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Abstract

This thesis aims to explore the service innovation strategies adopted by successful startups, scaleups, and corporate firms in Norway. The purpose of this research is to identify and analyze the factors that contribute to the success of service innovation, with a focus on innovation strategies implemented in different modes of innovation and product market fit.

The main approach for gathering data for this study's qualitative research method was semi-structured interviews. Respondents from six firms that have had experience implementing service innovation strategies participated in the interviews. The intersubjective analysis approach was chosen for the analysis of the data.

The results of this study imply that successful companies in Norway are moving toward a more service-oriented strategy with an emphasis on giving customers value-added services.

Understanding customer needs, creating long-lasting solutions to meet those goals, and delivering a great user experience are the fundamental elements that make service innovation successful. The idea of servitization—where businesses shift toward providing a wider range of services—is also gaining popularity. Additionally, service innovation is greatly facilitated, and the likelihood of success is increased by innovative business models.

By presenting details about the service innovation methods of successful startups, scaleups, and corporate businesses in Norway, this study adds to the body of literature on the topic. With an emphasis on business model innovation and servitization, this study provides practitioners with a thorough framework to use for effective service innovation.

Key Words: Innovation, Strategy, Business model, and Servitization.

Foreword

This thesis was created as the capstone project for the University of Stavanger's Service Leadership in International Business master's program. I sincerely appreciate my supervisor Leif Selstad's perseverance, assistance, and direction over the past six months. With him, I've had a successful learning experience.

I am really appreciative to have the opportunity to examine the understudied issue of service innovation. After looking at the service innovation techniques used by Norwegian businesses, I can see that there are still some unanswered questions regarding this strategy.

I would want to express my sincere gratitude to all of the start-ups, scale-up, and corporate participants for their tremendous support and assistance. Most of us only met online, so it has been a particularly wonderful time. I will not mention their names or those of their organizations here, but I do wish them great success as they pursue innovation! I sincerely appreciate everyone who has offered to assist me arrange the interviews. I value it greatly.

I appreciate it a lot.

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1. Introduction

This thesis investigates new trends in product-service innovation and marketing fit strategies of successful service innovation firms. Service innovation is a significant factor for firms to maintain a competitive advantage in a service-centered economy. Due to technological advancement and fierce competition, service firms are striving to develop new services and testing them for a market fit. The thesis takes a closer look at start-ups and companies focusing on innovation to develop product-service in Norway, and what factors influence their success in the market.

Studies show that many of the new service innovation companies can not succeed in the market (Dahl & Reichstein, 2007; Gallouj & Savona, 2010). A few studies about factors relating to the successful strategy and service innovation process exist (De Jong & Freel, 2010; Leiponen & Helfat, 2010). At the same time, this is a growing and critical area of study. Previous studies have been conducted to determine service innovation strategies and processes in other European countries' contexts focusing on new service development (Tether & Tajar, 2008). But there is a literature gap on service innovation in the context of methods implemented to develop new product-services and market fit in Norwegian culture.

The thesis will focus on a few service firms in Norway and look at how they have developed new service products and made a market fit in the competitive industry of service innovation. Service development methods and processes to achieve market fit in Startup, Scaleup, and corporate companies will be examined to discuss their efforts at better adaptability of service innovation methods.

1.1 Background of the study

Innovation significantly impacts organizations regardless of their size. Organizations are concerned about creating value through their offerings. If organizations do not change their offerings, others will outperform them with innovative products and services (Tidd & Bessant, 2020). Service innovation is the development of new or improved services that offer greater value to customers, generate revenue for businesses, and provide a competitive advantage in the market (Gallouj & Savona, 2010). Successful service innovation strategies involve understanding customer needs, developing solutions that solve customer problems, and providing a positive user experience (Lusch & Nambisan, 2015). This is especially important in today's business environment, where customers are increasingly demanding, and competition is fierce.

In the modern economy, firms are adding services with products to create a competitive advantage and thrive in the market. According to early phenomenological studies like Vandermerwe and Rada (1988), businesses were reportedly expanding their service offerings to boost their competitiveness, turnover, and market dominance. They addressed how servitization progressed from the point where companies thought of their offerings in terms of "goods or services," through "goods and services," to the marketing of packages of "goods + services + support + knowledge + self-service." The idea of servitization has piqued the interest of academics, managers, and policy officials since it was formalized (Vandermerwe & Rada, 1988). Several statistics demonstrate the phenomena's significance for example (Baines et al., 2009; Baines et al., 2007; Tukker & Tischner, 2017).

Customers are increasingly choosing service agreements over product purchases in numerous industries. High-tech capital equipment companies are deciding to switch from providing only products to delivering both products and services, drawn by the possible income

benefits. Business institutions are drawn to servitization primarily to make money and sharpen their focus on the client (Baines et al., 2009). Business institutions need to create a correct alignment between the market environment and their organizational structure to leverage these profit-generating potentials of servitization properly. Businesses must develop a servitization plan, utilizing their competitive advantage in resources to create a competitive edge in the external world (Gebauer et al., 2008).

