



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

PSD2 - The Revolution that Never Happened

GM1460 Masters Degree Project in Accounting and Financial Management

Spring 2021

Authors: Elinor Ahlfors Hallkvist and Olivia Larsson

Supervisor: Dr. Viktor Elliot

Abstract

The introduction of PSD2 was expected to revolutionise the financial industry and disrupt established banks' business models. However, the changes have not been as dramatic as expected. Mainly this concerns the predicted increase in innovation speed. The purpose of this thesis is to explore the responses taken by large Swedish established banks in relation to the introduction of PSD2. Also, the study aims to explore banks' perceptions of the directive, from its announcement to practical implementation. The perceptions and responses will be explored through a multi-firm case analysis, based on interviews with four large and established banks in Sweden and an industry actor and authority.

Through the perceptions and responses taken by the banks we find that PSD2 has introduced competing institutional settings in the banking industry. These competing settings emerge from banks' traditional institutional setting and the institutional setting of third-party providers (TPP's) which are forced to work together due to the introduction of PSD2. Further, PSD2 constitutes an institutional pressure forced upon the banking industry and we find in this thesis that banks tend to respond more passive than active towards this specific institutional pressure. A specific response towards institutional pressures defined in previous literature is decoupling. It is not possible to conclude through the findings of this thesis if decoupling has been present or not in banks responses towards PSD2. However, there are signs that decoupling might occur in this setting and the lack of materialised expected effects of innovation speed brings suspicions towards that decoupling might have occurred, at least historically. Lastly, this thesis finds that the institutional pressure of PSD2 works as a starting point for the disruptive business model innovation of open banking. Banks' perceptions of PSD2 indicate that banks are aware that PSD2 can bring a disruptive business model innovation to the industry but they lack effective measures to respond to the innovation. The banks seem to not have the abilities to adapt to the innovation due to the size of conflict between the traditional and the new business model.

Keywords: PSD2, Open Banking, Institutional Change, Decoupling, Disruptive Business Model Innovation

Acknowledgement

We would like to express our deepest gratefulness to the respondents in this thesis who have given us valuable insights and contributed to the result. Further, we would like to give our gratitude to our supervisor Dr. Viktor Elliot who has supported us with knowledgeable insights during the whole process.

Table of contents

1. Introduction	6
1.1 Background	6
1.2 Problematism	9
1.3. Purpose of Thesis and Research Question	10
2. Theoretical Framework	11
2.1. Institutional Theory	11
2.2. Responses to Institutional Pressure	11
2.3. Decoupling as a Response to Institutional Pressure	14
2.4. Change of Business Model	16
2.5. Summary of Theoretical Framework and Introduction of Theoretical Model	20
3. Methodology	22
3.1. Research Approach	22
3.2. Research Design	23
3.3. Development of Theoretical Framework	25
3.4. Sampling	26
3.5. Data Collection	27
3.5.1. Primary Data	27
3.5.2. Interview Process	28
3.5.3. Development of Question Form	29
3.5.4. Secondary Data	30
3.6. Data Analysis	31
3.7. Research Quality	33
3.8. Ethical Considerations	35
5. Empirical Results	36
5.1. Case Setting	36
5.2. The Perceived Market Effect of the Directive	37
5.3. Perceptions Over Time	40
5.4. Perceived Risks and Challenges with PSD2 and Open Banking	40
5.5. Perceived Opportunities with PSD2 and Open Banking	42
5.6. Strategic Adoption of the Directive and Banks' Actions	44
5.7. Internal Responses and Conflicts	46
6. Analysis	48
6.1. Main findings	48
6.2. Strategic Responses to Institutional Change	49
6.2.1. Oliver's (1991) Framework of Strategic Responses	49
6.2.2. Decoupling	51
6.2.3. Motives behind compliance	53
6.2.4. Strategic Responses to PSD2 and Beyond	54

6.3. Competing Institutional Settings	55
6.4. Business Model Adoption	57
7. Conclusion	62
References	66
Appendices	71
Appendix 1: Question Form - Banks	71
Appendix 2: Question Form - Anonymous Industry Actor	71
Appendix 3: Question Form - Authority	72

1. Introduction

1.1 Background

The European Union has during the last decades aspired to create a collective market for payments between the concerned countries (European commission, n.d.). One of the first attempts to reach a harmonisation of payments within the EU was the introduction of the First Payment Services Directive (PSD1) in 2007 (Mansfield-Devine, 2016). PSD1 was supposed to facilitate payments across borders in the EU and aimed at creating innovation in the area of payments (Mansfield-Devine, 2016). The purpose was also to increase competition on the payment market by opening up for new entrants with innovative business ideas. PSD1 was updated into a new directive, Second Payment Services Directive (PSD2), in order to account for the strong technological developments seen within payments (Noctor, 2018). PSD2 was put in force in January 2018 (European Commission, 2018). The updated directive aims to allow for customers to have control over their own customer information and the right to decide who gets to use it (European Commission, 2018). Further, PSD2 complements PSD1 and aims to increase the customer protection for customers managing their payments online (Noctor, 2018) and allow for greater competition within the financial services market (Mansfield-Devine, 2016).

One of the largest changes coming from the introduction of PSD2 is the handling of customer data (Noctor, 2018). With PSD2, financial institutions have to give third-party providers (TPP's)¹ access to customer data, if the customer gives permission to. This is aimed to create competition and increase innovation by taking away the monopoly that financial institutions have on customer data (Mansfield-Devine, 2016). With this, TPP's will, among other things, be able to initiate payments on the behalf of the customer from the customer's account in a separate financial institution. This is done through the usage of open banking which includes sharing data on customers between financial institutions and TPP's (Nicholls, 2019). Nicholls, (2019) is referring to open banking as "voluntarily or in response to legislative or regulatory requirements sharing customers information with third-party providers" (p.121). This sheds light upon that open banking is not a new phenomenon coming with the introduction of the PSD's but that it has been used and developed before the legislative pressure. In order to create

¹ A third-party provider is defined as a payment service provider that has been granted a license from the supervisor authority from each country (Finansinspektionen, 2018).

an open banking platform, API's (Application Programming Interfaces) are used (Jacobson, Brail & Woods, 2011). API's are interfaces where two or more applications connect to each other (Jacobson et al., 2011), in this case, in order for a TPP to access a customer's data and make payments on the customer's demand.

The large established banks within the financial service industry have during several years had a monopoly on their customers' data which is now at stake (Cortet, Rijks & Nijland, 2016; Salmony, 2014). The account-bearing financial institutions still mandate and bear the responsibility for the full security issues surrounding the transactions (Mansfield-Devine, 2016) and therefore need to ensure that the initiated payment is made on the behalf of the customer before sharing any information. Thus, developments within strong customer authentication (SCA) are key. SCA is an authentication process for payments, consisting of a two-stage authentication. The European Banking Authority (EBA) has decided upon three approved methods where at least two of them must be used together in order to access another financial institution's customer data.

Even though the new directive aims to be cost-efficient for the whole industry, this is more likely to be the case for end-users and TPP's compared to the established banks (Mansfield-Devine, 2016). However, the established banks have a possibility to benefit from the potential that arises from the area of open-banking if managed properly (Dratva, 2020). These possibilities are highlighted by the vast majority of European banks, which are positive towards their potential benefits arising from the new directive (Mannberg & Maus, 2019). According to the interviewed banks in Mannberg and Maus (2019) business report, the new directive will enable them to further increase customer loyalty and thereby revenues. Despite the highlighted benefits, the majority of the concerned banks fall short on actions taken for developing their open banking platforms, according to Mannberg and Maus (2019).

As mentioned, one of the aims with PSD2 is to create opportunities for developments within payment services (Mansfield-Devine, 2016) and this will allow fintech companies to challenge the established banks (Lautenschläger, 2019). In a study made by Polasik, Huterska, Iftikhar and Mikula (2019) the authors conclude that PSD2 has had a positive effect on payments licenses granted to start-ups. However, the majority of payment licenses granted during the period after the directive was implemented were still provided to established actors. Moreover, Romanova, Grima, Spiteri and Kudinska (2018) have examined how European fintech companies perceive that PSD2 will affect the competition in the industry. The conclusion is

that competition will be enhanced through the new directive and that the focal point of competitiveness will be cost reduction and customer satisfaction. Important factors for competitiveness will also be security, quality of products and services and the speed of payment/transaction services. Romanova et al. (2018) argue that although it seems like participants in the financial service industry believe in the potential of PSD2 there is a risk in trying to create innovation and competition through regulation. This is because regulation formed in the wrong way might hinder innovation and competition instead of promoting it.

The introduction of PSD2 was argued to be able to revolutionise the whole banking industry and there was a strong belief that it would imply major challenges for established banks' existing business models (PwC, 2018). Developments of a new infrastructure system to ensure secure payments was expected to be very costly for the established financial institutions (Mansfield-Devine, 2016). The threat towards established banks' business model and the unattractiveness of the investment needed for capturing the shift towards another business model is similar to Charitou and Markides' (2003) concept "disruptive business model innovation". With the challenges of expensive investments that need to be done and the changing arena for payment services, established financial institutions need to reconsider their strategy (Cortet et al., 2016). Cortet et al. (2016) argue that PSD2 is a directive which needs more strategic attention than just creating a compliance plan and adjusting the operations to the new directive. Previous research has shown that large firms tend to strategically respond actively when faced by external threats against their existing business model (Clemens & Douglas, 2005). On the other hand, it is also shown that decoupling from practice frequently occurs in situations where there exists conflicting interest from several stakeholders (Crilly, Zollo & Hansen, 2012). Applying these concepts to the banking sector is convenient as the established banks tend to be large and bear a big stakeholder responsibility due to their functionality for the overall economy.

Before implementation of the directive several fintech companies criticised the formulation of the directive and how it would be implemented technically (Goldberg, 9 October 2016). There were worries that established financial institutions would not have incentives to facilitate for TPP's to retrieve the customer data and that the systems would not work in favour of TPP's. However, established banks did not agree with this critique and argued that the directive is clear and does not favour any party over the other (Jakobsson, 13 October 2016). After the launch of PSD2 in 2018, there are still debates if the directive has led to the wanted outcome

(Ek, 1 June 2020). Several fintech companies have criticised the established banks for not complying with the new directive to the extent as supposed to. Primary criticism is towards the established banks API's, which are accused of not being efficient enough to enable TPP's to take part of customer data. This reality is also highlighted by Mannberg and Maus (2019), which state that TPP's feel that bank's API's are not working successfully. Especially, there is no harmonisation of how to securely develop API's. Mannberg and Maus (2019) highlights that only a very limited amount of the investigated banks provided more than the required amount of data in 2019, which sheds a light on banks willingness to share valuable customer insights with TPP's (Mannberg & Maus, 2019). Thus, even though the expectations of the directive were that it would revolutionise the industry and disrupt established banks' business models there are reasons to believe that the changes have not been as dramatic as expected. Which forcing powers that might have mitigated the effects of PSD2 on the financial market still remains unclear.

1.2 Problematisation

Several debate articles and experts have commented on PSD2 upon implementation (Dratva, 2020; PwC, 2018; Mansfield-Devine, 2016; Goldberg, 9 October 2016). However, the high innovation speed that was expected in the market has not yet materialised and the same goes for the expected effects for the established banks. Thus it remains uncertain regarding how the directive is perceived within the industry and which actions that have been taken as a response towards the directive. As noted by Mannberg and Maus (2019), there exists a gap between the banks' willingness and actual actions, where banks express an aim to exploit the opportunity to develop their open banking services given by PSD2 but lack effective measures to adapt their strategy, which implies that there is an inconsistency between what is presented by the banks and the true practise. These findings together make it interesting to explore banks' perceptions and responses connected to PSD2 from an empirical perspective in light of the perceived market effect of PSD2 that seems questionable as of today.

PSD2 is a directive which theoretically can be defined as an institutional pressure exerted on the whole banking industry. As the proposed effects of PSD2 share similarities with "disruptive business model innovation", banks' perception of and responses towards the new directive are of interest to explore to provide a broader picture of how external institutional pressure towards an existing business model is managed. Further, looking at previous research on regulatory

increase, it is notable that there exists a positive relationship between regulatory increase and decoupling as a response (Oliver, 1991; Boxenbaum & Jonsson, 2017; MacLean & Behnam, 2010). With this fact in mind, it is interesting to explore the responses towards PSD2 as decoupling might be an explanation for the lack of expected effects, which could help to provide a broader empirical understanding for the current outcome of the directive.

The institutional pressure of PSD2 is as mentioned exerted on the whole banking industry and Si and Chen (2020) states that industry factors are important to consider in order to understand the phenomena of disruptive innovation and organisations responses towards it. However, Si and Chen (2020) discovered through their literature review that industry factors' effect on disruptive innovations have not been researched to a large extent. Further, there is no previous research on banks' perceptions and responses towards PSD2 which motivates this exploratory study. The perceptions and responses will be explored through interviews with several industry actors which creates an in-depth knowledge about the topic from the view of the organisations actually operating within the industry. In the light of the strong development of online payments, in Sweden especially, large Swedish established banks are of interest for this analysis.

Through this thesis knowledge is created about which effects PSD2 has led to and why. The lack of innovation speed is a central effect explored throughout this thesis. Knowledge further includes how competing institutional settings may affect outcomes of regulatory pressure, the concept of disruptive business model innovation and how it can be applied to regulatory pressure, and how decoupling can be present in different settings.

1.3. Purpose of Thesis and Research Question

The purpose of this thesis is to explore the responses taken by large Swedish established banks in relation to the introduction of PSD2. Also, the study aims to explore banks' perceptions of the directive, from its announcement to practical implementation. The purpose of this study will be approached through this research question:

How do large Swedish established banks perceive the directive PSD2 and which responses do they take in relation to it?

2. Theoretical Framework

2.1. Institutional Theory

Institutional theory elaborates on how organisations are dependent on the institutional setting that they are active within (Scott, 2008). An institutional setting can include different aspects of society and the general surroundings that ambient the organisation. For example, national or regional culture, traditions in the society or industry, standards or regulations. This institutional setting creates pressure on organisations operating within it. Organisations adhere to this pressure in order to try to become legitimate and hence run their business in a successful way (DiMaggio & Powel, 1983). The institutional setting determines a firm's action, which is affected by the rules, norms and beliefs determined by the actors within the organisation field (Scott, 2008).

When an institutional change occurs in the field, a new dominant institutional setting takes place and provides new rules, norms and beliefs for the actors within the field (Scott, 2000; DiMaggio & Powel, 1983). According to (Suchman, 1995) organisations will adhere to external pressure in terms of institutional change leading them to change their routines and practices to maintain organisational legitimacy. Further, Hoffman, (1999) argues that an institutional setting is not static and instead provides a framework describing how enforcement of an institutional change can implicate that competing institutional settings coexist during a length of time in an organisation. Eventually, one dominant setting will be preferred, by the involved actors, leading to that the institutional setting remains unchanged or changed depending on the outcome. This view is referred to as 'arenas of power relations', where the industry actors determine the dominant setting through competition, leading to that competing settings can coexist during a length of time. On the same note, Glynn and Lounsbury (2005) elaborates on how an institutional change, that introduces a competing setting in the field, could lead to an outcome where the dominant and competing setting is instead combined into a new institutional setting.

2.2. Responses to Institutional Pressure

According to intuitional theory, organisations' strategic responses are bound to the institutional setting (DiMaggio & Powel, 1983). Oliver (1991) developed a framework of different strategic responses organisations undergo when faced with institutional pressures.

Oliver (1991) suggests that there exist five different categories of strategic responses, namely: *acquiescence*, *compromise*, *avoidance*, *defiance*, and *manipulation*. Further, she defined different tactics to the responses. The undertaken strategic response from the organisation will vary from passive to active, depending on the pressure. If the strategic response is *acquiescence*, this refers to a response where the organisation conforms to the institutional pressure due to consciousness, awareness or a belief that the pressure will be self-serving to the organisation's interests (Oliver, 1991). This is either done by blindly following taken-for-granted rules and norms, mimicking intuitional models or consciously incorporating existing norms and values. Instead, a response of *compromise* explains when an organisation responds partly to an institutional pressure due to conflicting pressures approaching at the same time. Thus, conformity is only partial and the organisation seeks to actively promote their own self-interest. The third response is *avoidance*, meaning that organisations respond by escaping, pretending to conform or avoiding evaluation. Further, organisations can respond by *defiance*. With this strategic choice, the organisation tries to actively resist intuitional pressure. This can either be done by ignoring the pressure, challenging the existing pressure or attack. Attack differs from challenging since this implies a more aggressive stance from the existing pressure. Lastly, the strategic response of *manipulation* explains when an organisation answers to pressures by trying to take the power over the intuitional pressure using opportunistic means. An example of when manipulation occurs is when an organisation is faced by a regulation and tries to affect the regulators towards their own benefit (Clemens & Douglas, 2005).

