Collaboration for innovation in the financial sector

A qualitative study of Norwegian FinTechs

Ana Gviniashvili

Master Thesis
TIK Center for Technology, Innovation and Culture
Faculty of Social Sciences

UNIVERSITY OF OSLO

May 2019

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A qualitative study of Norwegian FinTechs

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http://www.duo.uio.no/

Print: Grafisk Senter & Reprosentralen, University of Oslo

Abstract

FinTech start-ups are important drivers of innovation in the financial sector. Previously, FinTechs and banks considered each other as competitors. However, the focus has shifted towards collaboration, and the rate of collaboration between FinTechs and incumbents is increasing. However, challenges how to collaborate remain.

This thesis is a qualitative study of collaboration between Norwegian FinTech start-ups and banks. The thesis contributes to narrowing the research gap on how start-ups establish and manage alliances with large partners. This thesis maps the risks and challenges FinTechs face in alliances and how they manage these issues. From a theoretical perspective, the thesis combines research on how start-ups collaborate with large companies in general, FinTech-bank collaboration in specific, and perspectives from management literature on innovation. The literature includes sources with both broader and start-up specific perspectives. The thesis uses these sources in combination to add insights on how start-ups establish and manage alliances to drive innovation. From an empirical perspective, the thesis contributes to research on FinTech-incumbent collaboration.

The results of the thesis suggest that relational management is an important driver for success to FinTech start-ups, and that increased investment in relational management can be highly beneficial. Five major challenges were mapped in the thesis, and six managerial strategies employed by FinTechs to mitigate these issues were discussed. Findings indicate that FinTechs use various strategies to mitigate each challenge. The issues were most often resolved by employing relational management. This was partially because relational management was best suited, and partially because more formal management was often impractical to deploy and enforce for small firms.

Further, the thesis adds valuable insight into managerial strategies for start-ups in alliances for innovation based on an analysis of these findings. In particular, the thesis adds insights on governance, networking, and communication. The thesis also suggests the diversification of alliances as an additional management strategy and offers some practical suggestions on how to manage alliances for FinTech start-ups.

Acknowledgments

Little did I know when I started studying at the TIK center two years ago what a challenging yet interesting experience it would be. Writing this thesis is the last part of my master, and there are a few people I would like to thank for helping me through this long process.

First of all, my supervisor, Jakoba Sraml Gonzalez, deserves a huge thanks for being a great help throughout the year and giving me invaluable insights into the research topic. It would not be an exaggeration to say that I would have been lost without your help.

To all my informants. Thank you for spending your time and for sharing your experiences with me without having any obligation to do so. I am grateful for your knowledge and valuable insight into the research topic you have provided.

To my fellow students at TIK, it has been a pleasure to meet so many wonderful people throughout the last two years. Especially thanks to Cedrik and Stian, who kept up with the Gurka championship and made sitting in the reading hall more fun.

Lastly, to my dearest person, Eivind. I am a lucky person for having you in my life. Thank you for one more wonderful year together and endless support.

May 2019, Oslo.

Abbreviations

FinTech- Financial Technology

PSD2- The Revised Payment Services Directive

NDA- Non-disclosure Agreement

PoC- Proof of Concept

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1 Introduction

1.1 Research area & relevance

Digitalization has reshaped the way businesses operate, and the financial sector is not an exception (Brandl & Hornuf, 2017). This thesis explores how alliances between FinTech start-ups and banks are established and managed as a means to increase the speed of digital innovation in the financial sector. From a theoretical perspective, the goal of this thesis is to contribute to the literature on alliance management for innovation from the perspective of a start-up firm. The empirical contribution of the thesis is to add to the emerging research on collaboration for innovation between FinTechs and incumbents. An alliance management lens will be used to understand how start-ups establish and manage alliances on an on-going basis with its larger counterparts.

Start-up firms are technology-rich small companies (Brouthers, Brouthers, & Wilkinson, 1995), but usually have a resource gap (Freeman & Engel, 2007) which prevents them from distributing their technology to a broader customer base (Capgemini, Linkedin, & Efma, 2018). Strategic alliances enable start-up firms to fill the resource gap (Eisenhardt & Schoonhoven, 1996). As a consequence, alliances can potentially increase innovative outcomes and have a positive effect on a start-up firm's performance (Baum, Calabrese, & Silverman, 2000; Lee, 2007) and competitiveness (Hoffmann & Schlosser, 2001).

Strategic alliances can be the key for organizational success (Sydow, Schüßler, & Müller-Seitz, 2016), but only if the parties involved in the collaboration have sufficient alliance management capabilities (Takeishi, 2001). Managing alliances effectively is the key for reaping benefits from collaborations (Ireland, Hitt, & Vaidyanath, 2002).

The broader literature reports a high failure rate of alliances (Das & Teng, 2000; Day, 1995; De Man & Duysters, 2005; Dyer, Kale, & Singh, 2001; Spekman, Forbes III, Isabella, MacAvoy, 1998). Still, the collaboration between FinTech start-ups and incumbents is increasing (PwC, 2017; McKinsey, 2018) and the dominant form of collaboration is strategic alliances (Drasch, Schweizer, & Urbach, 2018).

However, the management of partnerships between start-ups and well-established firms is challenging (Alvarez & Barney, 2001). Yet alliance management literature tends to focus on

alliance management from a well-established firm's perspective (Comi & Eppler, 2009, 2015; Katila, Rosenberger, & Eisenhardt, 2008). The literature on how to establish and manage alliances for new ventures is underdeveloped (Comi & Eppler, 2009, 2015; Katila et al., 2008). Having right tools to manage strategic partnerships is especially important to small firms, as start-ups can be more vulnerable and have more to lose if partnerships do not work compared to their larger partners (Comi & Eppler, 2009). Thus, start-ups need to develop efficient management practices on how to establish, structure, and manage partnerships in order to get the benefits of collaboration (Comi & Eppler, 2009, 2015). It follows that management capabilities can be built and become a strong source of competitive advantage (Draulans, DeMan, & Volberda, 2003). Through this thesis, I will contribute to these discussions.

By analyzing alliances between FinTech start-ups and banks from a theoretical perspective, I will contribute to alliance management literature for innovation from the start-up firm's perspective. I will do so by presenting and analyzing findings in light of alliance management strategies based on both broader alliance management literature and available resources for start-up firms. From an empirical perspective, I will contribute to research on FinTech-incumbent collaboration, as a lack of research on this has been identified (Bömer & Maxin, 2018; Brandl & Hornuf, 2017). I will also provide practical tools for FinTech start-up firms on how to manage alliances when wanting to collaborate with large partners.

The financial sector is vital for every country's economy (Tornjanski, Marinković, Săvoiu, & Čudanov, 2015). The digitalization of the banking sector has a potential "to turn the financial industry upside down" (Brandl & Hornuf, 2017, p.2). FinTech start-ups are important enablers for innovation in this sector (Brandl & Hornuf, 2017). Given the importance of the financial sector and ongoing significant changes, it is important to narrow the empirical (Bömer & Maxin, 2018; Brandl & Hornuf, 2017) and theoretical research gap (Comi & Eppler, 2009, 2015; Katila et al., 2008) on how these start-ups establish and manage alliances with large partners.

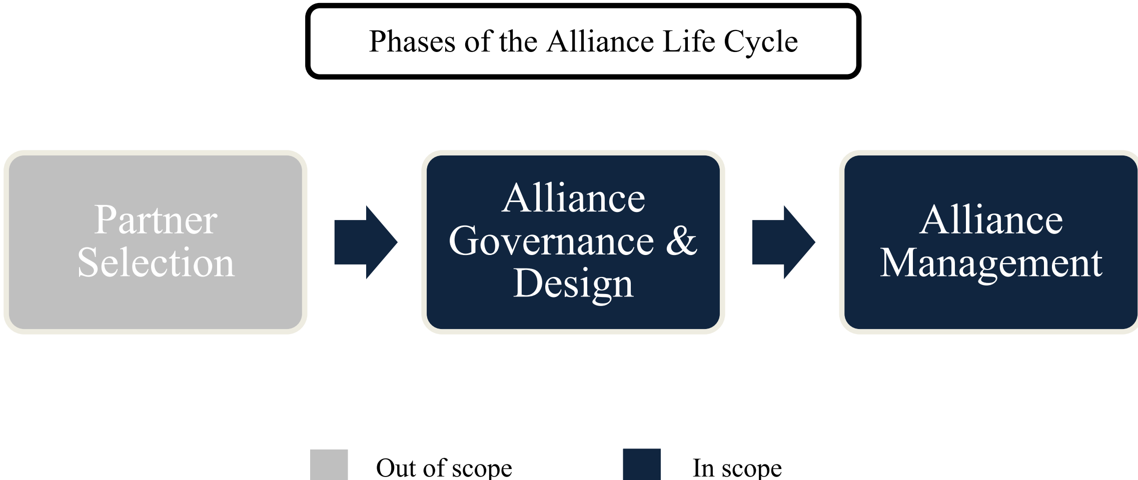
I have established the increasing occurrence of strategic alliances between banks and FinTechs and the importance of the financial sector. I have also elaborated on the importance of developing alliance management tools for start-up firms. Thus, FinTech-bank collaboration is a great example to narrow both the theoretical and empirical research gap. Besides, better collaboration between FinTech start-ups and banks can ensure to reap the benefits of

collaboration for both parties (EY, 2017a) and contribute to continuous innovation to the market (Brouthers et al., 1995).

1.2 Research questions & method

For establishing successful strategic alliances, some key factors should be minded on different stages of alliance development (Schreiner, Kale, & Corsten, 2009). Figure 1 presents the three main stages of the alliance development process (Kale & Singh, 2009).

Figure 1 Phases of the alliance life cycle



Source: Extracted from Kale & Singh, 2009

The lack of research on all the three stages of alliance-making from the perspective of entrepreneurial firms has been highlighted (Comi & Eppler, 2009, 2015; Das & He, 2006). Due to the lack of time and space in this thesis, partner selection will not be elaborated on, although I include the process of establishing contact with a pre-identified partner in my scope as a part of alliance design. How partners approach each other, and design terms of collaboration can have a significant effect on how alliances will be managed later. Therefore, I will focus on how start-ups design alliances and manage them on an on-going basis.

In the thesis, gaining access to a pre-defined partner, as well as the design & governance stage, will be referred to the establishment phase. The implementation phase will be referred to as alliance management.

I will attempt to understand what the risks and challenges are for FinTech start-ups when establishing alliances and during the implementation phase. The collaboration will be used as an umbrella term for these two stages of alliance making.

The research questions of the thesis are as follows:

RQ 1. *What are the risks and challenges FinTech start-ups face when collaborating with banks?*

RQ2. *How do FinTech start-ups manage the identified risks and challenges?*

To answer these questions, I have done a qualitative study. The data collected in the thesis is based on semi-structured interviews with relevant FinTech actors in the Norwegian financial sector in which banking sector is one of the main operating areas, along with a review of documents and reports done on similar topics. Note that the terms “FinTech start-ups,” “start-ups,” and “FinTechs” will be used interchangeably. “Banks,” “incumbents,” and “corporates” will be used as synonyms in the thesis.

1.3 FinTechs as a case

The rate of collaboration between FinTech start-ups and banks is increasing (PwC, 2017; McKinsey, 2018). “FinTech” is a commonly used term to refer to technology-driven start-ups working with the financial sector (Brandl & Hornuf, 2017; Drasch et al., 2018). The digitalization of the financial sector enables new FinTech start-ups to create and commercialize innovative technologies and services in the financial sector (Brandl & Hornuf, 2017; Drasch et al., 2018). Digitalization aims to make the financial sector more effective (Drasch et al., 2018). FinTech start-ups operate in many areas which have traditionally been the function of banks (Puschmann, 2017) including payments, lending, and investments (Brandl & Hornuf, 2017).

The FinTech ecosystem comprises six main actors: regulators, financial institutions, investors, technology developers, financial customers, and FinTech start-ups (Lee & Shin, 2018;

Deloitte, 2017). The interaction of these actors in the ecosystem affects the development of innovation, competition, or cooperation in the financial market (Lee & Shin, 2018).

There are many examples of recent changes in the ecosystem that has favored FinTechs and caused increased competition and pressure to innovate for the banks (which again drives demand for collaboration between banks and FinTechs). An example of this, investors are increasingly interested in FinTechs, which gives the FinTechs better access to funds (Deloitte, 2017; KPMG, 2019).

Another example is that the regulators are introducing regulatory changes such as PSD2 across the European Union, which aims to stimulate innovation within the payment area (Deloitte, 2017). PSD2 is increasing competition in the financial sector by removing barriers for entrants (Hafstad et al., n.d.) where incumbents have a dominant position (Zachariadis & Ozcan, 2017). PSD2 allow third parties (e.g., FinTechs) to get access to customer data from the banks and build services on top of the bank's infrastructure (Zachariadis & Ozcan, 2017). As a result, consumers will be able to use third parties to access and manage their finances without direct interaction with the banks (Zachariadis & Ozcan, 2017). This regulatory change can pose an economic challenge for banks in terms of reduced retail payments, increased competition to offer loans, and increased costs on IT infrastructure (Hafstad et al., n.d.).

Even though FinTechs can benefit from these shifts in the ecosystem, reports indicate that FinTechs struggle to scale and reach a wide customer base in order to create a feasible business (Capgemini et al., 2018; McKinsey, 2018). Collaboration with incumbents enables FinTechs to acquire a broader customer base, gain trust, and strengthen a position in the market (Capgemini et al., 2018; Deloitte, 2018). At the same time, by collaborating with FinTechs, banks get access to innovative technologies, services, become more agile and improve operations and customer experiences (Capgemini et al., 2018; Deloitte, 2018). Hence, collaboration can be mutually beneficial for both banks and FinTechs (Capgemini et al., 2018).

These changes have contributed to shifting the focus from competition to collaboration between FinTechs and banks (Deloitte, 2018; McKinsey, 2018; EY, 2017a). However, challenges on how to collaborate remain (Deloitte, 2018; Accenture, 2018: EY, 2017a). This thesis explores the FinTech's side of alliance-making and gives some concrete managerial

strategies for FinTech start-ups. In doing so, it contributes to narrow the theoretical research gap and adds insight into empirical research on FinTech collaboration with incumbents

1.4 Thesis outline

In this chapter, I have introduced the relevance and research area of the thesis, along with research questions, how the data was collected and briefly introduced FinTechs as a case.

Chapter 2 will discuss relevant theories, display relevant research done on similar topics, and present an analytical framework which will be used to analyze research findings. The theoretical framework is based on both broader and small firm's alliance management literature.

Chapter 3 will elaborate on methods used in the thesis and explains the relevance of the chosen research method, how the research was conducted, and how data was analyzed.

Chapter 4 will display an empirical background for the thesis.

Chapter 5 provides empirical findings derived from interviews in two phases. Firstly, challenges and risks will be elaborated on as well as the tools used by FinTechs to mitigate these challenges.

Chapter 6 presents a discussion of empirical findings in the light of theories and analytical framework highlighted earlier in chapter two.

Chapter 7 will conclude, present theoretical and practical implications in addition to limitations and reflections on further research.

2 Theoretical Framework

In this chapter, I will introduce relevant theories and the analytical framework for the thesis. Firstly, I will briefly introduce why collaboration is essential for driving innovation. Further, I will present strategic alliances and in what context this concept will be used in the thesis. Subsequently, I will present the main theoretical approaches of alliance formation between firms and my approach to strategic alliances. Afterward, I will review the advantages and disadvantages of alliances for a start-up firm. I will then review the challenges and risks involved in strategic alliances based on previous research and reports which will be used as an analytical tool to analyze how challenges highlighted in this thesis relates to previous research done. Following the review of management mechanisms, both the soft and hard side of alliance management will be elaborated. I will use both broader alliance management literature for innovation and other sources that are applicable to start-up companies.

2.1 Collaboration for innovation

Due to rapid market changes and the shortening lifecycle of products, innovation is essential for firms in order to modify and deliver better products continuously (Tidd & Bessant, 2013). Innovation stimulates economic growth and helps firms to stay competitive (Tidd & Bessant, 2013). Innovative firms have higher productivity and income compared to their less innovative competitors, and innovation is a strong indicator measuring differences between the performance of firms (Fagerberg, 2005).

However, innovation is a complex process that requires a combination of different skills, assets, and a good understanding of market dynamics to succeed (Fagerberg, 2005). Having cutting-edge technology cannot be regarded as innovation until it is commercialized (Fagerberg, 2005). To do so, firms need several assets, capabilities, resources, and skills to successfully commercialize innovative technology (Fagerberg, 2005; Park & Steensma, 2012; Rothaermel & Deeds, 2004). This includes infrastructure, sales expertise, and access to market (Fagerberg, 2005; Park & Steensma, 2012; Rothaermel & Deeds, 2004).

Companies can have a strategy to foster innovation by developing it internally (Katila & Chen, 2008). However, one firm rarely possesses all the capabilities and resources needed to facilitate innovation and compete successfully (Ireland et al., 2002; Teng & Das, 2008). Also,

“a central finding in the innovation literature is that a firm does not innovate in isolation but depends on extensive interaction with its environment “ Fagerberg (2005, p.20), and the locus of innovation often lies outside of a firm’s boundaries (Chesbrough, 2012). Hence, when firms need to innovate quickly under time and resource constraints, access to external resources and capabilities becomes essential (Eisenhardt & Schoonhoven, 1996; Gulati, 1995; Kale & Singh, 2009). Collaboration and alliances between parties have become a preferred strategy to accelerate the speed of innovation, gain or strengthen competitive advantage and create value (Eisenhardt & Schoonhoven, 1996; Gulati, 1995; Kale & Singh, 2009). Firms which enter in collaboration with external partners outperform those who do not (Neyens, Faems, & Sels, 2010).

Other than strategic alliances, collaboration for innovation can take different forms, including alliance portfolios (Hoffmann, 2005; Wassmer, 2010) and innovation networks (Duysters, De Man, & Wildeman, 1999).

Strategic alliances are goal oriented (Gulati, 1998) and mutually beneficial (Blomqvist, Hurmelinna, & Seppänen, 2005) relationships between two or more independent partners (Gulati, 1998). Alliance portfolios are the sum of several alliances entered by a focal firm (Hoffmann, 2005). Innovation networks are clusters of many firms, individuals, governments, customers and other actors (Tidd & Bessant, 2013), and dyadic relationships between these actors are only a small part of the broader picture (Duysters et al., 1999).

Different types of collaborations require different managerial strategies (Duysters et al., 1999). In dyadic relationships, firms make strategic choices based on their preferences in isolation, whereas in the network perspective firms make choices based on the broader functions and interests of the network (Duysters et al., 1999).

This thesis focuses on strategic alliances to get an insight into the firm-level perspective of alliance management capabilities. By analyzing alliances between FinTech start-ups and incumbents, I will attempt to contribute to the research gap on the start-up firm’s perspective on strategic alliance management with large companies.

2.2 Strategic alliances: Types & purpose

Strategic alliances are goal-oriented relationships between two or more independent companies aiming to reach a common goal (Gulati, 1998). Firms in collaboration are willing to share or develop technologies, services, and products (Gulati, 1998). Strategic alliances are a time-efficient and flexible way of accessing complementary resources possessed by other firms (Dyer et al., 2001). Alliances can take various forms to include joint ventures, equity partnerships, technology licensing agreements, R&D agreements, etc. (Das & Teng, 1996; Teng & Das, 2008). Strategic alliances were chosen for this thesis because FinTechs and incumbents interact with each other in different ways (e.g., licensing agreements, joint venture, partnership agreements, collaboration agreements). Thus, strategic alliances work as an umbrella term for including different types of collaborations in the analysis.