A developing idea called "digital servitization" emphasizes the interaction between two fundamental concepts in manufacturing and technology firms: "digitalization" and "servitization." (Coreynen et al., 2017; Kohtamäki et al., 2019; Opresnik & Taisch, 2015; Paschou et al., 2020). The digital trend in the modern economy, which includes big data, cloud computing platforms, and the Internet of Things, has radically changed how firms are set up and how employees work together and think most commonly in newly founded firms. The use of digital technologies to facilitate the shift from a product-centric to a product-service centric business model is known as "digital servitization," (Ardolino et al., 2018; Coreynen et al., 2017). According to Skylar et al. (2019) businesses undergo a process of deep rebranding that reconfigures their organizational structure to take advantage of these new technologies and market opportunities. However, there is a lack of information on how companies might use digital technology to create new products and business models. Raddats, Kowalkowski, Benedettini, Burton, and Gebauer (2019) proposed that servitization research should focus on filling this knowledge gap.

In today's cutthroat marketplace, businesses are becoming more and more aware of the need to develop alongside their customers. By collaborating with customers and involving them in the "knowledge co-creation" process, they are shifting their innovation strategies from

"innovating for customers" to "innovating with customers" (Desouza & Awazu, 2004; Nambisan, 2002). These consumers are becoming collaborators in the development of new products and services as they develop stronger connections with a company and other customers.

As indicated in Desouza et al., Smart businesses are now actively utilizing their "lead users," who have information that can help them better plan for the creation of new products and the enhancement of current ones. Few customers will ever use technology in the same manner as it becomes more advanced. This is so that consumers can alter, personalize, or customize the majority of goods today. Understanding how users interact with these customizations can provide information on potential innovations and improvements, as is the case with tech firms that frequently consult their lead users to find new routines, techniques, and improvements (Desouza et al., 2008).

Systematic interactions between three important entities—the organization, the products and services, and the customers—are the foundation for successful customer focused product-service innovation. In a number of innovation stages, such as, idea generation and development, design, testing, and refinement, and commercialization, these three groups engage with one another for a product-service market fit. To determine how these three groups co-innovate in practice, this study will look at different levels of firms such as Startups, Scaleups and corporate companies from the firms' perspective.

One of the major forces behind growth and employment in developed economies has been identified as services in recent years. According to a report by Statista (2023, February 17), the GDP share of services in Norway is over 78%. The approaches to accomplish innovation in services have become a crucial topic as the significance of creating competitive services has acquired significant attention economically and socially (Howells, 2010). Discussions on service

innovation affect traditional manufacturing companies and service providers, who have begun recognizing the potential of services to differentiate their products and gain a competitive edge. As a result, creating new services has become a new strategy for businesses in various industries, for instance Smart Cities, and creative services have emerged to achieve long-term competitive advantage (Dess & Picken, 2000; Hacklin & Wallin, 2013; Tushman & O'Reilly III, 1996).

For development and innovation in the business sector in 2020, the State-owned organization Innovation Norway has contributed 12.5 Billion NOK to support industry and commerce (Innovasjon Norge, 2021). To lead the digitalization of the public sector globally, the government of Norway has launched a new digital agency. The purpose of this agency is to use it as a tool for faster and coordinated digitalization of the Norwegian public sector (Government.no, 2020, January 27). Giant corporations in Norway such as Equinor, LYSE, banking, and finance sector organization Spare SR Bank are introducing startup programs to boost innovation (Dagens Næringsliv, 2020). This indicates the service innovation and startup business trend in Norway.

To contribute to the research on the growing service innovation trend, this qualitative study aims to explore the developing service innovation strategies employed by successful companies in Norway. This study will concentrate on interviewing representatives from organizations that have successfully implemented service innovation strategies. The goal of the study is to comprehend the companies' elements that contribute to their success, their methods for doing so, and the linking with market. First a literature review is conducted to map modes of innovation and innovation approaches by different level firms. Based on the literature review a questionnaire has been created to interview representatives from different firms located in Stavanger, Norway. Obtained data have been coded using a deductive approach and

intersubjective method in order to analyze the results and provide insights into the innovation of companies.

1.2 Scope of Study

The purpose of this study is to investigate the strategies implemented by service firms to develop new services and the market-linking approaches they use in the service development process. This study aims to provide insights into the best practices for developing new services and linking them to the market.