Further, the external environment which Oliver (1991) summarises as; *cause*, *constituents*, *content*, *control*, and *context* will affect the choice of direction. *Cause* is thought of as organisations reasoning about advantages and disadvantages behind complying with intuitional pressure. *Constituents* meaning that organisations will to a higher degree comply if the external pressure is coming from an external stakeholder of high importance. *Content* is defined as the rules that apply to the intuitional pressure. The term *control* is defined by Oliver (1991) as "by the means by which pressures are imposed on organisations" (p. 168). In other words, *control* is decided upon regulatory aspects from control functions such as regulators. The *context* is the underlying conditions within the institutional setting. Here the interconnectedness between the organisation and the institutional setting plays a large role. Thus, Oliver (1991) concludes that depending on the external environment different strategic responses will be applied by the organisation in question when faced by institutional pressures.

Firms of larger size have in previous literature shown to be more reluctant to respond actively, due to higher sanction costs and bureaucracy (Clemens, Bamford & Douglas, 2008). However, Elliot and Cäker (2017) found that a large Swedish Bank responded more actively to regulation compared to a bank of smaller size, using Oliver's (1991) framework. Clemens and Douglas (2005) also support that larger organisations can choose to respond more actively when there exists a threat of their existing business model. They conclude that the larger firms have more resources to actively engage and affect regulators and how regulations should be understood.

Both Clemens and Douglas (2005) and Elliot and Cäker (2017) touch upon the abilities of organisations to respond in a certain way when faced with new laws or regulations. A stream of literature including Burby and Paterson (1993) and Winter and May (2001) is instead focusing on the motives of compliance. The large emphasis is put on environmental regulation and the compliance of the same but the theoretical concepts can be argued to be applied to other kinds of regulations as well. There are several different factors that are argued to motivate organisations and individuals to comply with regulation and different authors name them in different ways. Firstly, compliance based on economic rationality, called deterrence and remuneration, by Burby and Paterson (1993) and calculated motivations by Winter and May (2001). These motives refer to when organisations consider the net return of complying with the regulation. The costs of complying are compared to the costs created by not complying, like fees or other sanctions (Burby & Paterson, 1993; Winter & May, 2001). In the case of remuneration, the motive is focused on the incentives for complying instead of punishments for not complying (Burby & Paterson, 1993). Independent of using deterrence or remuneration, the motives are relying on economic rationality of the organisation.

The second type of motive for complying to regulation is normative commitment which takes into account the moral of complying (Burby & Paterson, 1993; Winter & May, 2001). It builds on the willingness of being a good civil citizen which includes following laws and regulations set by authorities. This motive also considers to what extent other organisations comply with a regulation, how fair the authorities are perceived and the general value of a regulation (Winter & May, 2001). The third type of motive is social motivations which include the willingness of being socially accepted in the society (Burby & Paterson, 1993; Winter & May, 2001). The effectiveness of regulation will depend on society's disapproval of not complying (Burby & Paterson, 1993). The difference between normative and social motives is that normative

motives build on internalised values while social motives build on values that are not internalised but still seen as socially accepted (Winter & May, 2001).

According to Mannberg and Maus (2019), the established banks seem to lack the right tools to execute their aimed strategic responses towards the new directive. Moreover, Cortet et al. (2016) discuss PSD2 from a strategic perspective before its introduction. They suggest that there are four strategic options that established financial institutions can choose between when deciding how to address the introduction of the new directive. The four options are; Comply, Compete, Expand and Transform. Cortet et al. (2016) suggest that banks' management needs to reconsider what future position they aim for on the market and how PSD2 will affect their daily operations. The *Comply* strategy would include just doing the necessary by opening up the API's to TPP's but make no further investments in order to keep costs as low as possible. However, this strategy would not, unsurprisingly, lead to any gain for the organisation. The *Compete* strategy would imply that established financial institutions make investments in innovation to create new products and services in order to compete with new TPP's. By taking on this strategy, established organisations would be able to compete with TPP's by offering similar services as them. However, the possibility to increase revenue extensively would require the *Expand* strategy. Taking this strategy would make PSD2 an opportunity instead of a threat for the established organisations. This strategy would include creating more API's then enforced to do and exploit the possibility to gain access to other organisations customer data as well. The last strategy is *Transform* which on top of all actions in *Expand* includes collaborating with TPP's. This requires large investments in innovations but also in relation-building with outside organisations (Cortet et al., 2016).

2.3. Decoupling as a Response to Institutional Pressure

Institutional pressures force organisations to change their current routines and practices to maintain their legitimacy (Suchman, 1995). However, as noted by previous research, this is often not without friction in how these changes should be adopted into practice, due to conflicting interest from the organisation's stakeholders (Friedland & Alford, 1991). According to Meyer and Rowan (1977) organisations respond towards the inconsistencies by decoupling as a strategy to manage their stakeholder responsibility and maintain legitimacy. However, decoupling as a response towards institutional change will only be of interest to the organisation if it enables them to provide legitimacy without too high risk of detection

(Boxenbaum & Jonsson, 2017). Certain characteristics have been highlighted to be correlated with decoupling according to previous research. Among these, institutional change through coercive pressure is found to be strongly associated with decoupling (Seidman, 1983). Further, organisations' perception of the benefit of the institutional change will affect the strategy of decoupling (Boxenbaum & Jonsson, 2017).

The tendency of decoupling was evident in a paper by Wall and Peterson (1996). The authors investigate banks implementation of capital regulations since 1980 to provide insights on banks reactions towards the regulations. They find that a bank's choice to comply or not with capital ratio regulation is dependent on a cost and benefit analysis, which supports the view of Boxenbaum and Jonsson (2017). Further, Wall and Peterson (1996) conclude that regulation towards capital ratios has been successful in the sense that capital ratios have decreased during the years from 1980. However, the authors' highlight that capital regulations have left room for banks to decrease their capital ratios while increasing their risk exposure on alternative paths, noted as cosmetic changes, in other words decoupling. Thus, the decreased capital ratio implies that the bank complies with regulations, while the risk is still maintained at the same level as before regulation. According to the empirical findings, the result of increased capital ratios since 1980 is partly denoted through cosmetic changes, meaning that the full effect of the regulations has not been met.

On the path of decoupling, Crilly et al. (2012) examine why some organisations undergoing the same institutional pressures decouple from implemented policies while some do not. According to Crilly et al. (2012) decoupling mainly depends on two external factors, namely; expectations on the organisation from external stakeholders and the degree of information asymmetry between stakeholders and the organisation. When an organisation faces inconsistent expectations from several stakeholders, the risk of decoupling is larger as the organisation tends to respond with decoupling as a try to mitigate conflicting interest, which confirms the theory of Meyer and Rowan (1977). Further, if the information asymmetry between the firm and external stakeholders is large, the organisation is better able to delude external stakeholders that they are complying with the external pressure while they in fact are maintaining their original corporate agenda (Crilly et al., 2012). The authors find that organisations do not only intentionally decouple from practice, it is also a result of how organisations try to please several stakeholders which unintentionally leads to difficulties in implementing policies to actions.

Further, when the information asymmetry is large intentional decoupling occurs more frequently if the organisations perceive the internal benefits of the regulation as low.

Decoupling as a strategy does not necessarily mean that the organisation will never implement the full institutional change (Boxenbaum & Jonsson, 2017). According to Scott (2001), institutional change will eventually become true practice as the individuals in the organisation do not feel comfortable with the strategy of decoupling over a longer period of time. Siti-Nabiha and Scapens (2005) found that organisations choose to decouple as a first step to buy more time to prepare themselves for implementation of institutional change.

2.4. Change of Business Model

The theory of disruptive change, or disruptive innovation, covers the phenomena of when an innovation is introduced in an established market and ends up taking over the whole market from established firms (Si & Chen, 2020). The theory was first introduced by Bower and Christensen (1995). After this, the theory has been widely discussed and used to explain the responses by established firms to innovations introduced in their industry (Si & Chen, 2020). Bower and Christensen (1995) introduce disruptive change in the form of disruptive technologies and discuss several examples where firms succeeded or failed to stay present in markets with rapidly changing technologies. These technological changes are not especially radical or hard to grasp but there are two other characteristics which make these technologies damaging to established organisations. Firstly, they attract customers through different attributes than the existing technologies which are not at first sight attractive to current customers of established organisations. Secondly, these attributes are developed at a rapid speed which creates a large risk that the customers of established organisations soon will realise the benefits with the new technologies and switch suppliers to the ones providing the new technology instead. This is what Bower and Christensen (1995) refer to as 'Disruptive technologies' where a technology that is different from the mainstream technology is introduced and eventually ends up taking over the whole market.

Important to mention is that a disruptive technology is not superior to the existing technologies once it is introduced, at least not concerning the attributes that are valued in the established firm's products or services (Si & Chen, 2020). However, the disruptive technology introduces other attributes that attract other kinds of customers which helps it enter the market (Bower & Christensen, 1995). The fact that disruptive technology does not have the attributes that

established firm's current customers' value makes it an unattractive investment for established firms. Also, disruptive technologies tend to have low profit-margins which makes them end up in not making it through the established firm's investment template. Kostoff, Boylan and Simons (2004) argue that current strategic planning processes are inherently poor at recognising disruptive innovations in the favour of sustaining innovations. Bower and Christensen (1995) end their article by presenting a framework of how established firms should attack the problem of disruptive technologies popping up in their industry. An important step is of course to determine whether a technology is disruptive or not. The fundamental action for an established firm who discovers a disruptive technology of great importance for its industry is according to Bower and Christensen (1995) to develop the disruptive technology in an organisation independent of the mainstream organisation. This is fundamental so that the managers of the new organisation are not affected by the fact that their business can actually harm the mainstream business. The main message is that the disruptive technology is going to concur out the mainstream business. With that fact, it is better for the established organisation to do that by themselves than to let a competitor do it.

In a later work, Christensen together with Overdorf (2000) elaborate on why established firms meet challenges in disruptive change. Here they argue that it is the capabilities of the organisation that restrain or make it possible for the organisation to achieve certain accomplishments. Christensen and Overdorf (2000) establish that "What we hope this framework introduces to managers' thinking is the idea that the very capabilities that make their organisation effective also define their disabilities." (p.76)

There are three fundamental factors that affect an organisation's capabilities, namely; resources, processes and values (Christensen & Overdorf, 2000). A start-up company starts by gathering resources in order to start their business, this can be both capital and personnel. Over time, they establish processes of how they work, make decisions, communicate and coordinate to receive a wanted result within the organisation. After a certain period, values start popping up in the organisation and a strong organisational culture is present at the now, established organisation. Processes and values are inherently supposed to be hard to change, these are in the core of the organisation and are meant to hold the organisation together. When an established organisation is encountered with a disruptive change that does not fit in with their current processes and values the change will undoubtedly be unattractive to adopt, independent on how much resources the organisation has available. Christensen and Overdorf (2000) follow

Bower and Christensen (1995) by suggesting that the correct way for an established organisation to respond to a disruptive change is to develop it in a separate organisation. Christensen and Overdorf (2000) argue that new capabilities should be established either in an organisational space within the organisation, but still separate, in a totally separate organisation or through acquisitions.

Gilbert and Bower (2002) highlight that a reason for established firms to not succeed when encountered by a disruptive change is that they see it either only as a threat or only as an opportunity. Seeing the change as a threat will drive the organisation to act but will cause too many resources to be spent on trying to fit the change into the existing business model, hence the processes and values (Christensen & Overdorf, 2000). Seeing the change as an opportunity on the other hand will cause a too laid back approach due to the non-existing threat and the organisation will not feel the motivation to change (Gilbert & Bower, 2002). Si and Chen (2020) also highlights the perception of the disruptive change by managers as a key factor influencing the responses taken by an organisation. They suggest that managers will be reluctant towards innovation perceived as a threat but willing to adapt innovations they perceive as an opportunity.

Among a stream of literature on business model adoption Saebi, Lien and Foss (2017) argue that there is limited research on how the perception of the external pressure as threat versus opportunity affects the willingness for business model adoption. However, there are two different research streams constituting of threat-rigidity theory and prospect theory, which advocate different responses depending on if the external pressure is perceived as an opportunity or threat to the organisation (Saebi et al., 2017). According to prospect theory, managers of organisations are more likely to be facing a threat with a risk seeking behaviour while giving a more cautious response towards opportunities, where the potential loss if failure is valued higher (Kahneman & Tversky, 1979). Instead, threat-rigidity theory interlocks opportunities with risk-seeking behaviour while threats are met with risk-averse behaviour and resistance to change (Dutton & Jackson, 1987). The results of Saebi et al. (2017) supports prospect theory where they found that changes in the institutional setting were more likely to be responded to with an adaption of the business model if the change was perceived as a threat to the organisation. If the change instead was perceived as an opportunity the investigated organisations were more reluctant to respond with an adaptation of the existing business model.

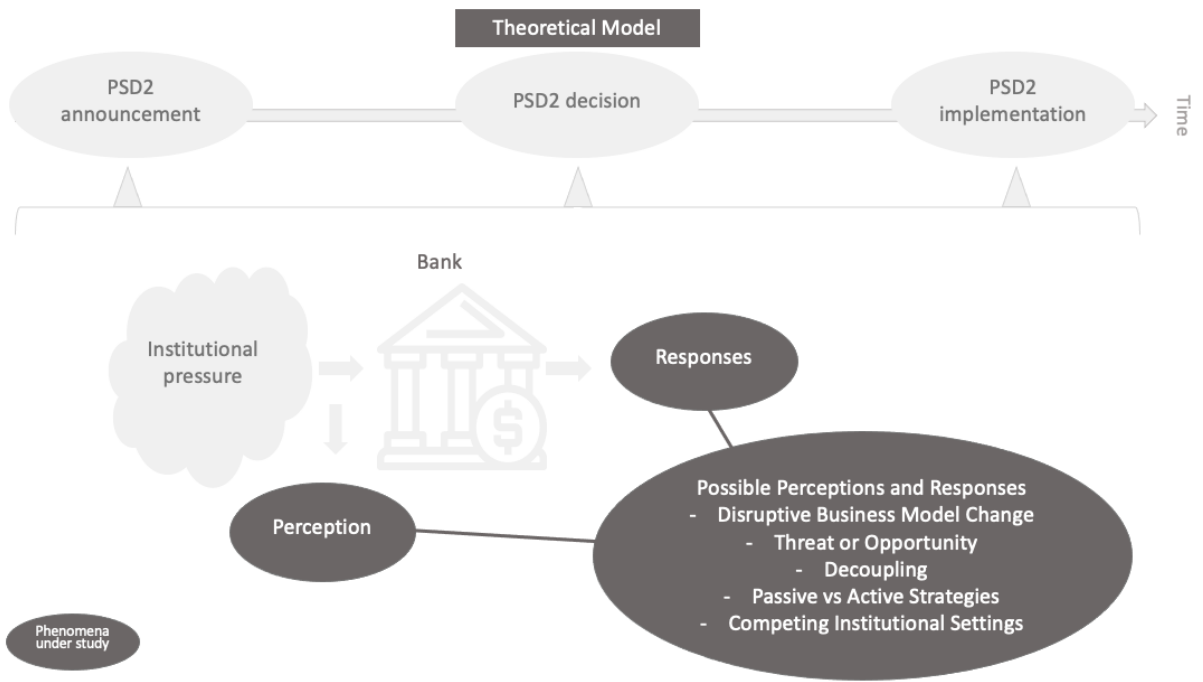
Gilbert and Bower (2002) bring up the case of the newspaper industry and how the introduction of online-newspaper acts as a disruptive change in that industry. Gilbert and Bower (2002) refer to the phenomena as disruptive change but it is the same as what Charitou and Markides (2003) call disruptive strategic innovations. These kinds of innovations are defined as innovations in the business model which results in a new way of 'playing the game' in the market (Charitou & Markides, 2003). In a later work, Markides (2006) places critiques against previous literature on disruptive change/innovation. He argues that disruption theory lacks a clear definition of disruptive innovation and that different kinds of disruptions are clustered together and treated as equal when they in fact are not. Further, he states that there are three kinds of disruptive innovations that should be separated, disruptive technological innovation, disruptive business model (strategic) innovation and disruptive product innovation. Disruptive technological innovation is the original disruptive change that Bower and Christensen (1995) introduced and Markides (2006) argues that even though there are similarities between this original form and the two others, they should be separated and responded to in different ways. Here the focus will lie on disruptive business model innovations. As with the original framework by Bower and Christensen (1995), Markides (2006) suggests that established firms will have little incentives to adopt disruptive business model innovation since they do not fit together with the current business model. What is different from disruptive technological innovations is that disruptive business model innovation will not take over the whole market, just a part of it. Also, the author suggests that the development does not necessarily have to be conducted in a separate organisation.

