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REPORT

Enabling Innovation Through an Ecosystem

An Exploratory Case Study

John Martin Frankendal
Shayan Ghanbarisaied

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Enabling Innovation Through an Ecosystem

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by

John Martin Frankendal
Shayan Ghanbarisaied

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Preface

This thesis is written as part of our Master of Science in Economics and Business Administration at the Norwegian School of Economics (NHH). Our specializations in the degree are Strategy and Management & International Business. The study is part of an ongoing research project at NHH called the Future-Oriented Corporate Solutions (FOCUS) program. FOCUS explores how new types of organizational solutions can contribute to competitive advantages. More specifically, this thesis is part of a project about Radical Technology-driven Change in Established Firms (RaCE), which further aims to develop research-based knowledge on how established and well-performing firms successfully may respond to and manage radical technology-driven change.

First and foremost, we want to express our gratefulness to all of the respondents from both the Fintech ecosystem and to all the other members of the insurance fraud project – without your participation this study would not have been feasible. A special thanks to our main contact at the Fintech ecosystem who have been co-operative from our first contact.

We also want to thank our supervisor, Professor Christine B. Meyer, for her valuable guiding and support throughout the research. Her backing has been essential during the process of this study and we are very thankful for how helpful she has been.

Last but not least, we want to thank each other for fantastic teamwork, support and respect for one another. A special thank you is directed to the digital tools that we have utilized in our research process such as Zoom and Microsoft Teams. They have enabled us to write this thesis during the COVID-19 pandemic.

Bergen, December 2020

John Martin Frankendal

Shayan Ghanbarisaied

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1. Introduction

In March 2020, the world understood that the COVID-19 virus would have a major impact on the economy. The impact could be seen in countless sectors and it even disturbed the way how people lived. The disruption of the virus has also contributed to an increasing pace of the digitalization of society. The CEO of Microsoft, Satya Nadella, explained what he saw in April 2020 "We've seen two years' worth of digital transformation in two months*"* (Spataro, 2020). Companies handling digital transformations are not something new. During the 21st century these digital transformations have disrupted industry after industry. At the same time as companies try to adjust to the digital society, it seems that only a few achieve their anticipated performance targets (McKinsey, 2018).

The financial service industry is currently undergoing revolutions on several fronts. These revolutions have led to the Fintech concept which is the combination of financial service and technology. By integrating technology into the financial services industry, this industry has succeeded to decrease costs, increase operative efficiency, improve customer experience and expand the attractiveness of its products. PwC, a multinational corporation in the professional service industry have conducted a report through surveying hundreds of managers within financial services and telecommunication, media & technology (TMT) companies (PwC, 2019). In the report PwC issued four key findings aimed at companies involved in the Fintech domain. The first insight highlights the necessity to have a Fintech strategy imbedded in their business model. The second insight is that companies in the financial service industry should look at the TMT industry for inspiration of how Fintech can be exploited. The third understanding emphasise the need for cooperation between the financial services industry and the TMT companies, in order to find the skills needed to advance into the Fintech capacity. Finally, PwC stress the need for cross-sector fusions in order for the financial service companies to succeed in developing their Fintech operations. To cope with the changing needs of the customers and the new possibilities of technology there is an evident need for innovation in the financial service industry.

Innovation could be defined as the making of the new, as it bridges the gap between an idea and its implementation to serve a need (Durand, 2004). Tushman & O'Reilly (1996) express that all managers face problems regarding the implementation of innovation and change. In

established firms this problem is especially apparent. The reason behind this problem is often devoted to structural and cultural inertia of conventional firms. On the other hand, managers in innovative and smaller firms without cultural and structural problems face other struggles (Storey, 1985). Storey (1985) mentions several problems smaller firms face such as raising external capital, shortage of demand and shortages of skilled labour. In addition, the consequences of the events correlated to COVID-19 pandemic fits into the description of a volatile, uncertain, complex and ambiguous (VUCA) world (Bennett & Lemoine, 2014). The VUCA environment combined with the inherited firm challenges, related to their size, requires the leaders of Fintech companies to think of new solutions to renew themselves. New structures and collaboration systems for knowledge sharing is a suggested way of coping with these challenges (Bettoni, Bernhard, Bittel & Mirata, 2018).

One way of overcoming the problems both established and small companies encounters, are through collaboration between them. One proposed solution, which has been getting more and more attention lately, both in the corporate and academic world, is the concept of *ecosystems*. Bogers, Sims & West (2019) have looked at the existing research in the field and defined the central goal of ecosystems to be joint-value creation. Jacobides, Cennamo & Gawer (2018) have also researched the area of ecosystems and have thoroughly studied different types of ecosystems. Furthermore, Jacobides et al. (2018) presents the stream of *innovation ecosystems*, which revolves around a single innovation and the constellation of actors that support it. Yet, the research field is still novel and the facilitation of innovation within ecosystems could be improved.

This thesis will study how a newly founded Fintech ecosystem in Norway can enable innovation in an insurance fraud project. The purpose of this research is to explore how the Fintech ecosystem, as a facilitator, can support the innovation inside the insurance fraud project and between the participants of the project. Within this setting, this qualitative exploratory thesis will address the following research question:

> *In what ways can the facilitator of an ecosystem enable innovation in the finance industry?*

Outline of the Thesis

The thesis starts with a review of the existing literature on ecosystems in general, followed by the more specific types of ecosystems, platform and innovation ecosystems. Thereafter, governance mechanisms in an ecosystem and the different roles inside an ecosystem is presented. The literature review will be followed by a research setting which will include information about the chosen case, its participants, and some other relevant background information. Next, the methodology of the study will be presented. The methodology part will include the research design, the data collection, the processes of how the data is analysed and finally a segment about how the research quality is ensured. The final part of the methodology will assess the ethical considerations of the thesis. Afterwards, the collected data will be presented in the findings chapter. This chapter will be consisting of the data gathered from the semi-structured interviews held with relevant members of the project. Then the findings part will be analysed and discussed in the context of the previously presented literature. Finally, the conclusions of the paper associated with the research objectives is presented together with some practical implications and proposals for future research in the field.

2. Literature Review

This section reviews the existing literature which is relevant to the concept of the ecosystems. The first part presents different views and definitions of the theory of the ecosystems, followed by the detailed literature on the innovation and platform ecosystems. Then the governance mechanism in the innovation ecosystem are studied. In the end, the members of the ecosystem and their roles are discussed.

2.1 Ecosystems

Over the last few years, there has been a surge of interest in the concept of *ecosystems* as a new way to depict the competitive environment (Jacobides, et al., 2018). Ecosystems are increasingly accepted as vital for the success of a firm's innovation strategy and business model. The topic of ecosystems is also attracting an increasing academic interest, with more than 300 articles published in top journals since 1992, more than 80 percent of these articles have been published in the past five years (Bogers et al., 2019). Furthermore, searching the keyword "ecosystem" in the title or abstract of the top strategy journals shows that its rate has increased sevenfold over the last five years (Jacobides et al., 2018). Over the years, scholars and consultants have provided different definitions for ecosystems. Starting with Moore (1993), who first touched upon the term *business ecosystems* to more recent scholars who tried to outline a different definition for ecosystems (Adner, 2017; Bogers et al., 2017; Bogers et al., 2019; Jacobides et al., 2018; Kapoor & Lee, 2013). In Moore's article in 1993, he believed that for most companies at that time, the only truly sustainable advantage came from out innovating the competition by creating ecosystems (Moore, 1993). Moreover, he suggests that "in an ecosystem, companies co-evolve capabilities around a new innovation: they work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations" (Moore, 1993, p. 76). He also defines a timeline for business ecosystems. Moore (1993) indicates that "every business ecosystem develops in four distinct stages: birth, expansion, leadership, and self-renewal – or, if not self-renewal, death" (p. 76). As mentioned earlier, many scholars after Moore worked on the concept of business ecosystems but the definitions are inconsistent and there is no consensus on a narrow definition for ecosystems and their associated elements.

Looking at more recent research, Bogers et al. (2019) have proposed a new and comprehensive definition for ecosystems. They propose that "an ecosystem is an interdependent network of self-interested actors jointly creating value" (Bogers et al., 2019, p. 2). Regarding this definition, they include four elements: interdependence, network, self-interested actors, and joint value creation. Three of the elements – interdependence, network, and self-interested actors – are operational constructs which link to the most commonly described goal of an ecosystem: to jointly create value in a way that none of the single actors would be able to accomplish (Adner, 2006). With joint value creation as one of the four elements of the proposed ecosystem definition, vital to this definition is success at the ecosystem level. However, while theoretically important, such value creation as the scale for the success of the ecosystem is difficult to measure in practice (Bogers et al., 2019). Best case scenario, qualitative ecosystem studies have offered observations or predictions of value creation without measurement (Pagani, 2013; Van der Borgh, Cloodt & Romme, 2012). In some research, market share has been used as a proxy measure for value creation, in both qualitative and quantitative studies (Adner & Kapoor, 2010; West & Mace, 2010). While the market share is the only measure available, according to Bogers et al. (2019), it often makes it difficult to differentiate between the market power (such as marketing expense) and the ecosystem's value creation. Also, while survival is a degree of ecosystem success or failure, it both has similar confounds and offers less granularity of measurement. Based on the same research from Bogers et al. (2019), they offered another measure of success that may be defined in the term of success of the actors and members of the ecosystem.

The success of an ecosystem hinges on the actions of self-interested actors that join the network; thus, getting members to join an ecosystem requires identifying the motivations of these potential participants (Bogers et al., 2019). Generally, while the members and actors of an ecosystem will be working to increase the success of the whole ecosystem, usually their self-interest is a higher priority (Bogers et al., 2019). Digging into the research of Bogers et al. (2019) they suggest value creation, as the most important criterion for the success of an ecosystem, depends on the contribution of the actors. On the one hand, all ecosystem actors have a stake in its success. Then again, the nature of the relationship between the actors — especially whether their corresponding goals are competing or complementary — will affect how (or how well) they will work together to attain that success. Moreover, Bogers et al. (2019) considered three modes of interdependence that affect the relationship between the

ecosystem's actors and members. First, cooperative interdependence. In some ecosystems, the main collaboration is cooperative, especially when their value creation efforts are more complementary (Bogers et al., 2019). This mode is more common among the firms that are essentially unrelated, where firms are competing for attention but not revenues. Secondly, Bogers et al. (2019) discuss competitive interdependence. The initial definition of business ecosystems underlined competition between ecosystems, this competition is between business ecosystems and not single firms (Moore, 1993). However, the entry of new firms into an ecosystem may reduce the resources available to existing firms. In addition to the competition between firms, competition may also be between firm participation in a specific ecosystem (Bogers et al., 2019). Exploratory work by West (2003) and West et al. (2010), suggests that some forms of network governance - for example by the leader of the ecosystem - will deter competing firms from joining an ecosystem. Lastly, Bogers et al. (2019) discuss the coopetitive interdependence. As mentioned earlier in this chapter, ecosystems require close collaboration for the actors to jointly create value in a way they would not be able to do alone. But in some industries the value creation requires the participation of direct competitors and this participation might be in contrast to the definition that has been cited. Thus, in this situation ecosystem management requires both cooperation and competition between ecosystem participants (Kapoor & Lee, 2013).

A different and important contribution to the concept of the ecosystems is made by Adner (2017), he offers two general viewpoints for ecosystems, First, ecosystem-as-affiliation viewpoint and second, ecosystem-as-structure. The first perspective which he calls ecosystem-as-affiliation, sees ecosystems as communities of associated actors defined by their networks and platform affiliations. Moreover, this viewpoint "places emphasis on the breakdown of traditional industry boundaries, the rise of interdependence, and the potential for symbiotic relationships in productive ecosystems" (Adner, 2017, p. 55). He illustrates this viewpoint by using examples from business context such as the *Microsoft Ecosystem* and the *Silicon Valley ecosystem*. Ecosystem-as-affiliation offers an alluring metaphor and a valuable picture for interactions at a macro level. However, it is often hard to unravel its characterizations and recommendations from those of other approaches to interdependence. Furthermore, strategy in the ecosystem-as-affiliation perspective tends to focus on increasing the number of actors that link to a focal actor or platform, increasing its centrality and expected power (Adner,

2017). He concludes that, by increasing the number and intensity of actors the focal actor increases its bargaining power (Adner, 2017).

The second perspective which is argued by Adner (2017) is the ecosystem-as-structure. This perspective proposes a complementary method to studying interdependence value creation. Under this perspective he offers the definition of an ecosystem as: "the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialize" (p. 55). Considering the implication of *alignment structure*, he explains it as the structure that members of an ecosystem create to define the positions and activity flows among themselves (Adner, 2017). Furthermore, he clarifies *alignment*, as the extent to which there is mutual accord among the members concerning these positions and flows. Various actors may have different end states and end goals in mind (Adner, 2017). This definition places the value proposition as the foundation of the ecosystem, it is the intended value proposition that creates the boundaries of the relevant ecosystem. Adner (2017) continues by defining four basic elements that underlie a structuralist approach to ecosystems. These four elements are, first, *activities*, which are the discrete actions to be undertaken for the value proposition to materialize. Then, *actors*, which are the bodies that carry out the activities. Followed by, *positions*, which are specified locations in the flow of activities across the system. Finally, *links*, which specify transfers across actors. These four elements portray the blueprint for how value is expected to be created in the interdependent collaboration that is the ecosystem underlying a value proposition (Adner, 2017).

Finally, while studying ecosystems literature, sometimes the term cluster and the definitions which come along with it appear in different articles. The term cluster and its definition seem to be related with the ecosystem designation. Porter (1990) in his article *The Competitive Advantage of Nations* introduced the term cluster for the first time in a business setting. According to Porter (1990, p.154) "Clustering is a phenomenon linked to geographic concentrations of national industries which origin from vertical or horizontal relationships between companies". Firms in a cluster are usually situated in a single city or region within a country (Porter, 1990). Other authors such as Arboníes & Moso (2002), Scheel (2002) and Tallman, Jenkins, Henry & Pinch (2004) have also disputed that regionality and vicinity is a key characteristic of a cluster. Porter (1990) tells that, the strength of a cluster lies in strong competition inside it, which makes the firms to improve their standards of performance. That

strong rivalry is stimulated by the bargaining power of customers who might have connections with several firms within the cluster. Those connections also boost the flow of information and dispersion of innovations (Porter, 1990). Furthermore, firms which are inside a cluster often are able to more rapidly identify new buyer needs (Porter, 2000). Moreover, cluster membership creates advantages in realizing new technological advances and value creation possibilities. These advantages play an important role in the growth of innovation which comes from participating in the cluster (Porter, 2000). In his Article *Location, Competition, and Economic Development: Local Clusters in a Global Economy* in the year 2000, Porter offers a more general definition for clusters as "a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities" (P. 16). Although the literature on clusters is more established than the literature about ecosystems, the term ecosystem is not enclosed from the term cluster. It is rather that the ecosystem approach is a more recent and spacious concept to study innovation through the interconnection between firms (Shipilov and Gawer, 2018). From the existing literature we can perceive that the cluster solution is industry specific and can just be applied locally, also it cannot oversee value creation if actors from different industries appear (Bogers et al. 2019). Ecosystems are not geographically limited, and they are open to transnational connections (Bogers et al. 2019). Additionally, strong rivalry within a cluster limits the motivation to share knowledge and jointly create value but the interconnection and shared fate are key elements of ecosystems. Interconnection can be seen as an enabler and shared fate as a motivator of knowledge sharing and joint value creation (Iansiti and Levien, 2004).