To achieve this objective, the study will conduct a systematic review of the existing literature on product-service innovation, product-service development and market-fit. The review will include academic journals, books and industry reports that address the strategies used by service firms to develop new services and the market-linking approaches they employ. To analyze empirical data this thesis will conduct a qualitative study by interviewing managerial practitioners about developing new products and services. A questionnaire of 26 questions is divided into four broader segments of innovation following Tidd and Bessant (2020). These include product and service innovation, process innovation, position innovation or market innovation, and paradigm or business model innovation as well as two subcategories product market-fit and servitization. Questions are developed based on the literature review and success factors of the invention.

The study will explore the following research questions:

Q1. What are the strategies that service firms employ to develop new services in terms of Product service innovation, Process innovation, Market Innovation and Business model innovation?

Q2. What are the market-linking approaches used by service firms in the service development process? How do these approaches help to link new services to the market in market innovation mode?

The findings of this study will provide insights into the strategies and market-linking approaches that service firms use to develop new services and bring them to the market. This study will be of value to both academics and practitioners in the field of service innovation and service development.

In the next chapter, the methodology used for this thesis will be presented. This will be followed by an extensive literature review presenting relevant scholarly knowledge and later a chapter on the results derived from this research. Finally, there will be a chapter on analysis and discussion that will formulate a framework for the practitioners followed by a conclusion of the thesis.

2. Methodology

The purpose of this study is to determine the strategy of successful product-service innovation, and the market-fit of successful service companies. To answer the research question qualitative and explorative research approaches are taken. The material is supplemented with a literature review that partly incorporated quantitative material. In this section justification of this research's approach is provided.

This chapter's goal is to outline the method choice that has been made in order to clarify the chosen research topic, design, and strategy. Along with describing the interviewing process and coding of the data, it also shows the intersubjective data analysis approach and, reliability and validity of the data.

In this chapter, the choices of research design are explained. That includes Research design, Research strategy, Sampling Strategy, developing of questionnaire, Data collection, data analysis method, and qualitative and intersubjectivity concerns. In the last quarter of this chapter, the limitations of this methodology and Ethics are presented.

2.1 Research design

The overall strategy for how the research questions will be addressed is referred to as the study design (Saunders et al., 2009). Along with presenting the research strategy, this chapter outlines the study's research design and explains how the research approach and strategy were selected.

In the context of service innovation, this study seeks to investigate the effective product-service innovation and market-fit strategies of startups, scaleups, and corporate firms. To do this, a qualitative research strategy is taken, particularly semi-structured interviews with managerial

level practitioners from different level of Norwegian businesses such as Startups, Scaleups and Corporate firms.

The qualitative research method was chosen because it enables a thorough examination of the participants' experiences and points of view, resulting in a wealth of information and insights. A qualitative method is well-suited to capture the nuances and complexities of these strategies because the study's primary goal is to comprehend how companies successfully combine their market-fit and product-service innovation strategies (Gummesson, 2005).

Semi-structured interviews were chosen as the data gathering technique because they provide the participants with the freedom to express themselves while preserving some degree of control over the topics covered (Kvale, 1996). Furthermore, semi-structured interviews permit follow-up inquiries and probes that can deepen comprehension and clarify answers. (Rubin & Rubin, 2011).

2.2 Research Strategy

The research questions of this study are to explore strategies to develop new products and create a market fit in start-ups and innovative companies. To investigate these questions a qualitative approach has been chosen as there are very few studies done exploring strategies for new product development related to practitioners' experience in the real market. Qualitative research typically involves the researcher exploring the meanings and insights in a particular context (Corbin & Strauss, 2008). It describes a variety of data collecting and analysis methods that use open-ended, semi-structured interviews and purposeful sampling (Gopaldas, 2016)

Qualitative research is often used to explore complex phenomena and the meaning that individuals assign to them. It provides an in-depth understanding of the experiences and

perspectives of participants, which can be particularly valuable in exploring service innovation strategies in successful companies. Within qualitative research, interviews are one of the most commonly used methods for data collection (Bryman, 2016).

In-depth discussion of participants' experiences and points of view can be accomplished through open-ended inquiries during interviews. Particularly with semi-structured interviews, flexibility in the interview process is maintained while enabling researchers to ask follow-up questions and clarify participants' answers. This is crucial when researching intricate phenomena like service innovation strategies because it allows for a more detailed and complex exploration of participants' experiences and viewpoints.

Additionally, using interviews to research service innovation strategies is consistent with the interpretive theory, which focuses on examining the subjective meaning individuals give to their experiences (Bryman, 2016). This study employs interviews in order to gain a thorough understanding of participants' viewpoints and experiences with regard to service innovation strategies in successful Norwegian businesses.

As a result, semi-structured interviews will be the main technique for gathering data in this research. The researcher will be able to thoroughly examine the participants' perspectives and experiences through the use of interviews, which is crucial for understanding the service innovation strategies used by effective businesses. Particularly with semi-structured interviews, the researcher will be able to explain participants' answers and ask follow-up questions while still maintaining interview process flexibility.