Instead, Markides (2006) refers to Charitou and Markides (2003) where five different responses to a disruptive business model innovation are developed. These include; focus on and invest in the traditional business, ignore the innovation – it is not your business, attack back – disrupt the disruption, adopt the innovation by playing both games at once and, embrace the innovation completely and scale it up. Which route to take depends on the organisation's motivations and abilities to respond. Motivations being the rate of growth of the innovation and how strategically related the innovation is to the organisation and abilities being the resources of the organisation and the size of the conflict between the traditional and new business model.

2.5. Summary of Theoretical Framework and Introduction of Theoretical Model

The theoretical framework is created to be a ground stone for the analysis in this thesis. It is supposed to bring theoretical insight to the reader of this thesis in order to grasp the analysis in the further reading. The theoretical framework introduces institutional theory and the connected topic of competing institutional settings. These theories bring insights on how organisations are dependent on the external environment that they are active within and what happens when changes in it occur. Further, common responses towards institutional change are presented. Institutional theory and responses towards institutional change connect to the empirics in this thesis through that PSD2 as a new directive forced upon the banking industry constitutes a change in the institutional setting. The next section of the theoretical framework presents decoupling which is a specific response that is common for organisations to take when put under institutional pressure. Decoupling has historically been a common response and the lack of materialised expected effects of PSD2 brings decoupling to mind as a possible response. Lastly, section 2.4. *Change of Business Model* introduces the concept of disruptive business model innovation. This concept can be applied to the institutional pressure of PSD2 where PSD2 works as a starting point for the disruptive business model innovation of open banking. This section contributes to the analysis of this thesis by introducing the topic of disruptive business model innovation where banks' perceptions of PSD2 and their responses towards it can be connected to these theories.

The theoretical model provides an overview of the topics of this thesis where the phenomena in the dark grey bubbles are those under study. PSD2 is seen as an institutional pressure within this report, which large Swedish established banks are faced by. Thus, this thesis aims to explore the perceptions that large Swedish established banks have of this institutional pressure. Further, this thesis aims to explore the responses and actions that large Swedish established banks have taken as a result of the institutional pressure. The possible perceptions and responses emerge from the theoretical framework. The initial thought was to elaborate on the perceptions and responses from a timeline perspective where the changes within these over time are captured from announcement of the directive to the implementation. However, due to the respondents answers and experience within the different organisations, the time frame perspective has been given a reduced focus in the results and analysis.



3. Methodology

3.1. Research Approach

The aim of this study is to investigate the responses taken by established Swedish large banks in relation to the introduction of PSD2. Further, the study aims to highlight banks' perception of the directive, from its announcement to practical implementation. This has been done through a multi-firm case study based on in-depth interviews with representatives from different banks, as well as from an anonymous industry actor with high knowledge about the financial sector and an authority. Rather than measuring a single outcome, the aim of this study is to provide insights on the perceptions and actions taken over time when faced by institutional pressure. The research question and aim of this study are designed to measure perceptions and actions taken which is in line with the interpretivist paradigm. Under interpretivism the reality is formed by an individual's perception of the world and this is what constitutes the truth. Thus, interpretivism adopts the relativist ontological belief that the reality is influenced and created by human behaviour (Collis & Hussey, 2013). Also, a subjectivist epistemological stance is adopted which implies that knowledge is created through the subjective experience of the research subjects together with the interaction of the researcher.

Under an interpretivist paradigm, research is most commonly based on qualitative data (Collis & Hussey, 2013). As proposed by Collis and Hussey, (2013) qualitative research methods are preferred when the aim is to capture detailed information about perceptions and beliefs. This report aims to incorporate organisational thoughts in relation to previous literature from different research streams and descriptive analysis to provide variability. Thus, the focus in this report will be on the qualitative material collected in connection to the identified theoretical framework. This approach enables the reader to understand how certain phenomena can affect human behaviour and if it can or cannot be analysed through the lens of the identified theories (Collis & Hussey, 2013).

Regarding the research approach, with an interpretivist paradigm and qualitative research methods, an inductive or abductive approach is suitable. Induction includes starting from empirical research which discharges in theoretical results. Hence, empirical material is the starting point. In our case, a descriptive analysis is an important step in the research process in order to create an understanding before gathering the empirical material. This has been done

through collection of secondary data. Also, the formulation of purpose and research question is based on the secondary data and inspired by the initial search for literature. Eriksson and Kovalainen's (2015) description of abduction is that it "refers to the process of moving from the everyday descriptions and meanings given by people, to categories and concepts that create the basis of an understanding or an explanation to the phenomenon described". This description suits well with the purpose of this study which is why an abductive research approach is used. Using abduction also enables us as researchers to make complementary changes to the theoretical framework during and after the primary data collection and analysis (Eriksson & Kovalainen, 2015). The opportunity to adjust the theoretical framework is important because of the limited previous research on the topic.

3.2. Research Design

The purpose of this study is to get a deeper understanding of the perceptions that established Swedish large banks have of PSD2 and the banks responses towards the directive. As explained above, this research is conducted under an interpretivist paradigm gathering qualitative data. In order to approach the purpose of this study we wanted to retrieve in-depth knowledge from people within the organisations that we are interested in. We aim to come as close to the organisational perception and responses as possible in the banks by reaching out to people who mainly work with the implementation of PSD2 and are closely linked to decision making. With the anonymous industry actor and the authority we aimed to speak to people working with PSD2 in their everyday lives. This approach is derived from our interpretivist paradigm and we have chosen to address the purpose of this study using a multi-firm case study. For the purpose of this thesis we are not interested in analysing a specific organisation deeply which makes a single case-study an inappropriate method. Instead we want to investigate multiple organisations perceptions and actions in connection to a specific phenomenon.

The use of a multi-firm case study is inspired by Eisenhardt (1989) who developed a well cited work of how to build theories on case study research. Eisenhardt's (1989) work is strongly connected to grounded theory and the use of case studies to create theories and draw new theoretical conclusions. This thesis does not go in the direction of grounded theory but the research design of Eisenhardt (1989) is still applicable. The research design addresses topics where there is little prior empirical evidence (Eisenhardt, 2021) which is the case for the topic of this thesis. Further, Eisenhardt (2021) argues for theoretical sampling where cases are chosen

based on whether the phenomena under study is likely to occur in that setting or not, which is a suitable sampling method for this thesis. Eisenhardt (1989) takes a positivist stance but Eisenhardt (2021) argues that her belief now is that the research design is applicable on research in other paradigms as well. She also emphasises that theory elaboration, which goes in line with abduction, can be another approach of theory building (Eisenhardt, 2021). Choosing this methodology enables us to get in-depth knowledge about subjects connected to the purpose of this study and we want to use this knowledge to explore the perception organisations have of institutional pressures and the responses that they give. We want to develop an understanding for this phenomenon with the help of existing theories and other previous literature.

Collis and Hussey (2013) mentions a couple of drawbacks of case studies as a methodology. Firstly, that the phenomena under study in the case is not existing in a vacuum, it is dependent on other events in the reality it is present within. We have considered how other factors have influenced the responses and perceptions of the organisations under study and have also tried to theorise around that. In the interviews other factors, like GDPR and bank secrecy, were considered and connections have been drawn to these other factors in the analysis as well. However, we are aware that it is impossible to cover all aspects of influences that can be present and we are humble about the fact that the results of this study can be largely affected by factors outside of this study's scope. Secondly, Collis and Hussey (2013) argue that the case has a history and a future and that it is important to have knowledge about those in order to create an understanding for the case. We have tried to create an understanding for the history of the case and the different organisations through reviewing literature and other secondary data in the beginning of the thesis process. Also, the design of our theoretical model includes a time-line aspect which creates an understanding for the case problem over time.

We have also used data triangulation in this study where we have based our results on multiple sources of data (Collis & Hussey, 2013). The use of data triangulation creates validity and reliability for the results (Patton, 1999), which is what we have sought to do. The primary method used for data gathering is in-depth, semi-structured interviews. On top of this we have done a descriptive analysis through searching for information on the webpages of the organisations we interviewed. In addition, we have used business reports, reports from authorities and news articles published by external parties. This was done as a part of the data triangulation process and also in order to create an understanding for the topic before the primary data gathering started. Because of the recency of PSD2 and that it has not been widely

researched before there were question marks surrounding the whole topic for us as researchers in the beginning. With this in mind it was necessary for us to learn and adjust the scope of the research over time as we gathered secondary data and held a pilot interview with one of the respondents. This made us realise which were the major problems surrounding the directive and that knowledge helped us design topics for coming interviews and also guided us in how to develop the theoretical framework.

3.3. Development of Theoretical Framework

In accordance with Collis and Hussey, (2013) the theoretical framework was systematically formed after the purpose of the study was established. The gathering of previous literature was made to provide an understanding for the subject and identify possible theoretical explanations that can be connected to the identified research question. To gather reputable literature, well cited articles published in reliable journals have been identified through the usage of the online library provided by the University of Gothenburg, in combination with Google Scholar. The identified theoretical framework consists of previous research within institutional theory, the theory of disruptive change, and developed frameworks of responses towards institutional change. The theoretical framework provides a holistic view, covering previous literature from a broad field and time frame. Since PSD2 is a rather new concept, the existing literature on the directive has mostly been collected through companies' websites, business reports, reports from authorities and news articles published on the topic.

The abductive approach in this thesis enables changes of the theoretical framework throughout the research process. This has been an important feature of the thesis work because of the limited previous research on PSD2 implementation. With this novelty, we as researchers did not know exactly which theories would be suitable for analysis and conclusion drawing in advance of the data gathering. Examples of where the theoretical framework has been updated throughout the thesis work are theories on decoupling and on institutional change. Much of the previous literature provides decoupling as an explanation for certain outcomes in situations of institutional pressure. With this in mind the theoretical framework was initially developed with a strong emphasis on decoupling. When the empirical material was gathered no obvious signs of decoupling were shown why we considered removing decoupling from the theoretical framework. However, when commencing the analysis of the data we found that decoupling could still be present in this setting. This led to the decoupling part of the theoretical framework being developed in a new direction than initially thought. Further, institutional theory was

initially explored through the concept of isomorphism. However, during the data collection and data analysis those theoretical concepts did not show and instead the theoretical framework was developed to include more of institutional pressures as such and competing institutional settings. The abductive approach enables us to work with the theoretical framework in this way and complement it during the thesis process.

3.4. Sampling

We have chosen to interview a small number of respondents from each organisation. This choice is partly based on the access to interviews and the time constraint based on that we wanted to interview many different banks and other organisations. We are aware that a small sample can lead to that personal opinions affect results and that answers have the risk of being biased. However, we have targeted respondents that are knowledgeable within the specific topic of PSD2 implementation and based on their role they can be argued to speak for the organisations as such. We are conscious that there is a risk of only including personal perceptions by interviewing one individual from each organisation. However, the focus of this study is rather on the organisational perceptions and actions. With this in mind we tried to formulate the questions so that it is the organisation's view of problems that is the focus. Further, the aim of this study is to provide an understanding for the taken responses which we argue are better captured by limiting the sample to only include managers who work closely with the strategic aspects of PSD2 and experts in the field. Also, targeting a more niched sample in the banks also allows us to focus on people with responsibilities and experiences on a more strategic level, thus making the answers more comparable to each other. Additionally, using data triangulation to search for additional sources that support the provided answers mitigates the risk of bias in the results.

We chose to narrow the scope of the study to established Swedish large banks and hence we naturally targeted the four largest banks in Sweden as these constitute an essential part of the Swedish banking market (Swedish Bankers, 2020). Thus, the sample is argued to provide a solid picture of established Swedish large banks' perceptions of and responses towards PSD2. According to Collis and Hussey (2013) making a random sample is not necessary in a study under the interpretivist paradigm. We are not interested in drawing generalising conclusions or proving facts statistically, therefore a random sample is not needed for the purpose of this study. Instead, we have chosen to make purposive sampling (Bell, Bryman & Harley, 2018) where

we have targeted those who are most knowledgeable in the subject within those organisations that dominate the Swedish banking market. Purposive sampling goes in line with what Eisenhardt (2021) refers to as theoretical sampling where cases are chosen based on whether the phenomena under study is likely to occur in that setting or not. Additionally the sample consists of experts on the topic from an anonymous industry actor with high knowledge about the financial sector and an authority. The anonymous industry actor is an organisation with knowledge about the industry which is not a bank, thus, this interview together with the interview with the authority brings some neutrality to the sample.

3.5. Data Collection

3.5.1. Primary Data

With the interpretivist paradigm and the methodology of a multi-firm case study, interview is the superior method for gathering primary data. Interview is a well-accepted method for qualitative research and it is the most common one to use when conducting research under an interpretivist paradigm (Bell et al., 2018). In this study, semi-structured interviews are used since we wanted to have the same predetermined topics discussed in all interviews to increase comparability and the opportunity to analyse and draw conclusions. A drawback of interviews as a method is that results rely heavily on interpretations of respondents' answers by the researchers (Collis & Hussey, 2013). There is a risk of biased results due to interpretations but we aimed to try to reduce the bias by trying to stay objective in our interpretations. Also, the fact that we are two researchers makes the results less objective since we have created our own interpretations before discussing them. Another limitation is that different respondents have different mindsets and vocabularies when answering interview questions (Collis & Hussey, 2013). In this study respondents are both from different organisations and come from different backgrounds which may cause biased results due to difficulties to interpret. We have acknowledged this drawback and tried to consider it in our interpretations where we do consider that banks are biased towards their own benefit. Also, interviews have been compared during the interpretations and we have considered what the industry actor and the authority have mentioned in order to grasp the bigger picture.

3.5.2. Interview Process

Six semi-structured interviews have been held with representatives from four banks, one anonymous industry actor and one authority. The semi-structured interviews constituted a mixture of prepared questions and unprepared follow-up questions for the respondent. The prepared questions have been designed as open questions to allow for flexibility to the respondent. In some cases the respondent has been provided with an interview guide before the interview because the respondent wished to be able to prepare for the questions. Due to the flexibility of the questions the order and numbers of questions has been adjusted in the interviews depending on the situation and the respondents answers to previous questions. Furthermore, the prepared questions were adjusted before each interview to be suited for each organisation. There is one set of prepared questions for the four banks, one for the anonymous industry actor and one for the authority in order for the respondents to be able to answer the questions in a correct manner. All question forms can be found in Appendices 1-3. Having different sets of prepared questions was important since the organisations have different roles on the financial market and are not able to answer the same kind of questions.

Respondent	Organisation	Date	Platform used	Time
R1: Senior Advisor within Payments/Regulation	Industry Actor	2021-03-08	Microsoft Teams	30 minutes
R2: Head of Open Banking	Bank A	2021-03-10	Zoom	50 minutes
R3: Vice President of Digitalisation and Innovation	Bank B	2021-03-17	Zoom	1 hour
R4: Risk Expert	Authority	2021-03-25	Zoom	1 hour
R5: Open Banking Manager	Bank C	2021-03-26	Microsoft Teams	45 minutes
R6: Head of Open Banking	Bank D	2021-03-31	Microsoft Teams	40 minutes

The above table contains an overview of the interviews held during the data collection. The interviews were held during March 2021. As can be seen, all interviews were conducted using online video call platforms which was a natural choice due to the current pandemic situation. All respondents had their own interview time slot together with both researchers who had

different areas of responsibility during the interview. Both respondents contributed during the interviews by asking prepared and follow up questions.