By purpose, strategic alliances can be grouped as explorative or exploitative alliances based on the intentions of parties involved in the alliance formation (Koza & Lewin, 1998). Exploration refers to collaboration, where parties are looking to generate new knowledge, ideas, and technologies (Rothaermel & Deeds, 2004). In exploitation alliances, the involved parties provide each other with complementary assets (Rothaermel & Deeds, 2004). Complementary assets are assets that are necessary to commercialize successfully innovative knowledge, but which are challenging to build alone or acquire elsewhere due to time and resource constraints (Koza & Lewin, 1998).

Both explorative and exploitative alliances can be beneficial for small firms (Yang, Zheng, & Zhao, 2014). Regardless of differences in form and structure, strategic alliances aim to develop medium or long-term mutually beneficial formal relationships between two or more partners (Spekman et al., 1998). Strategic alliances do this by allocating and exchanging resources and capabilities to enhance the competitive position of each party involved (Spekman et al., 1998).

I will use strategic alliances, alliances, partnerships, collaboration, and cooperation interchangeably to refer collaboration agreements, joint ventures, licensing agreements, partnership agreements between FinTech start-ups and incumbents in the financial sector, in which banks represent one of the most important actors.

2.3 Theoretical approaches to strategic alliances

My approach in this thesis is to look at alliance making through a strategic management-lens, as several of the challenges and risks for a FinTech start-up will ultimately have to be solved through managerial tools. Therefore, my approach has been to use several models and frameworks from both the fields of innovation and strategic management to explain and develop my observations. Ultimately, I use these tools to describe and analyze a set of practical takeaways that can be of interest both to academics and to practical managers of start-up firms.

Various approaches have been used to study why alliances take place. Among many theories, the three most discussed are transaction cost theory, resource-based view, and network theory.

Transaction cost theory is one of the most traditional explanations for alliance formation and argues that companies will most likely collaborate only if the payoff of collaboration is higher than performing alone (Gulati, 1995; Oxley, 1997). However, transaction cost theory has been criticized for its static nature, primarily focusing on transaction cost minimization and not capturing the social and strategic advantages that drive firms to form alliances (Eisenhardt & Schoonhoven 1996).

According to the resource-based view, alliance formation is driven by the need for key resources (Eisenhardt & Schoonhoven 1996). Strategic alliances are formed when companies are exposed to high competition, and alliances represent the best strategic choice to gain access to needed resources that cannot be bought via the market and cannot be built internally in a cost and time-efficient way (Eisenhardt & Schoonhoven 1996). However, the resource-based view does not provide tools to mitigate managerial issues that arise during collaborations, and mainly focuses on the strategic choices firms can make to get access to complementary resources and enhance competitive advantage.

Network theory studies alliances from a network perspective (Granovetter, 1985). A network represents a set of different actors, including organizations, persons, teams, or other actors connected by a set of ties (Borgatti & Foster, 2003). A firm’s position in the network structure can provide opportunities for alliance formation (Ahuja, 2000a). While firms can benefit from engaging in networks as it provides knowledge sharing, complementarity, and scale (Ahuja, 2000a), the theory does not provide strategies to handle issues that can arise in alliances.

As none of the traditional frameworks separately provide sufficient tools to understand issues and managerial strategies to mitigate challenges in alliances, I have chosen to look alliances between FinTechs and banks from the perspective of alliance management. The alliance management perspective will help to answer my research questions and understand how start-ups can manage better alliances with large partners and realize the benefits of alliances.

2.4 Alliance advantages & disadvantages for start-ups

There is an important distinction between invention and innovation in the literature arguing that invention, the first appearance of new product or service, can only be regarded as innovation when it is adopted in practice/commercialized (Fagerberg, 2005).

Although start-ups tend to have advantages in terms of technology and skills (Brouthers et al., 1995), start-ups usually have constraints in terms of capital, legitimacy, undeveloped organizational structure, incomplete or non-existent business processes, marketing skills and distribution channels (Freeman & Engel, 2007). The lack of these capabilities can hinder commercialization of the early stage technology of start-ups (Kelly, Schaan, & Joncas, 2000) and make them dependent on getting investments from investors more than the revenue generated through sales (Brouthers et al., 1995).

Developing a new product or service while generating enough profit to keep the company going is a key challenge for young firms (Kelly et al., 2000). For young firms, being able to gather the necessary resources for commercialization rapidly is important (Katila et al., 2008). Strategic alliances can provide start-ups faster access to essential resources including technical, social, competitive and commercial resources that otherwise would have taken longer time to acquire alone (Ahuja, 2000b; Kelly et al., 2000), and help commercialize their technology (Stuart, Hoang, & Hybels, 1999). In this sense, alliances can be seen as an enabler of the transition from invention to innovation for an entrepreneurial firm. This can include letting the start-up access a critical customer mass, commercialize their technology, and generate revenue.

Start-ups often operate in emerging markets, and alliances with larger firms can be an indicator that the market will become established (Eisenhardt & Schoonhoven, 1996). At the same time, alliances with a well-known partner can help start-ups can overcome the "liability

of newness” (Baum et al., 2000). This is done by giving or strengthening the credibility of a young firm, which increases trustworthiness and reputation in the market and thus attracts more partners and customers (Baum et al., 2000). These benefits can be substantial for start-up companies as due to the high rate of failure of start-ups, most new entrants have been characterized as unstable partners (Baum et al., 2000).

However, start-ups face a number of challenges and risks when collaborating with large partners. For example, Weiblen & Chesbrough (2015) has discussed that while start-ups can benefit getting financing from corporates, equity stakes from corporates in the joint venture can be a “double-edged sword for young entrepreneurs” (p.70). This is because corporates might limit start-ups freedom by influencing their decision-making (Weiblen & Chesbrough 2015). In addition, start-ups face the risk of technology appropriation (Katila et al., 2008; Alvarez & Barney, 2001). This is especially true because a young company’s bargaining power is often based only on their technology (Doz, 1988). Also, these challenges are not particularly assigned to start-ups firms. Still, alliance failure can have significant negative economic consequences, for start-up firms as they have limited resources to recover and find new partners (Comi & Eppler, 2009).

Challenges and risks for start-ups in alliances will be further elaborated in the following section.

2.5 Analytical Framework

I will now present the analytical framework. First, I will discuss risks and challenges in alliances found by previous research on start-ups (Minshall, Mortara, Valli, & Probert, 2010) in general and FinTech start-ups as well (Thwaits, 2016; Deloitte, 2018; Accenture, 2018). This will be used as the analytical framework for answering RQ. 1.

Subsequently, I will present commonly used tools to manage challenges in alliances. I will organize literature based on broader alliance management literature and available resources on small firms and start-up management literature. The literature review will be used as the analytical framework to understand how start-ups use these common alliance management tools to handle issues they encounter and manage alliances. In doing so, I will answer RQ. 2.

Alliance management on an on-going basis entails three main factors: coordination mechanisms, development of relational capital and tools for conflict resolution/communication (Kale & Singh, 2009; Schreiner et al., 2009). This thesis traces alliances between FinTechs and incumbents from the establishment (gaining access, designing governance) to implementation (alliance management). I argue that ongoing management and how partnerships evolve is strongly influenced by how parties get access, (e.g., was there ties between parties prior to collaboration) and by the governance mechanism they choose. Therefore, including this stage is relevant to understand the managerial strategies and tools start-ups employ to establish and manage partnerships.

Managerial tools can be divided into two categories: the soft and the hard side of management (Cullen, Johnson, & Sakano, 2000). The soft side refers to the management of relationships in alliances, while the hard side comprises of establishing the rules of the collaboration through formal mechanisms (e.g., legal, financial) (Cullen et al., 2000). Alliance managers should identify various risks alliances can face in the implementation stage and deploy both effective relationship management and suitable governance mechanisms to reduce risks, complexity, and uncertainties of alliances (Jiang, Li, & Gao, 2008).

Partners might have symmetric strategic intent when entering alliances. As alliance formation and implementation take time, the strategic intent of a partner might change (Koza & Lewin, 2000). Thus, the long-term success of an alliance is more likely when the symmetry of the alliance strategic intents is at present during the formation of alliances and maintained during implementation through mutual adaptation and adjustment of alliance intents by alliance managers (Koza & Lewin, 2000).

Alliance management is complex and challenging as it entails managing projects across organization boundaries (Rothaermel & Deeds, 2006). Rothaermel and Deeds (2006) found that the alliance management capabilities of high-tech venture firms are not significantly connected to alliance age, but rather the firm's direct involvement in alliances over their lifecycle. Authors have emphasized that entering too many alliances can lead to mismanaging of alliances (Rothaermel & Deeds, 2006).

I will elaborate on both the hard (governance mechanisms) and the soft (commitment & trust, networking) side of alliance management. Knowledge management and communication as an effective managerial tool will also be discussed.

2.5.1 Risks involved

Strategic alliances are characterized to be risky (Brouthers et al., 1995) with a high rate of failure (Das & Teng, 2000). Unsuccessful alliances can have negative consequences, especially on small start-ups as they might lack the resources to recover from the economic loses and find new alliance partners (Comi & Eppler, 2009). Consequently, the elimination of risks associated with collaboration has a positive effect on alliance likelihood (Das & Teng, 1998).

Firms in strategic alliances encounter two main difficulties, which is the nature of their partner's behavior and the cost for the company if a partner demonstrates opportunistic behavior (Gulati, 1998). Das and Teng (2001) distinguish perceived and objective risk. Perceived risk is a decision maker's estimate of the risk of the given situation, while the objective risk is attributive to the given situation.

2.5.2 Knowledge appropriation

Alliances can lead to unintentionally revealing critical knowledge to alliance partners (Jiang, Li, Gao, Bao, & Jiang, 2013; Musarra, Robson, & Katsikeas, 2016), which can result in knowledge appropriation or imitation (Alvarez & Barney, 2001) and weaken the firm's competitive advantage and its bargaining power in the alliance (Heiman & Nickerson, 2004; Kale, Singh, & Perlmutter, 2000)

Young companies have a higher risk of their technology being appropriated by large companies, as the established company's main reason for entering in alliances is often the young company's technology (Alvarez & Barney, 2001; Doz, 1988).

Knowledge appropriation is an important issue for young companies because often, technology is the main source of bargaining power for start-up firms (Doz, 1988). Start-up firms have a higher risk that large partners will take advantage in the alliances if their competitive advantage is only based on technology (Alvarez & Barney, 2001).

Large companies have higher learning capabilities than their younger partners and the opportunity to appropriate a new firm's knowledge and intellectual property (Alvarez & Barney, 2001; Katila et al., 2008). When large companies learn enough, they can either withdraw from the deal or set expectations entrepreneurial firms cannot meet (Alvarez &

Barney, 2001). Thus, possible misappropriation of the start-up firm's technology can pose a significant risk for FinTechs in partnerships (Katila et al., 2008) and lead to losing the only competitive advantage start-ups have (Doz, 1988).

The risk of being out-learned is higher for small firms in explorative partnerships where both parties are supposed to integrate and recombine knowledge (Ireland et al., 2005, as cited in Yang et al., 2014), which gives larger firms opportunities to access the smaller firm's critical information and know-how (Yang et al., 2014).

2.5.3 Challenges for start-ups in alliances

This sub-section elaborates on challenges found in other research. As there is a lack of research on both how start-ups and FinTechs collaborate with large partners bringing other research in the thesis and comparing results found here will yield richer results.

Reports presented here display findings on both start-up and large companies collaboration (Minshall et al., 2010) and bank-FinTech collaboration (Thwaits 2016; Deloitte, 2018; Accenture, 2018). Similarities and differences between the presented research and my findings in this thesis will be elaborated when answering RQ.1.

Minshall et al. (2010) carried out a study on collaboration between high-tech start-up and large firms. Thwaits (2016) mapped challenges in FinTech-bank collaboration in South Africa. Deloitte (2018), and Accenture (2018) traced challenges that emerge when FinTechs and incumbents decide to work together. All of these reports include views on both sides of collaboration, yet for this thesis, only the start-up's view will be elaborated on.

According to previous research, the most common challenges for start-ups are to navigate in large companies, find the right contacts, and slow decision-making processes by incumbents. According to previous research, gaining access is an expensive and time-consuming process for inexperienced and resource-constrained start-ups, and corporates staff might be of little help to connect start-ups with the right people within their company (Minshall et al., 2010; Thwaits, 2016). Also, slow decision-making delays testing technology and implementation (Minshall et al., 2010; Thwaits, 2016; Deloitte 2018; Accenture, 2018) and burns scarce resources for the start-up. In addition, power imbalance issues were identified by authors

(Minshall et al., 2010; Thwaits, 2016). Table 1. summarizes findings from the mentioned research.

Table 1 Summary of challenges for FinTech start-ups

Challenges	Minshall et al. (2010)	Thwaits (2016)	Deloitte (2018)	Accenture (2018)
Access	Two main challenges when wanting to get access: How to get in? Who to talk to?	Difficult to navigate and find people at a decision level in the bank		
Slow Decision-making	Decision making takes time due to the complexity and multiple layers of management	Banks are slow decision-makers	Port of entry lacking to fast-track fintech proposals	Prospecting is slow: Related to lack of budget, competition with an internally developed product, perceived risk that the fintech product would displace an internal team or sunk costs in legacy technology
Slow Implementation (PoC)			Once FinTechs are inside, financial institutions' structure and governance constrain finalization of deals and delay experimentation	Why products stall (PoC): Fintechs stress lack of dedicated employees or funding resources, and lack of alignment between use cases and product roadmaps.

Challenges	Minshall et al. (2010)	Thwaits (2016)	Deloitte (2018)	Accenture (2018)
Power Imbalance	The large firm may abuse its position by drawing out negotiations and attempting to prevent discussions with competitors	Banks decide terms of collaboration do not treat FinTechs as equals Banks misuse their power and actively steal ideas and resources from start-ups	.	
Slow Implementation			Once development is underway, siloed financial institutions keep fintechs from getting initiatives implemented	Procurement takes too long: Addressing regulatory issues and prepare for a wider launch Security & compliance along with lack of time from staff at financial institutions delays implementation
Not understanding Start-ups	Demands made of start-ups by large firms sometimes show a lack of awareness of how a start-up operates.			
Transfer of responsibility	The transfer of responsibility from the large firm's R&D to its legal and procurement departments can change and disrupt the flow of the negotiations			

2.5.4 Governance mechanisms

Alliance governance mechanisms can determine the behavior of partners in alliances and the outcomes of collaboration (Zhang & Zhou, 2013). Governance mechanisms and governance design/form will be used as synonyms in the thesis.

How start-ups select governance mechanisms has not been explored much by strategic scholars (Comi & Eppler, 2009), yet three main governance designs have been highlighted in the broader alliance literature including equity ownership, contracts, and trust (Kale & Singh, 2009). I categorize governance mechanisms as formal and informal. Formal will refer to equity, and contractual governance and informal (also called relational governance in the literature) will refer to as goodwill and trust. In formal alliances parties involved in collaboration define rights and obligations with legal documents, whereas, in informal governance, parties rely on expectations and promises parties agree on (Poppo & Zenger, 2002).

Various factors can affect what types of governance forms firms choose in strategic alliances, including the extent of collaboration, the complexity of interfirm knowledge transfer, and other risks involved (Anand & Khanna, 2000).

Formal governance

Equity-based alliances

Equity alliances transfer or create equity ownership in two primary forms: direct investments and joint ventures (Das & Teng 1996). Equity-based governance mechanisms minimize the risks associated with market uncertainties or opportunistic behavior in a partner (Kale & Singh, 2009). Equity agreements are a better choice of governing structure in explorative alliances as the chances of opportunistic behavior from a partner, and the risk of being out-learned is higher for small firms in these types of collaborations (Yang et al., 2014). Thus, equity-based alliances are more usual when parties do not have sufficient trust in each other (Das & Teng, 1998). This is because ownership created through equity tends to reduce partners opportunistic behavior (Gulati, 1995). Consequently, if entities have experience of alliance making with each other, then using equity as a governance form in alliances tend to be less common (Teng & Das, 2008). However, start-ups might struggle if the equity stake is organized in a way that gives control to a large partner (Weiblen & Chesbrough 2015).

To sum up, when the chances and costs of opportunistic behavior are high, equity alliances will be a favorable governing mechanism (Gulati, 1995). However, equity agreements are more complex in terms of administration and control (Teng & Das, 2008). At the same time,

they are time-consuming and costly to construct and terminate compared to other structures (Teng & Das, 2008) and increases the cost of alliance governance (Das & Teng 1996).

Contractual alliances

Contracts decrease uncertainties regarding the partner's behavior and protect knowledge in alliances by providing rules, responsibilities, and defining the extent of collaboration (Lee & Cavusgil, 2006; Reuer & Ariño, 2007). Contracts can be used to limit risks associated with alliances by specifying mutual rights and obligations, how parties will collaborate, expected outcome, how challenges can be solved and legal penalties (Reuer & Ariño, 2007; Kale & Singh, 2009). Thus, contracts are formal ways of managing expectations and are essential in alliances as unrealistic expectations can cause alliance failure (Ariño, De la Torre & Ring, 2001). Furthermore, contracts strengthen the stability of alliances by enforcing legal and economic consequences if a partner breaks the contract (Lee & Cavusgil, 2006).

Start-up firms can deploy contracts as a protection mechanism against a large firm's potential opportunistic behavior (Alvarez and Barney, 2001). While contracts can help to reduce some risks, contracts are incomplete by nature (Cao & Lumineau, 2015) and writing a complete contract that can protect a start-up's interests and anticipate all possible behavior of a large partner is difficult (Alvarez and Barney, 2001). Also, even if start-ups can write a complete contract, enforcing these contracts can be costly (Alvarez and Barney, 2001). Even a complete contract cannot guarantee successful partnerships or sufficient behavior of partners (Doz, 1988; Cullen et al., 2000).

Informal governance

Relying on goodwill and trust, also referred to as relational governance, is the third way of governing relationships in alliances (Kale & Singh, 2009).

Relational governance increases the probability of success of alliances by increasing chances that trust between parties can protect the collaboration from threat and risks where contracts offer weak protection (Kale & Singh, 2009). Additionally, the cost of adoption is lower as partners are willing to be adaptable to coming changes or unpredicted situations (Kale & Singh, 2009).

In addition, relational governance reduces costs by reducing expenses related to creating formal contractual documents and monitoring costs as third parties are not involved in monitoring the relationship (Nooteboom, 1996; Kale & Singh, 2009; Lee & Cavusgil, 2006). Thus, it has been argued that trust can be a more effective and less expensive alternative for governing alliances (Uzzi 1997; Lee & Cavusgil, 2006).

Das & Teng (2001) distinguished between goodwill trust and competence trust. Competence trust refers to trust that a firm has competences based on resources such as capital, technology, expertise, and capabilities built on over the years (Das & Teng 2001). These competencies give firms credibility that they can act sufficiently and reach intended goals in the alliance (Das & Teng 2001). Competence trust is likely to have a positive effect on decreasing performance risk perceived by partners in the alliance (Das & Teng 2001).

Goodwill refers to trust between parties that they will act in a way that will benefit all parties involved in the alliance (Das & Teng, 2001; Nooteboom, 1996; Gulati, 1995). Goodwill trust reduces perceived risks in alliances but might have a little effect on reducing the objective risk (Das & Teng, 2001). This is because partners might have goodwill with each other to make things happen but lack the required skill set to accomplish initiated goals (Das & Teng, 2001).