2.3 Selection of sample companies

Eisenhardt (1989) believes that selecting the appropriate population helps to define the parameters for generalizing the findings and reduces unnecessary variance. Since the objective of this study is to discover the strategy for service innovation and market fit, organizations that employ technology to develop new products or services are included in the population.

The investigated companies were chosen based on their achievements in service innovation as demonstrated by their expansion and influence on their respective industries. These companies have received praise for their cutting-edge services, and their success may be linked to their capacity to understand and meet client needs through innovative service delivery. Additionally, the fact that these businesses are involved in various sectors would enable a thorough grasp of service innovation techniques in a variety of industries. Additionally, these businesses were chosen based on their interest in taking part in the survey. As a sign of their dedication to service innovation and willingness to share their experiences, the companies were approached and expressed interest in taking part in the study.

An email was sent to nine companies' managerial level contact persons and asked for an appointment for interviews by retrieving their email from their company websites. An interview guide, and NSD permission for data collection with a set of questions consisting of 26 questions related to product or service innovation, process innovation, business model innovation, and market linking approaches were attached for them to be familiar with. Out of nine companies, representatives from 6 companies responded and offered a schedule for the interview.

Among these 6 respondents, two were corporate, two were scale-up, and two were startup companies. They offer green, sustainability oriented, and technology-related services. They are

mainly based in Stavanger, Norway but also expanding in international markets. Designations of the respondents were CFA, CMO, and Head of the department. To keep confidentiality of the companies and representatives, the researcher named the companies as Firm A-E.

A nonprofit company, Firm A collaborates closely with for-profit businesses, governments, and academic institutions to create sustainable and smart cities. They are serving as a catalyst for the creation, testing, and export of smart city technology for its clients. This company's representative has been working as a project manager for two years.

A large corporation called Firm B specializes in smart city solutions and provides a variety of services in this area, such as space renting and property development. They are renowned for their creative approach to urban development. This company's representative, the Head of Innovation, has worked there for eleven years.

Firm C is a digital service provider startup that helps their clients to adapt technologies such as in local transportation systems and national health services. They place a high priority on service innovation and are dedicated to offering specialized solutions that satisfy the requirements of their customers. Chief Marketing Officer, a two-year employee of this corporation, is its spokesman.

A scaleup firm, Firm D, works in the energy sector and uses software and sensors to assist power grids to have more capacity. They are renowned for their sustainable approach to energy generation and place a lot of emphasis on business model innovation. The Chief Financial Officer, who has been in the job for two years, is the company's spokesperson.

Providing a variety of energy-related services, such as renewable energy production, energy trading, and smart grid solutions, Firm E is a corporation active in the energy market.

They have won numerous honors for their efforts in this area and are praised for their creative approach to energy production. The head of innovation for this business and a 12-year employee are its representatives.

Scaleup company Firm F specializes in water solutions. By making data understandable, reasonable, and accessible, it can then be transformed into customer value, giving users and systems access to an insight platform to increase the sustainability and efficiency of cities and utilities. The Chief Operating Officer has served as this company's representative for four years.

The sample companies were selected due to their involvement in the Norwegian market and their success in implementing business model innovation and service innovation initiatives. Gaining knowledge about the methods that successful Norwegian companies use to innovate can be achieved by including these companies in the study.

2.4 Developing Questionnaire

To create the set of questionnaires for this study, a review of the relevant literature on product-service innovation, process innovation, market innovation, product market-fit, business model innovation, and servitization was conducted. The questions were designed to capture the perspectives and experiences of the selected companies in these areas. The questions were also designed to be open-ended, allowing for more detailed responses from the interviewees.

The questions were organized into different categories, reflecting the different aspects of innovation based on the literature review. The categories included:

1. **Product-Service Innovation:** This category focused on questions related to how the selected companies have innovated in their product-service offerings, Idea generation,

understanding customers problems, the drivers behind such innovations, and the confidence of success of these innovations.

2. Process Innovation: This category focuses on questions related to how the selected companies have innovated in their processes, what methods they chose to innovate, customer integration and the success factors of this processes.
3. Market Innovation: This category focused on questions related to how the selected companies have innovated in their market strategies, defining target market, launching of the product and market expansion strategy.
4. Product-Market Fit: This category focused on questions related to how the selected companies have determined product-market fit, the drivers behind such determinations, and the success of these determinations.
5. Business Model Innovation: This category focused on questions related to how the selected companies have innovated in their business models and alignment of the business model with their offerings.
6. Servitization: This category focused on questions related to how the selected companies have approached servitization, the drivers behind such approaches, and the success of these approaches.

The respondents were encouraged to give more in-depth responses by the open-ended nature of the questions. The use of open-ended questions is compatible with the study's qualitative research design, which seeks to gain a thorough knowledge of the experiences and perspectives of the selected firms. The questions were reviewed by the researcher to make sure they provided concise, clear, and applicable inputs to determine research objectives.