The first interview held was a pilot interview, mainly with the aim of getting inspiration for upcoming interviews and to get a deeper understanding of the problems surrounding PSD2 in the industry. The pilot interview was not recorded but one of the researchers focused on taking notes in order for us to be able to recover and use the information provided during that interview. All other interviews began with the researchers making sure that the respondents gave consent to recording the interview. The recordings were later transcribed in order to make a thorough analysis of the material.

All respondents and organisations are anonymous in this report. This is both because some of the respondents wished to be anonymous and that the quality of the report is not affected by whether respondents and organisations are anonymous or not. The scope of the thesis does not cover personal opinions from the respondents or analyses of specific organisational aspects. Instead, it is the general perceptions and actions taken by established Swedish large banks that are the focus. Hence, the analytical level in this report is not dependent on naming the specific organisations.

3.5.3. Development of Question Form

All question forms can be found in Appendices 1-3. The question forms are developed primarily based on the theoretical framework and other secondary data. The process of building the question forms started with a thorough analysis of what topics we wanted to touch upon during the interviews and these were summarised in a set of rather detailed questions. These were later revised in order to create more open questions that still covered the topics of interest. Furthermore, the pilot interview with an anonymous industry actor worked as an inspiration in the development of the question forms through which we learned to formulate questions in a clearer way and learned much about technical concepts and the vocabulary surrounding them. All interviews with respondents from banks are based on the same question form which is designed to receive answers from the banks' perspective. The question form used in the interview with the authority is designed to cover the same topics as the bank interviews but adjusted to fit their position on the financial market. This way of adjusting the questions in an

interview is in line with what Kvale and Brinkmann (2014) suggests where adoption to the background of the respondent is important.

As described in section 3.4.1 *Primary Data* the interviews are semi-structured and in line with that, open-ended questions is a good way to design the actual questions in the interview (Collis & Hussey, 2013). This opens up for the respondent to answer freely and bring perspectives to the answers that would not have come by if the question would be more closed. The openness of the questions provided us with much knowledge since the previous research on the topic of this thesis is limited. The perspectives brought by respondents helped us develop our theoretical frame in new directions and guided us to secondary data sources that we had not come by otherwise. The semi-structured design also allows for clarifying follow-up questions and additions from us as researchers during the interviews. Lastly, the semi-structured design gave a conversational tone to the interviews and led to that not all prepared questions needed to be asked in all cases since respondents touched upon the topics when discussing answers on other questions.

3.5.4. Secondary Data

According to Collis and Hussey (2013), when working with interviews as primary data, gathering pre-knowledge about the topic and background of the respondents and the organisations is of high importance. Thus, before deciding upon the foundation in the report a descriptive analysis was made. The descriptive analysis included gathering secondary data from the interviewed organisations webpages, business reports, reports from authorities and news articles published by external parties. The descriptive analysis has not been included in the report as a separate part but was used in the preparation stage and as inspiration when writing the introduction and problematisation. Since PSD2 is a rather new directive in combination with its technical aspects, there was a strong need for gathering additional information to create an understanding for the directive, the critiques that have surrounded it and the challenges that have risen due to it. This knowledge has guided us when formulating the purpose and research question and was a valuable foundation when reviewing literature for the theoretical framework. The secondary data in the descriptive analysis has also been used before choosing the identified companies and before the interview questions were formulated.

Further, the descriptive analysis has facilitated the interview structure of semi-structured interviews in the sense that add-on topics have been better captured and understood.

The secondary data has also been complemented during the thesis process mainly with sources about the directive from the European Commission and European Banking Authority. These changes were initiated by information retrieved in the interviews where respondents gave tips on important documents that have impacted banks perceptions and actions taken in connection to PSD2. This secondary data therefore became a part of the empirical material and this process goes in line with the abductive approach of this thesis. However, the basis in this report is the primary data which has been complemented with valuable insights from secondary data when necessary to deepen the analysis or clarify certain definitions and concepts. The use of secondary data has also been important in the data triangulation process.

3.6. Data Analysis

The analysis of qualitative data is not as straightforward and easily explained as the analysis of quantitative data (Collis & Hussey, 2013). In an interpretivist study one seeks depth in data and details why it is important to use an analysis method that enables the researchers to extract a deep understanding from the material. It is also crucial to go through all the material in the same structured way so that the analysis does not get biased. Another problem with qualitative data analysis is that it is not thoroughly described by most researchers and hence there is no best practice or exact template to use (Morse, 1994). In this thesis, we have taken inspiration from Miles and Huberman's (1994) data analysis method as it is described by Collis and Hussey (2013) as well as by Gibbs (2018). The data analysis process has been conducted under a continuous use of triangulation. As described in section 3.2. *Research Design* data triangulation between different primary and secondary data sources was conducted throughout the thesis process. This has also pervaded the analytical process. Further, Eriksson and Kovalainen (2015) define other types of triangulation. One being researcher triangulation which has naturally occurred in the analytical process where both researchers have analysed the material one by one. Also, all written text has been gone through by the other researcher in order to give feedback throughout. Another type of triangulation is theory triangulation where various theories are used to analyse the empirical material. This is obviously the case with our diversified theoretical framework.

As mentioned in section 3.5. *Data Collection* the first stage of the data analysis was to transcribe all the interviews. This was done close in time to the actual interviews in order to recover what was said in the interviews and start the process of thinking through what were actually the key takeaways and the important topics discussed in the interviews. We decided in advance of transcribing that we would transcribe the interviews word by word in order to have the material as authentic as possible for further analysis. This is in line with what Kvale and Brinkman (2014) describes as crucial to establish the ways in which the transcriptions should be done, especially when there are more than one researcher transcribing.

Gibbs (2018) argues that coding has a central role in qualitative data analysis. Therefore, the data analysis process started with the researchers going through the transcriptions reflectively and assigned codes to the different sections and sentences. Gibbs (2018) refers to open coding where an open mind and reflectivity is key. However, open coding is a part of a data analysis method developed by grounded theorists who argue that the coding should not be affected by pre-existing theories (Gibbs, 2018). Instead of doing this, we chose to follow what is suggested by Miles and Huberman (1994) about data reductions. They suggest that data reduction is needed in order to narrow down which data is important and which is not. This can be done through restructuring the data with the help of categorising into themes of a theoretical framework. Collis and Hussey (2013) provide that if you work with a theoretical framework this can help provide codes/themes that the data can be fitted into. Hence, we strived to be open minded and reflective in our initial coding as suggested by Gibbs (2018) but with inspirations from our theoretical framework as suggested by Collis and Hussey (2013).

In the next stage the codes were combined and connections were drawn between them in order to find broader themes in the data. Themes were also developed and interconnected with each other in turn in order to connect even more to the theoretical framework and to find interconnections between the different parts of the theoretical framework. This process is what Gibbs (2018) refers to as axial coding and selective coding. The same process is also suggested by Collis and Hussey (2013). In this stage there was still focus on the theoretical framework since we wanted to connect the empirical findings of the thesis to theories as much as possible and also that we wanted to make connections between different parts of our theoretical framework. This is an important part of our analysis since the theoretical framework consists of theories from various fields of research and the connection between them is not self-evident at first sight. The focus on the theoretical framework in the analytical process also lays ground

for the design of the analysis section in this thesis which is guided by the theoretical framework. Throughout the analysis themes that were not included in the theoretical framework were also discovered which led to a development of the theoretical framework during the analysis process in line with our abductive approach. For example, no analysis could be made including isomorphism and the concepts regarding institutional pressure developed by DiMaggio and Powel (1983) why it was excluded from the theoretical framework. Instead much of the material indicated the existence of competing institutional settings, leading to an inclusion of, for example, Hoffman (1999) in the theoretical framework instead.

Throughout the analytical process researchers have been reading and taking in the material with an analytical mindset. We have been moving back and forth between the empirical findings and the analysis continuously in order to create a deep understanding for the findings and drawing reflective analyses based on these findings. The data analysis has also included drawing connections and making comparisons between answers from the six different respondents. The analytical process has been made with a natural researcher triangulation where both researchers have analysed all the material one on one and then comparisons and discussions between the researchers' perceptions were made which created the final data analysis. Further, the theoretical model was kept in mind during the whole data analysis process.

3.7. Research Quality

Eriksson and Kovalainen (2015) states that a challenge in qualitative research is how to evaluate the quality and trustworthiness of the research. They conclude that qualitative research practices are diversified and therefore the evaluation practices as well. One way to evaluate the quality of qualitative research is to adopt the classical criteria for good-quality research that is traditionally applied to quantitative research. Here, reliability, validity and generalisability are criteria to strive for. However, Eriksson and Kovalainen (2015) also argue that when research is conducted under an interpretivist paradigm with relativist ontology and subjectivist epistemology, evaluation of research should instead be done with criteria developed for that type of research. They suggest Lincoln and Guba's (1985) work where trustworthiness is what researchers should strive for. Trustworthiness is reached by creating credibility, transferability, dependability and confirmability.

Credibility is mainly about the truthfulness of the material in the research and one should consider whether the data gathered is enough to back up the conclusions (Eriksson & Kovalainen, 2015). Credibility is created through the inclusion of several organisations, both banks and other organisations. This creates a truthfulness of the results since there is no bias towards one single organisation. The inclusion of the industry actor and the authority introduced more credibility since those respondents are not objective in the same direction as the respondents from the banks. Further, the use of triangulation creates credibility (Patton, 1999). As suggested by Patton (1999) we have used several kinds of triangulation in order to increase the quality of the research and to reach more diversified results.

Transferability refers to if the findings of the research can be transferred to fit in other contexts (Lincoln & Guba, 1985). We create transferability by drawing connections to previous research in the analysis section of this thesis. Connections are made to previous research in various theoretical fields. For example the research provides insight on how established organisations and banks in specific react to institutional pressures in the form of a directive. Further we make connections to reactions and strategies applied when faced by a disruptive business model change.

Another criteria for high quality research is dependability which means that it should be possible to replicate the research and receive similar results (Lincoln & Guba, 1985). Dependability is created through a transparent process with a thorough description of it in the methodology section. However, in an interpretivist study where the researchers' interpretations play a large role, it can be hard to replicate a study even though there is a very transparent process (Bell et al., 2018). Dependability is strengthened by the fact that this thesis has been continuously reviewed by the supervisor and also by opponent students.

The last criteria of conformability is about connecting the analysis and conclusions to the empirical findings in a way that can be understood by external parties as well as to the researchers (Eriksson & Kovalainen, 2015). It is also about the neutrality of the results and that those should not be biased by researchers beliefs (Lincoln & Guba, 1985). To increase the conformability in this thesis we have transcribed the interviews word by word and have let citations play a large role in the empirical section. This reduces the risk of bias in the results. Further, the usage of research triangulation has mitigated personal bias.

3.8. Ethical Considerations

When conducting research it is important to consider research ethics which concerns if the research is conducted in an ethically defensible way and also how findings are reported (Collis & Hussey, 2013). In a qualitative study based on interviews the main ethical dilemma to consider is the integrity of the respondents. Bell and Bryman (2007) develops a kind of guideline for researchers to consider. This includes the need to avoid harm to participants, the importance of informed consent from participants and the concept of anonymity, among other things. As mentioned earlier, all respondents and the organisations are anonymised in this thesis which makes it impossible to connect any of the answers to a specific person. Further, consent to participate was given by all respondents and we made sure that they knew what kind of study they consented to take part in by describing the purpose of the study both in written text sent by e-mail and orally right before the interviews. Another ethical consideration to make is confidentiality which is handled with recordings and transcripts of the interviews only being shared between the two researchers and do not risk to be spread elsewhere. Lastly, the principle of misrepresentation where researchers need to avoid that results are presented in a misleading or false way is considered by that respondents are sent the citations supposed to be used in the thesis and give their consent to the usage of those.

5. Empirical Results

The structure of the empirical section is based on the theoretical model where perceptions of and responses towards PSD2, as an institutional pressure, is the phenomena under study.

5.1. Case Setting

Throughout the interviews, a lot of knowledge was gained about the formation of the directive, which have been the major concerns about the directive from different parties and the background of the directive. The abductive approach used in this thesis gives the opportunity to develop our understanding of the topic over time and explore the area. The empirical section will begin with presenting general findings about the directive and its concerns and background. All information is retrieved during the interviews with the six respondents.

First of all, many of the respondents emphasised that the directive has two separate aims. One aim being to enhance the customer protection and the other being to promote competition and innovation within the financial market. R4, the respondent from the authority, emphasises that it is an important distinction to make since one cannot answer whether the expected effects of PSD2 were fulfilled or not when looking at two different objectives.

The directive is formulated in a way that is technically neutral and general so that there are no standards in how API's should be technically designed in order to comply with the directive. Also the generality of the directive gives industry actors the freedom to interpret the directive more than with a detailed directive. This has led to question marks and lobbying towards the regulators from different actors around the lack of standards and the different interpretations. The interpretations of the directive have created a demand for clarifications from the regulators. EBA have given clarifications in the form of opinion papers, discussion forums and Q&A's (European Banking Authority, 2020; European Banking Authority, 2021; European Banking Authority, n.d.).

A topic that has been under discussion in the industry and in local and European authorities is the interpretation of obstacles to account access in API's. In the directive it is stated that TPP's should not be hindered from performing their business by obstacles in the banks' API's. The interpretation of what an obstacle is has been different from actor to actor which has led to ambiguity whether an actor is compliant or not. EBA has published an opinion paper on this

where concern about what is an obstacle or not is brought up (European Banking Authority, 2020), which highlights the discrepancies between the actors' different views.

Another important feature of the directive is that it requires equal access to payment account information for TPP's that have consent from the customer as the customer has when getting the data directly from the bank. TPP's should not be discriminated in the access to data compared to when the customer uses the bank's direct channels to gain account information. This is another area of discussions within the industry since the interpretation of equality may differ between actors.

Further, a phenomenon called screen scraping was brought up by R1, R2 and R6. Screen scraping is a method that TPP's have used historically in order to retrieve customer data from banks. With screen scraping, TPP's can anonymously access customer data from other financial institutions if once gotten approved access to the customer login credentials. It is from now on an unallowed method because the customer does not have any control over which data the company retrieves.

Lastly, many of the respondents have chosen to speak about PSD2 and open banking as if they are interconnected and inseparable concepts , which permeates the empirical section.

5.2. The Perceived Market Effect of the Directive

The shared view among the respondents is that the expected effects of a higher innovation speed from the directive has not yet materialised. One of the central explanations from the respondents is that there exist inconsistent perceptions between the large established banks and the TPP's of how the directive should be interpreted.

According to several of the respondents, the slow innovation speed is a result from a rather technology-neutral directive where the actors have prioritised different aspects of the directive. Further R2 mentions that the design of the directive has implicated their understanding of the directive and that clarifications have been made over time regarding how to ensure customer protection when sharing data. Thus unclarity is said to have caused ambiguity for the banks in their implementation of the directive. However, the authority argues that a rather technology-neutral directive is what has been requested from the actors within the financial service market. In reference to several of the respondents' answers it is notable that the banks have focused a

lot on the customer protection and the security aspects of the directive. They explain their core focus on the security aspects with their importance of being a trustworthy actor in the financial market, where some respondents highlight trust as the bank's main asset. Further the banks emphasise that they bear the main responsibility for the security surrounding their customers data and are thereby obligated to ensure that it is shared in a protected way.

“Banks have felt that ‘we are the ones who have the data, so we want to ensure that there is integrity in the customer’s understanding of what you share and the reason why you share and of course what you share’.” - R6, Bank D.

Thus, according to some respondents, there exists a conflict between the banks and the TPP's in how the directive shall be implemented, where the TPP's have strived for a faster innovation speed and have not considered consumer protection in the same way as the banks. The cultural difference among the actors is also emphasised by the authority, which has caused actors to prioritise different interests within the directive during its implementation phase. The banks state that their survival is dependent on their main asset, the banking license, as it decides their ability to conduct business. Thereby the banks have been more cautious in certain situations, before the security aspects have been clarified. Instead the TPP's are described as more agile with the ability to launch new products and services as their main asset. Thus, the inconsistent beliefs of how to conduct business and which tools are the most valuable in the business has impacted the time taken to implement the directive and thereby affected its perceived market effect of increased innovation speed.