In this study the literature on the ecosystems will be employed. It does not mean that the literature on clusters is not valuable and ignored but we would rather move our research beyond the boundaries of the cluster literature. In this study more recent insights of ecosystems from Bogers et al. (2019), Jacobides et al. (2018) and Adner (2017; 2006) will be our main focus.

2.2 Innovation & Platform Ecosystems

One of the widely recognized methods of sorting the ecosystem literature has been established by Jacobides et al. (2018). The method suggests three separate streams of ecosystems. A

business ecosystem stream, a platform ecosystem stream and lastly, an innovation ecosystem stream. In this study, we mainly focus on the innovation and platform ecosystem stream. This does not mean that the business ecosystem stream is not important, but rather that the other streams are more associated to our study and the case we are going to examine.

Jacobides et al. (2018, p. 2256) describes, "the innovation ecosystem is focused on a particular innovation or new value proposition and the constellation of actors that support it". Adner (2006, p. 2) views the innovation ecosystems as the "collaborative arrangements through which firms bring together their individual offerings into a clear, customer-facing solution". Adner (2006) follows his ideas by examining the innovation ecosystems, which are enabled by information technologies. These have drastically reduced the costs of coordination and innovation ecosystems have become a core element in the growth strategies of firms in a wide range of industries. Adner (2006) also illuminates some downsides in innovation ecosystems, by explaining that for many companies failing at the innovation ecosystems is definitely costly. These costs come from the set of risks that usually emanate from the new opportunities in the innovation ecosystems, mainly by new dependencies that derail firm's efforts (Adner, 2006).

Similar to biological ecosystems, innovation ecosystems are also inhabited by a variety of various actors and members who invest in the shared future (Moore, 1993). These actors operate cooperatively and competitively to create value by developing and creating new products to satisfy customer needs (Adner & Kapoor, 2010). Also borrowing from biology Iansiti and Levien (2004), categorized some specific ecosystem features which apply to our study. Iansiti and Levien (2004) specified *productivity*, *robustness*, and *niche creation* to illustrate the status of the ecosystem and they introduced *keystone species* which are the organizations that lead the innovation ecosystem to create new niches, improve the performance of niche organizations, and ultimately increase overall ecosystem robustness. *Productivity* is the innovation ecosystem's capability to reliably transform new technologies into improved and new products. *Robustness* identifies the ability of an innovation ecosystem to survive disruptions caused by unpredicted technological changes or any other transformations in the society or the economy. Furthermore, innovation ecosystem should have the ability to support the diversity of its members. *Niche creation* explains the

ecosystem's capability that whether it can apply emerging technologies across new product areas or not (Ianisti & Levien, 2004).

According to Jacobides et al. (2018), "platform ecosystems consider how different actors organize around a platform" (p. 2257). The platform ecosystem takes a *hub and spoke* form, which connects peripheral firms to the central platform. This connection applies using shared or open-source technologies and/or technical standards. By connecting to the platform, peripheral firms can not only generate complementary innovation, but they can also gain access, directly or indirectly, to the platform's customers (Jacobides et al., 2018). Studying other literature, a platform is explained as a technical architecture that mediates transactions between different groups of actors that could otherwise not perform and cooperate by formal contractual agreements. Together with this, they provide the infrastructure and governance needed for open innovation (Gawer & Cusumano, 2013; Schmeiss, Hoelzle & Tech, 2019). Facilitating joint value creation and securing effective value capturing for all participating actors is the goal of the platform ecosystem (Boudreau, 2010). The more open a platform is, the more actors can participate to create value. But realizing that value becomes increasingly challenging and complex with more actors participating in the ecosystem (Boudreau, 2017). Schmeiss et al. (2019) address the topic of platform governance for having a trade-off between maximum value creation and effective value capturing. According to the authors a platform leader or facilitator can leverage different governance mechanism to tackle that trade-off. Governance mechanisms are viewed as a mean to solve the challenge of opening the platform to a diverse set of actors (Schmeiss et al. 2019).

2.2.1 Governance Mechanisms in Platform Ecosystems

In their research, Schmeiss et al. (2019) identify three governance mechanisms: *access*, *control*, and *incentives.* First, *access* is defined as an important criterion to the platform, as it ensures that actors with complementary skills are working together to create value. Using this mechanism, the platform leader can specify what type of actor can participate in the ecosystem, whether or not connect them to the technical part of the ecosystem and it can allocate decision rights for specific actions to actors (Boudreau, 2017; Dattée, Alexy & Autio, 2018; Gawer, 2014; Tiwana, 2015). Second, *control* mechanism explains the rules by which actors cooperate in the platform ecosystems. This mechanism requires highly structured set of

values and rules in order for the competitors to collaborate. Moreover, control mechanism guarantees accountability for individual actors and guarantees consensus in case of a conflict of interest (Schmeiss et al. 2019). Third, *incentives* are the mechanisms which the leader or facilitator of the platform ecosystem provides. The incentives are thereafter meant to motivate the participation of members and facilitation of innovation (Schmeiss et al. 2019).

Governance mechanisms have been established to ensure that value is uniformly seized among the different actors (Chesbrough, Lettl & And Ritter, 2018). According to Chesbrough et al. (2018) the value that can be seized among the actors demands provision, negotiation, partaking in, and realization of value. Furthermore, according to Schmeiss et al. (2019), by using governance mechanisms platform leaders can facilitate maximum openness, while guaranteeing effective and fair value capturing for all actors in the ecosystem.

2.3 Ecosystem Members and Their Roles

In their research Dedehayir, Mäkinen & Ortt, (2018) studied the genesis of innovation ecosystems with specific focus on the roles of the ecosystem members. Dedehayir et al. (2018) define *role* as "a characteristic set of behaviours or activities undertaken by ecosystem actors" (p. 18). As mentioned earlier, Bogers et al. (2019) believes that the success of an ecosystem hinges on the actions of self-interested actors that join the ecosystem. Bogers et al. (2019) then discuss the concept of the *sponsoring firms* in the ecosystem. The majority of literature on the members and roles in the ecosystems have studied these firms. The term "sponsor" is commonly used for ICT related ecosystems, but other researchers have selected other terms such as leader (Moore, 1993), owner (Gawer & Henderson, 2007) or hub (Jacobides et al., 2018) to describe the leading firm in the ecosystem. The success of sponsors leveraging an ecosystem depends on their approach, for example how they align the interests of various members (West & Wood, 2013) or build coalitions (Gawer & Cusumano, 2014). Moreover, success of the sponsor relies on its managers to understand the exclusive characteristics of the ecosystem (Zhu & Iansiti, 2012). Leaders' capabilities to manage multiple ecosystem members with different priorities will result in survival and growth of the ecosystem (Bogers et al. 2019). Dedehayir et al. (2018), define four activities for ecosystem leaders: ecosystem governance, forging partnerships, platform management, and value management.

Despite the comprehensive literature on the leaders' role in the ecosystem, only rarely has research on ecosystems examined the role of the other members (Bogers et al. 2019). Adner (2017), illustrates the concept of the leader-follower in the structure of the ecosystems. An ecosystem follower is a company which agrees to act in accordance with the leader's terms and cedes the leadership role. Taking on this role depends on the firm's desire and on the agreement of the actors on which the value proposition depends (Adner, 2017). Followership can become contestable over time. Albeit the activities and performance of them maintain criticality, the followers inside the ecosystem can be changed and challenged by others inside and outside the ecosystem (Kapoor & Agarwal, 2016).

Dedehayir et al. (2018), introduce three actors beside leaders in the innovation ecosystems. First, *direct value creators* such as suppliers, complementors, assemblers and users. These are the actors which are directly associated with the value creation. Second, *value creator supporters.* These actors do not add value directly through the delivery of final products, but they do it by providing peripheral supporting components. Experts and champions are the two examples of this group. Experts support direct value creators by generating knowledge, providing consultation, and encouraging technology transfer and commercialization. Furthermore, champions support ecosystems by building connections and alliances between actors, interacting between partners, and providing access to local and nonlocal markets. Finally, *entrepreneurs and regulators* who in various ways try to play the intermediatory role between the actors in the ecosystem. They also try to encourage the creation and growth of the ecosystem. The activities of this group might be overlapping with the ecosystem's leader role, but they do not necessarily occupy the latter role, which also delivers governance alongside value and platform management responsibilities (Dedehayir et al., 2018).

3. Research Setting

In this chapter we are going to present a summary of the relevant aspects of the case. Starting off with a presentation of the current situation regarding insurance fraud in Norway. Then the companies and members of the insurance fraud project, will be presented. Together, these companies form the setting of this thesis. This section is formulated from the data and information that both primary and secondary sources - which are portrayed in the methodology part – provided.

3.1 Insurance Fraud in Norway

Insurance fraud is an intentional deception committed against or by an insurance company or agent for the purpose of financial gain. Insurance fraud can be committed at different points by agents, applicants, policyholders, third party claimants and professionals who provide services to claimants (Insurance Information Institute, 2020). Fraud in insurance industry can be at the expense of the society, applicants, policyholders, and the companies. According to Finance Norway the total value of frauds, which were detected in 2019, accounts almost 500 million NOK (Finans Norge, 2020). This amount would be much larger if we consider all the cases which were not detected. 500 million NOK mean that frauds cost the insurance industry on average 200 NOK per household in Norway. Based on annual surveys, insurance fraud is socially more acceptable in Norwegian society than other types of crime, especially among the younger generation (Finans Norge, 2020). As an example, the Norwegian insurance company Gjensidige saw that 15% of the respondents thought that insurance fraud is an understandable deed, and that it should not be a cause of concern. Another example is that one out of three persons, under 30, thinks that it is acceptable to add a bit extra when they claim their insurances (Finans Norge, 2020). As mentioned earlier, insurance fraud has consequences and the most vital one is higher premiums on insurance policies.

To tackle the issue of insurance fraud, the Fintech ecosystem has initiated a collaboration project. In this project, three Norwegian insurance companies aim to create a data-lake to train algorithms on in order to find fraud in the industry. In sum, it means data sharing and collaboration between each participating firm. To make the project move forward, a technical partner and a legal partner are helping with the technical infrastructure and provision of legal

counsel, respectively. The idea behind the project, is to have anonymized data from the insurance companies shared on a secure cloud platform. The individual insurance company are not able to see the data owned by the other insurance companies, but they will be able to use the accumulated dataset to train their fraud detection algorithms using machine learning. The objective of making the large data set is to create algorithms which are more effective for spotting potential fraudulent cases. The idea would be more challenging if they create their own data-lake and train their detection program on it individually. During the time this thesis was written, the project was still ongoing. The members were hoping to have a minimum viable product ready in the Autumn of 2020.

3.2 Case Participants

To begin with, this study has mainly researched the initiator's impact on the collaboration project. Initially, the case project only included members from the ecosystem. However, this changed during the project, which is something that we will elaborate on. All members of the case have been anonymized and pseudonyms have been used to secure their anonymity.

Original Project Members in Spring 2019

Alpha	Bravo	Charlie	Delta	Echo	Foxtrot

Current Project Members in Fall 2020

Alpha	Bravo	Charlie	Echo	Foxtrot	Golf

Pseudonym	Company description
Alpha	The ecosystem and project initiator
Bravo	Large insurance company
Charlie	Small insurance company
Delta	Life insurance company
Echo	Technical partner
Foxtrot	Legal partner
Golf	New insurance partner

Figure 1. Summary of all relevant case participants. See Appendix A for a timeline of the project.

3.2.1 Alpha

The central firm of the case is the Fintech ecosystem, which will be referred to as Alpha. Alpha was founded in 2017 and started as a local Norwegian Fintech ecosystem. It began as a non-profit and local ecosystem with the ambition to enhance local areas Fintech industry. Alpha is financed through a mix of governmental funds and membership fees. The development of the local Fintech industry would be driven through project collaborations between local finance-, academia- and technology partners. Since the foundation, the ecosystem has developed rapidly and nowadays goes beyond of its initial local scope. The ecosystem now incorporates companies based in other cities and even other countries. Moreover, the ecosystem includes members, partners and alliances, in total there are 75 members in the ecosystem. Alpha, as an organisation, have five full time employees. Additionally, it has both a board of directors and an advisory board. The board of directors is a requirement to have by Norwegian law, and its main purpose is to fulfil its obliged tasks in order to be compliant with the legal requirements. However, the advisory board was created as an arena to discuss future strategies, business development and innovation for the ecosystem. The full-time employees, at Alpha, all have previous business experience. Within Alpha they have different roles of responsibility such as *Project Manager* and *CEO*. Both of the boards consist of senior executives from the member organisations. In sum, the available human capital provides Alpha with a solid knowledge base and a far-reaching network.

3.2.2 Bravo

The initial project team consisted of five companies, three insurance companies and two partners, one legal and one technical. All of these companies were part of the ecosystem. The first insurance company is a longstanding multinational insurance company with a large market share in Norway, they will be called Bravo. Bravo have non-life insurance products for both business to business (B2B) and business to consumer (B2C). Their Norwegian headquarter is in Alphas founding city and they are a founding member of Alpha with a senior executive on the advisory board.

3.2.3 Charlie

The second insurance company is the smallest one which will be called Charlie. Charlie established itself through a joint venture between a group of Norwegian banks. Today they are present all over Norway with their headquarters in Alphas founding city. They supply non-life insurance product for both B2B and B2C. Charlie is also one of the founders of Alpha and has a senior executive on the board of directors.

3.2.4 Delta

There was a third initial insurance member of the project, which will be called Delta. This is an established Norwegian insurance provider. However, Delta mainly offered life insurance products rather than non-life insurance. The project decided to focus on non-life insurance fraud. For Delta this meant that they could not be a part of the project, at least not in the first pilot. They are still updated, by Alpha, on how the project proceeds and could be included if the project in a later point expands into life insurance.