Some scholars argue that relying only on trust can be risky as a high level of trust between parties can create an imprecise sense of security and overlook potential conflicts of interests (Ariño et al., 2001).

Balancing formal and informal mechanisms

There is no clear answer on whether or not trust is a substitute or complementary to formal governance in the literature (Cao & Lumineau, 2015). Some scholars argue that if there is a high level of trust between parties in the alliance, formal contracts can be unnecessary and trust can be a substitute for contracts (Gulati, 1995; Uzzi, 1997; Lee & Cavusgil, 2006).

Others argue that contractual and relational governance can be complementary rather than substitutes in alliances (Poppo & Zenger, 2002; Cao & Lumineau, 2015). Without some level of trust, starting contracting and collaboration does not seem likely to happen (Blomqvist et al., 2005). However, trust between parties might not always be enough to rely only on informal governance alone, and in these situations, enforcement of formal governance mechanisms might be relevant (Dekker, 2004). In addition, formal governance provides tools

to monitor alliances and make sure that involved parties are accomplishing their assigned roles (Dekker, 2004). In a similar vein, Blomqvist et al. (2005) argued that trust and contracting could be used as tools to help small firms in collaboration with large partners to create mutual understanding, commitment, and adaptation to make collaborations work.

2.5.5 Knowledge protection

Having established that knowledge appropriation can pose a significant risk for start-ups, protecting its know-how becomes an important aspect of collaboration (Das & Teng, 1998). Entrepreneurial firms can manage this risk with different strategies.

Katila et al. (2008) argued that due to the lack of time and legal resources, start-up firms use secrecy and timing more actively than patents to protect their technology. This is less expensive and time efficient (Katila et al., 2008). Timing means trying to enter into corporate relationships with mature technology, as appropriating well-developed technology tends to be more difficult (Katila et al., 2008). Secrecy refers to using agreements that prevent potential partners from misusing information, yet the strength of using secrecy as a defense mechanism can vary across industries (Katila et al., 2008). While patents are legally more defensible, they make information public, which can reduce a young firm's competitiveness (Katila et al., 2008).

Prahalad and Hamel (1990) argued that firms should develop core competencies, which means that entrepreneurial firms should base their competitive advantage not only on technology but broader competencies and skills necessary to make innovative technology feasible. Core competencies are tools for diversification and can increase the firm's competitiveness (Prahalad & Hamel, 1990). Thus, the ability to combine technological and operational skills and transform them into competencies that can meet the needs of changing market environments is an important managerial skill (Prahalad & Hamel, 1990).

Building and strengthening trust is also a critical managerial skill, as a high level of trust between partners in alliances enables better information flow and decreases the risk of knowledge appropriation (Ireland et al., 2002).

2.5.6 Networking

Network-building capabilities can be strategically important for new ventures (Aaboen, Dubois & Lind, 2013). Given limited internal resources, start-ups need to develop their network position in a way that gives access to essential external resources through interaction and networking (Aaboen et al., 2013). Thus, creating network ties with important players in the industry is a good strategy for start-up firms (Elfring & Hulsink, 2007; Greve & Salaff, 2003). Previous research has shown that early stage start-ups are more likely to use social networks to establish collaborations (Lechner & Dowling, 2003).

A social network can be defined as a set of people and organizations linked with different types of relationships (Gulati, 1998). According to Gulati (1998), social networks of prior ties strongly influence the creation of new ties and determines how relationships in the alliances evolve, how firms design contracts, and the likelihood of final success. Furthermore, firms with more extensive social networks might be able to attract more attractive partners to ally (Gulati, 1998). Embedded ties initiate substantial information flow between partners, which can result in a higher success rate of alliances and better performance of firms in the alliances (Gulati, 1998).

The distinction between weak and strong ties have been highlighted in the network theories (Granovetter, 1973), in which weak ties are just acquaintance that can provide opportunities and access to novel information, while strong ties are formed with people with whom frequent interactions are made and are based on shared interests (Powell & Grodal, 2005). Strong ties increase trust between parties, commitment, and joint problem solving (Uzzi, 1997), while weak ties provide access to new information and opportunities (Powell & Grodal, 2005).

Firms entering alliances encounter substantial moral hazards associated with unforeseeable behaviors of partners during the collaboration and quick market changes (Gulati, 1998). Thus, personal relationships can help not only to grasp alliance formation opportunities but also contribute to establishing trust between potential partners (Eisenhardt & Schoonhoven, 1996). In turn, trust can increase commitment to overcome challenges in alliances (Uzzi, 1997).

2.5.7 Commitment & trust

Research on alliance performance emphasizes that success rate of alliances can be increased through trust and commitment (Cullen et al., 2000; Robson, Skarmeas & Spyropoulou, 2006).

Lack of commitment and trust can increase the probability of failure despite the mutual benefits strategic alliances can deliver to the parties involved (Cullen et al., 2000).

Cullen et al. (2000) argued that while managers from both sides involved in strategic alliances use a significant amount of time on the hard side of alliance management (e.g., planning, legal, financial, operational details), this cannot be sufficient to succeed in alliances unless managers pay attention to the soft side of alliance management. Authors referred to the soft side of alliance management as development and management of relational capital and argued that this involves that alliance partners use time and effort to build positive interaction in alliances beyond arm's length contracts. In a similar vein, Ireland et al. (2002) argued that relational capital is built on trust and increase alliance success because partners have trust in each other and willingness to share resources and overcome challenges. This is consistent with other scholars which emphasized that one of the main reasons of alliance failure can be the manager's inability to address relational problems (Das &Teng, 1996; Kelly et al., 2002).

In alliances between small firms and large companies, commitment needs to be top-down as alliances can only work if it is a top-down initiative (Brouthers et al., 1995). In a similar vein, Dyer et al. (2001) found that one of the reasons for alliance failure is the inability of partners to mobilize internal resources to support alliances. Alliance executives might lack the authority to access and mobilize key resources needed to support the alliance initiative (Dyer et al., 2001). Hence, the commitment of top management with authority of allocating resources on the project is essential.

Mutual commitment and trust from managers to reinforce and support collaboration in its own company is essential for effective collaboration (Spekman, Isabella, MacAvoy, & Forbes III, 1996; Hoffmann & Schlosser, 2001; Jiang et al., 2008). Partner commitment requires not only sharing resources but making some adjustments if necessary, in order to reach the longer-term benefits (Gundlach, Achrol, & Mentzer, 1995). Partner must be willing to dedicate costly resources even if the adoptions are required due to the uncertainties that exist in alliances (Kale & Singh, 2009).

Trust between parties in collaboration can speed up decision making and increase joint problem solving (Uzzi, 1997). Trust can derive from a firm's reputation, similarities between the firm's values or previous positive experiences with each other (Ireland et al., 2002). However, developing trust and commitment is a time-consuming process (Cullen et al., 2000).

Gaining and maintaining trust is continuous work (Ariño et al., 2001). Even though at the outset of collaboration parties have defined reputations on who they are and what they have achieved, it is important for managers to keep in mind that this state is not static and that relationships are living entities that evolve over time and is shaped by the behavior of parties involved in collaborations (Ariño et al., 2001).

Some scholars have pointed out the downside of close relationships through trust and commitment (Anderson & Jap, 2005). Embedded relationships might increase the firm's exposure to opportunism and knowledge redundancy (Noordhoff, Kyriakopoulos, Moorman, Pauwels, & Dellaert, 2011).

2.5.8 Communication

Having effective communication skills is critical in order to function successfully and succeed in alliances (Kelly et al., 2000; Mohr & Nevin, 1990; Agarwal, Croson, & Mahoney, 2010). The scope of communication includes communication quality, the scale of information shared between parties and involvement in planning, setting goals, and expectations (Mohr & Spekman, 1994). Quality of communication refers to timely and reliable information sharing between alliance partners and is critical to achieving intended goals (Mohr & Spekman, 1994). The scale of information sharing suggests that sharing relevant information that can enable partners to maintain relationships over a long period (Mohr & Spekman, 1994). Whereas, involvement in planning and joint effort enables alliance partners to determine mutual expectations of alliance outcomes and can have a positive effect on alliance success (Mohr & Spekman, 1994).

Further, timely and honest communication can reduce uncertainties regarding the partner's motivations and the fear of partner's opportunistic behavior (Schreiner et al., 2009). This can also help to understand better the roles of interaction in the alliances and increases the belief that alliance investments will pay off (Schreiner et al., 2009). Besides, effective communication increases trust between parties by providing tools to solve disagreement and conflicts (Kelly et al., 2000; Wittmann, Hunt, & Arnett, 2009). This provides tools to manage expectations and cooperate more smoothly (Kelly et al., 2000; Wittmann et al., 2009).

3 Methodology

In this chapter, I will present methodological choices made to collect data for the thesis. I describe why qualitative case study research is an appropriate approach to study the research topic, how data is collected, and how it is analyzed. Rigor in qualitative research and ethical concerns will be elaborated on as well.

3.1 A multiple-case study

To answer my research questions, in the best possible way, a qualitative multiple-case study approach was selected. The unit of analysis is Norwegian FinTech start-up companies operating in the financial sector in which the banking sector is one of the main operating areas.

A case study is a useful tool to apply if a researcher seeks to understand an on-going phenomenon in depth, and when the researcher has little or no control on the event and seeks to answer research questions such as “how” and “why” (Yin, 2014). My research subject is to understand what the risks and challenges are in alliances for FinTech start-ups and how start-ups overcome them. While “what” questions can be examined by other data collection tools as well, e.g., surveys (Yin, 2014), the aim of the research also is to explain “how” these issues are handled. Thus, the “how” question I am asking is best explored by a qualitative case study, as an event is an ongoing phenomenon, and I want to gain an in-depth understanding of it. Through a qualitative approach, I am able to conduct interviews with relevant people and answer my research questions - what are risks and challenges, and how do FinTechs solve it?

Case study research starts with a literature review and identifying research objectives (Yin, 2014). Defining theoretical propositions regarding the key issues can help a researcher to determine what types of data to collect and how to analyze it (Yin, 2014). This was the starting point of this thesis, as well. Primarily the idea was to write on alliances between the financial sector and start-ups to understand how large organizations innovate. Yet after reading theories, the research gap, particularly on how start-up firms establish and manage partnerships emerged. Therefore, I have decided to shift the focus of the research to the small firm’s perspective and attempt to narrow the theoretical research gap. FinTech companies were chosen primarily because mostly FinTechs are young start-up companies, and the rate of

collaboration between FinTech start-ups and incumbent is increasing (PwC, 2017; McKinsey, 2018). Also, the lack of research has been highlighted in the empirical research on FinTechs collaboration with incumbents (Bömer & Maxin, 2018). Thus, the collaboration between Fintech start-ups and banks was a perfect example to analyze how start-up firms establish and manage alliances with large partners and address the research gap highlighted in the theories. At the same time, the case allows me to contribute to empirical research on how FinTechs collaborate with incumbents.

Although a case study provides an in-depth understanding of a phenomenon, it has often been criticized for lacking rigor and generalizability (Yin, 2014). While case studies cannot provide statistical generalizability, it can expand and contribute to theoretical discussions (Yin, 2014). I will discuss how I have worked to achieve rigor in the thesis in the later section.

3.2 Qualitative research as a method

Qualitative research as a method is appropriate to use when a researcher wants to understand the subject in more detailed, and the research subject is not well known (Johannessen, Tufte & Christoffersen, 2010). The research topic of this thesis is alliances between FinTech start-ups and banks. The lack of research on alliance making from start-ups point of view has been highlighted in the innovation literature. Qualitative research enables me to gain valuable insight into the on-going phenomenon and collect opinions and experiences of people involved in collaborations. This helps to answer my research questions: *What are the risks and challenges FinTech start-ups face when collaborating with banks? How do FinTech start-ups manage the identified risks and challenges?*

Three main data collection tools can be used to collect qualitative data: interviews, observations, and documents (Patton, 2002). I left out observation as it was not applicable to observe the process of collaboration between start-ups and banks in the thesis. I have used in-depth interviews and document analysis to collect data and answer my research questions in the best way. Document analysis includes academic literature on alliances, alliance management literature, and reports mainly from consultancy companies.

Theories on alliances and alliance management gave me an insight into both what has been observed in alliances before and which factors influenced alliance success. Review of literature was used to construct a preliminary interview guide. After gaining insight from

informants, literature has been modified. Further, analyzing reports allowed me to get an overview of the empirical setting.

Semi-structured interviews are the main source of empirical data collected in the thesis. Primarily, I was looking to understand the experiences and opinions of FinTech start-ups on collaboration with incumbents. Semi-structured interviews offered me the flexibility I needed. This will be further elaborated in the following section.

3.3 Data collection

Two main sources of data collection have been used in the thesis: documents and semi-structured interviews. The reasons why these methods of data collection are appropriate for the research will be elaborated below.

3.3.1 Interviews

Interviews are a widely used data collecting tool to gain insight into subjects that are difficult to observe, such as thoughts, intentions or behavior that took place at some point in the past (Patton, 2002). The aim of an interview is to enable us to understand other people's perspectives of the matter, their experiences, and their opinions (Patton, 2002). Since the focus of my research was to understand in detail how collaboration is established and managed between FinTechs and banks, the interview was a perfect tool to use. This enabled me to get insight into the informant's experiences and opinions regarding the subject and their interpretation of the behavior of an incumbent observed in the collaboration. Further, as some of the collaborations happened at some point in the past, interview as a tool allowed me to reconstruct and gather data from past events as well (Johannessen et al., 2010).

The semi-structured interviews were used to conduct the interviews. Semi-structured interviews were organized around the research area and contained flexible questions that originated from the research area of the project (Dunn, 2016; Johannessen et al., 2010). The semi-structured interview enables a researcher to strike the fine balance between standardization and flexibility (Johannessen et al., 2010), as a researcher has an opportunity to adjust the order of the question and explore new subjects that might arise during the interview (Johannessen et al., 2010). This was the case during the interviews with my informants. Primarily, I have constructed interview questions based on theoretical concepts, that was a

good starting point. However, semi-structured interviews allowed me to ask questions beyond the interview guide; thus, strategies, detailed characteristics of these tools, and an additional managerial strategy used to mitigate challenges have emerged. Further, new concepts brought by informants were noted and cross-checked with other informants as well.

3.3.2 Sampling & conducting interviews

Background check such as reading documents, observations will give an idea to a researcher whom to include in the project (Stratford & Bradshaw, 2016). After I had decided the subject of the thesis, I started searching for possible companies I could interview to get insight into the collaboration between FinTechs and banks. I used purposeful sampling (Patton, 2002) as a tool to find the right informants. Purposeful sampling aims to select cases that can yield rich information on the case under research (Patton, 2002). I defined the right candidate as an independent FinTech start-up small or medium size. The FinTechs should have either prior experience of collaboration with larger partners or be collaborating during the period I was collecting the data.

I started searching for Norway-based FinTech start-ups operating within the financial sector. I have contacted different accelerators, looked at reports, and web-pages. In the end, I came across about ninety FinTech start-ups that in one or another way operate in similar areas as banks or have services that include interaction with banks. Out of these, I identified twenty-four FinTechs with experience of collaboration through visiting main pages and asking. In total, I have sent an email to twenty-four to request an interview, of which eleven responded. In the end, nine companies were interviewed. The size of a sample is not critical in qualitative research, unlike in quantitative (Stratford & Bradshaw, 2016), and I presumed that interviewing nine informants would have provided me sufficient insight given the time constraints for the thesis.

Participating companies in this research are Norway-based FinTechs operating in the financial sector, in which banks represent one of the major areas. The eight FinTech companies were small, with less than 50 employees, except for one medium size company. The common characteristic of all participating FinTech start-ups is that they provide both strategically important services and other value-adding technologies and services. Two companies were at the early stages of collaboration with limited data on alliance outcomes, while others had done projects with incumbents many times. According to those, despite the challenges that are

common in collaborations, none of the FinTech companies had a negative experience in alliances with incumbents in terms of a failed project. Further, participating FinTech companies in this research primarily engaged in exploitation alliances with large companies, where parties extract complementary resources and technologies from each other.

Typically, I have interviewed people in C-suite (e.g., CEOs, CTOs, CMOs, CSOs) or equivalent positions. Types of partnerships include license agreements, JV, co-operation, partnership agreements. The majority of companies are young, and partnership experience is 2 years in most of the cases. One company operates only outside of Norway, and most of them operate both inside and outside of country borders. Table 2 presents a summary of the interviews.

Table 2 List of interviews

The size of the FinTech	The name in the thesis	Duration	Location	Age of the FinTech
Small	F.1	75 min	Office	3-5 years
Small	F.2	33 min	Office	>5 years
Small	F.3	30 min	Office	<3 years
Small	F.4	44 min	Office	<3years
Small	F.5	38 min	Office	>5 years
Small	F.6	50 min	Office	3-5 years
Small	F.7	76 min	Skype	3-5 years
Medium	F.8	30 min	Skype	>5 years
Small	F.9	46 min	Skype	3-5 years

Three interviews were conducted in December and six in January. Interviews were semi-structured with open-ended questions. Primarily, I have created an interview guide based on literature review and reports, but I have modified the interview guide along the way after getting insight from informants. This allowed me to check some statements stated by informants with other interviewees and observe whether or not it was a pattern. All interviews were recorded after gaining permission from the interviewees. Recording interviews allowed me to listen more carefully, take notes during the interview, and ask relevant follow-up questions.

All interviews were conducted in English. Six interviews were carried out face to face in the office of informants. Three interviews were conducted over Skype.

3.3.3 Document analysis

Documents are rich sources of data (Punch, 2005) and can provide a researcher with background information of the research area and give an idea of research questions (Bowen, 2009). The starting point of the thesis was to read the literature on collaboration and alliances between large and small companies. Documents included academic literature written on alliances, alliance management, the collaboration between small start-up companies and large firms, various research topics on challenges and enablers in these types of collaborations. Reviewing documents enabled me to get insight into the research topic and construct preliminary research questions before conducting the interviews.

Further, documents can provide additional knowledge and can be used to confirm findings or support arguments (Bowen, 2009). I have read reports addressing similar research topics on bank-FinTech collaboration (e.g., Capgemini et al., 2018; McKinsey, 2018; EY, 2017a; Deloitte, 2018; Accenture, 2018). This provided me with an insight into what has already been observed in the setting I was going to conduct the research. Later on, I have used some of them (Deloitte, 2018; Accenture, 2018) to compare my findings.

Document analysis, much like the interview data, requires both skimming, reading in detail, and interpretation of relevant information and topics (Bowen, 2009). First, I got an overview of the documents and checked whether these were relevant for my research. Further, I read selected documents in detail and labeled relevant information for this thesis.

The documents used in this thesis were retrieved mainly from Google Scholar, Jstor, Oria, and Google search.

3.4 Data analysis

The period after the interview is critical to the rigor and validity of qualitative data (Patton, 2002). The researcher can use this time to reflect what has been said and ensure that the data gathered will be useful and reliable (Patton, 2002). I have made notes after finishing each interview regarding what has been said, whether or not I really got answers to my questions,

and what I could have done better. Further, I transcribed interviews the same day they were conducted. This gave me an opportunity to get to know the data better early, update the interview questions, and cross-check information.