“This is a very interesting discussion, and we can discuss it for any length of time. However, I usually conclude it with; if you draw the number 6 on a piece of paper then it will look like a 6 from one side but if you look at it from the other side, upside down, it also looks like a 9. It is somewhat like how we look at PSD2. The banks look at PSD2 and see this is a 6, while third party providers look at it and say: ‘well this is a 9’.” - R2, Bank A.

Looking at the other central aspects of PSD2, namely customer protection, several of the respondents highlight that these aspects have been successful and are visible as of today. R1 highlights that the number of fraudulent errands seems to have decreased as a result of PSD2. Also the respondent from the authority believes that the customer protection has increased as a result of PSD2.

“One part of PSD2 is about strengthening customer protection by, for example, providing a more secure connection between banks and third parties, to ensure that there is a predictability in what information a third-party provider can access via these interfaces. For example, requirements to apply strong customer authentication when collecting data. So that is one part of the directive which regards consumer protection. There we can note some effects of the directive as of today.” - R4, Authority.

Further, some of the respondents explained the slow innovation speed and competition that was predicted before the implementation with that many smaller players still find it difficult to reach the market in a cost-efficient way even though they now have access to data. Furthermore, some banks highlight that the time to market has played a role in the perceived effect of innovation speed. This is explained by the fact that customers have not been receptive to that type of new services, or importantly, the market actors have not yet found the shooting star to collect the customers yet, where R5 compares it to the situation when Facebook introduced the “like” button. Also the bank’s shared view is that it is hard to evaluate if new innovative services provide real customer value in relation to the cost to develop them and are thus thought through and evaluated for a length of time before launched, resulting in a longer lead-time to the market.

“In the same way that social media started growing when Facebook realised that it is fun with thumbs up and likes on posts, it just exploded because it suited so many. I think this will happen in the banking world as well. When that situation occurs, it will be so clear that, okay it might be a bit like this: you give out some data, but you get so much value for it in return, when that balancing arises or is met, then it can take off for real.” - R5, Bank C.

Another contributing factor for the rather vague outcome of the innovation speed is said to be the major technical challenges for the banks with old systems often used in several countries simultaneously. The technical challenges banks have experienced to share customer data in a secure manner is central. Moreover, the size, geographical exposure and hierarchy in the banks are also highlighted factors that have impacted how agile banks can be when implementing new interfaces. R2 describes how they need to integrate all their systems across borders before a change can occur in their implementation of interfaces, which takes time. Further, R2 describes that the TPP’s sometimes have a lack of understanding of banks’ ability to integrate new features in accordance to TPP’s preferred timeframe, leading to communication challenges among them. Thus, many of the respondents question the ability to already evaluate the

outcome of the directive as it is still in its early phase due to the technical implications. This view is also supported by the authority who questions the ability to already evaluate the effects of the directive.

5.3. Perceptions Over Time

Regarding the historical perception of the directive from its announcement to implementation the answers are twofold. Some banks state that they have been rather positive towards the directive from the start since they realised its benefits early even though the expectations of the outcome might have changed over time.

“I would say that we have always been positive about the directive, but the actual result of it has probably changed during the time. So, if I use a parable again, if we at first thought; yes, this will be strawberries, but now we might see that it is probably not strawberries, rather watermelons. Both are good but have different flavours.” - R2, Bank A.

R3 states that bank B has never been sceptical towards the directive, instead they are very used to handling new directives and regulations, referring to it as ‘a part of the business’. However, R3 explains that it was hard to evaluate the magnitude of the directive in its beginning, which might have caused some question marks for the bank. Instead, some banks say that they were initially sceptical due to the fact that they were forced to share data and bear the responsibility for the surrounding infrastructure without financial compensation. R1 confirms this view, describing that they have noticed a gradual change from banks being more hesitant to more positive, mainly because the directive puts restrictions on the TPPs’ methods of data collecting. Finally, R5 describes that it is likely that many of the banks have gone through a process of change in their attitudes towards the directive.

“And what I think is a little strange with PSD2, specifically, is that you force the banks to open their data. However, the bank is not compensated for offering this. So, it has been a forced competition without a winning advantage for the banking industry, which is a very interesting thing.” - R6, Bank D.

5.4. Perceived Risks and Challenges with PSD2 and Open Banking

The banks highlight the regulatory risk, the risk of customer protection and the technical challenges as the main risks and challenges connected to PSD2. However, going beyond the

directive R3 states that there is a risk to get lost when developing all these new services, referring to the risk of losing the perspective of customer value on the way. R1 explains that there is a worry among banks about the competition that might arise due to PSD2 but also highlights that the largest concern is the security matters. R1 highlights specific concerns like what happens with the data that TPP's retrieve, can TPP's sell that data in a later step, and are the customers aware of what they are confirming when sharing data? R5 mentions that there is a risk that customers change which channels they use to interact with the bank, where a lot of the customer relationship could be lost.

“If customers leave the bank’s channels and just look at the numbers in other platforms, then we risk losing our value in managing the relationship. So, I think that is the biggest fear of opening up; that customers disappear elsewhere, and the banks still have a bank account, a very expensive infrastructure, and a lot of risk and compliance costs but nothing to build a business on.” - R5, Bank C

However, R6 tones down the risk of increased competition as fintech companies' ability to compete is weak due to their lack of customer base compared to the established banks. Further, several of the interviewed banks highlight that it is of highest importance to not breach security rules and other regulations and policies such as GDPR and bank secrecy due to the introduction of more innovative parts within the banks, such as open banking. Hence, the perception is that banks do not perceive PSD2 as the large risk but rather the trend of open banking and data sharing generally that is enhanced due to the introduction of PSD2. In turn, the security aspect both in the directive but also in the surrounding environment has impacted *how* and *how quick* banks can share data with other actors. Once again the different ways of conducting business between the banks and the TPP's are highlighted as problematic, where the banks describe that TPP's are not used to work under the same regulatory pressure as they are.

“The absolute biggest cultural difference that I have experienced when working with tech companies. So innovative and brilliant people but when we as a bank are having a meeting with an innovative company, and we ask some of the most basic questions from our side: Example, ‘how do you work with GDPR and how do you ensure that you follow GDPR?’ And the answer we get is ‘GD what?’ Then we realise that we are far away from being able to cooperate with this company. No matter how innovative and how wise these entrepreneurs are, we will still land in discussions about how we work with the regulations. That we must ensure

before we can cooperate. So, I think the different perspectives are the absolute biggest challenge.” - R2, Bank A.

5.5. Perceived Opportunities with PSD2 and Open Banking

It is obvious that the banks are positive towards the opportunities that the directive and its aftermath can offer. Firstly, the directive enables regulations of how and what data the third parties now can access, compared to before the implementation of the directive when screen scraping was common. R1 argues that in the beginning, banks were sceptical towards the TPP's and that there is a relief that they are now regulated and under the supervision of authorities. R2 states that Bank A is positive towards the directive in the sense that TPP's are regulated and that the directive increases the customer protection. This positive view is also connected to that TPP's are no longer “allowed” to conduct screen scraping. Thus, the banks perceive that the directive enables them to ensure a better protection of their customers' data.

In the larger scope beyond PSD2, the respondents highlight the opportunities provided by open banking. These opportunities are not directly connected to the implementation of PSD2, rather, PSD2 introduced the concept of open banking to the financial sector in a wider sense than before which made many actors realise the benefits it can bring. One common theme among the respondents regarding how the business model is expected to change is that several areas of the traditional banking services need to be more data driven and personalised. The open banking community will allow for greater visualisation and tailored solutions which will add a competitive edge.

“I also believe that you can build loyalty and a long-term relationship from that you can provide good knowledge and a better life situation because the customer knows how, where the money goes and what to do with the money. Take me as an example; if you were to look at my accounts and all my purchases and all the payments I make, it's probably pretty easy to see what type of life I live and like, how much time I have left before I will retire and if I have children and also how I can use my money better.” - R5, Bank C.

Further, all interviewed banks agree that they see a great potential for future collaborations with fintech companies. Rather than developing new services fully on their own the respondents favour the future opportunity of providing a digital platform with inter-connected services from fintech companies to their banking customers. This enables the banks to create customer value in an innovative way while some of the financial risk in form of incurred costs

is instead transferred to third parties. In exchange, the banks can offer access to large customer stocks to the smaller fintech companies. Further, R5 specifically highlights collaboration as a way for the banks to shorten the lead-time to the market with new services and provides an example of an already successful collaboration with a fintech company. According to R5, the banks manage a lot of information but have not leveraged all the opportunities possible with the information before. However, being able to cooperate with a fintech company with a focus on analysing data provided value for the bank's clients.

“Well, all companies have challenges in how to decide what to invest in. Either invest in several different things or to take big bets. There is a need to focus on a lot of different areas although it costs a lot of resources and takes a long time to develop. So, I believe we will see more collaboration in different areas.” - R5, Bank C.

Further, all interviewed banks offer or are to offer "premium APIs", which are API's not covered by the PSD2 directive where the banks have the ability to decide the requirements and price for data sharing. Thus it is obvious that all banks have found a way to capitalise on the opportunity discovered in the light of PSD2 through premium API's.

Even though several banks highlight huge potentials when it comes to PSD2 and open banking, it is still unclear from the majority of the respondents how this competitive edge from more personalised driven solutions shall be utilised. Some of the respondents highlight that the value potential of new features has been hard to identify, and that this opportunity raises questions of how to decide upon the bank's service offering in the future.

“Now we have the technical possibilities in a completely different way to connect the overall picture via API's and other things. This goes far beyond the bank's walls and then the banks end up in a completely different issue. How far beyond our walls does our business extend? Where do we create customer value? How does it affect our role towards the customer? What will we give advice on in the future? And these are questions that have not landed yet. But we always return to the fact that we are completely convinced in the bank that the local context, which we have chosen to work with our customers in, and our local offices gives us an opportunity to diversify ourselves. Because we are in many more ways closer to our customers than the one who chooses to not have that presence is. However, more of that value we deliver must be moved into a digital context.” - R3, Bank B.

When asked about banks' transformations into third parties themselves, the impression is that banks are still in the discussion phase. One important explanation for this is that the banks find it hard to understand how to transform the gathered data into customer value. However, this is something that will have a much larger focus going forward.

Further, R6 states that it is important for them that they are ready to go when it all settles down to not miss out on any opportunity, and thus they work hard to evaluate new features that might be used in the future. However, R6 also highlights that there exists a fear of going too far ahead since it is also a risk for the bank in the sense that they can miss to incorporate important aspects. Thus, the perception from the banks seems to be that open banking brings a lot of opportunities but that it is not always clear how to utilise them. Also, according to R5, banks are rather slow in their adoption processes due to that the banks' ability to be agile on such changes as open banking is mitigated by the amount of investigation needed before anything is decided upon. Further, R5 states that typically the normal lead time is longer for a bank compared to companies in other business sectors. Thus, in summary many of the banks highlight different opportunities from the area of open banking that will transform the business model in the future, however, there exists a gap between the intentions and actions concerning open banking due to the rather slow processes within the banks.

5.6. Strategic Adoption of the Directive and Banks' Actions

According to all interviewed banks they are working proactively with the implementation of PSD2. R2 highlights that bank A has chosen to see it as a strategic opportunity from a business perspective and early on discussed ideas on management level to incorporate its benefits to the business model. However the main priority is always to be compliant with the directive, which R2 relates to the importance of having their banking license. Further, R2 mentions that bank A has an ambition to incorporate different business ideas from tech-companies within their developer portal. Thus, cooperating with fintech companies, where the bank provides the main platform, is said to be the way forward. R3 from bank B states that their strategy, beyond being compliant when implementing the directive, has been to provide customer value, where R3 highlights that they have participated in several networks to discuss how to provide new services that apply to future customer demand such as data driven guidance and personalisation but also how to make the data more user friendly for developers. R5 states that already three years ago bank 4 had a program for PSD2 where they did evaluate how to develop certain services but also how to take advantage of this new directive themselves. The strategy from

bank C has been to build great API's, under the PSD2 directive, which TPP's want to use. This has also been their first step towards open banking where they believe that if the PSD2 API's are well developed they will be used as a best practice for future developments.

R6 states that bank D's perception is that many of the banks had a compliance based view in the beginning when implementing the directive. However, R6 highlights that bank D has been working very actively to understand how to find commercial value for the bank within the directive. Further, R6 highlights that the rather slow development has enabled the bank to understand their future role, in connection to the knowledge of data sharing and the ecosystem surrounding the directive and open banking.

“Most banks looked at this from a compliance-based perspective, which meant that they delivered what was written. Bank D has pushed very hard to understand the commercial value of it. However, everything has not gone as fast as wanted, and it has led to other advantages such as understanding data sharing and ecosystems and platforms and the bank's future role.”

- R6, Bank D

Even though R4 from the authority states that a difference among the banks actions and strategies has not been noted in specific, R4 concludes that there exist differences in the bank's actions and strategies when comparing their information available on their websites for open banking. R6 also states that comparing the different banks actions in terms of new services provided after the launch of PSD2, Bank A is highlighted as one of the leaders within the market.

Even though all banks are said to work very proactively with the implementation of the directive there are still potential signs of shortcomings in the implementation of API's according to the interview with the authority and the industry actor in combination with the opinion paper published by EBA. According to R1 TPP's find that the shortcoming constitutes an obstacle for them to develop their business thus implying that they perceive that the API's are sometimes not good enough or in line with the directive. Further, R1 enlightens that the banks in turn see concerns that the TPP's potentially are not using the assigned PSD2 API's in accordance with the directive to instead use screen scraping. R1 argues that the recommended way forward is for the banks and TPP's to work together to develop high quality API's. One way forward is also for the market to develop common standards for API's.

“So, I think that without saying yes or no; there are a few indications that there are still shortcomings throughout Europe when it comes to the implementation of the interfaces.” - R4, Authority.

5.7. Internal Responses and Conflicts

According to all respondents from the banks, the introduction of PSD2 and developments within open banking are said to be interconnected with the rest of the banks' product and service offering in whole. PSD2 implementation and open banking are developed in the existing departments of the banks which are affected by the directive and the development within open banking. Hence, open banking does not seem to be developed in a separate organisational space or department in any of the interviewed banks. Instead, some of the respondents mention that the connection between PSD2 implementation and the traditional banking services is strong and they affect each other in many ways. With this in mind it is important that management in the banks and all personnel understand that there needs to be communication between the areas.

However, it is noted from some of the respondents that the majority of the banks are still in a very early phase to interconnect PSD2 implementation and open banking within different product and service areas internally. It is not clear yet to everyone in the banks how these different areas affect each other and the importance of communication. According to R2, there sometimes occurs miscommunication between the different departments of how developments within the banks own channels must be accounted for in the API's as well, which causes problems for the open banking division to fully comply with the directive. R2 explained how the directive forces the banks to not discriminate against third party actors which can become a problem when there is a lack of communication internally.

“We have a unit in the bank that works with our internet banking channels. I have seen sometimes when I have updated my private bank app that; ‘Oh, now they have added something that affects the third-party channels’. Then a few hours later we received questions from TPP's: ‘We've seen that you have launched this. When will we get it? This is discrimination, this is not in the API's yet’. We have then found that the other department, the one who built the internet bank, has not told us, and has not understood that they must tell us that this is something that affects the third-party providers and the API's. So, there is a lot of internal stakeholder management. ” – R2, Bank A

Some respondents also highlight that there are internal conflicts when it comes to prioritising and managing the area of open banking as the introduction of open banking can sometimes be in conflict with the traditional offering of banking services. There is uncertainty within the banks on how to manage the rising trend of open banking and what value it will bring to the banks business model. There have been discussions within the banks about the risks and opportunities with the directive/open banking. Respondents express that the banks are in an uncertainty phase internally about these concepts and the development of them.

