.pdf>

⁵⁴ Accenture (2016). Seizing the opportunities unlocked by the EU's revised payment services directive. Collected from:

https://www.accenture.com/t20160831T035645_w_/no-en/acnmedia/PDF-19/Accenture-Banking-Opportunities-EU-PSD2-v2.pdf#zoom=50