3.2.5 Echo and Foxtrot

Moreover, the insurance firms needed a technical partner who could help the firms build the technical solution. This technical company were part of the project from an early stage and will be called Echo. Echo offers a range of technical services and advisory to improve the digital processes of companies. Echo is, like the above-mentioned companies, a member of Alpha and has a full-service offering office in Alphas founding city. Finally, the project had to have a legal partner in order for the project to be possible, this firm will be called Foxtrot. Foxtrot is a multi-national professional services firm and also one of the founding contributors of Alpha. They have a senior executive on the board of Alpha and have a complete presence in the local city where Alpha were founded.

3.2.6 Golf

The final project member is an insurance company which we will call Golf. Golf joined the team after the project were first started. They are, like Bravo, a large and established insurance company in Norway delivering non-life insurance. Golf is the result of a recent merger between Norwegian banks which have allowed them to catch a large market share under its

new name. What differentiates Golf from the other companies is that they are not a member of Alpha and their headquarter is not in the same city as Alpha.

3.2.7 Additional Stakeholders

The insurance fraud project was first initiated at an ideation session including many more members than these named above. After the idea was first recognized there were also academic institutions involved in the project. These later left the project when the focus of it narrowed down from something that could be academically relevant, to a specific business state. Finally, the Norwegian interest organisation Finance Norway have been relevant to the case. This interest organisation includes all insurance companies in Norway. Finance Norway became the arena where Alpha communicated the project to Golf, which made them to want to take part of the project. Finance Norway is also suggested to be the future owner of the data-lake, which will be the output from the insurance fraud project. They are proposed to be the best owner because they are a neutral and resourceful organization, also with existing relationship to all of the Norwegian insurance companies.

4. Methodology

The aim of the methodology chapter is to explain specifics regarding how the research question is answered. First, it will present the chosen research design and then the research approach and strategy. This is followed by a presentation of the data collection and the data sources before the specifics regarding the full interview process is explained. This chapter ends with a section about how the quality of the research is guaranteed as well as the considerations of any ethical concerns.

4.1 Research Design

The research design is the outline of how we are going to answer the research question (Saunders, Lewin, & Thornhill, 2016). The intention of this thesis is to further enhance the novel research field on innovation ecosystems. More precisely, it aims to research the facilitator's role within an innovation ecosystem. As the research question is of an open character, the topic is more appropriate to be researched with non-numerical data compared to numerical data. The study will therefore be based on a qualitative approach (Creswell & Creswell, 2018). It can be problematic to be distinctive between the qualitative and quantitative approaches, but in this case the qualitative elements are leading (Saunders et al., 2016). Furthermore, in order to gain richer insights into this open character question an exploratory design is undertaken. This design allows for a dynamic approach, which is valuable when adaptations are needed to meet the initial uncertainties (Saunders, et al., 2016). Finally, this is a case study of the phenomenon of innovation in an ecosystem. Our thesis fits well with the general purpose of a case study, which is seeking an explanation for a contemporary circumstance (Yin, 2018), in our case an ongoing project inside an ecosystem. Therefore, the case study design was appropriate for facilitating an in-depth analysis of the complexity that characterizes our research question.

4.1.1 Research Approach

The research in this thesis is built on a mix between a deductive and inductive approach. The reason why we used a mix of the two approaches is because we wanted to develop theory and at the same time understand the researched phenomenon. Beginning with the deductive

approach, it is used when the research starts off with a theory and then plans to test the theory (Saunders, et al., 2016). This particular thesis began with initially reading up on the literature on ecosystems. As this thesis is written as a part of the FOCUS research project at NHH, the topic of ecosystems was therefore already given, giving the study a deductive approach. On the other hand, the inductive research starts of by collecting data to explore a certain phenomenon in order to then develop theory (Saunders, et al., 2016). As there is a lack of research on the specific research topic of our thesis and the explorative design is chosen, the thesis topic aligns well with the inductive approach to theory development. The data collected from the case project is used to add to the theory on ecosystems (Saunders, et al., 2016), which is also a characteristic of the inductive approach. In conclusion, the broad theme was already given in a deductive way, while the data is managed in an inductive approach. There is a third approach to theory development named the abductive approach. This approach is seen as moving back and forth between the deductive and inductive approaches (Saunders, et al., 2016). Why this research is not using an abductive approach is because it does not test the results from the data analysis. However, the mixed approach gives this research the advantage of flexibility, something Saunders et al. (2016) also emphasise.

4.1.2 Research Objective and Strategy

The research strategy is the plan of how to answer the research question and meet the objectives in a way that follows the research design (Saunders, et al., 2016). In addition, considering the present knowledge, the amount of time available and access to data sources should also be weighted into the preference of strategy (Saunders, et al., 2016).

First, our research objective is to advance the academic research on ecosystems and more specifically the research on innovation ecosystems. We believe that there is a lack of research completed on how an ecosystem facilitator can enable innovation inside a project conducted within the ecosystem, something we add insights to. Subsequently, we want to contribute to the managerial knowledge in the area with the practical knowledge of what seems to be the key success factors in facilitating innovation in ecosystems.

Furthermore, to answer our research question, we chose a qualitative case study as our primary research strategy. This strategy allowed for the creation of new knowledge regarding how a facilitator best enables innovation. What permitted this strategy was the access to interviews

with the relevant employees of the project, which were gained through contacting the ecosystem facilitator in an early phase of the study. The considerations and opinions of personnel at the facilitator as well as the project members were studied through semi-structured interviews. The semi-structured interviews fit well with the objectives since it created the opportunity to inductively alter after the data findings. As a complementary data source, publicly available information about the project firms and industry were used.

4.2 Data Collection

We arranged all the interviews ourselves, with the help from the project leader of insurance fraud project. The project leader, who works for the ecosystem facilitator, connected us with the representatives from each participating company of the project. Without the collaboration from this project leader, the data collection process would have been very difficult to pursue. The following sections will clarify which type of data has been used, how it was found and finally how it has been treated.

4.2.1 Data Sources

The most meaningful data source in this research comes from seven semi-structured interviews with eight informants from the project facilitator as well as the project members. These interviews were non-standardised, meaning that they changed depending on the responses given throughout the interviews (Saunders, et al., 2016). The main themes were consistent in all the interviews, but some sub themes were altered to fit each conversation. Semi-structured interviews enabled for additional questions which allowed us to get relevant answers related to our research objectives. This was especially important in cases which appeared and that was not foreseen before an interview. These openings connect well with the undertaking of an exploratory study (Saunders, et al., 2016).

In addition, secondary data sources such as company websites, media articles and a PowerPoint presentation, provided by the ecosystem, were used. The use of different data sources allowed for some of the data to be triangulated, this is a method to ensure the correctness of the given data (Saunders, et al., 2016). All data gathered throughout the thesis was primarily non-numerical.

4.2.2 Sample

Conducting a study often requires the researchers to limit their scope of data collection. Rarely, it is possible to collect data from every relevant member of a case and thereby reach census (Saunders, et al., 2016). Therefore, there was of importance to choose the sampling for this research with care. Given our research question, we found the non-random sampling method with a purposive theoretical technique to be the most adequate. Using non-random sampling involves that the samples are selected with subjective judgement by the researchers. Purposive sampling is useful in smaller case studies when the researchers need to be particularly selective in order to answer the research question. As a consequence, purposive sampling cannot be considered to be representative of the target population (Saunders, et al., 2016). More specifically, the theoretical technique requires an initial idea of where to start the sampling and then progressively include more parts as the theory emerges (Saunders, et al., 2016).

Initially the idea was to research the Fintech ecosystem and only sample participants from this organization. Later, we chose to specifically focus on the insurance fraud project, initiated by the ecosystem. Though the project revealed that it did not only include members from Alpha, the projects relevance to our research objectives was still clear. Subsequently, we realized that it was necessary, because of the setting, to include all the current participants from the project in our sample. Hence, all the informants had a connection to the insurance fraud project, either by being a company representative from one of the project companies or by working within the ecosystem of Alpha. In total, informants from six different companies was interviewed in this study. The informants had different positions in their respective organizations, a prerequisite was that they had to be involved in the insurance fraud project.

Furthermore, all current participating companies of the project were interviewed. This allowed for different views of the project facilitator's role to be heard, which was important for the research question. By including different perspectives, the conclusions were drawn from the many repeated responses given by the informants.

Interview Number	Description of informant	Date
Interview number 1	The Project Leader at the ecosystem - Alpha	10th of September
Interview number 2	Representative from the legal party - Foxtrot	19th of October
Interview number 3	Two representatives from the technical party - Echo	26th of October
Interview number 4	Representative from the large insurance company - Bravo	30th of October
Interview number 5	Representative from the small insurance company - Charlie	12th of November
Interview number 6	The CEO of the ecosystem - Alpha	20th of November
Interview number 7	Representative from new insurance partner - Golf	27th of November

Table 1. Interview Participants and their company affiliations.

4.2.3 Qualitative Semi-Structured Interviews

The principal data source in this research comes from qualitative semi-structured interviews. Choosing semi-structured interviews can be advantageous in exploratory studies. This is true when the thesis requires answers to a large number of questions, complex questions and when the reasoning of the questions might need to change (Saunders, et al., 2016). The interviews were held with informants from the ecosystem and partners of the insurance fraud project. Ahead of the first interview, we created a list of themes and open-ended questions. These main themes and questions focused on the insurance fraud project, the role of the facilitator and the innovation ecosystem in general. Throughout the interviews we encouraged unreservedly answers and asked follow-up questions on responses that we felt could be relevant to understand our research objectives. This setup allows researchers to promote further discussions around relevant topics you did not consider significant (Saunders, et al., 2016). As the interviews were held with companies which had different roles in the project, we also adapted the sub-themes of each interview. However, the key themes stayed the same in all interviews, this allowed us to compare the data gathered from numerous dialogs. Finally, in order to create a personal connection with the interviewees, we held most of the interviews in-person at the informant's respective office. Meeting up in-person and on their premises added

two advantages; the interviewees could feel more comfortable and they could easier make time for the interview. COVID-19 prevented us from conducting all interviews in-person, the four final interviews were therefore held online.

4.2.4 Interview Schedule and Interview Process

The interview process started through an e-mail conversation with the communications manager at Alpha. This led to us being invited to the headquarters of Alpha for a presentation of the organisation and its ecosystem. This presentation was held by Alpha's project leader and CEO. After the presentation we scheduled the first interview with the project leader at Alpha. Thereafter, the first interview was held in-person at the headquarters of Alpha. The communication with the project manager continued throughout the study through e-mail exchanges. This was necessary because the project manager then connected us with the rest of the informants from the different project companies. We then set up separate interviews through e-mail dialogs with the different interviewees. The second interview was held in-person at the office of Foxtrot. The third interview was an interview held with two employees from Echo at their reginal headquarter. The fourth interview was held online on Zoom, after a request from the informant of Bravo. The fifth interview was set up by the interviewee of Charlie on Microsoft Teams. The sixth interview with the CEO of Alpha was completed over Zoom. Finally, we held the seventh interview over Zoom with a representative from Golf.

Ahead of each interview we conducted basic research about each separate company in order to come prepared and to make the necessary adjustments to the interview guide. The interviews mainly focused on the participants and their views, ideas and thoughts of the project and ecosystem. We also asked each contributor to sign a consent form provided by the FOCUS research programme (see Appendix B). This consent form presented a short introduction of FOCUS, the data handling process and confirmed the anonymity of the interviewees.

When the consent form was signed the interviews would normally begin with a question regarding consent to record the interviews, which was given on all occasions. The interview then started with general questions about the participants past and role in his or her respective firm. The introduction was then followed by the participants opinion and thoughts of Alpha as an ecosystem. Then the questions began to focus on the specific insurance fraud project. The questions about the project were initially broad and then followed up by more concentrated

questions. Finally, the interviews ended with two questions about the future of the project and if the interviewee had any questions for us (see the interview guide in Appendix C).

Before the first interview, we let our supervisor comment on our interview guide in order to improve the congruence with our research objectives. This action was following the guidelines of Ghauri, Grønhaug and Strange (2020). The semi-structured interview allowed us to inductively investigate several different research questions before conclusively pick our final one. This originated from the flexibility of the interviews with many open questions in our interview guide which allowed for discussions and spontaneous follow up questions. The concluding part of the interview process was to transcribe the interview recordings word by word in order to maintain the original data as much as possible.

4.2.5 Secondary Data

To complement the primary data, we also examined secondary data sources. The characterisation of secondary data is that it is collected by someone other than the user and for some other purpose than the user's (Allen, 2017). First of all, corporate webpages were used to improve the "Research Setting" chapter. The websites gave fundamental information which gave us knowledge about the members and also helped us to alter our interview guide. Furthermore, a timeline was given to us by Alpha's project leader. This document improved our understanding of the case and gave us inspiration to ask the informants about specific events of the project (see Appendix A.). Lastly, public reports from Finance Norway and Alpha were used to further develop our knowledge of the case and the Norwegian insurance industry as a whole. Although the secondary data have been important for the research process, the findings chapter is based solely on the interviews.

4.3 Data Analysis

The analysis of the qualitative data in this study follows the guidance from Saunders et al. (2016) and Charmaz (2014). Although the idea of the research was given deductively from partaking in the FOCUS research project, the analysis of the data was completed to ensure an inductive theoretical development. To guarantee the inductive generation of theoretical contributions, the data was analysed throughout the research process and the coding was

divided into two periods (Charmaz, 2014; Saunders et al., 2016). The first period of coding involved initial coding, which is the mining for early ideas in the transcribed interviews. The initial coding was completed as soon as possible after each interview. Followed by a more focused coding which was more progressively completed throughout the research process, as the patterns and themes altered. The focused coding consisted of a selection of the most interesting emergent themes.

4.3.1 Data Preparation

Every interview was audio recorded and then transcribed word by word. Other activities, than what was said in the interviews, were also written down. For example, the manner which the interviewees responded were also written down. Transcribing other contextual aspects than just the said words is important, in order to not miss out on any happening which could affect the interview data (Saunders et al., 2016). All the interviews were held in English and other than a few institutional names, which were translated from Norwegian, the transcription did not sustain any modifications.

4.3.2 Initial Data Analysis and Coding

The initial coding aimed to generate as many possible theoretical directions as possible from the data. Charmaz (2014) believes that codes emerge from scrutinizing the data and by finding meanings within it. We adapted this open and organic approach rather than defining a set of preconceived categories. The consequence of this method was an extensive process where we added a code to each single or sequential sentence that had similar meaning, also called line-by-line coding. Furthermore, each code provided a short summary of its underlying sentence. This helped us to create an analytical skeleton, which Charmaz (2014) describes as the theoretical integration of the codes. One advantage of completing this coding phase as soon as possible after each interview, is that it gave us time to alter the interview guides and to study some of the new concepts which were discovered.