“There are a lot of internal conflicts. Or not conflicts, more contradictions or pros and cons; what are the possibilities and what are the consequences and so on, there is a lot of discussion about that. Because it is still that you might have to risk a lot. Should we be the first to go out and risk a lot or should we just wait and see? So, should we be an early adopter or a slow follower in some way?” – R5, Bank C

Furthermore, it is highlighted that most new concepts are at some point in time met with scepticism due to their unclear outcome or demand for it. Hence, it is not unusual that there is some divergence internally about the development of innovations in the field. The essential is to be aware of what is happening in the surrounding world and to have those developments in mind. All respondents believe that open banking will play a huge role in the future and that no matter the conflicts, people internally will get used to the idea on the way.

“I would say that when something is new, there are always conflicts. But it is just a matter of making sure that you have controlled your risks, that you understand what steps you are taking and usually then that dialogue is resolved very well. You agree upon and understand what steps to take. But there is definitely some fear in the beginning, or not fear but more a cautionness because you have not seen this before.” - R6, Bank D

6. Analysis

6.1. Main findings

The purpose of this thesis is to explore the responses taken by large Swedish established banks in relation to the introduction of PSD2. Also, the study aims to explore banks' perceptions of the directive, from its announcement to practical implementation. Through this exploratory report we want to create an understanding for which perceptions and actions taken due to the introduction of PSD2, that have affected today's rather vague outcome of innovation speed. To begin, the lack of materialised effects of innovation speed brought our suspicions towards that decoupling might have occurred, at least historically. Even though there are signs in the empirical material that decoupling might have occurred in this setting we have surprisingly not been able to conclude if it is present or not in banks responses towards PSD2. However, there are suspicions that decoupling has occurred at least initially but has evolved into more passive responses as the control aspects of the directive have increased in focus. The first important main finding in this report is that PSD2 constitutes an institutional pressure forced upon the banking industry. We conclude from the empirical material that this institutional pressure is met by rather passive strategies from the banks. This can have many explanations which go beyond the scope of this thesis. However, the characteristics of the external environment that Oliver (1991) presents give some explanation of the responses where the control aspects of the directive and EU's strong position as an influential stakeholder seems to have driven banks to respond more passive than active in this setting.

The second main finding in this report includes the existence and influence of competing institutional settings. What is interesting in this result is that we find that the directive's rather open design has introduced competing institutional settings under the same regulatory environment, which has caused the institutionalisation process to slow down due to different priorities within the directive, coloured by different actors' respective institutional setting. This has in turn affected the innovation speed negatively after the introduction of PSD2. The third main finding is that banks perceive the introduction of PSD2 as a starting point for the disruptive business model innovation of open banking. Interestingly, we find supporting material that shows that banks lack effective measures to respond to the innovation, despite resources available. Thus, in summary we conclude that both competing institutional settings and banks' lack of abilities to respond to innovations have together impacted the low innovation speed after the introduction of PSD2.

6.2. Strategic Responses to Institutional Change

6.2.1. Oliver's (1991) Framework of Strategic Responses

Connected to the first finding of passive strategies in reference to PSD2 we note from the empirical material that all banks demonstrate that they have chosen to address the introduction of PSD2 with a proactive strategy. According to Oliver (1991) organisations can respond in five different ways when faced by an institutional change, which include acquiescence, compromise, avoidance, defiance, and manipulation. These responses vary from passive to active with manipulation being the most active response. In the material we find no signs of defiance, where the banks actively have tried to resist pressure. Instead, they all state that they have worked actively with the directive. Neither there are any signs of manipulation in the banks' responses. Instead, all banks respond that they have tried to implement PSD2 based on compliance and their abilities. Further, all banks explicitly highlighted that PSD2 is just the beginning of the new area of banking, which cannot be ignored for future survival. Thus, the empirical material does not provide any signs of the banks ignoring the pressure or attacking the existing pressure. The compliance-based view that all banks have goes in line with the response acquiescence. One respondent highlights that banks need to be compliant in order to retain their banking license which makes it inevitable to follow the directive. This clearly means that banks are aware of that adhering to the pressure will be self-serving to their interests. The fact that all banks have the belief that this is just the beginning of a new area of banking and therefore adhere to the pressure further enhances the argument for the response acquiescence.

A response of compromise can also be noted in some respects, where the banks have adhered to the institutional pressure but have actively promoted for their own benefit. This is notable in the interview with the authority but also in the opinion papers, published by EBA. Here it is notable that both banks and TPP's have been very active to speak towards their own behalf to affect different aspects of the directive, which could be analysed as an attempt of lobbying. It is also possible to make the interpretation that banks have chosen to only partly comply with the directive due to conflicting pressures approaching at the same time. There is still the pressure from the existing institutional setting that banks operate within and these pressures will not correlate in all aspects. Banks have made their own interpretations of the directive and these interpretations will of course be to their own benefit due to the generality of the directive. The different interpretations between banks and TPP's highlighted by the authority is a sign

that interpretations are made to fit the actors' self-interest best. There are signs that TPP's feel that the banks have actively worked in a way that has not favoured TPP's development of new services and features, with the excuse of customer protection and lack of technology solutions. There is a possibility that banks have actively searched for loopholes in the directive which they include in their interpretation that will allow them to only partly conform to the directive and at the same time promote their own self-interest.

Further, one could argue that there are signs of avoidance in the banks' responses. Two characteristics of the response avoidance is escaping and pretending to conform. It is hard to prove if those characteristics have been present in this thesis but it is clear that banks and TPP's have interpreted the directive in different ways. Also many of the respondents "blame" their slow development of API's and other shortcomings on their technical abilities and their focus on customer protection. These differences in interpretation and the blame from banks can of course be valid but there is also a possibility that banks are escaping or pretending to conform. In this thesis the signs are as mentioned that banks have responded more passive than active.

The more passive strategies undertaken by the banks stands in contrast to previous research, which has shown that Swedish banks of larger size respond more actively when faced by institutional pressure (Elliot & Cäker, 2017). Also Clemens and Douglas (2005) supports that large organisations respond actively when the pressure poses a threat against the existing business model. The results of this thesis do not go in line with these previous findings. However, the characteristics of the external environment that Oliver (1991) presents might give some explanation of the responses. One of the characteristics, constituents, includes that an organisation will to a higher degree comply if the external pressure is coming from an external stakeholder of high importance. In this case, when the external pressure is an EU-directive, the external pressure is of very high importance which can explain the more passive responses. This further connects with a second characteristic, control, which is decided upon regulatory aspects. Since the pressure is a directive, in combination with that control can be exerted by the EU and Finansinspektionen, a passive response is more likely due to the fear of being sanctioned and publicly scrutinised. This view is also supported by Clemens, Bamford and Douglas (2008) who showed that firms of larger size are often affected by higher sanction costs and bureaucracy, leading them to respond more passively.

6.2.2. Decoupling

As mentioned, there are no explicit examples of decoupling to be found in the result. However, there are some aspects that share similarities with decoupling. The strong focus on customer protection from the banks side has obviously made it more difficult to reach one of the directives intended purposes of increased innovation. The respondent from the authority and material from the EBA opinion papers implies that there exists a dissatisfaction from TPP's against the banks' designs of API's, which has caused obstacles for them to develop their products and services. This can be interpreted as an attempt from banks to protect their original business model through an excessive excuse of customer protection. Also because of the rather vague outcome of innovation speed there are reasons to believe that decoupling can stand as an explanation for the effect as of today. According to Suchman, (1995) institutional pressure can cause frictions within organisations in how these changes shall be materialised. An organisation met by institutional pressure needs to manage conflicting interests from stakeholders, which can result in decoupling to maintain legitimacy (Meyer & Rowan, 1977). As noted in the theoretical section, previous research has found decoupling as a response when banks are faced by institutional pressure (Wall and Peterson, 1996).

There could be explanations for a less visible strategy of decoupling in this setting. The design of the relationship between the banks and the TPP's throughout the directive leaves room for direct feedback from the TPP's as the banks are not allowed to discriminate against the TPP's. Thus, the TPP's can directly monitor the banks' actions, making it more difficult for the banks to exert a strategy of decoupling. According to Crilly et al., (2012) a high degree of information asymmetry between the organisation and the stakeholders more often leads to a strategy of decoupling. The information asymmetry between TPP's and banks could have decreased because of the arrangement of the relationship between them and could stand as an explanation for the lack of decoupling. However, it is likely that the information asymmetry between the banks and TPP's is large in many other aspects, as it is hard for the TPP's and other external stakeholders to evaluate how banks work internally with the directive and their abilities to create the services asked for.

Further, the outcome of the PSD2 directive in this setting shares many similarities with the result provided by Wall and Peterson, (1996) on capital requirements. In Wall and Peterson (1996), the regulation has left room for organisational interpretations of the directive, which have led to an unwanted outcome, even though banks are compliant. This is in line with the

result from this report where all banks are said to be compliant, but the more general format of the directive seems to have triggered certain responses that have affected the innovation speed, leading to another outcome than predicted. However, in contrast to this report, Wall and Peterson (1996) finds that banks have chosen to actively work against the regulation's aim by increasing the risk in the portfolio while still managing the capital ratios in-line with the requirements. In this report, no specific active choices of decoupling can be found. However, one might think that a more passive and unintentional form of decoupling have occurred. Decoupling in the form that banks respond "good enough" at first and do not put all their effort in adhering to the change from day one. Instead they might see a benefit of taking more time to respond so that the organisation has the possibility to follow along. Connected to Oliver's (1991) framework, the strategy of compromise shares many similarities with this form of passive decoupling. As discussed, this report finds indications that banks have searched for loopholes in the directive which they include in their interpretation of the directive, which has allowed them to only partly conform to the directive and at the same time promote their own self-interest.

As proposed by Boxenbaum and Jonsson (2017), decoupling is not a static strategy. Instead, the institutional change could gradually become institutionalised by the individuals, even though decoupling might occur in the beginning (Scott, 2001). In contrast to Seidman, (1983), Oliver (1991) propose that institutional pressure arising from regulatory requirements from an important stakeholder, will trigger a rather passive response leading the affected companies to comply with the regulation. Thus, it might be the case that banks have initially responded with decoupling more actively when the control aspect was not yet very present, and the directive was still under its evaluation phase. However, after the implementation phase the strategy has gradually become more passive, as the control aspects have increased and terms of the directive have become more set. This reasoning is in line with Boxenbaum and Jonssons (2017) result of decoupling as an evolving strategy.

Supporting this view is the gradual change of banks perceptions of the directive that can be noted in the empirical material. As mentioned, some of the banks were sceptical against the directive at announcement. However, over time this view has been evaluated, and they have now been able to understand their opportunities coming with the directive. This is also confirmed by the respondent from the industry actor who explained that a transformation of banks perception has occurred. This result could imply that the banks at first made it harder for

TPP's to extract customer data to make time for themselves to have the necessary features to compete with the TPP's. This result is in line with Siti-Nabiha and Scapens (2005) who found that organisations can use decoupling as a first step to protract the institutional change before they feel enough prepared to embrace the change. Thus, it might be the case that the banks have initially managed the directive through decoupling while gradually being institutionalised as the time has passed by.

In this setting, the banks are under direct control from both EBA and Finansinspektionen, which exerts an obstacle for a prolonged strategy of decoupling without notice. Boxenbaum & Jonssons (2017) result also supports this finding as they argue that companies will only decouple from the pressure if provided with legitimacy without too high risk of being caught. Thus, one explanation for the weak link to decoupling in this result could be that the perceived benefits of decoupling does not exceed the fear of being sanctioned from the present control functions. Further, the broader trend of digitalisation is not only a force introduced by the directive but also a pressure coming from customers and other important stakeholders. Thus, the banks might perceive the benefits of not complying with the directive as rather small in the broader picture.

6.2.3. Motives behind compliance

There are important motives that can affect responses and motivate banks to respond with compliance rather than decoupling. Winter and May (2001) and Burby and Paterson (1993) are a part of a stream of literature investigating the motives for complying with certain regulations. They conclude that there are three forms of motives which organisations consider when faced by a regulation. To recall, these are motives based on economic rationality, motives based on normative commitment and social motivations. For the subject of this thesis, our analysis is that these motives have affected how banks have responded to the introduction of PSD2. Firstly, it is clear that many banks see compliance as central to their whole existence. One respondent highlights that without complying, their banking licence is at stake and hence their possibility of continuing to run the business. This is a clear economically rational based motive which drives the banks to comply. Secondly, several of the respondents mention that creating trust is essential for them to build a good customer relationship. To create trust it is important to be a good civil citizen which includes following regulations set by authorities. Trust is also connected with being socially accepted from the overall society. Therefore, the strong

dependence of trust in the banks can be connected to both normative commitment and social motivations as explained by Winter and May (2001) and Burby and Paterson (1993).

6.2.4. Strategic Responses to PSD2 and Beyond

It is noted in the results that several of the banks highlight that they have tried to think beyond the directive to find valuable business opportunities to capitalise on. The respondents emphasise that they are investing resources into developing new products and services to better compete with the TPP's. However, they also emphasise that customer protection is the core focus and that they do not want to capitalise on customer data in the same way that many big-tech companies do. The empirical material points towards that banks have met an obstacle in finding value creating activities for the customers. Several banks highlight the opportunities provided by the directive, however, less examples are provided when asking about new services that are put in place as of today. The main reasons seem to be that the banks find it hard to understand how to provide valuable services and products to their customers in a more data driven organisation. It is highlighted that the costs and benefits are carefully evaluated before deciding to invest to make sure that the products and services fulfil a customer demand. Here connections can be drawn to the general challenges seen in business today where "data is the new gold" and digitalisation is supposed to revolutionise the whole business society. A majority of companies face these challenges today and it is something that is central in business development over all. Hence, the concerns that are found in this thesis in many ways reflect the environment in business development in general. One important empirical contribution from this report is that the bank does not fear any increased competition from fintech companies. Rather they are welcoming the regulation as it puts a restriction on fintech companies' abilities to collect data through doubtful methods. All banks agree upon the importance of developing collaborations with fintech companies in the future as this allows them to reduce the risk when investing in new projects while still having the opportunity to provide valuable new services and products to their customers. This can be interpreted as they perceive the fintech companies as an important wheel in the financial ecosystem rather than an external threat. This puts thoughts on banks' future role in the financial system, if not successful in providing customer value in the new value-chain, as there is a risk of banks only ending up with providing the necessary infrastructure for fintech companies to collaborate around. However, the role of the bank's future business model goes beyond the scope of this thesis. Further, the empirical material reveals that the majority of the banks still have not exploited

the opportunity to transform themselves into TPP's. It is noted by the respondent from the authority and some respondents from the banks that there exists a difference in how far the banks have developed services beyond PSD2. This result is also acknowledged through the companies' websites, where it is notable that some of the banks seem to prioritise the transformation to open banking to a larger degree.

The result of strategic responses in the empirical material can be analysed through the lens of Cortet et al. (2016) who suggest that four different strategies are suitable to choose between when implementing PSD2, namely; Comply, Compete, Expand and Transform. Observing the discussion of strategic responses above, a mix of strategic responses can be found. First, all banks seem to have planned to respond beyond the strategy of compliance where all of the banks highlight that they have added or are working on adding premium API's on top of the API's required by PSD2. Moreover, the banks agree that PSD2 is an opportunity rather than a risk, where only a few risks are highlighted in relation to the directive as such. Thus, the general perception is that the majority of the banks have chosen to respond by a strategy of expansion and/or transformation. However, there seems to be obstacles for the banks in exploiting the true opportunities coming from the directive. This finding is similar to Mannberg and Maus (2019), where banks value the directive as an opportunity but have not yet exploited all the benefits. This finding can be explained by the dominant institutional setting in the banks, which is heavily influenced by prudence causing a more risk avert approach and making the time to decisions longer. Another explanation for why banks have not yet exploited all the opportunities might be found in technical difficulties. Banks tend to have obsolete and complicated data systems making it harder to be agile for technical changes. This is also supported by some of the respondents who explicitly highlight the technical aspects as challenging in a more agile and transformative business model.