Transcribing all interviews was a time-consuming process, yet this gave me rich and detailed data. After I was finished with transcribing all interviews, I started a content analysis (Dunn, 2016). The content analysis helps a researcher to assess the surface of the data by identifying similar variables and a set of patterns (Dunn, 2016). I read interviews several times and grouped themes as challenges, causes, the influence the challenges have on FinTechs, and mitigation strategies in all transcripts. I used codes to gather relevant information (Cope, 2016). Similar codes were collected and created a set of patterns (Cope, 2016). Coding allowed me to capture the set of patterns that emerged from the data and handle a large amount of data by dividing into key themes (Cope, 2016). I also marked citations and arguments for each section. I ended up with five main challenges FinTechs face when collaborating with incumbents and six managerial strategies to mitigate challenges (elaborated in section five).

Along with coding, I have created theoretical memos (Punch, 2005) and connected the findings to particular theories highlighted in the literature. The theoretical memos are not descriptions of the data but have more conceptual insights, and thus enable the researcher to develop propositions (Punch, 2005). By using memos, I was able to map similarities and differences between literature and the case that helped me to write the analysis for the thesis.

Yin (2014) argued that one of the strategies to analyze data collected from a case study could be to use predefined theoretical proposition. I had several loosely pre-defined theoretical concepts on how firms mitigate challenges in alliances in general and some limited information on how start-ups handle issues. In addition, I have elaborated on challenges in alliances previous research has found.

When analyzing the data, I grouped the challenges I found into five categories that were used to answer RQ.1. In addition, obstacles were compared to previous research highlighted in the analytical framework. Managerial strategies FinTechs use to mitigate risks were matched and compared to predefined concepts from the literature in the analytical framework and used for answering RQ.2. Similarities and differences in how these tools were used were analyzed. An

additional strategy also emerged, which is highlighted in the later section when presenting the findings. Consequently, the thesis is a combination of both inductive and deductive analysis.

3.5 Rigor in qualitative research

Rigor in qualitative research is critical (Thomas & Magilvy, 2011). Rigor is useful to establish consistency in study findings and ensure the precise interpretation of the research findings (Thomas & Magilvy, 2011). The qualitative rigor can be enhanced by ensuring the validity, reliability, external validity, and objectivity in the research (Thomas & Magilvy, 2011).

Validity refers to the credibility of the interpretation of data gathered in the research (Silverman, 2013). In other words, that the interpretations provided in the research are accurate (Thomas & Magilvy, 2011). For increasing validity of interpretations of the data in the thesis, I have sent emails to all participants, including citations and explanation of the context in which those were used and asked to review. In doing so, I make sure to increase the validity of my interpretations.

Reliability refers to the preciseness of the data presented in the research (Johannessen et al., 2010). In other words, whether the same results can be drawn if similar research is performed at some other point or by other researchers (Johannessen et al., 2010). Reliability of the research is considered high when another researcher can take similar steps and replicate the study (Thomas & Magilvy, 2011). I have presented the purpose of this study and the analytical framework I used to analyze data. I have also described how the right participants were selected and how they were recruited. Further, I have elaborated the timeline interviews took place and the choice of the method used to collect the data. In addition, I explained how data was analyzed. However, the study can be challenging to replicate as it is the study of a specific sector in a specific country at a particular time.

External validity refers to whether or not the results derived from the research can be applied to similar projects (Johannessen et al., 2010). To strengthen the external validity of this research, I have used triangulation of sources (Patton, 2002). Triangulation of sources means cross-checking the consistency of data gathered with the same method at a different time (Patton, 2002). By using the triangulation method, a researcher is able to get insight into more rich data and check the consistency of findings (Patton, 2002). In addition, with data collected through semi-structured interviews with relevant representatives from FinTech companies, I

have read reports written on both bank-FinTech collaboration and start-ups collaboration with large firms where a qualitative method was used. Further, I have reviewed the academic literature on alliances and alliance management as well.

A common misunderstanding of using triangulation is the assumption that the different data sources should yield the same results (Patton, 2002). In fact, understanding inconsistencies across multiple data is important (Patton, 2002). Both similarities and differences between my data and other sources will be elaborated on in the discussion. Despite using triangulation to increase the external validity of data, case studies are often criticized to lack statistical generalizability (Yin, 2014). Thus, data gathered in this interview can be of limited application for similar projects in some cases.

The objectivity of the research can be enhanced if the researcher ensures validity, reliability, and external validity of the study (Thomas & Magilvy, 2011). Objectivity refers to awareness of the researcher's interaction with the study and what effect does the researcher have on the results (Thomas & Magilvy, 2011). The researcher should ensure that that results of the research is derived from the study and is not biased to researcher's subjective opinions regarding the topic (Johannessen et al., 2010).

Before starting the project, I did not have any connection to FinTech companies or the sector in general. My intentions were to be objective, and I did not have any particular biases to any side of the alliances. Yet, everyone has their way of viewing things, and a researcher is not an exception (Johannessen et al., 2010). A researcher's view and beliefs can influence the selection of data and interpretation of it even if the researcher is not fully aware of it (Johannessen et al., 2010). These views can be inspired by theories, experience, or even own believes that can shape a researcher's assumptions on what to expect from the findings (Johannessen et al., 2010). Therefore, a researcher should be aware of her/his involvement in the research when doing the study (Johannessen et al., 2010).

I reminded myself to be objective throughout the process, yet my expectations and interpretations of the data can be affected by both previous academic literature and reports I have read.

3.6 Ethical concerns

Social research involves collecting data from people and about people (Punch, 2005). Thus it is subject to ethical consideration (Punch, 2005). This research includes interviews with people, so the thesis was reported to and completed in accordance with the Norwegian Data Protection Service guidelines. Informants have right to know the nature of the research and that they have the right to withdraw at any time (Ryen, 2004). Informants in this thesis were given a consent form including information regarding the nature of the thesis, what kind of information would be collected, that participation is voluntary, their right to withdraw, get access to the transcript and information on how the data would be treated. Another ethical issue refers to confidentiality (Ryen, 2004). Informants were given a choice to be anonymous. Almost half of them chose to be so. In the end, I decided to anonymize everyone. Further, transcripts were labeled and contained no information on a person's identity or company name in order to eliminate the possibility of identifying informants (Dowling, 2016).

4 Empirical Background

4.1 A brief introduction of FinTech start-ups

"FinTech" is a broadly used term and can refer to new start-up companies, well-established technology companies or any firms operating in the financial sector with an innovative business model (Nicoletti, 2017; Gomber, Koch & Siering, 2017).

FinTech start-ups are recognized as one of the most important emerging industries in the financial sector driven by sharing economy and favorable regulations (Lee & Shin, 2018). The emergence of e-finance in the early 1990s and development of mobile technologies gave a boost of emergence to the FinTech innovation (Lee & Shin, 2018). E-finance allowed both individuals and businesses to access and obtain information on financial products without direct interaction with financial firms through online banking, mobile payment, mobile banking (Lee & Shin, 2018).

FinTechs often create products for underserved niche markets and offer customer-centric, tailored services, and technologies at a higher speed (Capgemini et al., 2018). FinTechs are also competitive in price and offer services at a lower price than incumbents (Lee & Shin, 2018). The operating area of FinTechs is to connect "Internet-related technologies (e.g., cloud computing, mobile Internet) with established business activities of the financial services industry (e.g., money lending, transaction banking)" (Gomber et al., p. 540). FinTech start-ups mainly deliver their innovative technology through mobile and online channels (Nicoletti, 2017).

The business model of FinTechs is not fixed, and different authors have categorized various groups. Some take a broader approach, while others are more detailed. For example, Lee and Shin (2018) categorized six main business models: payment, wealth management, crowdfunding, lending, capital market, and insurance services. Brandl & Hornuf (2017) had a broader approach and divided FinTechs into: "payment (e.g., crypto currencies, alternative payment systems), financing (e.g., crowdfunding, crowdlending, crowd investing), asset management (e.g., robo-advice, social trading, factoring), and other (e.g., search engines, infrastructure providers)" (Brandl & Hornuf, 2017, p.2)

The FinTech market is a fast-growing market. According to KPMG (2019), global investments in FinTechs increased significantly over the last year, from $50.8 billion in 2017 to $111.8 billion in 2018.

The number of customers using FinTech services is increasing, and the number of people reluctant to adopt new technologies is decreasing (EY, 2017b). According to EY (2017b), FinTech global adoption rate corresponds to around 33% and is predicted to continue to grow. This makes FinTechs an important player in the financial market.

4.2 The state & ecosystem of FinTech start-ups in Norway

For the purpose of this thesis, I defined FinTech companies as an independent firm that operate in the financial sector in which the banking sector is one of the main focus areas.

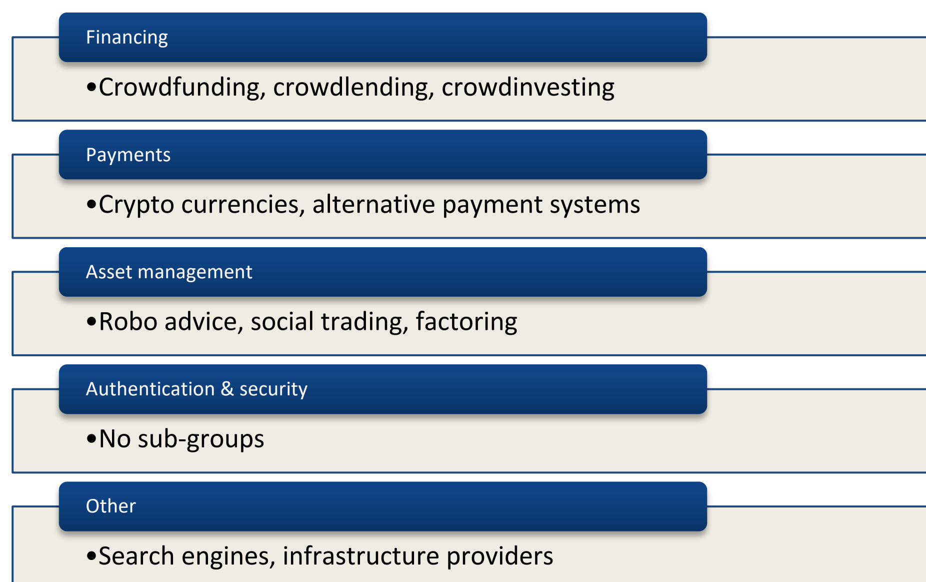
I mapped FinTech companies in Norway based on the Fintech Mundi report [1], a personal blog[2], and on a web page[3]. In addition, I have identified some FinTech companies through attending networking events where FinTech start-ups were at present. In sum, around ninety FinTech companies were identified which provide similar services like banks or provide services and infrastructure to the banking sector. I have categorized main business models of FinTech start-ups in Norway using Brandl & Hornuf (2017) business models as well as adding an extra category form FinTech Mundi's resentation in order to create a comprehensive picture. Figure 2. summarizes the business models of FinTech start-ups in Norway.

[1] https://www.finansnorge.no/contentassets/19974285919543ecb0ab0ee98777d143/susanne-hannestad-fintech-mundi.pdf

[2] https://hernaes.com/2018/02/13/the-current-state-of-fintech-in-norway/

[3] https://gomedici.com/norway-fintech-landscape/

Figure 2 Business models of FinTechs in Norway



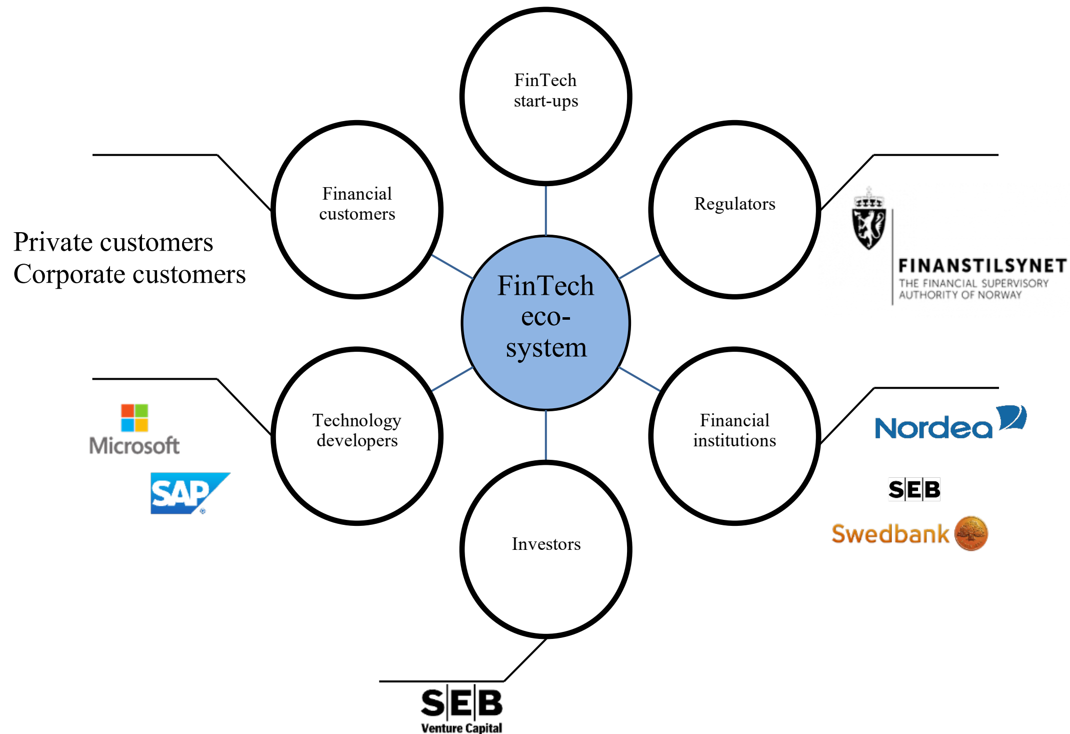
Source: Combination of extracted information from Brandl & Hornuf (2017) & FinTech Mundi

The FinTech market is evolving in Norway as well. In 2018, investments in tech start-ups in Norway comprised $185.8 million, which is a 69,68% increase compared to the same time in 2017, indicating that the Norwegian market is growing quickly. [4]

Figure 3 illustrates the FinTech ecosystem in Norway and gives examples of some of the actors in the ecosystem. The ecosystem is based on Lee & Shin (2018) and Deloitte's (2017) report.

[4] https://thenordicweb.com/the-norwegian-h1-2018-q1-and-q2-funding-analysis/

Figure 3 FinTech ecosystem in Norway.



Source: extracted from Lee & Shin (2018) & Deloitte (2017) and modified by the author.

The FinTech ecosystem is an important factor which determines the development of FinTechs. For instance, regulators, i.e., governmental agencies and access to funding can influence FinTechs development or halt it. As an example, favorable regulations (PSD2) and access to increased capital from investors enables FinTech start-ups to develop new solutions more quickly and implement them on a larger scale (Deloitte, 2017). Furthermore, technology developers provide digital platforms that enable FinTechs to develop and launch technology in the market in a fast and cost-efficient way (Lee & Shin, 2018). Financial institutions engage in the FinTech ecosystem through collaboration with start-ups and providing funding in exchange for innovative technology (Lee & Shin, 2018). Whereas financial customers, including large, SME firms and individual customers are an important source of revenue for FinTechs (Lee & Shin, 2018).

4.3 From disruption to collaboration

FinTechs entered in the financial sector as disrupters and made banks worried (Meinert, 2017). The FinTechs were able to develop more customer-centric and user-friendly applications (Hornuf, Klus, Lohwasser, & Schwienbacher, 2018), while the banking sector was characterized as resistant to change and slow to innovate (Tornjanski et al., 2015). Therefore, the FinTechs were believed to pose a threat to banks (Hornuf et al., 2018). Some argued that whether or not FinTechs are an opportunity or threat depends on the next moves and strategies of the banks and FinTechs (Temelkov, 2018).

As it seems now, incumbents are catching up to the success of the FinTechs (Capgemini et al., 2018). According to McKinsey (2018), the hype as disrupters created around FinTech has faded away, and incumbents no longer perceive FinTechs as a threat to their business. The perception of FinTechs has shifted from being a threat to being a complementary and important source of innovation that contributes to transforming the financial industry (McKinsey, 2018).

Although generating innovative ideas is not a challenge for incumbents, the execution of such ideas remains challenging (EY, 2017a). Banks lack internal capabilities, which results in long innovation cycles and a slow market launch (Tornjanski et al., 2015). Corporates have adopted similar innovation processes as start-ups, but managerial and structural properties of banks, which are usually advantages, can be their rigidities in terms of transforming ideas into innovative products (Freeman & Engel, 2007). Thus, the financial sector often engages with FinTechs as investors or strategic partners (McKinsey, 2018). According to PwC (2017), in their global FinTech survey, about 82% of incumbents are planning to establish partnerships with FinTechs over the next three to five years. Partnerships allow incumbents to save time and troubles associated with developing new services and products internally (Brandl & Hornuf, 2017).

The attitude of FinTechs is changing as well. According to Accenture (2018), FinTech companies see themselves more as partners than competitors to financial institutions. In a similar vein, Capgemini et al. (2018) reported that about 75 % of FinTechs have a strategy to collaborate with incumbents.

The reasons behind this are varied. Among them, FinTechs start-ups are struggling to scale up and become profitable (Capgemini et al., 2018). A lack of legacy infrastructure and organizational complexity allow FinTechs to be more agile and innovate faster than incumbents (Hornuf et al., 2018). Yet having cutting-edge technology is not enough to disrupt the market (McKinsey, 2018). Customer acquisition is time-consuming, which may require long-term, heavy infrastructure investments from FinTechs before getting a revenue (McKinsey, 2018). Also, it is unlikely that FinTechs will have access to enough funds to manage it all alone (McKinsey, 2018). Although investments in Fintechs remain high, technology investors globally are becoming more selective and prefer to invest in late-stage start-ups, which demonstrate a higher probability of success (McKinsey, 2018).

Hence, the advantages of FinTechs lay in their agility, customer-centricity, and freedom from legacy systems (Capgemini et al., 2018). Their challenges are the strengths of the incumbents, such as wide customer bases, distribution channels, capital, and regulatory compliance skills (Capgemini et al., 2018). For incumbents, start-ups can be an important source of innovation (Hornuf et al., 2018). Collaboration enables incumbents to shorten the time to market launch, maintain a customer base, and strengthen market position (Hornuf et al., 2018). As a result, collaboration seems mutually beneficial for both banks and FinTechs (Capgemini et al., 2018; McKinsey, 2018; Holotiuk, Klus, Lohwasser & Moormann, 2018).

However, while the rate of collaboration is increasing (PwC, 2017; McKinsey, 2018), challenges how to collaborate remain (Accenture, 2018; Deloitte, 2018; EY, 2017a). Neither banks nor FinTechs will be able to benefit fully from innovation without getting better at working together (EY, 2017a).

4.4 A brief review of research done on FinTech-bank collaboration

Although collaboration between FinTechs and banks is increasing, cooperation between FinTechs and incumbents is a new and not well-researched topic (Bömer & Maxin, 2018).

Often when it comes to FinTech-bank collaboration, the research is written either from the bank’s perspective or from both banks and FinTechs. Few papers are focusing on only the FinTech’s perspective.

Broader research topics from the bank's perspective include: why banks enter alliances with FinTechs (Hornuf et al., 2018), why collaboration is better strategy for banks rather than competition (Temelkov, 2018) and how banks can collaborate with FinTechs (Meinert, 2017; Riemer, Hafermalz, Roosen, Boussand, El Aoufi & Kosheliev, 2017). Strategies for better collaboration for banks and FinTechs (EY, 2017a). The data in the EY (2017a) report is collected exclusively from banks, therefore I have categorized it under the bank's perspective.