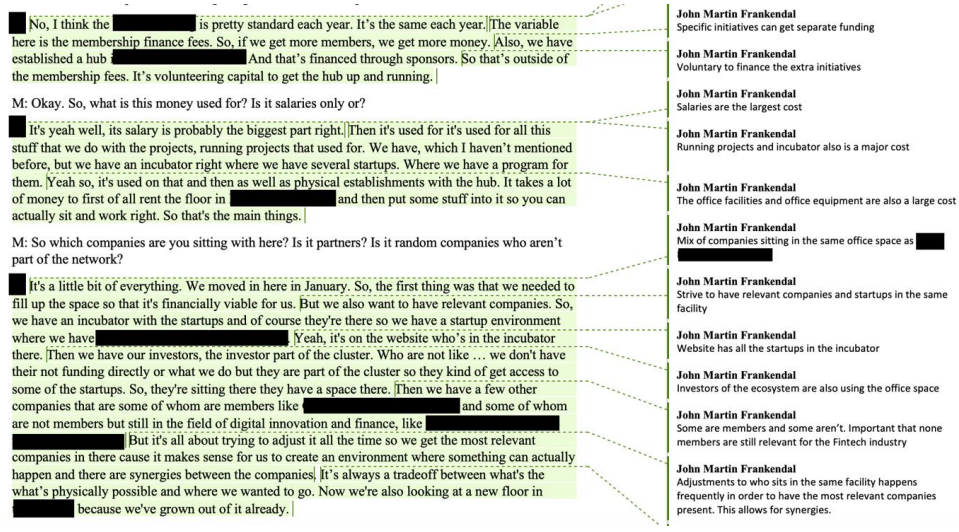

Figure 2. Shows an example of our initial coding of the transcribed interviews.

4.3.3 Focused Data Analysis and Coding

Charmaz's (2014) explains that focused coding decides which of your initial codes that are of more use to develop the analytic and explanatory focus of your coded data. Our process began with reviewing the initial codes. During the reviewing process, we were able to uncover a number of categories which would be able to answer our research objectives and research question. Thereafter, we began to code the content of each category into its own colour. Then we moved all the content of each colour into separate files. To clarify, the same process was done in all of the transcribed interviews. Inductively, it was subsequently possible to generate exploratory insights from each colour. Going back and forth between data and codes is aligned with Charmaz's (2014) recommendations to analysis. The next step, in the data analysis, was to examine the existing terms used in the ecosystem literature together with the found themes to look for similarities. This process finally generated a model which is presented in the "Findings" chapter. The model illustrates the main themes which the focused coding found and how the data fits in it. Later in the "Discussion" section, the model and its content will be compared to the already existing theory to see how the existing literature can explain the findings. Afterwards, it will be discussed where our findings can contribute to the already existing knowledge.

4.4 Research Quality

The quality criteria which will be discussed regarding the methodological design is trustworthiness. Furthermore, trustworthiness is divided into four parts: credibility, transferability, dependability, and confirmability (Guba, 1981; Lincoln & Guba, 1985). The reason behind this choice, is that trustworthiness is adjusted to the nature of the qualitative case research. Other measurements to establish the quality of research are reliability and validity. These two criteria are more suitable for quantitative research (Saunders et al., 2016).

4.4.1 Credibility

Several precautions have been established to ensure the credibility of the research, meaning that the research has been presented correctly regarding each interviewee's shared perception (Saunders et al., 2016). First of all, member validation was used to improve the credibility. Member validation involves sending back the data to the participant, for him or her to confirm or correct it (Guba, 1981; Saunders et al., 2016). After the analysis of the data, each participant was given the chance to review its own data before it was presented in the findings chapter. The member validation was also utilised whenever the interview questions appeared uncertain, they would then be rephrased. The possibility to use follow up questions also helped us, as researchers, to increase the reliability of our understanding of the given answers.

The second precaution to confirm the reliability was the use of triangulation, which is the use of several data sources in order to cross check the data (Guba, 1981). As mentioned before, the principal data source comes from several interviewees. These interviewees represented a variety of organisations and senior positions within their respective firm. This contributed with different perceptions on every drawn conclusion. Without verification from at least two contributors, themes or categories was not included in the findings. Next, the findings from the interviews were compared against each other to confirm that no internal conflict existed between any drawn conclusions. In addition, secondary data sources were also used throughout the research to confirm as much primary data as possible. Finally, theories from multiple sources were used to create the literature review and assure an in depth understanding of the phenomenon as well as the chosen case.

A final precaution was to peer debrief our findings with our supervisor and the FOCUS research group. Peer debriefing allows for other educated peers to present an outside perspective of the findings (Guba, 1981). Meetings were held online and in-person with our supervisor continuously throughout the study. Members of the FOCUS research program also provided valuable feedback to our research process during online seminars.

4.4.2 Transferability

As this study used theoretical sampling and was inductive and exploratory, the findings never were intended to be completely generalisable. Instead, the objective of the research is to maximize the range of information uncovered (Guba, 1981). More specifically the objectives are to increase the knowledge of innovation ecosystems, rather than converting the findings into common rules. Moreover, all the interviewees, except for the first one, were chosen after recommendations and mediation from the project leader of Alpha.

Saunders et al., (2016) mention the value of clearly providing a full description of the research in order for the reader to judge its transferability to other settings. This study's interpretations in the "Findings" chapter should be seen in conjunction of the "Research Setting" chapter. With this in mind, it should be easier for other researchers to transfer this research into other suitable contexts.

4.4.3 Dependability

In regard to dependability, meaning the intention of the research to have a consistent approach to establish stable merit (Guba, 1981; Saunders et al., 2016). Thus, records of every research phase have been saved. This entire method chapter, which presents our research process, allows each reader to audit the process themselves. Additionally, our supervisor has assessed the study throughout the process. Lastly, the FOCUS peers have contributed with valuable feedback of our process in several cooperative seminar sessions. Combined, these arrangements have sought to further increase the dependability of this thesis.

4.4.4 Confirmability

Confirmability is the final part of trustworthiness and is concerned with how much the research is biased by the researcher's interpretations of the study's findings (Guba, 1981; Creswell &

Creswell, 2018). According to Guba and Lincoln (1989), confirmability is established when the research succeeds to realise credibility, transferability, and dependability. In this qualitative research, we as researchers have been the main instrument for interpreting the findings and the theories. To decrease our subconscious biases, we considered the input from our supervisor and FOCUS seminars as an audit trail. Supplementary to involving academic colleagues, we have provided a clear guide of which choice we made and why we made them. As a final precaution to improve the trust between us as researchers and the interviewees, all the respondents signed a consent form which clearly assured them of their privacy (see Appendix B.). Optimistically, this encouraged the participants to openly share their authentic thoughts and perceptions.

4.4.5 Ethical Considerations

Ethical considerations in research may differ from ethics in order settings, we have chosen to follow the ethical considerations of Saunders et al., (2016). They say that "ethics refers to the standards of behaviour that guide your conduct to the rights of those who become the subject of your work, or are affected by it" (Saunders et al., 2016, p.239). The main subjects of our research are, first and foremost, the interviewees who have chosen to contribute with their opinions and time. Besides anonymizing the respondents, all their quotes were sent back to them for authorisation before inclusion in this study. Moreover, before any interviews were held, the respondents were given an introduction of us researchers, the research objectives and information about the FOCUS program. Every participant also had our contact information if they had any concerns or questions prior the interview as well as after the interview. Worth noting, the power balance could be considered to be on the respondents' advantage considering that the interviewees were all more senior than us. After the end of the thesis the interview data was removed from our personal computers and handed in to the FOCUS group. In addition to the interviewees, Alpha as an organisation should also be considered as an important subject of this research. To ensure their approval of our research we had continuous contact with the project leader at Alpha. This allowed for Alpha as an organisation to have an employee representing them, and who would only approve on activities in line with their values. As a final consideration to increase the overall research ethics of the study we read and followed the Norwegian School of Economics' ethical guidelines (NHH, n.d.).

5. Findings

This chapter will present our empirical findings from the interviews. The empirical findings consist of selected illustrative quotes from our analysed data which is presented together with our interpretations. After each quotation, its source company is presented. First a model is presented, which is meant to help readers follow the analysis. Then, the findings are presented under each subcategory of the model.

5.1 Model

The model is based on the main themes found during the data collection. The themes were selected because they were all related to the main research objectives. Furthermore, the model helps the reader to visualize which activities that are most relevant in two different roles which Alpha played in this particular case. The two positions are the network facilitator role inside the ecosystem as a whole, and the project leader role within the specific context of the insurance fraud project. The three activities leading to innovation in the finance industry are in the setting of the ecosystem, access, interface and incentives. Additionally, there are three activities in the setting of the project which are supporting specialists, entrustment and being a neutral organizer.

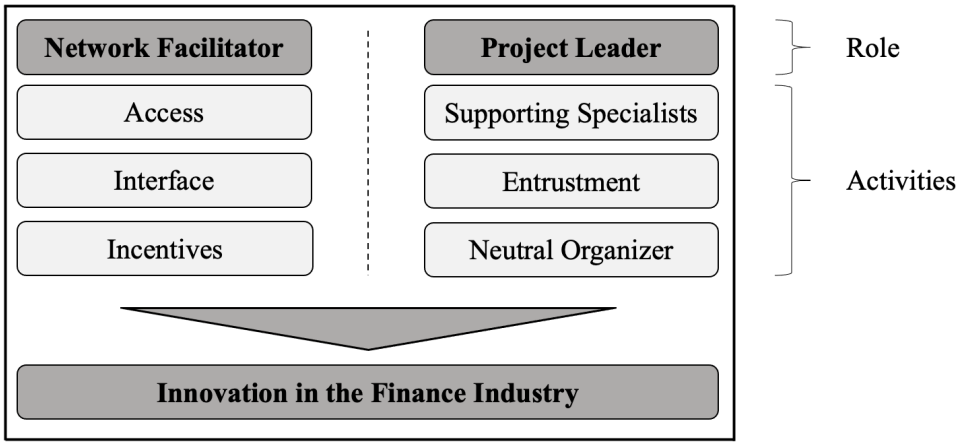

Figure 3. Illustration of the findings of the research.

5.2 Network Facilitator

First and foremost, Alpha's value proposition involves facilitating access to a network of members. Access has been given to organizations from all of Norway, and also a few international companies. The purpose of the network is to encourage collaboration, and within this collaboration innovation is enabled. Secondly, Alpha initiates different interface arenas where its members can communicate with each other. By enabling different sorts of arenas for communication, diverse members all have a chance to find collaboration opportunities within the ecosystem. Finally, Alpha incentivize its members to partake in the ecosystem and more precise to contribute to different events. The incentives to participate are distinctive and centred on the unique prerequisites of each member. The opportunity to innovate at a lower cost, market their brand and partake in innovation projects, are all incentives to participate in the opportunities within the ecosystem.

5.2.1 Access

To begin with, the intention behind the establishment, of Alpha, was to facilitate cooperation between Fintech companies in Norway and abroad. Therefore, in the establishment phase, Alpha had to recruit members to the ecosystem. However, today the situation is different, and companies are now contacting Alpha to get access to its members, rather than the other way around.

> *We [Alpha] were the result of the community business in [Alpha's founding city] going together in 2017 to get an organization to facilitate cooperation and to get Norwegian Fintech to a new level and to get it outside of Norwegian borders as well. (Alpha)*

> *I think in the beginning we [Alpha] had decent sample of companies that were involved in starting it. Then I think there was some leads, you always follow up on the leads. (Alpha)*

> *But then as we [Alpha] have gotten bigger and now, we are around 75 companies and institutions it's more about the companies actually contacting us and applying. (Alpha)*

As the ecosystem grows and companies started contacting Alpha, the selection of members to get access became more purpose based. Alpha needed to have a deeper understanding of the

purpose behind; why a company wanted to be in the ecosystem. Since the goal of the ecosystem is to facilitate collaboration and innovation, Alpha had to be sure that this is also the ambition of the applying member.

> *Then it's always an evaluation of "OK is this company relevant for the cluster?" We get a lot of international companies who are interested. I've just got an email from someone in Portugal. Then you have to wonder if it's because they want to collaborate with other companies in the ecosystem or is it because they want to sell their services? So, it's always a balancing act. Because you don't want a lot of consultants or salespeople coming in here and just trying to move their product. You want to kind of have some foundation for cooperation right. (Alpha)*

While companies have started to contact Alpha there is still a struggle to attract some of Norway's largest financial companies to the ecosystem. The process to recruit larger companies is also harder than attracting smaller companies.

> *Now it's more about people contacting us. Then of course there's also always that we would like some of the big ones that we haven't gotten on board yet. So, we're kind of lobbying to get them. But it's always a long process with the big companies as well. It is very bureaucratic. So, it takes a while to get the big whales in, where the smaller ones are more like "OK let's do this". (Alpha)*

The fact that some large companies are missing in the network is something both Alpha and the insurance companies have reflected upon. Furthermore, the missing members are seen as a problem because it limits the opportunities of future projects. Without the largest players of an industry, projects could be limited, in their capacity, to have an impact on an industry.

> *[One of Norway's largest financial companies] is by far the largest company in the ecosystem and it would be good to have some counterweight to them. So, getting [large financial service provider] or [large financial service provider]in the ecosystem would be a good idea. (Alpha)*

> *One weakness with [Alpha] is that you have pretty large players not being members. That is the weakness in [Alpha] so far. But hopefully they will come. It might be that you have some regional dominance from the players in the [geographic part of*

> *Norway], but you do not have the companies like [large financial service provider]. They are a really big player. So, that is the problem. (Bravo)*

Thus, the reason behind the recruitment problem is that some of the established companies need to be shown the value of the membership before joining.

> *It takes a lot of time to go out chasing members. You have to have something to show for the members you want to join. (Alpha)*

One insurance company told us about some recent media coverage about the development made within the insurance fraud project. They believed that the publishing could attract the attention of other insurance companies to take an interest in both the ecosystem and project.

> *If it was just Bravo and Charlie there, then I don't think a lot of other companies would be interested in joining. After some media coverage on this project, the interest around it from other insurance companies has picked up. (Golf)*

Moreover, when asked about the advantages of the ecosystem, access to a broad network was frequently used as an argument. This broad spectrum includes academia, established firms and start-ups. Having interfaces to meet your industry peers is seen as an advantage.

> *The advantages are [of being a member of Alpha] connecting to a network with different types of companies. All with relations towards the same field. You get access to the academic side of it. You get access to the established side of it with all the larger banks and insurance companies. You get access to a whole lot of competence through the consultants and you get access to all the new start-up technology firms. (Alpha)*

> *Then of course the networking. Everyone wants to have a place where they can meet all the people in the same line of business. (Alpha)*

Furthermore, having access to the network opens up for a number of possibilities. The opportunities differ depending on what type of organisation you are. If you are looking for a customer base, connecting with an established firm could help. On the other hand, if you have customers but not the innovative capabilities in-house, a technological company or a start-up could be a suitable partner. These dynamics have repeatedly appeared in the ecosystem.