6.3. Competing Institutional Settings

Connected to the second main finding is the banks perception of the different institutional settings between the banks and TPP's. The institutional difference among them is also confirmed by the respondent from the authority. The authority also highlights that the institutional differences have affected which perspectives of the directive that is prioritised by the involved actors. The banks have during the last decades experienced a regulatory increase and monitoring, which has shaped a more precautionary institutional setting, where decisions are thought through for a length of time and are carefully evaluated based on regulatory

compliance. Instead, the TPP's institutional setting is described by the banks and the authority as more tech oriented where the core focus is at business development, implying that they are acting within a setting where being agile and innovative is rewarding. As argued by Scott (2008) the institutional setting affects the norms and activities of the included organisations. The institutional setting forms the belief system and practices within the organisation and thus stands to explain organisational behaviour. When an organisation is met by institutional pressure or change, the prevailing institutional setting will change as the organisation's routines and practices are changing to maintain organisational legitimacy and to adhere to external pressure (Suchman, 1995). Large Swedish established banks can be argued to operate under the same institutional setting. This setting is put under institutional pressure due to the introduction of PSD2. This pressure is not only affecting large Swedish established banks but also other actors on the financial market, for example TPP's. Organisations with different institutional settings will respond to institutional pressure in different ways.

The rather technology neutral directive has led to different interpretations from the involved actors, which has caused frictions in the implementation phase. This friction can be said to have emerged due to the fact that the introduction of PSD2 forces the two actors to collaborate on the implementation and regulatory understanding of PSD2. The directive's intended purpose is divided into two-parts. The respondents perceive that banks and TPP's have chosen to focus on and prioritise different aspects in the implementation of the directive. This can be interpreted as a result of banks and TPP's operating under two different institutional settings. The empirical material points towards that banks have a strong focus on the aspect of better customer protection in the directive while the TPP's are said to be more focused on the part in the directive focusing on increased innovation. This view is shared by the respondents from banks and the respondent from the authority who also have more insight into TPP's PSD2 implementation.

According to Hoffman (1999), institutional change arises when an organisation's dominant setting is replaced or changed by the introduction of a new setting. When a new setting challenges the dominant one, this is often met by resistance from the challenged organisation, thus competing settings can survive in the same environment for a length of time. Eventually, the transformation takes place and forms a new institutional setting (DiMaggio & Powel, 1983). The new institutional setting can take form as a completely new one or as a hybrid between the old and the new setting (Glynn & Lounsbury, 2005). Analysing the empirical material from

this perspective, the frictions between the two institutional settings are notable. Thus, the introduction of PSD2 can be analysed as an introduction of a new setting in the established banks' environment, as it tries to combine the institutional settings from the banks and TPP's. The predominant setting within the banks is present in the respondents' answers, where compliance and prudence act as the most important guidelines when implementing PSD2. This setting is strongly rooted, most likely due to banks history of regulatory scandals and their dependence on trust from customers and the society to survive.

Several of the respondents highlighted disagreements with the TPP's in their actions and understanding of the directive, emphasising the frictions between the settings. Thus, one can argue that competing settings are present in this situation as a result of the introduction of PSD2 and the design of the directive. Further, the friction among the actors suggests that a change of the institutional setting has not yet occurred in the banks, rather the directive has forced the two competing settings to coexist in the same environment.

6.4. Business Model Adoption

Connected to the third main finding is the similarities between the introduction of PSD2 and its expected outcome and disruptive business model innovation. Based on the empirical results in this thesis banks perceptions of and actions taken in relation to PSD2 can be analysed in the light of disruptive business model innovation.

A disruptive change can be explained as an innovation in the market that disrupts traditional business models and redirects customer behaviour (Si & Chen, 2020). The type of disruptive change that Markides (2006) calls disruptive business model innovation refers to when a new type of business model enters an established market and challenges the existing type of business model. Looking at the result, some respondents from the banks stated that they have not yet experienced any change in customer behaviour because of PSD2. This might be explained by the fact that the full change has not yet materialised and thus the customer finds little or no value of new features. This is in line with Bower and Christensen (1995) who state that one of the characteristics of a disruptive innovation is that it does not appeal to current customers of established organisations at first sight. As noted in the result the banks are well understood that PSD2 is just the beginning of a new banking area, which includes open banking. The area of open banking can offer tailor made solutions and services to the customer at a level never previously done. Thus, there are reasons to believe that customer demand will change rapidly

once solutions are launched which satisfies customer needs that are unidentified today, in line with Si and Chen's, (2020) description of disruptive change. One respondent states that there is an expectation that one day a service will be launched that makes the usage of open banking explode, somewhat like what happened with social media when Facebook was introduced. With these similarities to disruptive business model innovation in mind, and the fact that the breakthrough of open banking has not yet been seen, there are reasons to believe that banks should be prepared for a major growth of importance of open banking in the future.

Respondents do give indications that they are aware of this risk of a disruptive business model innovation. One respondent uses the expression: *"I rather be the cannibal than the meat"* and argues that the bank needs to dare to risk some parts of the old business model in order to develop and let new business models grow. This refers to the same phenomena as the one that Bower and Christensen (1995) end their article with, the disruptive innovation is going to concur out the mainstream business, with that fact, it is better for the established organisation to do that by themselves than to let a competitor do it. Other respondents state that they believe it is important to be prepared to act when things settle and the big changes are beginning to show. Even though some respondents state that they need to take risks to gain in the long run and that they must be prepared to act when the time comes there is also a strong focus on prudence, customer protection and security in all interviews. These aspects are all inherently accompanying the banks in all decisions they make through their institutional setting. These different approaches can be seen as contradictory and there might be a connection between this and the fact that many respondents have the view that the work with open banking is going slower than they had wished for or what was expected. A connection can be drawn to the investigation made by Mannberg and Maus (2019) where banks state that they are positive towards the opportunities given by the directive but they fall short on actions taken for developing their open banking business. Further, Kostoff et al. (2004) states that current strategic planning processes are inherently poor at recognising disruptive innovation which brings concerns on whether banks strategically will be able to respond in an efficient way. The view in this report is that banks understand that there might be a disruptive business model innovation to come and they are positive about the opportunities it brings. However, they lack the right actions and speed due to their current institutional setting.

According to Bower and Christensen (1995) a disruptive change should be managed in the challenged organisation through investments and developments of the new innovation in a

separate organisation to not conflict with the current business model. However, Markides (2006) argues that it does not necessarily have to be like that when it is a disruptive business model innovation. None of the banks has chosen to develop their PSD2 API's, or open banking features, in a separate company. Christensen and Overdorf (2000) also suggest that if it is not possible to develop the new services and products in a new organisation they should be managed in a separate space within the organisation or acquired through acquisitions. To our knowledge no large acquisitions have been made. However, several of the banks mention their partnerships which share many similarities with acquisitions. The partnership provides the banks with an opportunity to offer new services and products to their customers, thus protecting them from losing customers due to changed demand. None of the banks has a separate organisational space for PSD2, rather PSD2 and open banking are said to be interconnected with the whole organisation. However, this is not without friction. As stated by Christensen and Overdorf (2000) there is a risk that managers within the organisations actively try to resist the innovation since it stands in conflict with the current business model. Several of the respondents highlight that there exists conflict of interest with other departments due to the recency and unknown outcome of open banking, even though none of them state it as problematic. Organisational factors like size of the organisations, structure within the organisations and the internal conflicts have most likely impacted the speed of innovations in the established banks.

One explanation for the less successful outcome of increased innovation speed might be the banks' perception of the directive. According to Gilbert and Bower (2002) the perception of a disruptive change as a threat or opportunity impacts the organisation's actions. Analysing the empirical results, all banks perceive the directive as an opportunity, even though some respondents from the banks and the industry actor explain that the perception has gradually changed from sceptical to more positive over time. Gilbert and Bower (2002) states that seeing the change as only an opportunity might lead to a too laid back approach due to the lack of threats, hence there is a risk of not developing the business fast enough and by losing customers in the long run. The empirical findings do find both that banks view PSD2/open banking as an opportunity and also that there is a lack of actual measures taken to exploit the opportunity so far. This finding is in contrast to Si and Chen (2020) who concludes that managers will be more willing to adapt changes that are viewed as an opportunity. These approaches can be combined and connected to our findings where respondents express that they are willing to adapt changes

within the area of open banking at the same time as there is a lack of actual measures taken so far.

As discussed, banks have not yet fully succeeded in developing additional services and products, beyond compliance of PSD2, even less have they exploited the opportunity of collecting data from other financial institutions. This result is in accordance with the prospect theory, where the organisations respond with more risk aversion to changes seen as opportunities as the potential loss is perceived as worse than if the change was a threat (Kahneman & Tversky, 1979). Several of the banks explicitly highlight the need to carefully investigate if the product or service fulfils customer needs before the development can take speed, which supports this interpretation. This result is in line with Saebi et al. (2017) who supports prospect theory and contradicts threat-rigidity theory by Dutton and Jackson (1987).

Charitou and Markides (2003) introduces five different responses organisations take when faced by a disruptive business model innovation. The responses depend on the organisation's motivations and abilities to adapt to the innovation. Motivations depend on the rate of growth of the innovation and in this case the growth rate has not been very high so far. Building on Charitou and Markides (2003) this would reduce the motivations for banks to adapt to the innovation. Moreover, motivations depend on how strategically related the innovation is to the organisation. One could argue that open banking as an innovation within the banking sector has the potential to strategically concur out much of the traditional banking business which should increase the motivations for banks to adapt the innovation. This argument is strengthened by the fact that many respondents express that they expect that open banking will provide many opportunities for the business in the future.

The abilities to adapt to the innovation depends on the resources of the organisation and based on that all organisations in this thesis are large and established banks, monetary resources should not be a problem for the adoption of the innovation. Also, several of the respondents mention that their advantage compared to the TPP's is their major customer base. This is a valuable resource which should be useful in the development of open banking and to reach breakeven at an earlier stage. The abilities also depend on the size of conflict between the traditional and the new business model (Charitou & Markides, 2003). In this case we make the interpretation that banks do perceive a conflict between the traditional and the new business model. Many respondents raise the importance of bank secrecy which is a fundamental obligation for banks to consider. With PSD2 and open banking many security questions are

brought up as problems when implementing API's and letting data be shared with third parties. Further, customer protection is raised as an important feature for all of the respondents and they do express a conflict between that and the more innovative aspects introduced by open banking. This discussion of conflict between business models goes in line with the previous discussion about competing institutional settings. With this in mind, large established banks can be argued to not have the abilities to adapt to the disruptive business model innovation although they certainly have the resources to do so.

Another connection can be made between the theory of disruptive innovation, the theory of institutional settings and the results of this thesis. An organisation's capabilities decides whether it is able to adapt a disruptive innovation or not (Christensen & Overdorf, 2000). An organisations' capabilities depend on its resources, processes and values. Several of the respondents mention that processes within the banks are quite slow, every decision needs to be thoroughly revised and discussed in many layers. Also, there is deep analysis into pros and cons before making major decisions which slow down the processes. Respondents mention that it is hard to be innovative and agile as a bank in times with large changes due to the processes of decision making and development in the organisations. As stated by Christensen and Overdorf (2000), processes and values are inherently supposed to be hard to change which can be seen in the results of this thesis. Regarding the values it is possible to refer back to the discussion about institutional settings where the current values in the banks are built upon a certain institutional setting. Here, Christensen and Overdorf's (2000) theory about disruptive innovation shares similarities with institutional theory where a change can be hard to adopt if the change/innovation does not match with the institutional setting/values.

7. Conclusion

The aim of this thesis has been to explore the responses taken by large Swedish established banks in relation to the introduction of PSD2. Also, the study aimed to explore banks' perceptions of the directive to better understand which actions and perceptions might have affected today's outcome. The research question in focus is: *How do large Swedish established banks perceive the directive PSD2 and which responses do they take in relation to it?* In summary we find that PSD2 constitutes an institutional pressure forced upon the banking industry and that banks tend to respond more passive than active towards this specific institutional pressure. In reference to the perceptions and responses taken by the banks, we find emergence of competing institutional settings which has affected the outcome of the directive. This thesis also finds that the institutional pressure of PSD2 works as a starting point for the disruptive business model innovation of open banking. Banks' perceptions of PSD2 indicate that banks are aware that PSD2 can bring a disruptive business model innovation to the industry but they lack effective measures to respond to the innovation. Thus, both competing institutional settings and banks' lack of abilities to respond to innovations have together impacted the perception of low innovation speed after the introduction of PSD2.

The rather vague innovation speed from the directive is mainly explained by the slow institutionalisation process caused by frictions and conflicts between banks and TPP's different institutional settings. Further, the technological neutral directive has allowed for internal interpretations from each actor in the industry which has led to different priorities within the directive, coloured by the different organisations' institutional settings. Thus, one conclusion that can be drawn is that competing institutional settings will act as an obstacle when trying to combine two different actors to adapt to the same regulatory pressure, without explicit guidance to be found in the regulation.

It remains unclear from the result in this report if the banks' has exerted any form of decoupling. However, the less active form of decoupling can have its explanations in Oliver's framework (1991) where the strong presence of important stakeholders and control functions can act as a mitigating factor. However, this result does not exclude the fact that decoupling might have occurred more actively previously. The explained shift in the perceptions of the directive from the banks could indicate that banks have initially managed the directive through decoupling while it gradually has become institutionalised as the time has passed by.

Regarding the strategic directions taken, all banks state that they have been working actively to develop a competitive open banking strategy going forward. One important empirical contribution from this report is that the bank does not fear any increased competition from fintech companies. Instead, all banks highlight the importance of future collaborations which can be viewed as they perceive fintech companies as an important wheel in the financial ecosystem rather than an external threat. Further, in most cases, we find a discrepancy between the banks' outspoken ambition of having a proactive strategy beyond PSD2 and the true practical implementations. This report concludes that a majority of the banks have found it hard to provide new services and features in relation to PSD2 and open banking, due to the difficulty in evaluating its customer value and technical difficulties. This is concluded to be a direct effect of banks' more prudent institutional setting, affecting their ability and speed to adapt to new external changes.

Analysing banks responses through Oliver's (1991) framework, this report concludes that the banks have responded more passive than active. The empirical material reveals a mix of strategies including acquiescence, compromise, and avoidance. This finding of more passive actions stands in contrast to previous research on how new regulations threatening banks' business models are handled. The characteristics of the external environment affects which response is taken and in this case both the characteristics constituents and control likely drives the organisations to respond in a more passive way.

Additionally, we conclude that PSD2 is perceived by the banks as a disruptive business model innovation, which is valued as an opportunity rather than a threat. The banks are said to be aware and work actively with the risk and opportunities connected to disruptions of their current business model. However, we still find a strong focus on prudence, customer protection and security in regard to the banks' real actions of business model development as a response towards the change. The banks seem to not have the abilities to adapt to the innovation, although they certainly have the resources, due to the size of conflict between the traditional and the new business model.

7.1. Future research

One possible limitation of this paper is that Sweden has during several years had a high technological speed within payment services, where fintech companies have been present and well developed already before the introduction of PSD2 in 2018. Thus, the perceived effect of changed customer behaviour and increased competition might not be as strong after the launch in 2018 in Sweden, compared to other countries with less developed payment markets. Thus, one proposal is to investigate banks' perceived effect of the directive outside of Sweden, in countries with less developed markets for payment services. Further, this study is restricted to only large and established banks in Sweden, which all are assumed to have the resources available to be able to gain from the opportunities that are said to arise in connection to the introduction of the directive. However, it is possible that banks of smaller size do not have the same abilities in terms of resources and thus perceive the directive only as a regulatory burden, thus triggering different actions and perceptions of the directive than seen in this report. It would therefore be of interest to apply a similar study on small banks to be able to compare certain results.

In addition, this study concludes that the introduction of PSD2 has triggered rather passive responses from the banks, according to the framework of Oliver (1991). This stands in contrast to previous research on large established organisations met by institutional pressure. However, the scope of this study does not cover specific industry nor organisational factors leading to this outcome. We therefore propose a more extended study where external and internal factors are investigated in-depth to provide a broader understanding on which factors have influenced the rather passive responses in the aftermath of PSD2. Moreover, a deeper analysis into the institutional settings of banks would be interesting. In this study, we assume that the institutional setting of large Swedish established banks does not differ much between individual banks. It would be of interest for future research to study the institutional settings and institutional change in a single bank more thoroughly and also incorporate organisational culture. We believe that this would require an extended research time frame with observations at the bank and the possibility to follow the bank during a change of institutional settings.