The research topics on both perspectives include: what drives both banks and FinTechs to form alliances (Holotiuk et al., 2018), collaboration advantages for both banks and FinTechs (Capgemini et al., 2018; McKinsey, 2018). Also, collaboration challenges and strategies for both banks and FinTechs were addressed by Accenture (2018) and Deloitte (2018). Also, enablers and constraining factors for collaboration between banks and FinTechs were researched in a South African example (Thwaits, 2016).

The lack of research is particularly evident when it comes to taking a FinTech's perspective and providing tools to manage issues. What has been done from the FinTech's perspective primarily describes why FinTechs collaborate with banks and how they interact (Bömer & Maxin, 2018).

Consequently, the empirical contribution of this thesis is to contribute to research on FinTech collaboration with incumbents from the FinTech's perspective. This involves mapping the risks and challenges when FinTechs collaborate with incumbents and analyzing how FinTechs manage these issues.

5 Empirical Findings

In this chapter, I will present empirical findings collected through semi-structured interviews with different FinTech companies. Based on the interviews, I will describe the ways these FinTechs were similar, establishing a set of patterns and differences. Firstly, I will briefly introduce the FinTechs I have interviewed and to give some context to my work, display reasons mentioned during the interviews on why FinTechs enter strategic alliances with large companies. Even though this is not the main research concern in this thesis, I believe that this gives a useful context and draws a complete picture. After that, I introduce risks and challenges the FinTech start-ups face in alliances with larger partners and managerial tools they used to overcome these obstacles.

5.1 A brief introduction of interviewed FinTechs

The participating FinTech companies in the thesis operate in all areas mentioned in the previous chapter: financing, payments, asset management, authentication & security, and other (different infrastructure providers).

FinTechs typically develop services and technologies that are built on the premise of improving the way banks work or implementing new ways of doing business in the banking sector. As an example of the latter, FinTechs operating in crowdfunding enable small and medium-sized companies to get financing either to start-up a business or expand it, which has traditionally been challenging.

Interviewed FinTechs for the thesis have in common that they deliver strategically important or otherwise value-creating innovative technologies to banks. Some participating FinTechs provide essential services and infrastructure that relies on existing bank infrastructure or services to create value. One example of this is a FinTech that works with authentication and security, which is strategically important to banks but also relies on existing bank infrastructure to be useful.

Parties usually established alliances when they both believed that a partnership could bring value to each party involved. Banks typically provided both financial and human resources to build a scaled solution for a broad market. In return, the banks got access to innovative technologies and services, enabling them to meet changing customer demands and stay

competitive. As an example, most of the participating firms received direct investments from the banks and got access to a broader customer base. In return, banks gained innovative technologies/services and extra revenue.

The exact division of labor, responsibility, expectations, and risk was formalized through a contract, which typically also dictated how costs, revenues, and ownership was shared between the bank and the FinTech.

5.2 Reasons behind collaborations

In general, participating FinTech companies had exploitative motives for engaging in alliances. Start-ups possessed innovative technologies/services, and banks provided complementary resources that were necessary to either commercialize the products/services or reach a wider range of customers in time and in a cost-efficient way.

One of the main reasons the FinTechs collaborated was to counter a major challenge, which was to acquire a large customer base. Having a large customer base is important for FinTechs to generate revenue and grow. Yet start-ups lack branding and recognition, which makes acquiring customers independently costly and time-consuming process:

> A lot of other FinTechs that want to challenge banks find out that you need so much cash to succeed, to access critical customer mass. So, more FinTechs try to work with banks. (F.7)

Informants pointed out that financial institutions rarely invest in early-stage start-ups. Thus, young FinTech companies depend on getting money from other investors to develop products and get to the market on time in order to gain profits, scale-up, and function:

> What corporates demand is that you develop big and expensive tools, but they do not always want to finance that. So, you need to get financing from someone else. (F.3)

Moreover, FinTech companies operate in the financial sector and deal with money, payment, and investment services, require customer trust. Trust is difficult to gain and takes time:

> Banking is not about technology, and it is not about apps, it is about trust in the end because you are giving the banks your money (…) You will not give them to the bank if you do not trust them. Would we be the most trustworthy partner? No, we would not be. We do not have a track record. You do not trust when you do not know. (F.1)

Therefore, establishing alliances with incumbents that already have a large customer base, trust, and recognition in the market was perceived as a strategically important decision. Partnering a trustworthy and well-known company enabled the FinTechs to gain acknowledgment in the market and scale up quickly.

Additionally, partnering a well-established and known company enabled FinTechs to overcome the "liability of newness" and build-up trust in the sector. This lead to getting validation in the sector and gain more strategic partners easily in the future:

> As a company, the biggest benefit is verification in the market. The trust we get in the market (…) It is maybe the biggest benefit of partnering with big companies. (F.7)

Entering new markets was also a reason to seek alliances for FinTechs aiming to capture the market outside of Norwegian borders. Alliances with a local, trusted incumbent is a strategically preferred way to enter the market in a time- and cost-efficient manner.

To sum up, FinTechs were similar in the reasons why they collaborated with incumbents. The reasons typically included to get branding, trust, distribution channels, grow quickly, marketing skills, access to new markets, and customer base. Based on their strategy, one reason or another could be more dominant when making the decision. Young startups have both time and money constraints and building everything themselves, for the most part, is not a winning strategy given the high competition in the sector. Standing all alone requires a considerable amount of capital which FinTechs are unlikely to get access to on their own. Thus, collaboration is an important strategy to gain/strengthen competitive advantage in the financial market.

5.3 Risks & Challenges

Here I will introduce risks and challenges FinTechs face in collaboration identified during the interviews. There is a blurred line between challenges and risks when it comes to FinTech start-ups collaborating with incumbents. Most of the issues I have identified can potentially be translated into risks for small companies if not addressed in time. Therefore, I have grouped these categories and will elaborate in more detail.

5.3.1 Lack of trust

All informants perceived trust as crucial in alliances. Gaining trust from incumbents was named challenging by many interviewees, especially for early-stage FinTechs. As mentioned earlier, the FinTech community is growing due to favorable regulations and the environment. At the same time, incumbents are getting more careful when selecting start-ups to invest and collaborate. Hence, differentiating yourself from many other young promising companies is not an easy job.

The main concerns of incumbents, according to start-ups, is uncertainty regarding the delivery capacity of FinTechs and technology they are delivering:

> Make large companies understand your delivery capacity. That you are a small young company probably with a much more efficient technology platform and make them understand that you are as good as them. (…) That we do not need 100 people working on compliance in order to be compliant. This is obviously a mis-match because large companies have done this so long and have their ways of doing things. (F.2)

Getting incumbents to trust that FinTech start-ups can deliver what they are promising was named as especially difficult for FinTech start-ups with little or no experience. Not having the incumbents trust can increase power imbalance:

> Make large companies understand the value your technology can provide. Especially if you do not have a record to show that can be challenging, and you might be treated as if you do not have so much value. (F.2)

Uncertainty from incumbents regarding the technology can be caused by the newness of a technology that has not been tested and tried in the market before:

> A lot of things we are working on they have not be done before. So, typically, with the partners we are working with, they do not know necessarily and do not have a full grasp of what is possible. (F.5)

In sum, for a new start-up company gaining trust from incumbents can be an obstacle, especially for FinTechs with little or no experience. A lack of trust can lead to a long sales cycles (as it takes time to convince incumbents) and give FinTechs less bargaining power if the incumbent does not understand the real value of the offered technology/service. Thus, a lack of trust is an important issue and can slow down the speed of potential collaboration.

5.3.2 Long sales cycles

A typical sales cycle is defined by getting access to a possible partner, starting negotiations, moving to a pilot phase/proof of concept and eventually closing the deal with a larger-scale contract. This cycle can be different based on the complexity and newness of the technology. In a few cases, some partnership without a pilot was also reported, but having a pilot is typical before a scaled implementation. The FinTech does not make money from the process before a paid pilot (not every FinTech charges for a pilot), or commercial deal is agreed. The sales cycle was perceived as a very long process by most of the FinTech start-ups. Which can pose a risk to firm survival because it drains the limited human and financial resources of the FinTech with no guarantee of a pay-off or sale in the other end.

The long sales cycle was explained by two main reasons. Firstly, getting access to the right people in the bank is time-consuming. Secondly, lengthy negotiations, eventually closing the deal and meeting all the requirements banks need to address is a time-consuming process as well.

The very first obstacle for most of the FinTechs was to navigate in a large company. The absence of a clear structure of incumbent firms, being divided into many different departments and managerial layers, was one of the most cited challenges. This unclear structure creates barriers for FinTechs to get access to the right decision-level people:

> Sometimes you do not meet the right people. So, you think that you have a meeting with the right person and this person is engaged and says "OK, you need to meet this person in the bank" and the other says: "maybe we can do a meeting in a month" and then they say, "OK we really do want to do something like this, but maybe this is not going to happen another six months", and this is how it is. (F.7)

The absence of structure in the corporates and lengthy process for meeting the right decision level people was consistent with many informants:

> We had 10 to 15 meetings and were still not talking to the right person. (F.9)

Another informant made a similar statement:

> The biggest problem is to know who to talk to. So, understanding who is the person we need to talk. Typically, the people that make the decision that they want to work with you are not those you initially are talking to. So, you need to get through the gates. (F.5)

After getting access to a decision maker, the next typical stage is to negotiate a contract for a pilot. The informants typically report this negotiation to take up to a year in some cases. In the negotiation stage, goals, expectations, timeline, and other practical things for the pilot are addressed. Typically, the contract is simpler than the commercial contract. Afterward, parties can move on to the pilot. At this stage, a small-scale launch of technology will be tested to validate its feasibility. However, informants mentioned that it was time-consuming to get to this stage, with many rounds of negotiations and many rounds of meetings with different people and stakeholders that could take a half year or even one year before moving to a proof of concept:

> I know that negotiations can take forever. I have been told by some. One year had passed since they started negotiations before they landed on the deal. Which is insane. It is simply because "we need to get another opinion, you need to do a pilot run, who should pay, how are we going to pay" and many other things that can postpone it. (F.6)

The same informant (F.6) mentioned that it had not been the case in their company experience. When I asked the informant explained it by pointing out that personal experience of knowing the sector and right people and knowing how to maneuver in a large corporation can help avoid using too much time. Such as starting from a pilot and a simple contract before many rounds of negotiations.

Typically, incumbents were perceived as slow decision-makers. Many stakeholders are involved from the bank's side, and if their perception of risk regarding the project is high, it means more meetings and more time:

> In a small organization, we could make decisions within 10 minutes, and they need to have a meeting and a board meeting, and it could take months. If it is a risky decision, maybe nobody will take it. (F.3)

If the pilot phase meets the expectations of both parties, the next step, to finalize the deal, is equally time-consuming:

> To get a commercial contract with a big bank, you do not just walk in the door and do a sales pitch, and then they sign. A typical process is to engage in a number of meetings with them, and that can be a cycle of one or two years. You need to have many dialogues ongoing. (F.7)

Incumbents are highly regulated and bureaucratic organizations, and to make things done can take time. The importance of knowing whom to talk to was consistent among all the informants as a means of accelerating the speed of the process.

Lastly, while a long sales cycle can be a typical and low-risk process for a medium or a large company, I will argue that this can be risky for FinTech companies given time and resource constraints (both in terms of people and money). As informant (F.6) mentioned:

> If I spent too much time on partner discussions and I do not actually spend time in my company on important things, because these big corporations might ask workshop and another workshop, we are a few people, spending a lot of time preparing this could be fatal. (F.6)

Additionally, if a FinTech uses one year on negotiating how to do a pilot, not getting a deal can also be a challenge as the process takes a long time, many things can happen. For example, another informant pointed out that they have spent six months negotiating contracts but, in the end, did not get the deal. In this case, there is little loss for large corporates, but young start-ups risk spending scarce resources and money on the process without gaining economic value out of it. In some cases, this even can pose a risk for the start-up's survival.

To sum, entering into a collaboration with an incumbent still requires a large investment of time and resources from FinTechs with no guaranteed pay-off, which is a risk for resource-scarce FinTechs.

5.3.3 Slow implementation

The slowness of large partners was named one of the main obstacles during the collaboration process both on a pilot and the final launch. Incumbents are slow in decision making both whether or not to work with start-ups and when they have decided, to allocate necessary resources:

> Even when they decide that they want to work with you, they are very slow to move. (F.5)

Several informants made similar statements:

> As long as partners allocate the right resources, we will meet our timeline goals. The problem is more with bigger clients. They are slow, and we can move faster, and they can lag behind. We can work day and night to meet the deadline, but banks will not do that. (F.3)

Also, more:

> One of the challenges is to recognize that you are a small FinTech with a few handfuls of people and you can move fast and make decisions fast and change from one day to the next, but working with a large organization is going to take weeks and months to do just a slight change of a course. (F.8)

The slowness of incumbents can be caused by various reasons. Among them, bureaucracy, compliance, and regulatory issues were most cited. The absence of clear structure was also named as a challenge for FinTechs, which can lead to delays or insufficient collaboration:

> You go in there (bank) as a young company thinking "ah, now we are going to start making money," but nothing happens. They do not have resources, and they send you between departments. So, they need to have some sort of structure in place to make sure that companies can actually go there and do their work. (F.9)

Furthermore, some informants pointed out that incumbents work on many projects at the same time, and that this can require a lot of time and resources. As a result, commitment to some particular FinTech projects can vary and lead delays in allocating resources to the project:

> They can have good intentions, and you might set up goals, but they have so many projects going on at the same time, and they cannot manage all of these projects in parallel. The attention you are supposed to get in your project and all of the ambitions you have might disappear because there is something else that is more important in another project. (F.2)

Slowness can pose a risk for resource-constrained start-ups. Identifying low commitment from a larger partner and acting to limit time and resources was named as essential for FinTechs to avoid overinvesting scare resources in unprofitable projects:

> It might happen that you spend too much time, and then nothing will happen. It happens a lot, so you need to cut your losses and cut your time. (F.3)

While delays are not good for corporates either, it has more impact on young start-up companies. Given time and resource constraints, delays can cause financial problems for FinTechs, because entering partnerships is a primary source of getting to the market and generate the revenue that they are depending on to scale and grow:

> We have financial needs to be faster because there is competition coming and we have a limited runway in terms of how much money we have to invest in these things. (F.5)

Thus, slow implementation can be challenging and costly for FinTech start-ups. Identifying and addressing issues that slow things down in the collaboration are essential managerial capabilities for start-ups to succeed.

5.3.4 Power imbalance

During the interviews, power imbalance issues were also discussed. Power imbalance means that banks will try to dominate and take control of collaborations, or get more out from the partnerships. For some, power imbalance can be a small issue:

> We offer core elements of what our partners are offering. So, without us, they cannot offer these products. So, they need to treat us with a level of respect to keep us moving in the right direction. (F.5)

However, more than half of the informants pointed out that there can be a power imbalance between FinTechs and incumbents,

> When you are a small or medium size company and try to work with a large one, there is a power imbalance that creates friction, as everybody wants to get as much as possible from the partnership, and the imbalance can skew things. (F.1)

As another example, incumbents are aware of the fact that FinTechs want to partner a well-known and trusted company to get acknowledgment, trust in the market. Sometimes incumbents might try to misuse their power by attempting to get exclusive partnerships or try to get more revenue from the deal. Yet FinTechs are active in decision making:

> At the beginning of discussions, they said that they had a veto right for us to prevent merging with other companies. But I said no, and they said OK. But if you give away this right, it can be really bad. (F.6)

Active decision-making by the FinTech was apparent in another case as well:

> They want more equity, or they want more shares or whatever, because "if we sign with you and we do this then you guys will have a great momentum and you need to give us everything" there is a reason why they want to be with you, because they want to have what you have (…) We have a lot of experience and in this case, can say you can find someone else. (F.7)

Misuse of power can be especially challenging if a FinTech does not have an experience of collaborations:

> Typically, FinTechs are young companies with a lot of young people, and you have this opportunity with the big banks, that is very attractive and not to give away too much can be a challenge. (F.7)

Moreover, other forms to misuse power can be that incumbents do not treat FinTechs as equals or try to get a technology/service cheaper:

> You might not be treated as a big company, and they might try to get your services cheaper than they should. (F.2)

Alternatively, being vague on their part but demand more from a FinTech start-up is also a common challenge:

> A lot of big companies are very careful about what they say and what they share. They are very good at setting very low expectations for themselves and demand a lot from start-ups. So, they will be very demanding what you need to deliver and at the same time, very vague to what they can do, what they offer, and how they will do it. (F.5)

The power imbalance can pose a risk to a FinTech company in terms of giving away too much revenue or not having control over the collaboration. For instance, if FinTechs are inexperienced, and there is a power imbalance, they might be positioned in the negotiation in a way that gives an exclusive partnership to banks. This can eliminate many other essential and interesting players for the FinTech. In this case, alliances will not be profitable for both partners involved as it is the core of establishing alliances but serves only to the dominant partner's interests.

5.3.5 Possibility of technology appropriation

Respondents were consistent in arguing that there is no defined amount of information that is safe to share, but this can vary according to situations. All respondents agreed that giving too much sensitive information on technology can be risky if there is no trust and agreement in place:

> You need to evaluate how much information should you give constantly. What is sufficient and what is too much. If it is too much, sign the NDA. (F.7)

However, almost half of the informants mentioned that the environment had changed significantly in the last five years and appropriation of ideas and technologies was not a common trend in Norway as incumbents are very careful with their reputation:

> It used to be that they steal your idea, but now it is not like that anymore (…) They do not get away with that because it is bad press (...) They did not use to care, but now they do at least in Norway" (F.3)

Another informant pointed out the same:

> This is the environment here that all corporates are careful with reputational risks. (F.6)

To sum up, all informants were aware of the possibility of technology appropriation and the importance of knowledge protection. However, almost half of the informants pointed out that the environment has changed and Norwegian corporates are careful with their reputation, which reduces knowledge appropriation risks.

5.4 Managing Risks & Challenges

In this section, I will describe the most commonly used tools among interviewed participants to manage the issues presented above. First, I will introduce governance mechanisms (the hard side of alliance management) start-ups use to formalize alliances and how this process looks like. Subsequently, I will display other tools (the soft side) used by start-up companies to mitigate challenges and risks.

5.4.1 Governance mechanisms

Informants were asked to explain how they formalize alliances. Findings through interviews show that while there were a few equity-based agreements, the most preferred way of formalization of alliances is contractual alliances. It was argued that contracts are flexible and terms could be changed if they do not work as initially intended:

> Use a lot of time on the contract, and it is easier to change later on if you agree that OK, this did not work out, but you have this compass, that is really useful. (F.3)

There was a consensus between informants that some level of initial trust between parties exists when getting the deal,

There is always a need for a certain level of trust because contracts take time, and time is very valuable for us. You will not get to the contract without some initial trust. (F.1)

Hence, signing the contract is a declaration that parties involved in collaboration trust each other through collaboration, that they will reach joint goals.