Depending on what type of company you are, if you're a technology company looking to leverage your technology but don't have the data or customer base. Then it might be a good idea for us to connect you with a large bank or something so you can test out your technology on a large customer base and perhaps do a partnership with that bank. A lot of banks want that. So generally, to put it up like black and white: the larger established companies have all the customers, and the technology companies have the innovation. It's not always the case that a large bank can do innovation internally, sometimes it needs outside inspiration. That's probably also the advantage we've seen happen repeatedly. (Alpha)

5.2.2 Interface

So far, the success of Alpha has largely been attributed to facilitating interfaces where communication among its members have been enabled. By hosting different events, they have been able to create relationships where there only used to be competition.

The success factor has also been bringing together companies that would normally maybe compete or at least not talk to each other. Both in the same industry, like two banks that would maybe not talk to each other, or a bank and a start-up or bank and a technology company. (Alpha)

They [Alpha] have been instrumental in order to negotiate between competing companies in the market. When there are companies competing and cooperating together, you need someone to facilitate that cooperation. And Alpha fits perfectly within that capability. (Golf)

To clarify, Alpha were asked about where the membership fees and governmental funding are invested on. The presented investment costs were salaries, projects and physical establishment. Additionally, Alpha have founded a shared co-working space together with a start-up incubator. The requirement for renting office space, is to be relevant for the ecosystem.

[…] salary is probably the biggest part right. Then it's used for all this stuff that we [Alpha] do with the projects, running projects. […] we have an incubator right where we have several start-ups. Yeah so, it's used on that and then as well on physical

> *establishments with the hub. It takes a lot of money to first of all rent the floor in [office building] and then put some stuff into it so you can actually sit and work. (Alpha)*

> *So, the first thing was that we needed to fill up the space so that it's financially viable for us. But we also want to have relevant companies. So, we [Alpha] have an incubator with the start-ups and of course they're there so we have a start-up environment. (Alpha)*

> *But it's all about trying to adjust it [the constellation of companies in the shared office] all the time so we [Alpha] get the most relevant companies in there because it makes sense for us to create an environment where something can actually happen and there are synergies between the companies. (Alpha)*

Other than having start-ups in the shared office space and hub, there are investors in the created interface too. These investors are also members of the ecosystem and get exclusive access to follow how the start-ups are progressing.

> *Then we [Alpha] have our investors, the investors are part of the cluster. We don't have their funding directly. But they are part of the cluster so they kind of get access to some of the start-ups. So, they're sitting in [shared office,] they have a space there. (Alpha)*

The different interfaces are arranged to attract different types of member companies. Therefore, you could be participating in formal meetings such as a conference or an ideation session. But, as a member, you would also be able to get in contact with specific start-ups within the incubator. All these different interfaces are facilitated by Alpha.

> *It's been about – we [Alpha] have had a lot of events. We have a tech conference each year with the [a Norwegian cluster], that is called the "[name of the conference]" where a lot of big C-level types come and get some inspiration. (Alpha)*

> *We [Alpha] are also doing events to add new perspectives in Fintech on everything from open banking to green financing to everything. Then we have an innovation group where we just simply put our members into a room to discuss certain topics and hope something good comes out of that. (Alpha)*

> *[…] we [Alpha] invite all members to an ideation session. And then we generate like 100 ideas. And then we try to funnel down on a few that we can actually go through with. The insurance project was actually, you know, the birth of that project was an ideation session. (Alpha)*

As well as arranging events and projects for companies to integrate in, the ecosystem promotes their members in their media channels, whenever a member has accomplished something. Responses from the members showed that they viewed their engagements in the ecosystem as something that could strengthen their brand value and marketing abilities.

> *Every time there's a big new case for our [Alpha's] companies or that a start-up has received funding, we market it. If [member of Alpha] gets a new service going, we market it, so that's also part of it [being a member]. Being a member gives; part marketing, part networking, part inspiration, part hooked up with partners and stuff. (Alpha)*

> *Not just marketing but also understanding where the market is heading. So, it is I think at least as much for innovation purposes, as for marketing. (Alpha)*

> *[…] it gives you more credibility in the market if you can actually show that you delivered services to clients, than if you just write a blog post about something. I mean a blog post doesn't really make a large difference in a tender or a proposal, I mean then you need to have some concrete cases that you've been working on. (Foxtrot)*

Importantly, the geographical setting of Alpha has been portrayed to have an impact by the respondents. Even though Alpha got recognition nationally, it is still very locally perceived by some of its members. Especially the founding firms regard it as a local ecosystem, rather than a national one. The COVID-19 pandemic has had an impact on the benefits of being close to the other members. However, in a more regular setting which would be the situation before and after the pandemic, the interviewees definitely appreciated the small distances as impactful for the ecosystem's interface offering.

> *I think it makes it easier to cooperate because the distance is so small. Now, COVID-19 has changed this, but in the earlier phases, that I was a part of, everything was within walking distance. So, you can walk to a meeting at [Alpha] and meet people*

face to face. Whereas traveling by plane to [other Norwegian city], I think would have limited number of meetings or limited during the interaction. So definitely, I think having the players, in the same geographic area is important. (Echo)

Yeah, it's only the [Alpha's founding city] departments. And that's based on being connected more with those because we're based in [Alpha's founding city]. Maybe at some point we [Alpha] will have a closer relationship with the [other Norwegian city] parts. But we're still working on our national identity. We are just one year into the national cluster thing. So, that's also a thing in the cluster where we need to be national and not just known as the [Alpha's founding city] cluster. We're always working to make our presence bigger in the [other Norwegian city]. But also, [other Norwegian city] and [other Norwegian city]. (Alpha)

Furthermore, on a project level, the geographical aspect had a clear effect. Due to the fact that all, but one company, were based in the same city as Alpha. This created an obstacle for the creation of collaboration and trust between the parties. Golf, being the company from another city, have felt being partially left out from the communication. However, the COVID-19 pandemic has changed these dynamics, because now everyone communicates online on the same platform.

It's been somewhat of a challenge that Golf is in another city and all the others are here. Especially with the pandemic. It's much is much easier to have a workshop or discussing ideas in a physical environment. Now everyone is on Teams or on Skype or Zoom. We want Golf to feel like they are part of the group and in the beginning when the people would gather here in [Alpha's founding city] and they were on Teams. They kind of felt like an outsider at the beginning. But now actually the pandemic has levelled the play field a bit, since everyone's on Teams. (Alpha)

In this project, we are more or less the only party that is mainly [other Norwegian city] based. Being the outsider and based in [other Norwegian city] has made some things a bit more difficult for us. So usually, we are the one party that isn't always in alignment with the rest of the members. I think there is still a more frequent communication between the in [Alpha's founding city] based companies. That might not be true. Or they might just seem more aligned. But I think that's also still the case, even though we

> *have switched to online communication. But going from almost being able to have a physical meeting all of us together, to not being able to have it, I think that has impacted in a negative sense, our speed more or less. (Golf)*

As a result, it could be a limitation that the ecosystem was initially local. Yet, going national and in some cases even international, opens up new possibilities. When a Norwegian locally based company needs partners from the other regions of Norway, Alpha could enable the interface. When we asked Alpha about the geographical possibilities, they exemplified how the geographical boundaries could be removed in their ecosystem. This setup is different compared to other more geographically restricted collaboration areas, where there is solely focus on the local collaboration.

> *I'm part of a designed cluster, which means we [Alpha] have members in all areas of Norway, and also a few in in the Nordic region, UK, Germany. We are kind of a Norwegian cluster. But it's companies from different parts of Norway. And that's important, because that means that part of the reason why an insurance company or a bank wants to join the cluster is that either they want to collaborate with other banks or insurance companies, which may be in Norway, but may not necessarily be in their city. And it's also because they want to gain access to start-ups, innovative start-ups, which may or may not be from their particular city. Being a member of the cluster, it just makes it easier for them to meet up with start-ups and also with investors from across Norway. (Alpha)*

5.2.3 Incentives

To comprehend, each interviewee was asked about; why their organization had become a member of Alpha. The answers to this question touched upon two main areas, the networking opportunities is one. Plus, the innovation opportunities, which the members hoped to achieve through a membership in Alpha's ecosystem.

> *Mostly as a networking activity to promote good connections with potential customers and for innovation purposes. (Echo)*

> *I guess it is important for the company to keep up with the technological development and we also see this in relation to innovation and developing new products. That is the main motivation for [company name]. (Bravo)*

> *I can imagine that it is because it's an interesting experience. They are developing new products, so we get experience from new kinds of services at an early stage. (Foxtrot)*

Since Golf is not part of Alpha's ecosystem, their answer was directed at why they choose to join the insurance fraud project. Golf presented three criteria for joining the project: low cost, potential value and the possibility to be part of an industry wide initiative at an early stage.

> *It won't cost us too much. That's, that was a big criterion. And we had to believe that this would actually add predictive force to our models. And the third one was that if this is a colleague community, fighting against fraud, that is also something that aligns both with the mission of the company and our purpose. Then we would rather be a part of the early stage than coming in from a later stage. (Golf)*

On the contrary, one insurance company partially presented another argument which was linked to already existing ties to the ecosystem, through its owner. The insurance company, whose owner is a founding member of the ecosystem, felt it to be natural to become a member partly because of this existing relationship inside the ecosystem.

> *Well, I think part of the reason is that our largest owner is [owner's name]. And our director of the board in [insurance company] is [name of director], who is the CEO of [owner's name], so we have very, sort of tight ties. For my understanding [owner's name] was one of the big players taking the initiative to start [Alpha]. So, it was kind of natural that [insurance company] would also be a part of that. (Charlie)*

However, the governance relationship was not the only incentive as to why this company joined the ecosystem. Similar to the other given responses, the innovation opportunities are also a lucrative reason. This interviewee also elaborates on an ambition to improve the entire geographical area in terms of both Fintech development and human capital.

> *But that [the owner's relation to Alpha] is not the only reason. I think also, we have a strategy that we would like to help build the innovation ecosystem in [Alpha's founding*

> *city]. We see that it's useful to both have the ties to academia and to have the connections there. I think [Alpha] helps to create an environment where you can educate and get new talent into the employee pool in [Alpha's founding city]. So, it's traditionally been a very strong insurance market in [Alpha's founding city], having [insurance company] and all the early big companies having their base of operation here. I think that's also a reason why we decided to help build this. To develop [Alpha's founding city] as a Fintech city or region. (Charlie)*

Furthermore, some companies decided to join the ecosystem and the insurance fraud project, because of the opportunity to enable innovation in-house and to train their employees for the future. They realized that by joining the ecosystem they can envisage the future of the industry. Being part of the innovation process and looking for solutions was perceived as a tool for learning and preparing for impending disruptions.

> *I think the advantage is that you get to know kind of important clients in a very constructive manner. So, it's an arena where you are, rather than being a salesperson pushing and pitching something onto a customer, kind of like a stand office. You are getting together looking for solutions to a problem. So, I think that the main value is that you can get introduced into potential innovation projects in a non-hostile way. (Echo)*

> *I think it's important to be innovative and try new things, and for us to be something more than just kind of a consultancy firm. This is an arena for learning. We can improve our skills and develop our people by being part of these initiatives. (Echo)*

When we asked an interviewee about which gains, they might have received due to being part of the project, the respondent pointed to the skills and experiences that they earn from working in the project. Continuously updating your skills and information seems to be an outcome of working in an innovation project. Companies and individuals can apply these developed skills in their future undertakings and companies might be able to use the experience as a competitive advantage.

> *[…] it demands that we have to educate ourselves a bit in order to participate. This is because these projects are new services. Therefore, we have to put down quite a bit of*

> *effort in just being updated. Then being able to just serve them and to deliver good services. For us it's sort of a showcase for the other participants in the project. You get special experience at an early stage when it comes to new technology and we can use that in other cases. For us, it's sort of an opportunity in order to be successful in future competitions. (Foxtrot)*

Also, getting access to more data in the insurance fraud project, was one of the most important incentives for the insurance companies to join the project. We received similar answers from different interviewees, saying that none of the insurance companies would be able to do this project on their own. In order to have machine learning fraud detection models, insurance companies needed to get access to data in an extent which was beyond their own database. In sum, in-house resources were not enough to meet the requirements for getting the desired output. The exigency for more data, seems to have be an important incentive for the insurance companies to enter the project.

> *When [insurance company] started to build our own fraud detection models, we saw quite early that the main kind of source for improvement was not only modelling skills and using new machine learning techniques, but it was getting more data. […] we had this issue with the lack of data, and this should also be relevant for the other insurance companies. The main value for us and other companies would be to get as much data as possible to build the model. (Bravo)*

Besides, as a positive incentive, the insurance companies saw the possibility to innovate on a larger scale. The ecosystem has the ability to create a larger context than a company would be able to create internally, the innovation can thereby be more than incremental. The types of addressed problems are also different compared to the ones addressed in in-house innovation.

> *I think creating innovation in our own company [insurance company] is within the context of the company. It's based on some business needs that somebody has addressed internally. It's often limitations with systems we're running from before. Constraints put on what we can do with other systems or the existing working processes, things like that, where most of what we're doing at least is incremental innovation. We try to improve things day by day. And the Alpha projects are more kind of industry spanning*

innovation or larger scale, basically. Compared to what we would do normally. (Charlie)

It [innovation projects] moves faster in our own company. That's one aspect, the darker side of that coin is that we wouldn't be able to do these kinds of innovation in our own company. I think that the main focus is what can you do on your own? And if you want to get data from competitors, you can't really do that on your own. It [the ecosystem] opens up other areas of doing innovation in, that you can't do yourself. You have to be a more active part of an ecosystem in order to do it. (Golf)

What has also been an effect of the project is that the companies have saved resources, compared to if they would have tried to do the same innovation in-house. The collaboration which Alpha enables can therefore save the companies resources relative to if they would innovate in-house. Still, being involved in the project comes at the cost of not being in control of all parts of the project.

The thing that we've been able to do, together, in this fairly short amount of time is actually quite impressive. It's cheap (laughs), compared to a lot of other projects. So, I think if any of these big companies had tried to do this on their own, they would have spent a whole lot more money. So, I think what we've created in the Alpha project is in value, a very big amount of value, relative to the amount of input labour. (Echo)

We get really cheap consulting. That's a good benefit. We are able to offload some of the work we would do ourselves, to partners in ecosystems. And of course, that has a positive side and a negative side. That's the same with everything when somebody else is doing something for you. You do lose control. And things might go faster or slower. However, being able to get legal perspectives from outside and getting technical help from outside is positive. (Golf)

5.3 Project Leader

Alpha is playing another role than the leader of the ecosystem, they are also leading projects within the ecosystem. This is a central role, where Alpha has accomplished to facilitate innovation. Within the insurance fraud project, Alpha have mediated specialist partners, which

have been a key success factor. In collaboration projects, where competitors are cooperating, the access to legal expertise is perceived as crucial to make progress. Another important feature of the project has been to the rules set by Alpha. Collaboration between several different organisations require a low threshold, in order for it to advance. If the initial investment is too high, participating in a risky project accompanied by competitors, will not proceed well. Consequently, Alpha has been relaxed of placing robust demands on its members. Finally, the neutrality of the project leader has to be undebatable. The neutrality of the organizer is required in order to facilitate trust between the members of the project. Without having trust between the project's actors, it would not be able to continue.