2.5 Data collection

The data for this study were collected using semi-structured interviews as it is a widely used type of interview in qualitative research that involves predetermined questions and scope for clarification of the responses (Holloway & Wheeler, 2010). With open-ended questions and the opportunity to examine themes that naturally arise, the interview can be flexible based on the interview's direction and to gather further information from respondents' experiences (Corbetta, 2003; Ryan et al., 2009). This was found to be helpful since several of the respondents provided answers to several of the questions before they were even posed, allowing us the chance to probe more into their responses. Interviews were taken at different dates and times. Key representatives for the interviews were from startups, scaleups, and corporate firms in Norway. The interviews were conducted in person or virtually, depending on the preference of the respondents. To get consent for the data collection a form from NSD was provided to the respondents and oral consent was taken before starting of the interview. The interviews were audio-recorded with the representative's consent and transcribed for analysis.

A series of interviews served as the source of information for this project. In order to effectively interpret the data, the researcher created a code for the interviews using a deductive coding method. To create codes through deductive coding, the researcher first develops a codebook based on the research question and literature review. The codebook includes a set of predefined codes and definitions that will be used to analyze the data. The codes are relevant to the research question and provide a structure for organizing the data (Guest et al., 2012).

Once the codebook is developed, the researcher read through the data and applies the codes to relevant sections. The codes were entered manually in Microsoft word from the transcribed data. The researcher carefully reviewed the data to ensure that the codes are

accurately applied and capture the meaning of the text. Through deductive coding, the researcher could identify patterns and themes in the data that are related to the research question. The codes were organized into categories and subcategories to further analyze the data (Guest et al., 2012).

2.6 Data Analysis

The data collected from the semi-structured interviews were analyzed using the intersubjective analysis approach. Intersubjective analysis is a method used to analyze qualitative data that allows for an in-depth understanding of the perceptions, experiences, and meanings of the participants (Larkin et al., 2006). The approach focuses on the researcher's subjective interpretation of the data, while also considering the participants' subjective experiences and meanings.

The first step in the analysis process was transcribing the recorded interviews. The transcripts were read several times to gain a thorough understanding of the data. The researcher then identified patterns and themes in the data that are related to the research question using deductive coding approach. The next step in the analysis process was categorizing the themes and patterns into broader concepts or categories. These categories were then used to develop an overarching framework that will guide the interpretation of the data. The framework was developed iteratively, and the researcher continuously revisited the data to ensure that it aligns with the framework.

Once the framework was developed, the researcher used it to interpret the data and draw conclusions about the research questions. The researcher also compared the findings to the existing relevant literature to identify areas of convergence and divergence.

2.6.1 Qualitative methods and intersubjectivity

Qualitative material cannot be tested in the same way as quantitative surveys, but the general trustworthiness and intersubjective reliance can be examined to some degree. Interviews are a prominent form of qualitative research that allows the researcher to investigate in depth the interviewee's or respondent's views on the topic at hand. Interviews allow the scholar to uncover the story behind a participant's experiences (Doody & Noonan, 2013). By developing a careful interview guide it is possible to arrive at a fairly accurate and comprehensive insight into the interviewee's thoughts on the research topic. The researcher took some time to get to know people engaged in start-ups and innovative companies, and had a good rapport with the leaders and representatives interviewed. In this way it was possible to gain fairly full replies to the questions that were asked.

When combining material from the literature review, that often is based on quantitative research, with a qualitative material based on interviews, the question of intersubjectivity may be addressed. This implies that the material can be evaluated and criticized by other scholars in the field. Such evaluation and criticism is an ongoing process (Reich, 2010). Since the topic of innovation in successful start-up companies is fairly recent in Norway, and since many questions and areas of concern have not been fully developed, establishing knowledge in this field is an incremental process. By talking to and interviewing leaders and representatives in start-ups and innovative companies, it is hoped that information in the field will be developed by this thesis.

Since intersubjective analysis emphasizes the value of studying and comprehending the participants' shared meanings, perceptions, and experiences in qualitative research, it was chosen as the primary data analysis approach for this study (Chase, 2011). It is an effective strategy for examining participants' subjective experience and gaining insight into how they interpret their

surroundings (Chase, 2008). This study was especially well-suited for the application of intersubjective analysis since it enabled an examination of the methods used by service companies to create new services as well as the market-linking strategies they adopt to ensure successful service innovation. Using this method, the researcher was able to comprehend the views of the participants as well as how they interpreted and gave meaning to events and situations. The method made it possible to analyze the data in light of the study questions, ensuring that the conclusions were pertinent and significant.

The intersubjective analysis approach entails three primary steps: (1) locating patterns and themes in the data, (2) crafting a narrative or story to explain the patterns and themes, and (3) interpreting the narrative or story in light of the research objectives. Because it enables a thorough and detailed comprehension of the data, which may provide insights into the perspectives, experiences, and motives of participants, this method is especially helpful for analyzing qualitative data (Chase, 2008).