Finally, this study cannot conclude if there does exist any decoupling affecting the result from the PSD2 introduction. However, there are some aspects in the results indicating decoupling at least historically that would be of interest to further elaborate on in future research. To be able to draw any conclusion from this finding, more in-depth interviews during a length of time with

several respondents, in combination with internally accessible material and observations, would be needed. Further, one interesting finding that is out of this thesis scope is that the intended competition seemed to have decreased as a result from PSD2 and favoured the banks' strong market position. One explanation might be that the intended competition from small fintech companies has failed due to high entry barriers, where small fintech companies instead need to collaborate with the banks to reach out with their products to the market, which favours and strengthens banks' market position. However more research on the topic would be needed in order to conclude upon the directive's effect on the balance of market power between the banks and fintech companies.

References

- Bell, E., & Bryman, A. (2007). *The ethics of management research: an exploratory content analysis*. *British journal of management*, 18(1), 63-77.
- Bell, E., Bryman, A., & Harley, B. (2018). *Business research methods*. Oxford university press.
- Bower, J. L., & Christensen, C. M. (1995). *Disruptive technologies: catching the wave*.
- Boxenbaum, E., & Jonsson, S. (2017). *Isomorphism, diffusion and decoupling: Concept evolution and theoretical challenges*. *The Sage handbook of organizational institutionalism*, 2, 79-104.
- Burby, R. J., & Paterson, R. G. (1993). *Improving compliance with state environmental regulations*. *Journal of Policy Analysis and Management*, 12(4), 753-772.
- Charitou, C. D., & Markides, C. C. (2003). *Responses to disruptive strategic innovation*. *MIT Sloan Management Review*, 44(2), 55-63A.
- Christensen, C. M., & Overdorf, M. (2000). *Meeting the challenge of disruptive change*. *Harvard business review*, 78(2), 66-77.
- Clemens, B. W., & Douglas, T. J. (2005). *Understanding strategic responses to institutional pressures*. *Journal of Business Research*, 58(9), 1205-1213.
- Clemens, B., Bamford, C. E., and Douglas, T. J. (2008). *Choosing strategic responses to address emerging environmental regulations: Size, perceived influence and uncertainty*. *Business Strategy and the Environment*, 17 (8): 493–511.
- Collis, J., & Hussey, R. (2013). *Business research: A practical guide for undergraduate and postgraduate students*. Macmillan International Higher Education.
- Cortet, M., Rijks, T., & Nijland, S. (2016). *PSD2: The digital transformation accelerator for banks*. *Journal of Payments Strategy & Systems*, 10(1), 13-27.
- Crilly, D., Zollo, M., & Hansen, M. T. (2012). *Faking it or muddling through? Understanding decoupling in response to stakeholder pressures*. *Academy of Management Journal*, 55(6), 1429-1448.
- DiMaggio, P. J., & Powell, W. W. (1983). *The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields*. *American sociological review*, 147-160.
- Dratva, R. (2020). *Is open banking driving the financial industry towards a true electronic market?*. *Electronic Markets*, 1-3.
- Dutton, J. E., & Jackson, S. E. (1987). *Categorizing strategic issues: Links to organizational action*. *Academy of management review*, 12(1), 76-90.

- Eisenhardt, K. M. (1989). *Building theories from case study research*. Academy of management review, 14(4), 532-550.
- Eisenhardt, K. M. (2021). *What is the Eisenhardt Method, really?.* Strategic Organization, 19(1), 147-160.
- Ek, 1 june 2020. *Banken om kritiken från fintechbolagen: "Besvär på deras sida"*. Dagens Industri. Retrieved [2021-02-16] from: <https://digital.di.se/artikel/banken-om-kritiken-fran-fintechbolagen-besvar-pa-deras-sida?loggedin=true>
- Elliot, V., & Cäker, M. (2017). *One Regulation, Diverse Banks*. Bank Regulation: Effects on Strategy, Financial Accounting and Management Control, 19, 310.
- Eriksson, P., & Kovalainen, A. (2015). *Qualitative methods in business research: A practical guide to social research*. Sage.
- European Banking Authority, (2020) *Opinion of the European Banking Authority on obstacles under Article 32(3) of the RTS on SCA and CSC*. Retrieved [2021-04-28] from: https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Opinions/2020/884569/EBA%20Opinion%20on%20obstacles%20under%20Art.%2032%283%29%20RTS%20on%20SCA%26CSC.pdf
- European Banking Authority, (2021) *EBA calls on national authorities to take supervisory actions for the removal of obstacles to account access under the Payment Services Directive*. Retrieved [2021-04-28] from: <https://www.eba.europa.eu/eba-calls-national-authorities-take-supervisory-actions-removal-obstacles-account-access-under>
- European Banking Authority, (n.d) *Q&A's*. Retrieved [2021-04-28] from: https://www.eba.europa.eu/single-rule-book-qa/search?field_legal_act%5B%5D=517&items_per_page=20
- European Commission, (2018). *Payment Services Directive: frequently asked questions*. European Commission. Retrieved [2021-02-20] from: https://ec.europa.eu/commission/presscorner/detail/fr/MEMO_15_5793
- European Commission, (u.d). *Payment Services*. European Commission. Retrieved [2021-02-20] from: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/consumer-finance-and-payments/payment-services/payment-services_en
- Finansinspektionen, (2018) *Krav på ansvarsförsäkring för tredjepartsleverantörer*. Retrieved [2021-03-31] from: <https://www.fi.se/sv/bank/andra-betaltjanstdirektivet-psd-2/tredjepartsleverantore/krav-pa-ansvarsforsakring-for-tredjepartsleverantorer/>
- Friedland, R. and Alford, R. R. (1991). "The New Institutionalism in Organisational Analysis". In *Symbols, Practices and Institutional Contradictions*, Edited by: Powell, W. W. and DiMaggio, P. J. Chicago, IL: University of Chicago Press.
- Gibbs, G. R. (2018). *Analyzing qualitative data* (Vol. 6). Sage.

- Gilbert, C., & Bower, J. L. (2002). *Disruptive change. When trying harder is part of the problem.* Harvard business review, 80(5), 94-101.
- Glynn, M. A., & Lounsbury, M. (2005). *From the Critics' Corner: Logic Blending, Discursive Change and Authenticity in a Cultural Production System.* Journal of Management Studies, 42(5), 1031-1055.
- Goldberg, 9 oktober 2016. *Stenhård startup-kritik mot nytt EU-förslag: "Kommer död europeisk fintech"*. Dagens Industri. Retrieved [2021-02-16] from: <https://digital.di.se/artikel/stenhard-startup-kritik-mot-nytt-eu-forslag-kommer-doda-europeisk-fintech>
- Hoffman, A. (1999). *Institutional evolution and change: Environmentalism and the U.S. chemical industry.* Academy of Management Journal, 42(4), 351-371.
- Jacobson, D., Brail, G., & Woods, D. (2011). *APIs: A strategy guide.* " O'Reilly Media, Inc."
- Jakobsson, 13 oktober 2016. *Nordea: "PSD2 ingen gräddfil för banker"*. Dagens Industri. Retrieved [2021-02-16] from: <https://digital.di.se/artikel/nordea-psd2-ingen-graddfil-for-banker>
- Kahneman, D., Tversky, A., (1979). *Prospect theory: an analysis of decision under risk.* Econometrica: Journal of the Econometric Society 47 (2), 263e292.
- Kostoff, R. N., Boylan, R., & Simons, G. R. (2004). *Disruptive technology roadmaps.* Technological Forecasting and Social Change, 71(1-2), 141-159.
- Kvale, S & Brinkmann, S. (2014) *Den Kvalitativa Forskningsintervjun.* Studentlitteratur.
- Lautenschläger, S., (2019). *A Future-Oriented Approach to Pan-European Innovative Retail Payment Solutions [WWW Document].* European Central Bank. Retrieved [2021-01-08] from: <https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190506~14299d5b80.en.html>.
- Lincoln, Y. S., & Guba, E. G. (1985) *Establishing trustworthiness in: Naturalistic inquiry,* 289, 331. Beverly Hills, Calif: Sage Publications.
- MacLean, T. L. and Behnam, M. (2010). *The Dangers of Decoupling: The Relationship Between Compliance, Legitimacy Perceptions, and Institutionalized Misconduct.* Academy of Management Journal, Vol. 53, No. 6, pp. 1499–1520.
- Mannberg, P. and Maus, S. (2019). *Adapt or die? Why PSD2 has so far failed to unlock the potential of Open Banking.* Retrieved from Roland Berger [2021-01-04]: <https://www.rolandberger.com/en/Insights/Publications/PSD2-Bumpy-Start-for-Open-Banking.html>
- Mansfield-Devine, S. (2016). *Open banking: Opportunity and danger.* Computer Fraud & Security, 2016(10), 8-13.
- Markides, C. (2006). *Disruptive innovation: In need of better theory.* Journal of product innovation management, 23(1), 19-25.
- Meyer, J. W., & Rowan, B. (1977). *Institutionalized organizations: Formal structure as myth and ceremony.* American journal of sociology, 83(2), 340-363

- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.
- Morse, J. M. (1994). *Emerging from the data: The cognitive processes of analysis in qualitative inquiry*. *Critical issues in qualitative research methods*, 346(23-43).
- Nicholls, C. C. (2019). *Open Banking and the Rise of FinTech: Innovative Finance and Functional Regulation*. *Banking & Finance Law Review*, 35(1), 121-151.
- Noctor, M. (2018). PSD2: *Is the banking industry prepared?*. *Computer Fraud & Security*, 2018(6), 9-11.
- Oliver, C. (1991). *Strategic responses to institutional processes*. *Academy of management review*, 16(1), 145-179.
- Patton, M. Q. (1999). *Enhancing the quality and credibility of qualitative analysis*. *Health services research*, 34(5 Pt 2), 1189.
- Polasik, M., Huterska, A., Iftikhar, R., & Mikula, Š. (2020). *The impact of Payment Services Directive 2 on the PayTech sector development in Europe*. *Journal of Economic Behavior & Organization*, 178.
- PwC (2018). *Direktivet som ritar om landskapet i banksektorn*. PwC. Retrieved [2021-03-04] from: <https://www.pwc.se/sv/financial-services/psd2-forberedelser.html>
- Romānova, I., Grima, S., Spiteri, J., & Kudinska, M. (2018). *The Payment Services Directive 2 and competitiveness: the perspective of European Fintech companies*. *European Research Studies Journal*, 21(2), 5-24.
- Saebi, T., Lien, L., & Foss, N. J. (2017). *What drives business model adaptation? The impact of opportunities, threats and strategic orientation*. *Long range planning*, 50(5), 567-581.
- Salmony, M. (2014). *Access to account - why banks should embrace an open future*. *Journal of Payments Strategy & Systems* 8 (2): ss 157-171
- Scott, W. (2000). *Institutional change and healthcare organizations: From professional dominance to managed care*. Chicago: University of Chicago Press.
- Scott, W. (2001). *Institutions and organizations (2.nd ed., Foundations for organizational science)*. Thousand Oaks, Calif.: Sage.
- Scott, W. (2008). *Institutions and organizations : Ideas and interests (3.rd ed.)*. Thousand Oaks, Calif.: Sage.
- Seidman, W. (1983). *Goal Ambiguity and Organizational Decoupling: The Failure of "Rational Systems" Program Implementation*. *Educational Evaluation and Policy Analysis*, 5(4), 399-413.
- Si, S., & Chen, H. (2020). *A literature review of disruptive innovation: What it is, how it works and where it goes*. *Journal of Engineering and Technology Management*, 56, 101568.

Siti-Nabiha, A., & Scapens, R. (2005). *Stability and change: An institutionalist study of management accounting change*. *Accounting, Auditing, & Accountability*, 18(1), 44-73.

Suchman, M. (1995). *Managing Legitimacy - strategic and institutional approaches*. *Academy Of Management Review*, 20(3), 571-610.

Swedish Bankers. (2020). *De stora bankkoncernerna*. Retrieved from Swedish Bankers [2021-03-18]: <https://www.swedishbankers.se/fakta-och-rapporter/svensk-bankmarknad/de-stora-bankkoncernerna/>

Wall, L. D., & Peterson, P. (1996). *Banks' responses to binding regulatory capital requirements*. *Economic Review*, 81(2), 1-17.

Winter, S. C., & May, P. J. (2001). *Motivation for compliance with environmental regulations*. *Journal of Policy Analysis and Management: The Journal of the Association for Public Policy Analysis and Management*, 20(4), 675-698.

Appendices

Appendix 1: Question Form - Banks

1. Can you please introduce yourself and tell us about your background within the company and your experience working with PSD2 and Open Banking?
2. We have understood that there were high expectations before PSD2 was introduced that it would revolutionise the entire industry. However, looking at the outcome as of today the changes does not seem to have become as large as previously expected according to our initial research. What is your perception of the directives effect?
3. How would you describe Bank X's perceptions and actions towards PSD2? ? Both when proposals for the directive were presented, during the implementation phase and as of today?
4. Has the bank chosen to tackle the introduction of PSD2 in a pro-active or a more prudent way?
5. What do you believe are risks and opportunities with the introduction of PSD2?
 - Has the perception of the directive and its risks and opportunities changed over time?
6. Open Banking is often strongly connected to innovation. Is this something that stands in contrast to Bank X's current business model? Is Open Banking and PSD2 interconnected with the traditional service offering and organisational structure in Bank X?
7. As a large and established bank, you must look after several stakeholders and regulations; to mention some: GDPR and bank secrecy. In the meantime, the introduction of PSD2 requires a large focus on innovation. Is this something that has triggered any internal conflicts within the organisation or affected the innovation speed?
8. Do you offer Premium API's? If yes, what are your thoughts on Premium API's going forward?
9. How do you think that Bank X's business model will change in the future due to the introduction of PSD2 and Open Banking in the larger scope?
 - Which are the main changes you believe will occur?
10. Is there anything you would like to add or that is extra important to point out?

Appendix 2: Question Form - Anonymous Industry Actor

1. Can you please introduce yourself and tell us about your background within the company and your experience working with PSD2 and Open Banking?
2. We have understood that there were high expectations before PSD2 was introduced that it would revolutionise the entire industry. However, looking at the outcome as of today the changes does not seem to have become as large as previously expected according to our initial research. What is your perception of the directives effect?
3. Which risks and opportunities do you see for banks with the introduction of PSD2?

- Do you believe that these risks and opportunities have changed over time, from the launch of PSD2, to the implementation and as of today?
4. How would you describe the banks' reactions towards PSD2? Both when the proposal for the directive were presented, during the implementation and as of today?
 5. How do you think the banks' overall business models will be affected by the introduction of PSD2 in the long term?
 6. Is there anything you would like to add or that is extra important to point out?

Appendix 3: Question Form - Authority

1. Can you please introduce yourself and tell us about your background within the company and your experience working with PSD2 and Open Banking?
2. We have understood that there were high expectations before PSD2 was introduced that it would revolutionise the entire industry. However, looking at the outcome as of today the changes does not seem to have become as large as previously expected according to our initial research. What is your perception of the directives effect?
3. How would you describe Swedish banks' reactions/attitudes towards PSD2? Both when proposals for the directive were presented, during the implementation phase and as of today?
 - What discussions have been going on in the industry over time?
 - Have there been differences between the banks' attitudes towards PSD2? (Not expecting comments about individual cases but rather the general perception.)
4. Many banks seem to believe that the directive has been rather unclear, do you share this belief?
 - In that case, what has been unclear?
 - Do you have the perception that banks actively have tried to influence supervisory actors on which clarifications need to be made?
 - Which areas of the directive have been identified as problem areas by banks?
5. We have understood that there is a concern among banks regarding customer protection and other security issues when it comes to sharing data according to PSD2. Do you believe that GDPR and PSD2 are in conflict with each other and is there you believe that banks have had problems that have made the development/implementation of PSD2 slower?
6. Banks have had quite a long time to prepare for the implementation of PSD2 and its functionalities. According to your website, there are still interfaces and API's that do not live up to the expectations. What do you think that depends on?
 - Do you believe that the banks have worked proactively to implement the directive from start or have they had a more laid back strategy?

7. What do you believe are risks and opportunities with the introduction of PSD2? Both for the established actors in the banking market and for the financial system as a whole?
8. Is there anything you would like to add or that is extra important to point out?