The importance of trust between parties in alliances was also emphasized by all informants and argued to be an essential part of successful alliance making:

If you are going to achieve things together, you need to have trust with each other. Ability and willingness to follow up and be a part of it. (F.8)

Collaboration takes time, and things evolve over a period, and some unforeseen challenges can happen that the contract does not cover. If partners trust each other, then adaptation to changes is easier:

During collaborations, some things can change, but if you have trust from your partner that you will deliver things you have promised, can help. (…) So, I think trust is essential in partnerships. If there is no trust, there are no partnerships. (F.6)

Moreover, managing every detail of collaboration was named as challenging for FinTechs both operational level and through contracts. Thus, having trust in partners that they will fulfill their parts was named as critical for succeeding in alliances:

It is a very complex process that we are developing. There are a lot of moving pieces, and it is very important that people we are working with and partners we have will be capable of delivering their part. (F.5)

Despite the importance of trust, the majority of informants pointed out that the best way to avoid misunderstanding and complications in collaboration is to use time and sign detailed contracts,

The best thing you can do is to write down everything you want to do in the contract and rely on the contract and push it through. (F.3)

If incumbents do not fulfill their part, informants argued that there is little to be done. Some informants emphasized that while having contracts and formal agreements is important,

building relationships and trust is equally important as well. Relying exclusively on contracts and penalties to eliminate the risk of a partner not acting as agreed can be less efficient:

> I think you can put penalties in the contract, but it will be difficult to make banks sign it. (...) We need to manage relationships. (…) You cannot go and work with the incumbent and set a hard day and say this is the deadline, and these are penalties. (F.7)

Nonetheless, it should be mentioned that writing a contract is not only FinTech's interest. Corporates are used to regulate relationships in a formal way, and contracts can give the power to act on it if small companies do not fulfill their part. Incumbents already have many lawyers and experience of writing contracts with third parties and protecting their interests. While some challenges constructing deals for FinTechs emerged during the interviews.

Some felt very confident writing good contracts, others perceived as challenging to get a good contract that can be a perfect protector of FinTech's interests in alliances. Young FinTech companies might have little or no experience of what to include in the contracts. To solve this, some informants suggested having someone in the team with experience of dealing with legal issues. However, having an experienced person in the team was argued to be costly yet beneficial:

> Banks have an army of lawyers that can write down all kinds of nitty-gritty things, and a start-up may do not know all of these things and cannot afford this army of lawyers. (F.9)

Furthermore, during the interviews, it has emerged that contracts itself might have little value for FinTechs and that there is little protection for young companies. Even those who felt confident in constructing good contracts and protecting their rights mentioned that if the incumbent breaks the deal, they might have little resources to follow up and take the case to court:

> If they do not fulfill the contract, I mean we might not have enough money to sue them (…) Still, the best is to have a contract and the more information there, so it is easier to work. Even if your partnership is based on network and so on, the best is still to have a detailed contract. (F.3)

Typically, contracts for a pilot is simpler compared to scaled contracts. However, there is no precise way that start-ups follow and contracting on both stages can vary. As one informant mentioned in one case contracting was more informal,

Once, we almost had the intention of not doing it (contract) and then formalized with a simple contract that was a copy of another contract. (F.6)

While in another case,

Tons of lawyers were involved from their side (bank) making it formal (…) They can walk away from the contract, which basically means let's be trust-based, but we have papers we can walk away. (F.6)

To sum up, it was consistent across all participants that trust was perceived as a crucial factor for succeeding in alliances with incumbents and initial trust between parties exist when signing the deal. Negotiating contracts was perceived as a time-consuming process, as FinTechs do not get value until paid pilot or scaled contracts; this makes negotiation costly. In addition, if disagreements emerge between partners, FinTechs are likely to lack resources (in terms of money, people, and time) to follow up contracts. Also, sometimes, constructing a deal was perceived challenging. Most of the times, informants were considering contracts as the best protector of their interests and argued that having good skills to get detailed contracts where you can safeguard the company from possible pitfalls was essential.

It is interesting to note that a couple of FinTech start-ups distinguished themselves from general findings. A few informants mentioned that having less focus on negotiating contracts and instead of having trust in each other and milestones what partners are going to achieve and move faster on real work was desired. A few even did it when collaboration started from the pilot phase instead of negotiation contracts for it.

5.4.2 Networking

Findings indicate that networks are important for FinTechs and are used to overcome some of the challenges associated with alliances. In particular, based on the strength of networks, they can be used to address two main challenges: save time by gaining access and increase trust.

Large corporations are strictly structured with many departments and managerial layers. Getting access to a decision-maker in a large company with no prior acquaintance or individual ties is possible, but not an easy task,

Because you are meeting the lowest guy who is not interested in this and this is more work for him. (F.6)

Especially for young FinTechs, it takes a great amount of time and resources to find the right people on the right decision level in order to start negotiations on possible partnerships:

> I think personal networks saves time because when you are going to the large bank, whom are you going to talk to there? Try to find your own it is really difficult and takes a lot of time. (F.9)

There were similarities between participants in that it is difficult to navigate and manage to find the right people on the right decision level without having networks and personal ties in the organization:

> Banks are large beasts, and you need to know who to talk to and who to approach. Preferably you need to have someone that opens the doors for you in a good way (…) It is really difficult to get access by calling and alone without network. They (banks) get a lot of contacts throughout the week. There are so many FinTechs that want to work with banks. (F.7)

Getting access to the network was described in different ways. If a FinTech company has experienced people in the team, they might bring their networks with them into the company. In addition, as the start-up community is growing in Norway and more incumbents and FinTechs are willing to collaborate, vendor- and networking events are common grounds where interested parties can meet each other and get leads and contacts. Interviewees stressed the positive effect of vendor programs and networking events in terms of getting contacts and access to people,

> There is a community of people in this industry that are leading voices, and if you get them to support some of your initiatives, this can make a lot of things easier. (F.5)

Although vendor programs and networking events give access to people in the interested companies, the difference between networking and close personal ties (such as previous working experience together, personal relationships) with possible partners were distinguished. Personal ties not only cut down the time to get access to people in the initial stage but increases overall trust between parties and can be helpful to both negotiations in terms of positioning a company and implementation stage to get support and higher commitment from the incumbent. However, FinTechs were aware that even if they have interpersonal trust, maintaining it through delivering projects is essential:

> They (bank) trust us and know that we are going to deliver what we promise and if we do not, then they are not going to trust us, and this will not work. (F.6)

Further, informants pointed out that using close networks are more important to early-stage of a FinTech before getting the name trust: “At the early stage, before getting the name, I prefer to use networks.” (F.9)

A similar statement was made by another informant:

> We used to do it more often in the past (using close networks) (...) We have gotten more advanced and we kind of moving away from that. (F.5)

Several interesting facts emerged during interviews regarding networking. Firstly, it was pointed out by many informants that it is essential that networking happens at the right decision level to be sufficient. In other words, if a FinTech start-up has strong ties with a person in the large company, but the person is not on the right decision level, the effect can be lower than even a weak tie to the right decision level. Consequently, knowing just somebody in the company cannot be a help if the person is not on the right level:

> Even if you know somebody in the company, it might not help because that person can feel an obligation and ask help in the company, but this person you get might not be on the right level. (F.5)

Further, it is important to note that while networking is essential to get access to people in incumbents, build multiple networks and trust in a large organization is vital. Having only one close tie in a large company can have its complications. For instance, if a FinTech company has a close tie to a single person in a large company and will not build up trust and relationships with others in the company, FinTechs can be in a vulnerable situation if the person disappears from the picture:

> We had a boss who really liked us. But then he quit and new came and said “OK, I do not want to do this and that“ and did not give us a chance. So, we just wasted six months negotiating the contract. (F.3)

To sum up, managing time efficiently is important to any company, but it is essential for FinTechs, as unlike large companies, one person has more tasks and responsibilities in a small company. How each employee prioritizes their time can significantly affect the financial and overall performance of the FinTech. Having time and resource constraints, spending too much time on finding the right people can divert FinTechs attention from the main work. Thus, similarities emerged between informants indicating that having networks and contacts can cut down the time and resources for FinTechs in terms of getting access to people on the right

decision level quickly. Stronger networks at the right decision level lead to more trust from incumbents in the project. Additionally, having multiple networks emerged to be essential. Further, networking on the right decision level is more important than just strong or weak ties. Overall, networks have a positive effect on alliance outcome, and early-stage start-ups might use close networks more than mature FinTechs.

5.4.3 Proof of concept

Negotiation and setting up a contract is perceived by informants to be an important driver for long sales-cycles. Long sales-cycles are a clear risk to FinTechs, especially the young FinTechs. In a few cases, a proof of concept (also referred to as a pilot) was used as a tool to avoid misusing scarce time and resources FinTechs have available and shorten the sales cycle.

In the pilot phase, companies can test technologies on a smaller scale and help both parties to identify whether the collaboration is valuable enough to negotiate a long-term contract. The FinTech can also gain experience working with this particular incumbent and get to know if the large partner is dealing fairly before moving to a long-term commitment. Two informants had experience of starting from a pilot.

> We do not want to put too much time on contracts and negotiations before we really know that there is potential. Because there are too many partnerships in my experience where you do a ton of work, do the contract and the day after nothing happens. So, you would rather try a pilot phase and see if this really works and if it does, then you sign the contract. (F.6)

Also, starting from a pilot can help to overcome skepticism connected to both technology and the FinTech's delivery capacity (lack of trust) and can be used as a tool to build trust in the alliances:

> A pilot is not just about the outcome. It is really the process of building relationships. So, you are starting building trust and formalize partnerships both on a personal level and on technological levels. (F.7)

Getting the opportunity to do a pilot can be challenging without long rounds of negotiations, and not every start-up can obtain one. One informant mentions that usually things start with a lengthy negotiation process for them, but pointed out that with the last partner they were able

to start up a pilot early in the process because they had experience of delivering a similar project. In another case, a high level of personal trust was named as an enabler.

In sum, a high level of interpersonal trust and prior experience of implementing technologies with partners appears to be important to get a pilot quickly. Getting to start from a pilot without either interpersonal or experience-based trust can be difficult. At the same time, while having experience and trust increases chances to shorten the way to pilot, it might not be the guaranteed and other factors such as features of the technology, i.e., whether it is strategically important for incumbents can influence the process.

5.4.4 Communication

Having frequent interaction with incumbents and good communication skills was emphasized as a highly important tool for the whole phase of alliance formation from establishing negotiation and implementation of a project. Effective communication skills can be used to make sure partners understand the value FinTechs provide, as not understanding the value of the start-up's technology is common:

> Communication is critical. Especially we are a small company and need to broadcast what we are doing, what is possible, because a lot of times, people still do not understand what is possible in this industry. So, clear communication is core. (F.5)

As discussed earlier on, lack of trust can increase power imbalance if incumbents do not understand the usefulness of FinTechs technology as incumbents can believe that they are more valuable partners in the alliance. Thus, having good communication skills not only in terms of being able to articulate things but to communicate in a language a potential partner understands is critical. It was pointed out that sometimes FinTechs can be too technology focused and lack the ability to translate the business value of technologies/services FinTechs provide to incumbents. Hence, having communication skills to make products relevant for incumbents was named important:

> You cannot just sell products. You need to make it relevant to them. (F.7)

Further, especially in alliances between FinTech start-ups and incumbents, parties involved have different ways of dealing with things and have different expectations from the alliances. Thus, communication can be used as a tool to align the interests of different stakeholders,

manage and set realistic expectations of what is, in fact, possible to be achieved. In doing so, avoid misunderstanding:

> Having communication helps aligning interests, expectations, deadlines, timelines, and also being transparent is important (…) So, communication is important to manage expectations. This is what all partnerships are about. (F.7)

In addition, as alliance formation and implementation of a project evolve over a period, misunderstandings, challenges, and delays can arise. Addressing those on timely and having good interaction with partners was named essential managerial skill to overcome obstacles and reduce the risk that partner will not behave properly:

> Communication is very important. Good communication avoids misunderstandings, and if we are in dialogue all the time, I think they are less likely to run away with the idea and so on. (F.9)

Informants use both online tools and phone to accommodate smooth communication. One informant also pointed out that when it comes to working on the technical implementation of complex systems in the large company, being on the site be beneficial. Closeness enables partners to have direct contact and communication with each other. That, in turn, leads to efficient and smooth collaboration:

> We have a lot of tools to chat with each other, but it is never the same thing. Take a technical implementation, for example, you might need some documents and access to things, and getting this done through email can take weeks compared to sitting next to the developer in the company. (F.2)

To sum, effective communication skills were named as essential for FinTech start-ups. Communication can be used as a managerial tool to align interests, manage expectations, and deal with issues that arise on an on-going basis. In addition, frequent communication increases trust between parties and as a result, reduces chances that partner acts improperly. Lastly, effective communication skills can be a useful tool for start-ups to make sure that a partner understands the real value of their technology. This enables start-ups to address challenges associated with a lack of trust, which in turn can lead to the power imbalance.

5.4.5 Buy-in from top management

Involving top management in buying the project was highlighted as an essential factor by many informants. Top management is not involved in the execution stage of a project and

mainly is engaged in negotiating terms, goals, and outcomes of partnerships. Even so, it was highlighted that their involvement increases the commitment of partner organizations to the project and makes the incumbent prioritize the project and push things forward if delays occur due to insufficient collaboration or lack of resource commitment:

> Even if the project is delayed for two weeks, this can affect the project in two months because it affects so many things connected to the project. (…) If you think about this in advance, before it happens to you, you have to take your project from the pool of projects, but this is only possible if the project is bought by top management and the CEO is involved. Then they will say, "this is super important." (F.2)

The importance of reaching the right decision level and make buy-in was named by another informant as well:

> It is important to have communication with the right people at the right decision level because you have a different level of decision in large organizations. So, one person says OK, I will send it to them and so on, but this is not going to work in that way. He is not going to use time and to communicate with his boss on your project, but if you get a person who can make a decision and has money to order your product and distribute it, that can make a whole difference. (F.3)

Getting access to top management can be difficult, yet pitching the idea to the top management was named as essential. This was because the likelihood of overcoming obstacles during the implementation stage of a project in terms of getting the necessary resources and access to people was then perceived as higher:

> There is no need to sign the deal if there is no buy-in at the top level because if you have buy-in at the middle management, you get this project started and you might be super happy, but it might kill your business because you are spending so many resources. You might not have time to deal with other partners, and if it does not succeed, then it is very bad. (F.2)

In sum, buy-in at a top management level was perceived to be essential. Top management involvement in the process was perceived to increase commitment and willingness from partners to overcome challenges and speed up the process.

5.4.6 Knowledge protection

In general, findings indicate that protecting technology through patenting was not the main concern for FinTech companies. Only one FinTech pointed out the importance of protecting technology through patents:

> They can do what you are doing if you do not have strong property rights. (F.5)

More often, FinTechs described getting patents as extra work to spend time and money on. Also, one informant pointed out that while patenting can help protect their technology, it also makes knowledge widely available:

> If you apply for the patent, then everybody can see what you have done. There is always a trade-off. You can spend a lot of time and money, but everything can be copied. Everything technical can be copied. (F.4)

The most common practice to protect technology/design is to sign an NDA (non-disclosure agreement). An NDA is a legal contract signed by two or more parties who would like to share confidential information or knowledge to protect trade secrets (e.g., algorithms). Nonetheless, some informant raised the importance of trust.

> We have done it a couple of times (signing an NDA) but how many lawsuits have you heard in Norway based on NDAs? I am guessing 0. So, the whole NDA is an American thing where they might have sued you (…) I believe trusting people is better than signing the NDA. (F.6)

Also, limitations of NDAs are that it can be hard to prove that the NDA is broken,

> There are times people understood that the NDA had been broken, but knowing it and proving it are different things. (F.1)

Even if you can prove something, it might be challenging and resource-demanding to follow up:

> NDAs are kind of something that you sign and everyone understands that OK, we should not misuse information. If someone does it, it is really hard for a FinTech company to go after. Realistically, it is hard to proof, and also, you do not have resources to use on that. (F.7)

One company owning patents argued that they could take the issue to court if it were worthy of spending time and resources on. However, in the majority of instances, this was described as difficult to do.

Some informant pointed out the importance of having a competitive advantage not only based on technology but other skillsets as well that is essential:

> Build a foundation, not just based on your technology, but all the other components as well. (F.9)

A similar statement was made by another informant pointed out that their strength is not based on only on their technology, but essential skills and competencies to transform an idea into technology:

> It is not an idea that is unique, but the way we are doing it. (F.6)

Another interviewee made a similar statement:

> The magic is not in what we do, but in how we do it. (F.1)

To sum up, the most common way of protecting technologies/services is to sign NDAs when start-ups need to share business sensitive information. It was argued that in practice, NDAs might have little legal strength as it is difficult to prove that it is broken. At the same time, it is resource-demanding to follow-up, and FinTechs limited in time and resources are less likely to go after if the NDA is breached.

Additionally, the importance of trust between partners was emphasized. Lastly, building competences and base competitive advantage not purely on technology were argued to be effective to strengthen competitiveness. Some informants also pointed out that their competitive advantage is not only the technology but skillset that is necessary to deliver those technologies.

5.4.7 Flexibility & experience

It was apparent among informants that collaboration with incumbents might be particularly challenging for FinTechs with little or no experience of cooperation and knowledge of the sector:

> If you are 22 years old and you have never worked with banks and go there to collaborate, you are going to have a steeper learning curve and meet more resistance. It is going to be more difficult. (F.3)

Thus, it was pointed out by many informants that having experienced people in FinTech companies can help to avoid some risks and challenges. For instance, knowing how to maneuver, whom to talk to, negotiating contracts and positioning your company better, etc.

> We are not an average start-up. We have a lot of experience, and we know what we need to do to get their attention (...) I have a good network, and we know who we are going to talk. (F.4)

While experience people can bring value, hiring experienced people can be expensive for a FinTech:

> One of the biggest challenges bringing experienced people is that they are expensive and so there is a cost associated. (F.5)

Furthermore, most of the informants pointed out that flexibility is essential, and start-ups need to adjust and re-think strategies all the time. For instance, one pointed out that their partners wanted to white-label their product even though this was not primarily intention of the FinTech company. In another case, getting in an exclusive partnership with an incumbent was discussed. Thus, flexibility and adjusting strategies when necessary are equally important as having a strong vision of what to achieve.

5.4.8 An additional management strategy for start-ups: Diversifying alliances

An additional managerial tool that was mentioned is to not invest in only one alliance or partner. If partnerships do not reach their intended goals, the economic consequences can be more severe if the start-up has dedicated all resources and time to only one partner. Although FinTech start-ups might be constrained to manage multiple partnerships at a time, given their limited time and resources, diversification of alliance profile can still be an important managerial tool to limit loses:

> If you partner up with a wrong company and you spend a lot of time and all of your resources on only one partner, and it does not succeed, this can be a risk for start-up, and it is hard to avoid (…) You are a small company, and you cannot have many projects at the same time. You need to try, of course, but you might end up with a partner that can eat all of your resources, time and money. (F.2)

Investing in one alliance can pose a risk for a FinTech start-up in two different ways: if projects get delayed or lengthy negotiations lead nowhere, FinTech companies risk losing scarce time and resources they have, which can result in being very costly or even pose a threat to the survival of early-stage FinTechs.

Secondly, having only one large partner can increase dependency on the partner, which can lead to increase power imbalance between parties for large companies favor. As an example, if the collaboration is not heading as initially intended to or FinTechs and incumbent's interests diverged, start-ups will have little or no room to renegotiate terms:

> If you put all your resources in one collaboration and if it pulls through, let's say a large player is not playing fair or you have different ideas where you want to go, this can be a problem for a smaller partner. (F.8)

To sum, diversification of alliances can help FinTech start-ups to mitigate the negative consequences of potentially unprofitable projects. Also, reducing dependency on one single partner will decrease the potential power imbalance that can arise in collaborations between start-ups and incumbents.