5.3.1 Supporting Specialists

Importantly, one of the central arguments to why the project has been able to progress is ascribed to the accomplishments of its specialist support. The progress is accredited to Alpha for connecting the legal expertise to the project. When the interviewees were asked about how Alpha have facilitated the cooperation between the insurance companies, the importance of the legal specialists have been recurring.

> *I think definitely, Alpha's role is very important in that regard. They're doing the facilitation, and it's kind of levelling the playing field. And sets the scope for what the cooperation is about. In that regard, it's also very useful to have the legal input from, say Foxtrot on things like competition law. For instance, we always make sure that we're not moving into any areas where we'll be in breach of any sort of regulations. I'm not sure if cooperation like this would be possible without Alpha. (Charlie)*

> *To pinpoint even more, I think the main contribution and innovation here is first, the legal aspect. Try to identify what you can do and what you cannot do in terms of compliance. (Alpha)*

> *Now the legal side has been crucial. At least in the beginning. Now there has been much more effort and focus on the legal side. It's really been the kind of make-or-break thing. I've never been worried about the technology side or the business potential in this project. (Alpha)*

> *I think we've done impressive job in many respects and I think the part that is impressive is that we have this cross functional. So, many times just doing these legal clarifications is a phase you don't pass. Companies can just stop the project at the legal phase. So, you kind of realise "Oh, we need to evaluate GDPR" and then you can you never get the lawyer, you never get anybody to help you and then just stop. (Echo)*

In a project like this, when the collaboration is facilitated between different competitors, the need for the advice on competition law becomes an essential part for the project to progress. Having the support from competition law specialists will also be important in the forthcoming parts of the project as well, since the number of project members might increase.

> *And it's the same thing with the competition law. We need to talk to the lawyers about the competition, now we need to talk to the competition authority about the competition, you never get that, right? (Echo)*

> *The real key with this project, that will either make us successful or probably take us to prison (laughs), is that we needed to find the right legal balance. This will become even more difficult now, if we include more companies. Then the competition rules will change as we gradually increase market share coverage. (Alpha)*

Noticeably, in a new and innovative project, the demand for committed legal advice increases. The continuous changes in the project alters the legal dynamics. The legal aspect will only increase in significance, especially when the project is evolving in the future. The future could also include increasing the scope of the project as well as the number of project members and activities which could change its legal landscape.

> *But it is a challenge you want to create legal security or predictability but sometimes it can be challenging in projects like this. When it's changing and where you have new technologies involved. It's quite complicated issues and some legal uncertainty and that creates challenges for us. (Foxtrot)*

> *The main challenges I think was just to get a grasp of the project. And the changes in the project is a challenge. Like recently when we were going to do a DPIA (Data Protection Impact Assessment – DPIA). An analysis of how the data exchange would influence customers from a GDPR perspective. And then the thing is that the project*

was changing and that makes it difficult to also, you know, do an analysis when the facts are changing. (Foxtrot)

Our ambition has always been to include as many as possible and ideally to make this data-lake mandatory. That every insurance company have to join. That's our kind of ideal ambition. We don't want to exclude anyone; we want everyone to join. Now we will have additional legal work done to make sure that we can pass the threshold of 25-30% in market share between us, without unintentionally breaking the rules. (Alpha)

What is also unique to this project is the cross-functional collaboration between the supporting specialists including both legal and technical experts. The collaboration between these partners has also been successful, something that do not happen in all projects. Some interviewees said that there is usually a disparity between the legal and technical side.

So, I think actually putting together these competitors in one group at the same time as putting together technical and legal experts is quite unique. I think that's what has created value so far and if we're able to continue, we might actually create something that is unique. (Echo)

And I think one example is that it's really easy in processes, like this, to find some legal limitation and say that this is preventing us from doing something. If that's the mindset, then innovating in this space can be very challenging. But in this project so far, I think the mindset has been "how do we work within the legal limitations". It is also important that we start out by knowing what the legal limitations are and what they're not. Having experienced people on the legal side, we can also tell that "this is actually okay to do, this is not a problem". Because I think there is a disparity between technical people who often think that something isn't legal, which might be legal. And the other way around, they might think something is no problem at all, when, in fact, it is. Involving all parties and trying to keep everyone on the same track. (Charlie)

And another good thing is that it's sort of cross industry, so you get other companies like Echo and Foxtrot involved. And that's very useful. (Charlie)

Indeed, one interviewee stated that, in this project there has only been one area of focus for all participants. Avoiding splitting up the project into different tracks is seen as a reason for the achievements in it. The narrow focus has allowed for a suitable cooperation between the supporting specialists.

> *Not splitting the project up into very distinct tracks. For instance, if you would have a legal track and a technical track, and nobody ever talked to each other, between those tracks. You would quickly end up, in a situation where the technical track would produce something which the legal track would not fully understand or where something had been not properly handled on the technical side. I think mainly, it's been good cooperation across disciplines. (Charlie)*

The respondents have also presented the differences of conducting an innovation project in-house, compared to doing a project within Alpha's setting. It appears that the in-house resources are not always sufficient enough to enable larger innovation projects like the considered case. Having Alpha as a project leader and utilizing the supporting partners inside Alpha's ecosystem is one way of overcoming these internal struggles.

> *I think probably most of the insurance companies, if you talk to them, will say that sort of getting IT resources is a very limited resource these days. We're sort of hiring as fast as we can, but there's also always a big backlog in getting hold of developers or architects or people who can code. So, it will be difficult to get internal resources in some of those areas into projects like this, but sort of having pure play technology companies like Echo and on the legal side as well, with Foxtrot, that it's really helpful. (Charlie)*

> *The problem issue with legal departments inside insurance companies is that they are usually very centralized. And they are usually in a role where it's easier for them to say no, if they don't understand the context in itself. And it takes a lot of energy to explain these technical things. (Golf)*

Potentially, the project has the ability of creating real added value if it turns out successful. This is because the solution, which is being developed, allows for new machine learning

models to detect insurance fraud. Unlike, the more manually methods who are being used today.

> *I think each company probably have done a similar project by themselves. And the difference is, basically the volume of data that you can use to build your models. And I'm guessing that will have a bigger impact for smaller companies as well, like Charlie. I think most insurance companies, of some size, have a fraud investigation unit. And they're using some kind of scoring on claim cases to pick out which cases to investigate. Traditionally, those models have been rule based or based on statistical models. Using machine learning to handle this kind of problem seems like a very reasonable approach. But you get very skewed data sets, like you're trying to predict the true or false. Is it false or not? It will be very few true data points in the data set, which normally means that you'd need a really large data set to train your data on to get a good model. (Charlie)*

5.3.2 Entrustment

At the start of this project, the idea of data sharing was first discussed at an ideation session, facilitated by Alpha. In this session, there was a large number of participating members. Different types of insurance companies, academia, technical experts and legal experts were all participating. This setup is aligned with the idea Alpha has to entrust as many members as possible, without exercising much control over the interface.

> *In the beginning we had quite a bit of meetings with a quite large group. Both life insurance and casualty insurance can be quite different. So, we had this big group in the beginning, also we had the participants from academia. (Bravo)*

Consequently, an issue related to the speed of the project appeared. This was due to too many participants being involved without any rules put in place. The large number of participants and the different incentives of each participant decreased the speed of the project. Mixing academia and businesses did not work out in this early phase of the project. Subsequently, questions internally arise about the willingness to invest resources into the project, as it was abstract and had a supposed high fail rate.

> *I think one challenge is that we had both [university] and [university] who had participants [in the project] that were very focused on creating research projects and creating research projects that could produce papers. But it didn't really align with the needs of the insurance companies, because it became very academic and also the process was far too slow. It didn't move forward at any real speed. (Echo)*

> *I think in the beginning, the project was kind of slow because of a lot uncertainty about who was going to participate. If one was willing to share data you know, etc. (Foxtrot)*

> *There wasn't very good progress at the start, because there were a lot of meetings that was set up. And there were a lot of people involved in those meetings, which I think led to people not feeling all that committed to participating. So, I remember that there were, on a couple of occasions, not the correct sort of mix of people to get anywhere. (Charlie)*

When the project did not move along, Echo as the technical member, were asked to pitch a technical idea involving the sharing of data. Having a supporting specialist concretizes the project, the project could proceed without Alpha stepping in. When Echo presented its technical idea, the academic side voluntarily left the project, and it became more focused on creating value for the insurance companies instead.

> *So, I was asked to do kind of a pitch for doing a proof of concept or doing a feasibility study, to go again from here to here [showing with his hands] to narrow things down. So, that we don't discuss everything, and we don't go very academically towards things. (Echo)*

> *It [the feasibility study] gives a very clear image of where we were at the time and kind of what has been discussed and what has been looked at. Then it also recommends the next step of the MVP (minimum viable product), and the scope of the MVP. (Echo)*

Entrusting the participating members to organically decide upon a more focused and downscaled project, allowed the group to make progress. The progress resulted in the recruitment of Golf into the project, which actually made the project feasible. As enough members had now joined the commitments to participate followed.

And then it has accelerated recently and that's because I think everyone has agreed on the foundations. Yes, we're going to share data and then the question is more "how are we going to do it". (Foxtrot)

When we got Golf in and they committed, then we had a period where we had a preliminary study to show what could be done. Then we gave each company the opportunity to sign up or not. If they [the insurance companies] hadn't signed up, we probably just would have put the project to rest. But since they all committed financially and signed the cooperation agreement, it's been slowly accelerating towards the point where we are now. Where we can actually create something. Where they actually are doing some work, instead of just discussing. I think this slope has been accelerating in the positive direction for a while. Especially that we're still doing something. Just being here now is successful, as it wasn't given that we would even have a project during the wintertime [winter between 2019 and 2020]. (Alpha)

I think so far that we are still three companies that are involved and still working on this, is good sign. To be managing and holding three different companies in line, from a project management perspective, Alpha has been good. (Golf)

It should be noted that Golf is not a member of Alpha today. This insurance company was included from outside of Alpha because there were no other alternatives within the ecosystem. When asked about involving an outsider of the organization, two reasons were given. The first one being that the project would not be feasible without Golf and the other one is to recruit them as a member to the ecosystem. If Alpha would have had specified rules regulating the inclusion of outside firms, the project would not have survived.

[…] we [Alpha] are a very commercially oriented cluster. So, the reason why we decided to include them [Golf] was actually two reasons. One reason is because we had only two insurance companies, and we needed a third, we really needed a third because the logic was: if it's not my data, then it's your data. So, by definition to be successful, and to keep the anonymity, we needed a third. And then we couldn't get a third, we were unable or unsuccessful to get a third from within the cluster. And then if someone was interested, and to make sure that we could actually deliver the project, we said, okay, we'll allow you to be part of the pilot, without becoming a member.

> *Because we believe that you are crucial for us to succeed, we know you will bring value to the project and to the other insurance companies, however, to not undermine our own business model. In the long term, if you decide that this pilot has value and you want to go further, we will require you to buy tickets. So, for us, the second objective is actually to sell additional seats. (Alpha)*

Alpha has entrusted the project members and supported the decreased barriers for entering the project. Establishing a clear purpose of the project was something that led to its downscaling. Besides, the need for low entry barriers became apparent after dialogues with the insurance companies. This is because the interviewees explain that insurance companies are not fond of change. So, when initiating projects with the intention to change, the willingness to participate in these are generally low. Therefore, the attractiveness of the project needed to be high, and the barriers to enter it low.

> *I think it was that we scaled the project down so that it was clear what the purpose is. And we [Alpha] also made the risk of joining so low in that there was little financial commitment. So, the barriers for entry were so low that it was almost difficult for them [the insurance companies] to say no. Because why would they? Of course, there's always risks related to the data sharing and they are always suspicious of each other. They are suspicious that the data sharing could mean that the competition can see your customers. We really tried to make the barriers of entry so low that they would have almost no reason not to try it out. I think that was a very good idea. (Alpha)*

> *Basically, since this is about data sharing, and it is about machine learning prediction, there's a big risk of this not being a success. If it wouldn't be possible to take the small step that we have negotiated, it wouldn't be that interesting. (Golf)*

> *Because we [Alpha] could see, after having a dialogue with all the companies, that "Okay, now we need to convince them that this is good idea". Because insurance companies are inherently not too fond of change or innovation and suspicious of their competitors. So, we needed to make this as attractive as possible. (Alpha)*

The result of decreasing the scope of the project was that other streams of the project was put on hold. Still, it does not mean that the scope of the project will be small forever. If the pilot

project is a success, then the other streams, for example, life insurance can be initiated. The communication between Alpha and the partners who have left the project is still on-going.

> *[…] we did decide to focus down. And I think that's the only reason why we were able to make progress. When we did that, it was a critical key moment. However, we still update the life insurance companies on the progress, they still want to do this since the rationale is still there. And, if or when we are successful in doing this car fraud specific insurance project, we want to look at other casualty products, like travel and life. (Alpha)*

5.3.3 Neutral Organizer

In general, when it comes to collaboration between competitors, the need for trust is essential. If the members of the projects do not trust each other, they will not work with each other. The reason behind the pre-existing trust issues is because there are fundamental differences in the participants incentives. The way to overcome the incentive disparity, in this case, has been attributed to having a neutral organizer.

> *I think that it helps to have an independent third party. That's not necessarily preoccupied with market position etc. Because Alpha will have different incentives then the participants. (Foxtrot)*

> *I think being a third party, they are in a position to create trust. (Foxtrot)*

> *Actually, trust as I would say, if I could say only one word on what's needed in the cluster to work, it would be trust. When you have it, you can get things done. (Alpha)*

> *I do believe that being a neutral facilitator is a key strength for us [Alpha]. Because the other companies need us. Because they do need kind of a third trusted party. So, I think being neutral is a kind of a key advantage. (Alpha)*

> *I think it's both their non-profit background and their foundation. Which means that they can take themself a bit out of the equation. That's a good boost. Also, they are, forward leaning wanting to make some successes. (Golf)*

In this case, trust is enabled through a couple of different reasons. One reason is that Alpha has secured governmental funding for five years. Secured funding decreases the risk of working with them. It also helps Alpha to focus on value creation for its members, rather than raising new funds to survive.