2.7 Reliability and Validity

Reliability and validity are important concepts in assessing the quality of scientific research. Reliability refers to the consistency of research findings, while validity refers to the accuracy and relevance of the research in measuring what it intended to measure. Befring (2002) emphasizes the importance of dependability in minimizing errors in research. Christoffersen et al. (2011) note that reliability is generally easier to measure in quantitative studies than in qualitative studies, which are often more subjective and interpretive.

The section examines the potential reliability concerns in the thesis-related interviews and the biases taken into account. The first bias was considered as interviewer bias, which was

minimized by having the same researcher ask the majority of the questions in a consistent tone and body language. The second bias was considered as response bias, which was minimized by informing all interviewees about the interview's objective and subjects beforehand. However, the researcher acknowledges that interviewees may present themselves and their business in the best light. The third bias was the selection bias, which was addressed by allowing participants to choose the interview time and focusing on their areas of expertise to ensure data collection from the intended participants (Easterby-Smith et al., 2012; Saunders et al., 2009).

In terms of validity, the author considered the potential lack of generalizability in qualitative interview research, as noted by Saunders et al. (2009). To address this concern, the author ensured that questions were clear and open-ended, asked relevant follow-up questions, and analyzed the responses from multiple perspectives. Additionally, the author acknowledges that the lack of prior research on the topic requires a deeper understanding before drawing any statistical conclusions. Overall, the author took steps to minimize biases and ensure the accuracy and relevance of the research findings.

2.8 Limitations

The small sample size and geographic restriction of this study, which would reduce the generalizability of the results, is one potential limitation. However, the study's primary focus is on corporate, scaleup, and startup businesses in Stavanger, Norway, hence the findings will give information about these companies' innovation strategies in the present context.

The possibility of bias in the data gathering procedure is another limitation of this study. The accuracy of the data gathered may be impacted by the primary respondents' possible bias in

their responses. To mitigate this limitation, the researcher made sure the respondents were informed of the study's objectives and that their responses would be kept private.

2.9 Ethical Considerations

Any research project must include ethical considerations, and this qualitative study is no exception. The researcher has taken precautions to ensure that participants' rights are respected throughout the research process and has thought carefully about the ethical implications of collecting data from participants. The ethical factors for data gathering will be discussed in this part, along with the measures taken to minimize any potential ethical problems.

Before the interviews, informed consent was gained from each participant. The aim of the study, the fact that participation was voluntary, and the knowledge that participants might discontinue at any time were all explained to participants. Additionally, they were made aware that their data would be kept private, anonymized, and that the research procedure would secure their identities. Participants were given a written consent form to read and give oral consent before the interview.

The study was examined and approved by the research ethics committee of the researcher's institution to make sure it was carried out ethically. The study was carried out in conformity with both the Norwegian Centre for Research Data's (NSD) and the researcher's institution's ethical criteria. Throughout the process of gathering the data, confidentiality was upheld. All participant information was securely saved and was only accessed by the researcher. To maintain participant anonymity, names and other identifying information were taken out of the data during transcribing.

3. Literature review

Innovation has been identified as a key driver of economic growth and competitiveness. Establishing new services has evolved as an emerging strategy for companies in a variety of industries to gain a sustainable competitive edge (Dess & Picken, 2000; Edgett et al., 2010; Hacklin et al., 2013; Tushman & O'Reilly III, 1996). For this reason, firms of different sizes and types have invested in innovation, with startups, scaleups, and corporate firms being no exception (Calantone et al., 2002; Han et al., 1998; Nybakk, 2009; Wheelwright & Clark, 1992). This literature review aims to examine the service innovation strategies employed by these firms as a basis of conceptual framework of this study.

3.1 Innovation as a topic

The Latin word "innovare," which means "to return, to refresh," is the root of the English term "innovation." The word "innovare" combines the verb "novare," which means "change," with the prefix "in-," which denotes a turning inward. Innovation in medieval legal terminology refers to "introducing something new into a settled item" (Oxfordlearnersdictionaries, 2023).

Schumpeter gave the first definition of innovation in the late 1920s (Hansen & Wakonen, 1997), emphasizing the novelty component. A new product or a new quality of a product, a new technique of production, a new market, a new source of supply, or a new organizational structure—all of which may be summed up as "doing things differently"—are examples of innovative outputs that, in Schumpeter's view, demonstrate innovation. "Innovation is the employment of a good/service or a novel technique, a new commercialization mode or a novel organizational mode in the practices of a company, organization of the workplace, or external interactions," according to the Oslo Manual's third edition (Mortensen & Bloch, 2005). As a

result, innovation is multifaceted and has many different aspects. The dualistic expressions of the most important innovation dimensions are:

- Radical versus incremental;
- Product versus process; and
- Administrative versus technological (Cooper, 1998; Tidd & Bessant, 2014).