5.4.9 Summary of findings

Table 3 summarizes the challenges and risks presented in this chapter, along with possible causes perceived by informants, consequences for start-up firms, and mitigating strategies. As it is displayed on the table, interviewed FinTechs use various tools to reduce each challenge they can encounter in the collaboration.

Table 3 Summary of challenges for FinTechs based on interviews

Challenges/Risks	Causes	Consequences for FinTechs	Mitigating Strategy
Power imbalance Incumbent can have higher bargaining power than FinTechs	• Incumbent do not understand the real value of start-ups technology and might think that the incumbent is contributing more to collaboration • Just try to get more out from the collaboration	• Incumbents claim a larger share of the revenue. If FinTech is inexperienced can give away more than they can afford • Incumbents try to get exclusive partnerships, prevent start-ups from partner other firms. Thus, increase the start-up's dependency on incumbent • Incumbent tries to have control of start-ups decision-making	• **Diversifying alliances** Can help to reduce reliance on incumbent • **Building networks and trust** Can help to reduce power imbalance. One way to do so can be to hire experienced people: a) know how to negotiate b) experienced people usually have wide networks that seem to have a positive effect on decreasing imbalance by increasing trust • **Effective communication skills** Not being too technology focused but explain strategic importance and business value to increase perceived value to the incumbent
Long sales cycles It takes a long time to go from the first contact with the incumbent to a profitable collaboration	• Time-consuming to access decision-maker at incumbent • Negotiations to get to PoC is time-consuming • Time-consuming to negotiating a long-term contract, meet regulatory, and compliance needs banks have	• Long sales-cycles are costly without providing revenue until PoC (and not everyone gets revenue at PoC) • Expensive sales process risks scarce resources if deal not closed	• **Networking** Networking at the management level to get direct access to decision-makers Hire people with industry experienced people as they bring networks and know whom to talk to • **Start from a pilot** Can be only applied when FinTechs either have experience or strong relational capital (close ties)

Challenges/Risks	Causes	Consequences for FinTechs	Mitigating Strategy
Lack of trust Incumbent uncertainty regarding the value of technology/service FinTech is offering	• Lack of trust in technology • Lack of trust in delivery capacity • Or a combination of these factors	• Might reduce the bargaining power of FinTech, leading to a power imbalance • Might hinder the establishment of partnership or contract extension • Leads to a long sales cycle	• **Networking** Close and personal ties tend to increase trust in both FinTechs technology and delivery capacity • **Effective communication skills** Explain the technology and strategic importance to reduce the uncertainty of the solution • **Start from a pilot** Can be used as a tool to demonstrate the usefulness of technology and build trust
Slow implementation Incumbents work slow. Also, it might be slow to allocate resources and address issues.	• Regulatory and compliance-processes • Unclear structure. Sending start-ups to different departments to get resources • The incumbent is doing many projects at the same time/lack of commitment to a particular start-up project	• If there is a lack of commitment to allocate resources, start-ups can risk spending resources on projects that will not be profitable • Insufficient collaboration can lead to delays, or even failure of a project and start-ups might lack resources to recover	• **Commitment by top management** Buy-in from top-management can increase trust from incumbent that can lead to more commitment. • **Effective communication skills** Clear and timely communication can help to address issues on timely

Challenges/Risks	Causes	Consequences for FinTechs	Mitigating Strategy
Possibility of technology appropriation Incumbent can take technology to develop internally	• The incumbent might think it is more profitable or less risky to develop similar technology/service alone	• Incumbent withdraws from collaboration • Can reduce the attractiveness of FinTechs	• **NDAs** Sign non-disclosure agreements prior to negotiations • **Building trust** High level of trust close ties can decrease misappropriation of knowledge • **Building competencies** Build competitive advantages not only based on technology but other operational skillsets that are necessary to transform ideas into innovative technologies/services

6 Discussion

In this chapter, I will discuss my findings by using the analytical framework presented in chapter 2. First, I will elaborate on the risks and challenges faced by Norwegian FinTech start-ups and compare my findings to similar research. Subsequently, I will discuss the strategic tools FinTechs deploy to address collaboration issues in connection to alliance management literature presented in chapter 2.

6.1 Risks & Challenges

The aim of the first research question in the thesis is to map the risks and challenges involved for FinTechs in alliance with incumbents:

RQ 1. *What are the risks and challenges FinTech start-ups face when collaborating with banks?*

I defined collaboration as an umbrella term referring to the establishment and implementation stages of alliances. Gaining access to a pre-defined partner, as well as the design & governance stage, is referred to as the establishment phase. The implementation phase is referred to as alliance management.

Long sales cycle

Interestingly, although PwC (2017), global FinTech survey reports that 82 % of interviewed incumbents are willing to collaborate with FinTechs, getting access to incumbents was one of the most cited challenges for FinTechs. This is one of the main drivers for long sales cycles. Similar challenges were observed by both Thwaits (2016) and Minshall et al. (2010).

Long sales cycles are also driven by the banks being slow decision-makers. This slowness leads to lengthy and costly negotiation-processes, as has been found in earlier research (Thwaits, 2016; Minshall et al., 2010; Accenture, 2018; Deloitte, 2018).

I have argued that long sales cycles are a challenge for start-up companies because they risk spending scarce resources on work with no pay-off. Unlike larger companies, a start-up cannot afford many such occurrences.

Lack of trust

The incumbent having a lack of trust in the technology and delivery capacity of the FinTech is a challenge for many FinTech start-ups. This trust issue is similar to the competence trust notion introduced by Das and Teng (2001) and refers to trust in that a potential partner has competences in terms of technology, expertise, and capabilities that are necessary for a firm to act sufficiently and meet intended goals.

Trust appears to increase when the FinTech has experience with delivering similar projects or has close ties with incumbents. This issue can also be linked to what scholars refer to as goodwill trust (Das & Teng, 2001; Nooteboom, 1996; Gulati, 1995) and competence trust (Das & Teng, 2001).

In other words, close ties increase goodwill trust between parties, which decreases the incumbent's perceived risk (Das & Teng, 2001). Similarly, (previous experience) competence trust reduces the incumbent's perceived risk by increasing the credibility of a start-up's technology and delivery capacity (Das & Teng, 2001). Low trust can be a problem in itself, but also adds to the challenges of long sales cycles and power imbalance.

Power imbalance

Power imbalance issues were also identified by previous research. Minshall et al. (2010) found that large companies can misuse their power and try to hinder start-ups from collaborating with competitors. I have observed a similar issue with Norwegian FinTechs. The power imbalance issues can be especially challenging if FinTech start-ups are inexperienced.

Thwaits (2016) found that banks misuse their power and try to take control of collaborations or do not treat FinTechs as equals, which I observed to some degree amongst Norwegian FinTechs. However, unlike Thwait's (2016) case, my findings also indicate that FinTechs in Norway are active decision-makers and can actively negotiate terms with incumbents. In these cases, the FinTechs had experienced employees, which can explain this observation.

Possibility of technology appropriation

Thwaits (2016) suggested that banks can be actively engaged in appropriating FinTech's technology. My findings indicate that overall, this is not perceived as a large risk amongst Norwegian FinTechs, although all participants were aware of the possibility.

The theory states that incumbents typically collaborate with young companies to get access to their technology (Doz, 1988; Alvarez & Barney, 2001). My findings show that this is also the case with Norwegian FinTechs, which makes technology appropriation a risk for start-ups, even if the interviewed firms appear to perceive this risk as low.

Slow implementation

The slowness of incumbents was the most frequently cited by the informants in this thesis. This slowness was a problem both in executing a pilot and in the final implementation. A similar challenge was also evident in the Deloitte (2018), and Accenture (2018) reports. Reasons highlighted in the reports included the complex structure of incumbents, lack of time from employees at the incumbent, security, and compliance. These reasons were also consistent with the reasons reported by the Norwegian FinTechs in this thesis.

This issue is particularly a risk for FinTechs because of their limited time and resources, which makes delays more costly. Slowness can also lead to unprofitable projects which start-ups might struggle to recover from (Comi & Eppler, 2009).

6.2 Alliance Management

In this section, I will elaborate on how FinTechs try to overcome the risks and challenges presented in the previous chapter and answer the second research question of the thesis:

RQ2. *How do FinTech start-ups manage the identified risks and challenges?*

Empirical findings will be elaborated in the light of the analytical framework presented in chapter 2.

Jiang et al. (2008) have argued that alliance managers need to identify all risks and challenges in collaboration and employ both relational management and governance mechanisms that address these challenges and risks. I have observed that Norwegian FinTechs use both formal governance tools and relational management to ensure successful collaboration with incumbents.

6.2.1 Finding a balance between formal and informal governance

In the literature review, I have categorized equity and contract agreements as formal governance mechanisms, and trust and goodwill as informal governance mechanisms (often referred to as relational governance).

Based on my interviews, finding a balance between formal and informal governance can be beneficial for FinTechs. Specifically, by increasing focus on informal governance early in the sales cycle, FinTechs can address issues related to long sales cycles and lack of trust.

I have observed that good collaboration can be started based on trust/goodwill and only a quick and a simple contract which will be used as a coordination mechanism. The parties are then free to start a low-risk pilot, build mutual trust, and work out a more detailed, long-term arrangement when the alliance has been made more concrete and valuable during the pilot.

This suggestion is consistent with scholars arguing that trust and contracts can be complementary (Poppo & Zenger, 2002) and that trust helps small companies when collaborating with large partners by increasing mutual understanding and commitment (Blomqvist et al., 2005). My findings have shown that lengthy contract negotiations prior to the pilot have resulted in no pilot occurring at all (F.3), which illustrates the risk of letting reliance on formal governance slow down early sales cycles or even hinder it.

Typically contracts were the preferred governance mechanism for FinTech-bank alliances in this thesis. This finding contributes to the lack of knowledge of how start-ups formalize alliances (Comi & Eppler, 2009). Contracts provide a practical tool to set the terms and extent of collaboration (Reuer & Ariño, 2007; Kale & Singh, 2009). Informants confirmed this. However, several downsides of contracts for FinTechs emerged during the interviews, which lead to the conclusion stated above.

Constructing a good contract is time-consuming and is one of the reasons behind a long sales cycle. While this can be a standard process for two equally big and resource-rich companies when they want to work together, negotiation costs are relatively much higher for FinTechs.

Many informants also raised difficulties related to writing a good contract. Constructing a good contract is costly for FinTechs as it requires having experienced people who can deal with the legal part of the collaboration.

In addition to all these potential downsides, contracts are incomplete by nature (Cao & Lumineau, 2015; Alvarez & Barney, 2001). Doz (1988) argued that in general, precisely defined contracts cannot be the guarantee of successful partnerships and cannot ensure that corporates will fulfill what they have promised (Cullen et al., 2000). The similar finding was apparent in the data collected from FinTechs as well. Many informants mentioned cases where contracts have not led to the bank starting their part of the work as planned.

Some scholars argued that the effectiveness of contracts could be enhanced by adding penalties for not fulfilling terms (Reuer & Ariño, 2007; Kale & Singh, 2009) and breaching contracts (Lee & Cavusgil, 2006). The possibility of including penalties as a protective mechanism was also mentioned by some informants. However, my findings indicate that if incumbents do not collaborate sufficiently, start-ups have little or no power to use penalties and make incumbents stick to the plan. FinTechs are also constrained by resources and time to follow up contracts. Thus, depending only on a rigid contract has little value for start-ups when ensuring that incumbents will be committed and will not act opportunistically.

I have described that even developing a perfect contract cannot ensure the desired outcome, drive bank commitment, or necessarily be helpful in a legal disagreement due to limited FinTech resources. At the same time, I have established how elaborate contracts can be both costly and time-consuming. Consequently, the best way of control might be to strike a balance between contracts and trust for FinTech start-ups, especially on an early stage of a sales cycle.

A few interviewees used this strategy as the best way to avoid wasting too much time contracting a contract before knowing that things are going to work. However, my findings indicate that to start from a pilot without long negotiation rounds was only possible when FinTechs had either strong relational capital or previous experience of delivering similar technologies. Thus, the usefulness of this approach can be limited for start-ups with no track record.

I want to note that a light approach with simple controls is also a useful tool for incumbents to test the usefulness of innovative technology of an early stage start-up on a smaller scale in a time-efficient manner. Thus, having a structure to accommodate a pilot phase quicker can be in the interest of both parties involved in alliances.

6.2.2 Knowledge protection

FinTechs used different methods to protect their technology and services. These methods included NDAs, trust, and building competencies that are difficult to imitate.

Katila et al. (2008) argued that while patents can be legally more defensible, they also display information to the public. Making information publicly available was also a concern for one informant (F.4).

Katila et al. (2008) also pointed out that start-up firms prefer to use secrecy to protect technology. This thesis has found that Norwegian FinTechs typically use NDAs to protect knowledge. However, Katila et al. (2008) outlined that the strength of secrecy as a defense mechanism can vary across industries, and my findings indicate the same. NDAs have limitations for FinTechs as it is difficult to prove if a partner misuses the information they receive and at the same time, FinTechs lack resources to follow up. This fact makes other mechanisms for protecting technology important.

Building competences was also named as a managerial tool to handle possible technology appropriation by many informants. This finding is consistent with Prahalad & Hamel (1990), which suggested that firms should not base their competitive advantage only on a single technology but enhance it by combining technological and operational skills.

The importance of building trust was frequently raised by informants when collaborating with external partners. Being a trustworthy and transparent partner was argued to be essential for decreasing the risks that partners will try to appropriate technology or service. Similarly, Ireland et al. (2002) observed that trust could reduce the risk of expropriation in alliances.

6.2.3 Build wide networks at the right decision level

Networking is a widely used tool by FinTechs to reduce various challenges in alliances, including long sales cycles, lack of trust, slowness of incumbents, and power imbalance.

Findings suggest that start-ups perceive networking as an important strategy given the time and resource constraints they face in getting access to incumbents. This finding is consistent with previous research on start-ups and networking (Aaboen et al., 2013; Elfring & Hulsink, 2007; Greve & Salaff, 2003). Early-stage FinTechs are more likely to actively use social

networks to get access, as they do not yet have branding and acknowledgment in the market. This observation was also made by Lechner and Dowling (2003).

The effect of different types of social ties on the firm's performance has been emphasized in networking literature.

Weak ties are believed to mainly provide access to novel information (Powell & Grodal, 2005). This was also evident in my observations on Norwegian FinTech-bank collaboration. In particular, networking events were frequently used by FinTech start-ups to get access to representatives from incumbents. These arrangements serve as establishing weak ties that can potentially lead to access to a large company.

Strong ties increase trust and commitment (Uzzi, 1997). It was consistent among informants that close ties and personal relationships with individuals in the large company not only gives access but can also increase trust between parties, which solves problems related to long sales cycles and lack of trust. Gulati (1998) has argued that social networks and prior ties can influence how alliances will evolve and design of alliance contacts. The findings in this thesis agree with the theories. Due to the prior ties, on one occasion, parties started from a PoC without many rounds of negotiations. The parties were able to rely on trust and a simple contract which served as a coordination tool for the collaboration.

Interestingly, two additional characteristics of networking emerged during the interviews. Firstly, networking at the right decision level was believed to be essential. Informants stated that both strong and weak ties could have limited effect if it does not connect to the right decision level in the company.

Secondly, an example drawn by one FinTech company (F.3) shows that having only one tie despite its strength with the incumbent might not be sufficient. In this example, a FinTech had invested heavily into one contact but lost the deal when the bank replaced their contact. Thus, the need for building not only strong or weak ties but multiple ties and relationships with corporates should be seen as an important managerial strategy for FinTechs.

6.2.4 Commitment & trust by top management

Findings suggest that building commitment and trust with top management can be used as a managerial tool for FinTechs to reduce all five risks and challenges outlined in the thesis.

The finding is supported by broader alliance management literature, emphasizing the positive effect of the soft side of alliance management such as trust and commitment on alliance success (Cullen et al., 2000; Robson et al., 2006).

Additionally, the importance of top management commitment has been discussed in the literature. Brouthers et al. (1995) argued that alliances between small and large companies could only work if the alliance is a top-down initiative. In a similar vein, Hoffmann and Schlosser (2001) argued that the commitment of top managers for maintaining relationships with partners and supporting collaboration in its own company is crucial for alliance success. Dyer et al. (2001) found that if executives lack the authority, they might fail to allocate internal resources to support alliances. The thesis findings on FinTech-bank collaboration agree with the previous research. My findings indicate that trust and commitment by top management appear to drive alliance success. The interviewed FinTech start-ups experience that if the project has buy-in by top managers, the incumbent will be more committed to shared success and be more willing to address challenges in the implementation stage (e.g., slowness of implementation).

Trust by top management can also reduce uncertainties regarding the FinTechs technology and delivery capacity, and as a result, address issues related to long sales cycles. This finding is consistent with the literature arguing that trust can speed-up decision making (Uzzi, 1997).

Gaining and maintaining trust is continuous work, and managers should keep in mind that the state is not static (Ariño et al., 2001). The thesis findings support this statement. Informants were well aware that trust cannot be taken for granted, but has to be maintained through deliveries and communication.

Networks and close ties were frequently used by FinTechs to increase their credibility and gain attention and trust of large partners. Also, having experience of delivering similar projects appeared to have a positive effect on gaining incumbents trust and could contribute to start from the pilot phase and shorten the sales cycle even without prior acquaintance. This is consistent with Ireland et al. (2002), who argued that trust could derive from previous experiences or the firm’s reputation.

In summary, the ability of managers to strengthen trust and commitment with top management is an essential managerial skill (Ireland et al., 2002; Cullen et al., 2000; Robson

et al., 2006). This managerial tool can be argued to be crucial for start-up firms to a greater degree than strengthening relationships in more formal ways. Through building trust and relationships, FinTechs can reduce all five major risks highlighted in this thesis. Consequently, investing in relationship building and relationship management can have a positive effect on overall alliance success.

6.2.5 Effective communication skills

Effective communication skills are important to succeed in alliances and achieve desired goals (Kelly et al., 2000; Schreiner et al., 2009; Mohr & Spekman, 1994). My findings support the theories. All informants were consistent in emphasizing the importance of clear and effective communication in collaboration with banks. FinTechs use communication as a management tool to address issues related to the slowness of incumbents, lack of trust, and power imbalance.

Clear and timely communication provides tools to manage expectations and collaborate more effectively (Wittmann et al., 2009; Mohr & Spekman,1994). Similar findings emerged from the collected data. Informants were well aware of the importance of sharing information in a timely manner.

Strong communication skills can enhance trust between parties (Wittmann et al., 2009) and decrease the chances of a partner's opportunistic behavior in the alliance (Schreiner et al., 2009). The thesis findings suggest the same. As informant F.9 emphasized, it is less likely that partners misbehave when frequent and timely communication takes place.

In addition, effective communication skills were named as a managerial tool to ensure that incumbents understand the value that the FinTech is delivering, which appeared to be a challenge in some cases.

This characteristic of communication adds an important dimension on communication as a tool of management alliances for innovation for start-ups. Earlier on, I have discussed how power imbalance is a challenge to FinTechs and how this stems from low perceived value. Being able to communicate in a way that makes a potential partner understand the value of technology and the broader business case can increase the perceived value for incumbents, thus addressing the problem of power imbalance. FinTechs should make an effort to

continuously work to make the point that they provide tangible value, and refine this point throughout the cooperation, and to multiple audiences.