> *Sometimes it's, I think it's a good thing in some areas because we [Alpha] are a very stable organization. We have five years of funding and we know that. It's like a start-up without the risk somehow right and that gives a bit of calm to do the work. Instead of always thinking about the bottom line and the liquidity and fiscal aspect of it. (Alpha)*

> *Because they are seen as a neutral third party. That means for instance the facilitation is very easy to hand over to them. It would quickly create more friction if there was a project leader from [insurance company] or Foxtrot. (Charlie)*

Another reason to why they are able to create trust, is Alpha's non-profit organizational form. Members of the ecosystem does not have to worry about mixed incentives from Alpha since they are a non-profit. This enhances the perception of Alpha's neutral profile.

> *In other ways, we [Alpha] always need to consider that we are non-profit. We shouldn't make money, so it doesn't make sense for us to hold a lot of liquidity and cash in membership fees, if we're not going to use it to actually create some value. (Alpha)*

> *I think, them [Alpha] being non-profit and the way in which they are financed by a membership fee and things like that, means that we will get something out of this membership. (Charlie)*

Importantly, Alpha is aware of the meaning of trust, and their main priority in the beginning of new projects are to create it. Their approach involves lowering the thresholds to enter and leave their projects. The reason for this, is to easier create the right constellation of members in a project. It is also important to communicate, that there are no consequences for leaving a project, an invitation for the next event will always be available. This initiative to include as many members as possible can also be linked to Alpha's will to utilize a low level of control.

> *So, in all the project I've been part of, we [Alpha] started by kind of building a platform of trust. Okay, so first of all, it needs to make sense to join the project. So, we have a*

> *very low threshold, we do include everyone in, but we say, as we scope the project, if this project at some point doesn't make sense for you anymore, then it's okay to kind of step out. It's no hard feelings, you will be invited to the next project. And it is really, really important because, you don't necessarily know what works for you in the beginning. Okay, you can try different things, whatever works for you is fine. And we've seen that in projects, we move forward with, some companies have said, "Okay, this makes sense, but not for us because we're a life insurance company". And that's, I think, a key part of how we do this. (Alpha)*

Moreover, a topic that was frequently brought up in the interviews, revolved around the future ownership of the project's output. The thoughts on this particular subject differed a little between the interviewees. Nevertheless, most respondents thought that it should be owned by a neutral third party. The suggested party was Finance Norway rather than Alpha. The ambition of Alpha is not to own anything, and the organization would not have enough technical or legal resources to own a complex solution.

> *Maybe we can have a new compulsory data sharing setup owned or managed by perhaps Finance Norway. Some neutral third party not controlled by any other company. It will require quite a lot of resources; I do not think Alpha has that. So, it will probably be Finance Norway. I think they are the most relevant. (Bravo)*

> *I think the insurance companies will have a lot to say about that as well. It's a trade-off of making it universal enough so more can join and also having like a stable neutral third-party taking care of the data work. We [Alpha] as a cluster don't want to own anything. (Alpha)*

The reason to why there needs to be a third party as the owner, is that it would otherwise be hard to scale it up to include more companies.

> *Ownership is also a good question because if the founding insurance companies owns the platform that doesn't seem like a good idea if we want to have other insurance companies to join the project eventually. (Alpha)*

In addition, another benefit of Alpha has been attributed to their small size. Since Alpha is a small organization, they do not have enough resources to have their own employees working operationally in the project. This strengthens their role as a neutral organizer even more.

> *They [Alpha] have treated everyone in a way that's given confidence. That's maybe the good thing about them being very small. As you said they are only four or five people, if they had a lot of more people, than maybe they would have resources working in the project as well as being facilitators and that could maybe have created some friction. Just having them as the neutral facilitator is a good thing. (Charlie)*

Even though Alpha is a neutral organizer without any concrete management tools to control the members of the project, they require the participants to sign a non-disclosure agreement. Still, the perception internally is that this agreement does not provide any real value and should be seen more as a formality.

> *I can tell you that we [Alpha] do have some collaboration and non-disclosure agreements signed by the parties. In my opinion, they are insignificant. I'm not saying that we won't do that in the next project, because it creates the beginning of trust. It's kind of an artificially induced trust. Because since we've signed this non-disclosure agreement together, Now I can start to work with it. So, I'm not saying it's entirely worthless. (Alpha)*

On the other hand, the signed non-disclosure agreement is creating the first step towards building trust between the members of the project. When the foundation is set and the discussions start, then the real trust is being created.

> *But really the key then is to do a very small step going forward, to start to talk about, what's the potential business value in this project? What is the potential pitfall? Which kind of strategies would work and not from a technical legal perspective? And as you do that kind of collaborative exploration phase, which at some point kind of leads into the scoping of the project, then, through that phase, you build trust. (Alpha)*

5.4 Innovation in the Finance Industry

In summary, the expected outcome of these six activities, autonomously and combined, is creation of innovation in the finance industry. At the time of this research, it is hard to make any definite assessment of the extent of innovation that the project will generate. However, it is possible to determine that the project members believe that innovation is created within the setting of the ecosystem.

> *I'm curious about what the next steps will be, and I think it is really in these challenging questions where the innovation truly lies. Just taking data and stacking them, is not a big innovation step. Getting value from three competitors in a way that also make sure that privacy is intact, that is where the true innovation lies. (Golf)*

Testimonies of this were given when the respondents were asked about "would this project have happened without Alpha?".

> *I think it's crucial because I don't think these parties would have come together if it was not for Alpha. (Foxtrot)*

> *No. (Golf)*

> *So, I think, and I hope (laughs) that all the participants see that this would not be a project without the Alpha cluster. So, to me it's very clear that this is kind of grew out of the Alpha concept and it wouldn't have happened without them. I think there is no way that the other actors in the project would have come together to create this without Alpha. So, I think that is very clear that Alpha facilitated this collaboration. (Echo)*

Furthermore, one respondent hopes that Alpha will continue to be involved as the facilitating leader. The role Alpha has in the project is seen as essential for the project to last.

> *I think it's too early for them to step aside. I think they have an important role to play in the next phase as well. Similar to what they're doing now. To facilitate the project, I'm hoping they could do that, because if they were to step aside now, they would leave a vacuum of who is running this project. (Charlie)*

When asked about their thoughts on how the future progress could look like, the project is thought to have the potential to expand into other financial industries as well. However, problems related to the legal aspects of the project will be evident in the future too. This further supports the significance of having supporting specialists available.

> *It's a very good case. I mean it's a scenario where insurance companies definitely should be cooperating. It's about working out the legal aspects of this. I think the ultimate platform, or something would be a data platform that both insurance companies and banks could use to detect irregularities if it's related to fraud or if it's related to anti money laundering. (Charlie)*

To further elaborate on the potential and vison of the project some respondents thought the future scope of this project could span outside of the insurance industry. The application area of the output could be useful in other financial industries as well.

> *And not just that, we will also want to apply this outside of insurance like anti money laundering, for example. So, it's a pilot project in more than one way, because it's insurance, and specifically it's car insurance. But it's really about data sharing, and machine learning and artificial intelligence. That's kind of what I see. Even though the use case right now is car insurance. (Alpha)*

6. Discussion

In this chapter the contributions from the findings part will be analytically discussed and presented. The main findings will be debated in relation to the existing literature which was introduced in the literature review part. We centred our analyses on our research question; in what ways can the facilitator of an ecosystem enable innovation in the finance industry. We will show how the findings support the existing literature, both on ecosystems and more specifically on innovation ecosystems and joint value creation. We will also outline the role of the facilitator of an ecosystem and highlight the tools which Alpha used to enable innovation inside an ecosystem.

This thesis is an in-depth exploratory research on the research question *in what ways can the facilitator of an ecosystem enable innovation in the finance industry*. In this study, an ongoing Fintech project inside an ecosystem has been examined and the main focus has been on what role the facilitator has played in facilitating innovation in the project.

The findings are coherent with the narrow and inconsistent definition of ecosystems. Defining the boundaries of the ecosystem and differentiating between ecosystem and cluster, can be seen as one of the challenges in this study. Although some interviewees mentioned the word cluster to describe Alpha, we would rather perceive Alpha as an ecosystem. The definition of the cluster which was proposed by Porter (2000) hinges on the geographically proximate group of the interconnected companies and associated institutions in a particular field. This description cannot be applied to Alpha as the connections and links to Alpha go beyond local ties. Moreover, in the insurance fraud project, Alpha gathered different players not specifically from a particular field of industry nor a specific geographic area. Collaboration between insurance, legal and IT sector is evident in the project. The diversification of the actors in the project, supports the argument of Bogers et al. (2019), that the cluster literature cannot oversee value creation if actors from different industries appear.

Giving access to the Golf, who is not part of the ecosystem, was also one of the items that is not consistent with the definition of ecosystem or cluster in the existing literature. On the other hand, the addition of Golf to the project can be supported by the literature from Adner (2017) and his viewpoint about ecosystem-as-affiliation. Adner (2017) suggested that by increasing the number and intensity of actors, the focal actor increases its bargaining power, centrality

and expected power. By involving Golf in the project, Alpha could reach two different goals. First, speeding up the improvement of the project by adding one of the leading actors of the industry and balancing the weight of the actors in the pilot. Second, in case of success in the project, Golf has promised to become a permanent member. By engaging an established player into the ecosystem, the reputation of the ecosystem will improve, and the ecosystem members will be able to augment cooperation and coopetition in forthcoming projects.

Our findings endorse the literature on the establishment of the ecosystems which was argued by Jacobides et al. (2018) and Adner (2006), as ecosystems emerge as an initiative from different parties to create a value that none of the parties is able to create individually. All the parties in the insurance fraud project agreed upon the fact that without Alpha they would not have been able to pursue a similar project.

By focusing on the comprehensive outlining by Bogers et al. (2019, p.2) which described an ecosystem as "an interdependent network of self-interested actors jointly creating value", we can identify all the four traits in the study. In the insurance fraud project, all actors can be described as self-interested, even the earlier academic partners acted in a self-interested way when they left the project after it changed focus to become more business oriented. Furthermore, perceiving the project as a tool of risk mitigation to maximize profit is similar in all parties, but Alpha. Every member intends to benefit from the final product in different ways. The insurance companies want to lower their fraudulent cases, the supporting specialists want to be involved in an innovative project which they could leverage in future tenders.

Based on the findings, all the companies are interdependent to some extent. In order to create the data-lake, the insurance companies are dependent on data from the other project members. Moreover, all the companies are also dependent on the legal expertise from Foxtrot to make the solution legally liable. The purpose of the project is to jointly create value that can be useable and efficient across the insurance industry. Furthermore, they are cooperating across an ecosystem which was facilitated by Alpha in order to enable innovation in this project.

The success of an ecosystem depends on the actions of self-interested actors that have access to the network, thus getting members to join the ecosystem requires identifying their incentives (Bogers et al. 2019). Our findings are aligned with this argument as Alpha seems to be very prudent when it comes to recruiting and giving access to new members. They try to get to

know the aspirations of the parties that want to join the ecosystem. Our contribution to this part is that, although Alpha had some success in recruiting certain larger firms, they still struggle to be a drawing card for other established organisations and incentivize them to join the ecosystem.

Our findings align with the literature when it comes to forging partnerships. Alpha took the initiative to create partnerships and recruit the members to the ecosystem. They did that mainly by facilitating the access and incentivizing different actors. Alpha played the role, as the platform manager, mainly by entrustment. According to Rohrbeck, Holzle & Gemunden (2009), the ecosystem leader improves the innovation capacity in the ecosystem by internalizing the innovation and knowledge of external resources. By lowering the barriers to enter the ecosystem, Alpha could benefit from the knowledge and ideas of different members. Studies like the one from Dedehayir et al. (2018) viewed the value management role of the leader as a tool to capture the value which is produced by the members. Our finding is contrary to that definition. Neither Alpha nor any of the parties perceives Alpha as the product owner. All the parties identified Alpha as an innovation facilitator in the project.

In our study we recognized Alpha as the facilitator of the network and leader of the ecosystem. According to Bogers et al. (2019), leaders with capabilities to manage multiple ecosystem members with different priorities will result in survival and growth of the ecosystem. The analysis from the interviews presented that Alpha's role in facilitating interfaces and lowering control together with entrustment played an important role in the progress of the project. Moreover, including Golf in the project led to the survival of the project. Dedehayir et al. (2018) define governance, forging partnerships, platform management, and value management as four activities for ecosystem leaders. Alpha applied the governance role mainly by creating trust among the members. Our findings indicate that the trust among the members and towards Alpha mainly originates from the neutral position Alpha has as an organizer.

Bogers et al. (2019) mentions three different modes of interdependence that affect the relationship between the actors in the ecosystem. Our findings suggest that Alpha requires both competition and cooperation between the parties in the insurance fraud project. Likewise, the value creation in the insurance fraud project requires the contribution of direct competitors. The competitors' cooperation in the insurance fraud project leads us to deduce that the

coopetitive interdependence applies to this ecosystem. For that coopetitive collaboration to happen, according to Schmeiss et al. (2019), the facilitator of the ecosystem needs to enable some governance mechanisms. Those mechanisms exist to ensure that the actors are creating value.

In their literature, Schmeiss et al. (2019), mentions three mechanisms: access, control, and incentives. Our findings support the latter literature. Alpha as the facilitator of the ecosystem used the access mechanism very well during the process. Literature suggests that with this mechanism the facilitator or the leader of the ecosystem can decide whether to connect the actors to the technical part (Schmeiss et al. 2019). In our case Alpha effectively enabled a project where all the insurance companies are connected to supporting specialists including legal and technical experts to facilitate communication between them. The contribution of our findings to the existing literature is that connecting the members to an independent external specialist partners in the ecosystem can also play an important role in facilitating innovation. Having access to a legal advisor can prevail any obstacles regarding competition law in the presence of coopetition in the ecosystem. Alpha's role as a neutral organizer naturally provides the control mechanism for them. According to Schmeiss et al. (2019), this mechanism guarantees consensus in case of conflict of interest and requires a highly structured set of values and rules for the competitors to cooperate. In our case Alpha used entrustment as a control mechanism in the ecosystem. Our study shows that literature from Schmeiss et al. (2019) cannot explain the low level of control which Alpha applied in the ecosystem. Rather than using an extreme control mechanism to keep the actors in line, Alpha entrusted different actors. By entrusting Alpha could achieve two goals in the project. First, enhance the perception of a neutral actor among other actors and controlling the project by actually decreasing the level of control.

Our findings suggest that the neutrality of Alpha, resulted in creating trust among the direct competitors and technical part. The construction of trust among the parties preserved the conflicts among them to a high extent and speeded up the innovation within the project. The findings illustrate that Alpha uses non-disclosure agreements in order to build preliminary trust between the members. We can perceive this as a control mechanism to sidestep any conflicts in the future. Lastly, Alpha employed the incentive mechanism to motivate the members of the ecosystem. Providing a platform for innovation and enabling the parties to

exploit the opportunities which comes with a new product development project was a major motive for the parties to join the ecosystem.