Innovation can be both Radical and incremental. Radical innovations are ground-breaking, discontinuous, revolutionary, unique, trailblazing, fundamental, or significant inventions (Green et al., 1995). Small adjustments made to strengthen and expand the current systems, goods, and services are known as incremental advances (Tidd & Bessant, 2020). As the name implies, "product innovation reflects change in the final good or service provided by the organizations, whereas process innovation represents changes in the methods by which firms produce final goods or services." (Utterback cited in Cooper, 1998, p. 498). Innovation has been divided into technological and administrative innovations by some scholars. Administrative innovations involve changes to the policies, resource allocation, and other elements connected to the social structure of the organization, whereas technological innovation is about "the adoption of a new idea that directly influences the basic output processes" (Daft 1978 cited in Cooper, 1998, p. 497).

For the purposes of this study, innovation is widely defined to include new products, new processes, new services (including new uses of existing products, processes, and services), new markets, and new types of business models. This is a similar perspective to that of Tidd and Bessant (2020), Zhao, F. (2005), and Perani, G. (2019).

3.2 Innovation strategy

Despite significant management time and financial investments, innovation still frustrates many businesses, and successful innovators struggle to maintain their performance. In order to achieve a certain competitive goal, a strategy is nothing more than a commitment to a set of consistent, mutually reinforcing policies or behaviors. Good strategies help an organization's varied groups align, make objectives and priorities clear, and help center efforts around them. (Pisano, 2015)

Michael E. Porter (1996) defines strategy as making choices and creating a unique value proposition that sets a company apart from its competitors in a sustainable way. In terms of innovating new products or services firms need to focus on unique position and offering. According to Tidd and Bessant (2020), innovation strategy involves developing a systematic approach to creating and delivering innovative products, services, or business models. Innovation strategy should be closely aligned with an organization's overall strategy, and that it should focus on creating value for customers and stakeholders. This study will have a similar perspective and will examine how different levels of service firms innovate in terms of product-service innovation, process innovation, Marketing innovation and Business model innovation.

According to Yen Hsu (2011), marketing strategy and innovation are interconnected and crucial to the success of new products in cutthroat markets. The significance of using a range of marketing channels to reach customers and create demand as well as having a customer-centric approach to design. Desouza et al. (2008) emphasize the importance of a customer-centric approach to innovation, which involves engaging with customers throughout the innovation process in order to ensure that their needs and preferences are being met. Companies should be willing to experiment and take risks in order to create innovative products that are differentiated

from those of their competitors. To determine how different levels of service firms co-innovate with customers while innovating new product service, product market fit will be looked at in the Market innovation mode of innovation.

3.3 Innovation in startups, scaleups, and corporate companies

In recent years, there has been a growing interest in the topic of service innovation, especially among startups, scaleups, and corporate firms. This section will provide an overview of the current state of research on service innovation strategies in these three types of organizations.

Typically, startups are characterized as recently founded companies that are still in the process of refining their goods or services. Their agility and capacity to react rapidly to changes in the market are frequently used to describe them. Startups frequently use the lean startup methodology for service innovation, which stresses quick experimentation and customer feedback to create new services (Ries, 2011). Researchers claim that startups frequently take a customer-centric approach to service innovation, concentrating on comprehending the requirements and desires of their target clients (Karlsson et al., 2018). Additionally, companies frequently use cutting-edge technologies like blockchain and artificial intelligence (AI) to create fresh and cutting-edge services. (Martínez-López & Casillas, 2013).

On the other hand, scaleups are high-growth businesses that have already experienced some degree of success and are seeking to increase their business. Scaleups frequently concentrate on creating fresh value propositions for their services in order to differentiate themselves from rivals and seize untapped market possibilities (Autio et al., 2018). According to studies, scaleups frequently combine internal R&D with collaborations from outside sources to

promote service innovation (Kuckertz et al., 2020). In addition, scaleups frequently concentrate on developing solid brand equity and customer connections in order to develop long-lasting competitive advantages (Cooper, 2011; Woodruff, 1997).

Corporate firms are big, well-known businesses with a more structured approach to service innovation. Researchers have found that corporate businesses frequently have specialized R&D teams and innovation laboratories that are in charge of creating new services (Bouncken et al., 2018). To make sure that their new services are well-aligned with customer requirements, corporate firms frequently make significant investments in market research and customer insights (Vestal & Danneels, 2018).

The research indicates that corporate businesses, scale-ups, and startups all take distinct methods to service innovation. While scaleups concentrate on differentiation and creating strong brand equity, corporate firms have a more formalized approach that prioritizes R&D and market research. In contrast, startups are frequently distinguished by their agility and customer-centric approach. To spur service innovation, all three kinds of organizations, however, can profit from utilizing cutting-edge technologies, building solid alliances, and maintaining a close relationship with their customers. Thus, it is apparent that these issues should be examined to develop a successful innovation.