6.2.6 Diversifying alliances

During the interviews, an additional tool which was not mentioned directly in theory, diversification of alliances, was pointed out as a useful managerial tool. Diversification helps start-up FinTechs to deal with power imbalances that result from being over-reliant on a single partner. Koza and Lewin (2000) argued that as alliance formation and implementation is a time-consuming process, the strategic intents of partners might diverge and that an essential capability of alliance managers is to be able to adjust alliance intents over time in order to succeed. If this is the case and start-ups only partner with one company, start-up managers might have little or no room to renegotiate and adjust alliance intents. At the same time, if partnerships do not meet the intended goals, start-ups risk having used all of its scarce resources on a single, non-profitable project, which can pose a significant economic risk. Thus, entering into a single or very few alliances can be competitively disadvantageous to start-up firms.

6.3 Summary of discussion

Table 4 summarizes the theory, empirical findings and discussion.

Table 4 Summary of discussion

Management tool	Theory	Empirical findings	Discussion
Governance Mechanisms	There are three main governance mechanisms in broader alliance management literature; equity, contracts, trust & goodwill (relational governance) (Kale & Singh, 2009). Firms balance between formal (contracts & equity) and informal (trust & goodwill) governance mechanisms (Poppo & Zenger, 2002; Blomsqvit et al., 2005; Cao & Lumineau, 2015). Informal governance is cheaper and more effective in terms of adjustments (Kale & Singh, 2009), but formal governance provides tools to monitor alliances (Dekker, 2004). Thus, formal contracts and relational governance can be complements. What types of governance start-ups use is not well-researched (Comi & Eppler, 2009).	Contracts are the most common governance mechanism for FinTechs. Complex contracts are costly and time-consuming for FinTechs to develop, and do not guarantee that partner adheres to agreement. Trust shortens the early sales cycle and reduces cost and time by reducing the need for formal control.	**Findings add important insight on governance mechanisms for start-up firms** Findings establish contracts as the most common way for FinTech start-ups to formalize and govern alliances. Findings also suggest that the best strategy for FinTechs can be to strike a balance between formal and informal governance.
Knowledge Protection	Start-ups can counter-act knowledge appropriation through secrecy and timing rather than patents (Katila et al., 2008). Firms can counter-act knowledge appropriation by basing competitive advantage on building competency, not only technology (Prahalad & Hamel, 1990). Trust can help to reduce expropriation in alliances (Ireland et al., 2002).	FinTechs use secrecy (NDAs), building trust with partner and building competencies to counter-act knowledge appropriation	**Theory and empirical findings appear to correspond well** Using secrecy (NDAs) is a common practice and a cheaper alternative than patents. FinTechs admit that if a partner breaks the deal, it is difficult to prove and follow-up. This makes other mechanisms such as building trust and competencies important as a complement to NDAs.

Management tool	Theory	Empirical findings	Discussion
Networking	Weak ties give access to novel information (Powell & Grodal, 2005). Strong ties create trust and commitment with a partner (Uzzi, 1997). Social ties before projects influence how alliances evolve and how contracts are designed (Gulati, 1998). Networking is important for start-ups (Aaboen et al., 2013; Elfring & Hulsink, 2007; Greve & Salaff, 2003). Early-stage start-ups are more likely to use social ties (Lechner & Dowling, 2003).	Both weak and strong ties are important for FinTech start-ups. Weak ties provide access to potential partners and strong ties both provide access, builds trust, and builds commitment. Early-stage start-ups are more likely to use social ties to get access to partners. Findings indicate that networking at the right decision level is more important than the distinction between weak and strong ties. Findings indicate that building multiple ties with a partner is important to reduce key person risk.	**Findings add to the theory in two important ways** a) The importance of building multiple ties with the partner. b) The importance of networking on the right decision level to drive results.
Commitment & Trust	Trust and commitment increase alliance success by making the partner invest time and resources to the shared goal (Cullen et al., 2000; Kale & Singh, 2009; Spekman et al., 1996). Top-down commitment is important to start-ups (Brouthers et al., 1995; Hoffmann & Schlosser, 2001). High trust speeds up incumbent decision-making (Uzzi, 1997).	Commitment & trust is perceived as essential by FinTechs. FinTechs find that top management buy-in increases commitment and drives their partner to allocate resources to reach the shared goal, which increases alliance success. Trust between parties can speed up the sales cycle.	**Findings confirm the theories** Strengthening trust & commitment can help start-ups to mitigate all major issues presented in the thesis. FinTechs should ensure that contact is made on the right decision-level with their partners to ensure that resources will be allocated to the project from a partner.

Management tool	Theory	Empirical findings	Discussion
Communication	Effective communication contributes to the rapid resolution of conflicts and problems in alliances (Kelly et al., 2000; Wittmann et al., 2009). Effective communication can increase trust and reduce chances of partners engaging in opportunistic behavior (Schreiner et al., 2009). An effective tool is to involve the partner in setting goals and expectations. This manages expectation and aligns perception of success (Mohr & Spekman, 1994; Kelly et al., 2000; Wittmann et al., 2009).	FinTechs experience that effective communication skills provide tools to address issues on time. Frequent communication can build trust in joint projects and decreases risks that the partner will act opportunistically. FinTechs observe that managing expectations is highly important to ensure the joint definition of success. FinTechs underline the value of being able to communicate in a way that makes the partner understand the value of the technology to their business. This helps manage challenges regarding the lack of trust.	**Findings add to existing research in one important way** Effective communication can be used as a managerial tool to make sure incumbents understand the value of the technology the FinTech is delivering. In other words, this means using communication as a tool to translate technology into a language that the potential partners understands, reducing perceived risk and power imbalance.
Diversifying Alliances	N/A	Diversification of alliances can reduce dependency on one partner and thus mitigate the risk of power imbalance from relying on a single, larger partner. Diversification can also help start-ups reduce the negative impact if one alliance does not meet expectations.	**Findings add an additional strategy to mitigate risks in alliances** Diversification of alliances is an important managerial tool to mitigate negative consequences if alliances do not succeed and to decrease dependency, which can increase power imbalances.

7 Conclusion

In this chapter, I will summarize my findings and answer the research questions introduced in the first chapter. Subsequently, theoretical and practical implications will be elaborated on along with the limitations of this thesis and further research.

The thesis has presented an insight into how alliances are established and managed between start-up firms and large companies. The thesis has examined alliances from the perspective of a FinTech start-up. From a theoretical perspective, the thesis has aimed to contribute to alliance management literature for innovation for start-up firms. This has been done to narrow the research gap on how start-ups establish and manage alliances with its larger counterparts (Comi & Eppler, 2009, 2015; Katila et al., 2008).

The focus on alliance management was chosen for a couple of reasons beyond the fact that there exists a research gap on the subject (Comi & Eppler, 2009, 2015; Katila et al., 2008). Start-ups are more vulnerable to the possible hazards of alliances and might lack the resources to recover if a partnership is not successful (Comi & Eppler, 2009). Thus, having the right management tools to mitigate possible pitfalls in alliances become essential. At the same time, the rate of cooperation between banks and FinTechs is increasing (PwC, 2017; McKinsey, 2018) and becoming a driver for innovation in the financial sector (Capgemini et al., 2018). Strategic alliances are one of the most common ways of collaboration (Drasch et al., 2018).

From an empirical perspective, the thesis contributes to research on FinTech-incumbent collaboration, which is a relatively new research field (Bömer & Maxin, 2018; Brandl & Hornuf, 2017). The thesis also provides practical tools to use for FinTech start-ups wanting to collaborate with corporates.

The thesis answered two research questions:

RQ1. *What are the risks and challenges FinTech start-ups face when collaborating with banks?*

The challenges and risks FinTechs face in alliances has been categorized into five broad groups. These findings have been cross-checked with other reports done on FinTech-bank

collaboration and start-ups collaboration with large companies. Both similarities and differences emerged between findings in this thesis and previous research.

My research findings indicate that despite increased focus on collaboration in the financial sector, the most common challenge for FinTechs is long sales cycles. Difficulties finding a decision maker and slow decision-making processes were the most cited reasons leading to long sales cycles. Similar challenges were identified by previous research (Minshall et al., 2010; Thwaits, 2016; Deloitte, 2018; Accenture, 2018). Slow implementation was also mentioned as a key challenge, usually in the sense that incumbents are slow to allocate resources and make decisions. These challenges were also identified by other researchers (Deloitte, 2018; Accenture, 2018).

Other obstacles highlighted in the thesis include power imbalance, in the sense that incumbents might try to take advantage of inexperienced FinTech companies and try to get more out from the collaboration in terms of revenue sharing, ownership, etc. Power imbalance was identified both in this thesis and in previous works (Minshall et al., 2010; Thwaits, 2016).

Lack of trust in the FinTechs technology or delivery capacity also emerged during the interviews as a key challenge, which also contributed to worsening other challenges such as long sales cycle and slow decision making. This challenge is not linked to the research I have presented earlier when analyzing risk and challenges. However, it can be linked to competence and goodwill trust (Das & Teng, 2001).

Differences between my findings and previous research (Thwaits, 2016) emerged in regard to technology appropriation. In particular, Thwaits (2016) found that FinTechs perception of banks is that they are actively engaged in stealing ideas and technologies and actively take control of collaboration. In contrast, my findings indicate that even though there is a possibility of technology appropriation, only one respondent highlighted protecting technologies through patents as necessary. Although Norwegian FinTechs still sign NDAs, the start-ups admit that it might have little value and highlight the importance of trust and competence building. In addition, some pointed out that the environment has changed in Norway and that corporates are too concerned with their brand to attempt knowledge appropriation. Further, another difference between Thwaits (2016) and my findings is that FinTechs in Norway are active decision-makers and do not necessarily agree on the terms the incumbent suggests.

The second research question is:

RQ2. *How do FinTech start-ups manage the identified risks and challenges?*

My findings suggest that several strategies are used to mitigate each challenge (summarized in table 4). These strategies can broadly be grouped into formal and informal management. Informal management can be referred to as relationship management (Cullen et al., 2000). Relationship management can include tools to build trust and increase commitment through networking and effective communication skills. Investment in relationship management can speed up sales- and decision-processes, for example, by helping the FinTech reach a pilot stage earlier. Formal management can include measures taken to avoid potential hazards of alliances such as diversification of alliances, contracts, NDAs and building additional competencies.

In summary, my findings indicate that the challenges FinTechs face are both relational and technical. Relational in the sense that much is down to trust and commitment. Technical in the sense that among many other reasons, the structure of incumbents can affect how quickly they allocate resource on the project even if they have good intentions. Delays can happen due to the company structure and regulatory/compliance needs of the incumbent.

Lastly, FinTech start-ups use both relational management tools and formal management tools to handle issues when collaborating with large partners.

7.1 Theoretical implications

My findings suggest that relational management can take FinTechs a long way, which supports the theories in the broader alliance management literature (Cullen, 2000; Jiang et al., 2008; Kelly et al., 2002). Although the soft side of alliance management can be important for any types of alliances, my findings indicate that start-ups might be especially dependent on soft management. This is because my observations show that many of the challenges FinTechs face in this thesis were solved by relational management. Also, my findings indicate that hard management, while useful on some occasions, can often be prohibitively expensive for small start-ups to employ and enforce.

In this thesis, I have described and analyzed five managerial tools to manage alliances for innovation for start-ups highlighted in the literature. The thesis adds additional insights to the

literature on three of these tools (governance, networking, communication), and confirms with the literature on the two others. My findings also suggest an additional managerial tool, which is diversification of alliances.

Governance mechanisms

Firstly, my results indicate that using contracts as a governance mechanism in strategic alliances is common across FinTech start-ups. This observation contributes to the literature on how start-ups formalize partnerships (Comi & Eppler, 2009). However, findings suggest that negotiating a detailed contract is time-consuming and costly for FinTechs, providing little value both legally (because start-ups might lack resources to follow it up) and as a mechanism to control that the partner fulfills its responsibility. Hence, a good practice for FinTechs can be to strike a balance between formal and informal mechanisms, especially early in the sales cycle when working on getting a pilot-agreement. This finding is consistent with previous research that formal and informal governance can be complementary (Poppo & Zenger, 2002; Blomsqvit et al., 2005; Cao & Lumineau, 2015). Getting an early pilot by reducing the focus on formal mechanisms also addresses problems beyond long sales cycles, as pilots provide an early opportunity to build trust and close relationships.

Networking

My findings add to research on networking for start-ups in two important ways.

Firstly, the importance of networking at the right decision-level at the incumbent. Strong ties appear to add little value if they are at the wrong level. At the right level, even a weak tie appears to accelerate sales cycles and help speed up both decision making and the allocation of resources to joint projects.

Secondly, I have observed that having only one strong tie introduces the risk of severe setbacks or losing the project if that one person is replaced. Thus building a wide network is important.

Findings support the theory that weak ties can provide access to new information and opportunities (Powell & Grodal, 2005), and that strong ties can give not only access but increase trust and commitment for start-ups as well (Uzzi, 1997). In addition, my findings indicate that early-stage start-ups are more likely to use social networks, which is consistent

with earlier observation (Lechner and Dowling, 2003). Also, early stage start-ups tend to invest more time in developing networks, which is consistent with previous research (Aaboen et al., 2013; Elfring & Hulsink, 2007; Greve & Salaff, 2003).

Communication

Lack of trust and long sales cycles appear to in part be driven by the incumbents having a poor understanding of the technology offered by FinTechs. This reduces the perceived value of what the FinTechs are offering, and of their capacity to deliver on what they are marketing. The importance of explaining and illustrating the tangible value of technology is an important additional characteristic of communication as a managerial tool for start-ups in alliances.

The findings support earlier literature discussions regarding the importance of communication in alliances (Mohr & Spekman, 1994; Wittmann et al., 2009). My findings also support the idea of using communication as a tool to resolve challenges in a timely manner, as a tool to manage expectations (Kelly et al., 2000; Wittmann et al., 2009) and as a tool to decrease uncertainties regarding the partners behavior (Schreiner et al., 2009).

Diversifying alliances

The findings add diversification of alliances as an important managerial tool to handle dependency issues, which can lead to the power imbalance in the larger firm's favor and mitigate negative consequences if alliances do not pay off.

In a similar vein, Koza & Lewin (2000) has argued that as alliance formation and implementation is a time-consuming process, the strategic intentions of partners might diverge and that maintaining symmetry in strategic intent is essential for alliance success. If this is the case and a start-up is depending on only one partner, renegotiating to re-align intents can be difficult. Entering too many alliances can be difficult for a young start-up due to limited management capabilities (Rothaermel & Deeds, 2006), so it is important for start-ups to strike a balance between too many and too few alliances to meet the challenges stated above.

Commitment & trust

The findings support the theories that top management involvement is important for start-ups (Hoffmann and Schlosser, 2001; Brouthers et al., 1995; Dyer et al., 2001). Results suggest

that buy-in from the top management is essential as it can increase the large firm's commitment to the project. If top management is involved in the process, the perception is that the incumbent will be more willing and committed to allocate the right resources in a timely manner. This mitigates the risks associated with slow implementation. High trust can also speed up the decision-making process, which is consistent with earlier research (Uzzi, 1997). As a result, address issues related to long sales cycles.

Knowledge protection

The findings also support previous research, which states that start-ups are more likely to use secrecy rather than patents to protect technology (Katila et al., 2008). The results suggest that the most common way to protect knowledge is signing NDAs. The results also support broader literature that building trust (Ireland et al., 2002) and competences (Prahalad & Hamel, 1990) reduce risks of knowledge appropriation. Building trust and competences can be particularly important for start-ups as even NDAs, and other types of contracts can have little legal value. This is because proving that partner breached the NDA is difficult. At the same time, it is very resource-demanding to follow up contract breaches for FinTech start-ups.

7.2 Practical implications

Based on theories and empirical findings presented in this thesis, I make some practical suggestions for start-up firms that want to establish alliances with large companies:

- Start from a pilot phase: Do not rely on negotiating a perfect contract to safeguard partnership in an early stage of the sales cycle. Have necessary mechanisms to protect technology and a simple contract to coordinate collaboration, but focus starting from a pilot quickly. Use the pilot as a tool to build trust on both a personal and a technological level. An early pilot is also a good time to confirm the feasibility of a larger-scale collaboration. If feasible, invest time and resources in structuring a comprehensive scaled contract when agreeing on moving to scaled implementation.

- Do not be only technology-focused: Have a good translator. Even though that the technology itself can be innovative, being capable of finding the business utilization of your technology and translating it in a language that lets a potential partner see the

value is essential and can help to increase trust in the product and shorten the sales cycle.

- Invest in building relational capital: Build multiple networks at the right decision level. Multiple networks decrease dependency on a single person to sell or carry out a project. Also, networking at the right decision level speeds up the sales cycle.

- Involve top management: Top management buy-in can help to increase commitment to the project from the incumbent.

- Have experienced people in the team: Experienced people can help to increase trust and commitment, especially when they have connections within the industry. Also, experienced people can help to avoid other possible hazards of collaborations. (e.g., structuring the better deals).

- Get the legal expertise: This can be especially helpful when structuring complex governance mechanisms (e.g., equity or detailed contracts).

- Diversifying alliances: Try to strike a balance between too many and too few. Entering too few can increase dependency on a single partner, and trigger challenges such as power imbalance. Diversification also reduces the severity if one alliance fails.

7.3 Limitations of the research

One of the main limitations of the thesis is that I represented the experiences and opinions of only one side of alliances in this research (the FinTech start-up). This can have influenced findings in the sense that the perception of FinTech's on why a particular problem exists in the collaboration can be biased and subjective. Including the experiences of banks would have enabled me to gather a more comprehensive picture of the risks and challenges. This could have yielded valuable insights into how to collaborate better in order to enhance performance and innovative outcomes as a whole. Choosing to take the FinTech's perspective was a deliberate choice, as a broader scope would have detracted from the necessary depth to help to narrow the research gap on how start-ups manage alliances for innovation with large partners.

Further, the thesis has not included the partner selection phase in alliance development. Selecting the right partner can have a significant influence on what types of challenges can arise and how governance design will be constructed.

Moreover, my suggestions and observations on governance mechanisms and the balancing between informal and formal can be context specific. While typically the sales cycle is defined as getting access, negotiation contract for a pilot, and moving to market implementation, there might be cases where this process is not applicable. For example, not all FinTechs might necessarily require a pilot phase.

In addition, I have researched the topic at a certain point in time. Observing companies over an extended period could have yielded different or more comprehensive results.

7.4 Further research

More research needs to be done to understand better how start-ups manage alliances with large partners. Collaboration between FinTechs and banks is a new phenomenon and has not been researched much (Bömer & Maxin, 2018; Brandl & Hornuf, 2017). Thus, there are many interesting potential research areas.

Further research can address a similar topic as explored in this thesis combining both quantitative and qualitative studies. A qualitative study can provide a more in-depth understanding of the event. However, including a larger sample in the research is challenging. Thus, more research needs to be done on a similar topic to make it generalizable. A quantitative study can be used to investigate a larger sample. In addition, this thesis only presented the opinions of one side of the collaboration, yet including another side can be beneficial to draw a more comprehensive picture.

For more generalizability, further research can also involve wider sample by including other types of start-ups beyond FinTechs. Also, further research can address how start-ups select partners and governance mechanisms they choose.

Conducting a longitudinal study on related research can be beneficial and provide rich data into start-ups alliance management capabilities.

Lastly, while how start-ups design and manage alliances is an interesting research topic, how start-ups learn alliance management capabilities is equally important and interesting topic for further research.

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