The innovation ecosystems literature was a central focus in this study. It is argued that "the innovation ecosystem is focused on a particular innovation or new value proposition and the constellation of actors that support it" (Jacobides et al. 2018, p. 2256). This is in alignment with the ecosystem that was studied in this thesis. The ecosystem is centred on a unique innovation, which is making a data-lake to train different insurance companies' algorithms, in order to detect fraud more efficiently. In compliance with Adner (2017), an innovation ecosystem can traverse beyond the boundaries of the same industry. In the interviews with the representatives from the insurance fraud project, they believed that the final invention could be extended into other financial settings which are dependent on the access to data. Moreover, the collaboration between financial, technology, and legal sector can be viewed as a multi-industry cooperation in the ecosystem, towards a focal value proposition which is a safeguard against fraud.

Ianisti and Levien (2004), grouped some features that apply to innovation ecosystems. Those features include productivity, robustness, and niche creation. Our study is a proof for those features in an innovation ecosystem. In terms of productivity, Alpha is facilitating innovation to enable machine learning science into insurance industry. By that, Alpha is helping to improve the existing methods of fraud detection in a particular industry. Furthermore, Alpha made the ecosystem robust by including Echo. The annexation of Echo was meant to prevail any unpredicted legal issues that might occur during the process. Based on our findings from the interviews, we can conclude that all the informants agreed upon the fact that the ecosystem is the unsurpassed venue for creating new technologies. As long as the ecosystem has the potential, which makes it capable of applying emerging technologies across new areas, the niche creation feature is applicable.

The innovation ecosystem literature indicates that the focus on the value proposition requires an ecosystem analysis to consider the extent to which there may be deviation of interests between members (Shipilov & Gawer, 2018). Our study showed that, at least in our case, we could not observe any divergence of interest from the different parties in the insurance fraud project. All the parties in the project had the same interest and intentions and they were

collaborating towards a common goal. When we asked from different parties about their opinion on the commitment of the other participants, the answers were all consistent. All the parties had the impression that the rest of the members are using the best of their resources in the project. Although some parties also looked at the project and the membership in Alpha as a marketing tool, but it did not affect their contribution to the project.

According to West and Wood (2013), success of the ecosystem relies on the leader of it. Our informant's answers support this theory. Without facilitation from Alpha, the project seemed to be unfeasible. Alpha's role in the beginning, during and in the future of the project is crucial.

7. Conclusion

In this final part of the thesis, we will present the main findings and their theoretical and managerial contributions. These two contributions are followed by the suggestions for future research, offered in relation to the already existing ecosystem literature. Finally, limitations of the study are presented.

The research objectives of this study are based on the research question; *in what ways can the facilitator of an ecosystem enable innovation in the finance industry?* To answer the question and contribute to the objectives, we examined a collaboration project within a Fintech ecosystem. Interviews were held with the participating companies of the case project in order to develop the knowledge of how the facilitator of the ecosystem can lead the project in a way that enables innovation.

To understand the findings, the literature on ecosystems were reviewed. When the data collection was on-going, more specific streams of ecosystem literature such as platform and innovation ecosystems, clusters, governance mechanisms and members and roles within ecosystems were also studied.

From the empirical findings, it was clear that innovation could be enabled inside the ecosystem through provision of access, interface and incentives. The findings also reveal that innovation was enabled within the more specific setting of the insurance fraud project, through the facilitation of supporting specialists, entrustment and being a neutral organizer. Linking this to the development in the financial service industry, it is evident that innovation inside ecosystems could be a constructive way forward in the VUCA environment. In the aftermath of the COVID-19 pandemic the Fintech industry will have leaped forward in its digital transformation. To stay competitive, transformations of daily operations, like detecting fraud, will be useful when the insurance industry is moving towards being more data driven than before.

Moving on to the theoretical contributions, this thesis adds to several parts of the existing ecosystem literature. There are many examples in our case study where the present literature could learn from the occurrences in Alpha's ecosystem. One example is the importance of having access to supporting specialists. In the literature today, the focus has largely been on

the importance of a technical part (Boudreau, 2017; Dattée et al., 2018; Gawer, 2014; Tiwana, 2015). Conversely, our case shows the importance of having access to legal specialists when there is cooperation between competitors inside an ecosystem. Being able to remain neutral as the organizer of the ecosystem is the next example that can be added to the existing literature. Research by Bogers et al. (2019), Dedehayir et al. (2018), and Gawer & Henderson, (2007) perceive the leader of the ecosystem mainly as the owner of the focal value. However, our analyses have found that the leader is not always the owner. In our study, hub, sponsor, leader, or owner can be relabelled to facilitator as a new term to describe Alpha.

Additionally, some potential research areas for the future within the ecosystem literature, are discovered in this thesis. The first area where more research would complement the existing one, is to further study the required constellation of actors within an ecosystem project. For example, this study reveals that Finance Norway could become a relevant participant in the future of the insurance fraud project. Since Finance Norway is also a neutral non-profit organization, their similarities with Alpha are tangible. However, their differences open up for supplementary research of which characteristics are important for ecosystem organizers to possess in order to succeed in distinctive settings. Moreover, another area which could be of interest to research is the impact of having a non-profit leader in the ecosystem. The literature today suggests that there is often ownership to an ecosystem which shifts the power balance. The dynamics within an ecosystem could therefore differ, when there is no owner playing the role as a leader.

The managerial contributions of this thesis are for managers who are involved in managing their firm's participation inside an ecosystem. The practical tips originate from the findings which highlight two main settings where companies are involved in an ecosystem and in a project within an ecosystem. In each of these two settings a total of six features are found to be relevant in order to stimulate innovation.

First, our research suggests that it is important to establish a broad network inside the ecosystem. Meeting industrial peers in a setting where collaboration is the focus rather than competition, have the potential to develop innovative relationships. This requires the facilitator to provide access for the right organizations. The second contribution is the importance of enabling accustomed interfaces or communication channels. An advanced

ecosystem should include a diversity of organisations, this implicates that the needs will differ. Partaking an ecosystem where different types of interface opportunities are available, creates a platform for innovation. These interface opportunities could range from workshops and ideation sessions to webinars and conferences. Finally, in the broader setting of an ecosystem, its potentially valuable to seek out why one is taking part of the ecosystem. If there are no incentives towards participating, the membership fee will never generate value. In order to extract value from a membership, firms are required to involve themselves in the offerings of the ecosystem.

The second setting occurs when a firm is involved in a project within an ecosystem. One thing, which is necessary to understand in this setting, is the supporting specialists. As an example, the legalities in a collaboration project are often different relative to an in-house project. The circumstances are contrasting because of the competition laws. Being compliant with the law in these collaboration projects demands each firm to have specialist competence available, which is not always the situation. Therefore, the access an ecosystem could provide, to relatively cheap specialists, is vital for collaboration projects to succeed. Further, utilizing entrusting members to enter and exit events within the ecosystem are central. This factor makes it easier to find the optimal mix of participants in a venture. Offering different members, the opportunity to join and exit, lowers their alternative costs and incentivises participation in a larger extent. Entrustment is also relevant when innovative projects are facilitated, since these often involve a relatively high risk. If the entry requirements are too high, then organizations could be scared from joining in the first place. The final aspect we have found, is the value of a neutral organizer. Trust is core in a collaboration between competitors, but trust is also hard to establish when members have conflicting self-interests. The solution would be to include a neutral third-party to facilitate the project. This party would then have a better opportunity to enable trust.

Finally, this thesis is limited in a number of different ways, beginning with the exploration of only a single ecosystem and project being researched. The Fintech ecosystem carries out other projects as well during the time this thesis was written, and it has completed projects in the past too. However, these projects are not considered in this study. This limitation is due to the limited time of one semester and the fit of the chosen project, compared to the alternative cases. By studying an on-going case project, the opportunity to interview all relevant parties

made this specific case the most interesting one in order to answer our research objectives. Furthermore, the study focuses on the role of the ecosystem facilitator in a chosen project. Consequently, the most valuable data came from interviewing only the closest involved members of the insurance fraud project and the relevant personnel at the ecosystem facilitator. Furthermore, the COVID-19 pandemic limited us from conducting all the interviews in-person. If discussions in-person would have changed any of the gathered material, is not possible to validate.

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9. Appendix

9.1 Appendix A – Timeline

This timeline was sent to us from the project leader of the insurance fraud project.

Middle of 2019

Alpha, Bravo, Charlie and Delta agrees to start a project based on data sharing and machine learning to combat insurance fraud. They would include several academic institutions, Echo as the technical partner and Foxtrot as the legal partner.

January 2020

Discussions with Foxtrot and the companies about legal framework for GDPR and competition considerations. Golf agrees to join project. The academic partners left as well as Delta.

February 2020

It is decided to focus on non-life insurance in the first iteration, so the project continues with Bravo, Charlie and Golf.

February - March 2020

Echo performs a feasibility study.

March 2020

Bravo, Charlie and Golf decide to proceed with project based on feasibility study. Each company commits by putting up NOK 50,000 (Alpha puts up NOK 150,000)

Summer 2020

Echo conducts interviews with each company to determine which features are to be shared in the pilot or minimum viable product. It is decided to only share non-sensitive data (GDPR and competition laws).

August - September 2020

Common data dictionary is finished.

September 2020

Each company work to extract the necessary data and connect to a shared cloud platform (Amazon Web Services).

September - October 2020

Test of initial iteration of solution followed by evaluation of business value by each company.

9.2 Appendix B – Consent form

Samtykkeerklæring – deltakelse i forskningsprosjekt

Bakgrunn og formål

Denne forskningen er en del av RaCE programmet på SNF og NHH. Formålet er å undersøke hvordan norskbaserte virksomheter responderer på radikale teknologidrevne endringer. Vi henvender oss til personer med sentral informasjon om organisatoriske endringer.

Hva innebærer deltakelse i studien?

Intervjuet vil ta maks __ time(r). Dersom du godkjenner det vil vi tar opp intervjuet på lydfil og transkribere det i etterkant. Lydfilen slettes etter transkribering, og den transkriberte versjonen av intervjuet vil anonymiseres.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt, og informasjonen som lagres sammen med den transkriberte versjonen av intervjuet vil ikke inneholde navn – men en tilegnet kode. Navn og eventuelle kontaktopplysninger, samt dette skjemaet, vil oppbevares adskilt fra intervjudata. Det er kun prosjektgruppen på NHH/SNF som vil kunne få tilgang til de anonymiserte intervjuene.

Din bedrift vil bli anonymisert.

Prosjektet skal etter planen avsluttes juni 2023.

Frivillig deltakelse

Det er frivillig å delta i forskningsprosjektet, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg, og ditt intervju, bli slettet.

Dersom du har spørsmål til forskningsprosjektet, kan du kontakte Inger Stensaker mobil: 9979 2127, epost: inger.stensaker@nhh.no. Om du har flere spørsmål kan du også kontakte vårt personvernombud på personvernombud@nhh.no.

På oppdrag fra SFN/NHH har NSD – Norsk senter for forskningsdata AS vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke personopplysninger som er registrert om deg,
- å få rettet personopplysninger om deg,
- få slettet personopplysninger om deg,
- få utlevert en kopi av dine personopplysninger (dataportabilitet), og

- å sende klage til personvernombudet eller Datatilsynet om behandlingen av dine personopplysninger.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta i intervju

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(Signert av informant, dato)

9.3 Appendix C – Interview Guide

This interview guide is supposed to be seen as a guide. It was accustomed throughout the research process. Questions may have been added and removed during the process.

Introduction
1. Can you introduce yourself?
2. Tell us a bit about your role in [company name] and what your company does?
3. Why did your company become a member of Alpha?
4. Do you think the geographical aspect of the ecosystem, being based in [city name], have had any impact?
5. What's your experiences from being part of Alpha?
6. What are the advantages and disadvantages of being part of the ecosystem?
7. Are your firm of other ecosystems?

Insurance Fraud Project
8. Personally, how have you been involved in the insurance fraud project?
9. What were the criteria's for your company to enter this project?
10. Can you describe the timeline of the project from your point of view?
11. What has changed in the project throughout the process and why?
12. What has been going well with the project?
13. What could have gone better with the project from the perspective of innovation?
14. Are there things you want to change in the project, but that you are not able to?
15. What makes this project a better mean for creating prevention of insurance fraud than if each company did it themselves?
16. Are you involved in similar projects in the insurance fraud area?
17. What are the differences between creating innovation in your own company and through the ecosystem?
18. How do you regard Alpha's role in the project?
19. Do you think that Alpha's non-profit and governmental funding setting have helped in anyway?
20. How are Alpha managing the project? Do they have any management tools?

21. Since Alpha is the smallest actor in the project, does this affect your perception of them?
22. Does your company have any previous relationship with any of the partners of this project?
23. Are some partners in the project harder to collaborate with than others?
24. Have Alpha been able to facilitate trust in the project?

Final questions

25. What are the main challenges in the insurance fraud project?
26. What do you think about the future progress of the project?
27. Are there anything you want to add or ask us about?

The thesis analyses how innovation is enabled in a Fintech ecosystem, and more precisely how innovation is facilitated in a collaboration project by exploring the activities of the facilitator. The inductive empirical findings of the study have been compared relatively to the existing ecosystem literature. More precisely, the literature about innovation and platform ecosystems has been examined and further complemented with the literature about members and roles within ecosystems. Hence, *in what ways can the facilitator of an ecosystem enable innovation in the finance industry?* was formulated as the study's research question.

Moreover, the methodological approach chosen to answer the research objectives is a qualitative case study with an explorative design. A mix centred around both a deductive and inductive approach to theoretical development has been utilized. Furthermore, the main data source has been semi-structured interviews held with eight company representatives at seven different occasions. The interviewees come from the ecosystem facilitator, as well as five project members, who were all relevant in relation to the researched case project of insurance fraud.

The findings showed that innovation was enabled in the context of the ecosystem and the insurance fraud project throughout six different subcategories. The subcategories, related to the innovation, inside the ecosystem consist of *access, interface,* and *incentives*. Subsequently, the three categories relevant to innovation inside the project are *supporting specialists, entrustment,* and *neutral organizer*. Through these six categories, innovation has been enabled in the researched setting.

Thus, the research show that certain prerequisites could help to enable innovation inside an ecosystem. Incorporating the above-mentioned key success factors can help future innovation initiatives within ecosystems to flourish.

SNF

Samfunns- og næringslivsforskning AS
Centre for Applied Research at NHH

Helleveien 30
NO-5045 Bergen
Norway

P +47 55 95 95 00
E snf@snf.no
W snf.no

Trykk: Allkopi Bergen