3.5 Main categories of innovation

Considering innovation as a process Tidd and Bessant (2020) have developed 4 dimensions of innovation space or 4p's of innovation to navigate ways to innovate:

- Product innovation – changes in the things (products/services) that an organization offers;
- Process innovation – changes in the ways in which they are created and delivered;

- Position innovation – changes in the context in which the products/services are introduced;
- Paradigm innovation – changes in the underlying mental models that frame what the organization does.

According to the third edition of the Oslo manual, Mortensen & Bloch (2005), innovation is divided into four groups, Product, process, marketing, and organizational. To better understand digitalization and its links with innovation, the fourth edition of the Oslo manual has added business model innovation as a novel type of innovation. As the fourth edition explains, Business managers may find it challenging to distinguish between organizational and process changes, according to empirical studies. Therefore, in this manual, organizational innovations are grouped under one category of business model innovation, which includes activities that may involve what was formerly referred to as organizational innovation (Perani, 2019).

Following Tidd and Bessant's (2020) 4p's of innovation and Oslo Manual's types of innovation, some thorough outlines of several innovation categories can be extracted from these manuals. Product, process, marketing, and Business model innovations will be looked at:

3.5.1 Product-service innovation

The term "servitization," which was first used by Vandermerewe & Rada in 1988, is now commonly accepted to refer to the process of adding services to products in order to enhance value. Since the late 1980s, a variety of scholars have explored its adoption as a competitive manufacturing strategy in an effort to comprehend the origins and consequences of the idea (Slack, 2005). Servitization can be viewed as a transition away from selling individual products and toward selling an integrated set of goods and services that provide value when used. The idea supports a service-led competitive strategy, offering a bigger income stream, higher profit

margins, and a chance to stand out from goods made in countries with lower labor costs. This kind of innovation involves the usage of a novel good, a novel service, or a significant improvement made in terms of its properties or applications. This comprises a material, working, and practical specification of improvements that are considerable, as well as software integration, usability, and other working features (Mortensen & Bloch, 2005).

Product innovations may depend on new uses, knowledge combinations, or current technologies, or they may incorporate knowledge or brand-new technology. Products include both services and items. Product innovation refers to the introduction of new goods and services as well as significant enhancements to the functionality or applications of already available goods and services.

Services and items that are notably different from a company's past products are considered innovative products. The first digital cameras and microprocessors are two examples of innovative items that required revolutionary technologies. The first portable MP3, which linked common software interfaces to player miniaturization, was a revolutionary product fusing contemporary technology.

In order to stay relevant in the market, startups, scaleups, and corporate businesses are turning more and more to product-service innovation as a strategy. Startups are known for their agility, flexibility, and risk-taking ability, which allow them to explore new ideas and develop new products or services. However, startups face a range of challenges when it comes to product-service innovation, including limited resources, lack of experience, and high failure rates (Masiello et al., 2020). Startups frequently employ a lean method of PSI that entails creating minimum viable products (MVPs) and iterating based on customer input (Chesbrough, 2010a; Ries, 2011). Additionally, startups frequently engage in open innovation, working together to

create PSI with customers, vendors, and other partners (Chesbrough, 2003; Tidd & Bessant, 2014).

Scaleups, on the other hand, face a different set of challenges when it comes to product-service innovation. These companies have achieved initial success and are now focused on scaling up their operations and expanding into new markets. In order to do so, they must maintain their agility while also implementing more formalized innovation processes (Zhang et al., 2018). One approach is to develop a culture of innovation within the organization, encouraging employees to take risks and experiment with new ideas (Birkinshaw et al., 2008). Scaleups also frequently engage in strategic partnerships and collaborations with other companies to drive innovation (Bouncken et al., 2018).

Corporate firms often have more resources and established processes for innovation, but also face challenges such as resistance to change and a lack of entrepreneurial culture (Chesbrough, 2010a). In order to overcome these challenges, corporate firms often engage in external innovation, collaborating with startups and other partners to co-create new products or services (West et al., 2014). Additionally, some corporate firms adopt intrapreneurship, encouraging employees to develop and launch new products or services within the company (Antoncic & Hisrich, 2003).

In all cases, product-service innovation is facilitated by a focus on customer needs and a willingness to experiment and iterate. This is in line with the concept of design thinking, which emphasizes empathy for the customer and an iterative approach to problem-solving (Brown, 2008). By understanding the needs of customers and engaging in rapid prototyping and testing, companies can develop new products or services that meet those needs and are more likely to succeed in the market.

For startups, scaleups, and corporate businesses, Product-service innovation is an emerging tendency in innovation strategy. While product-service innovation can have a big impact, it also needs new infrastructure, a new strategy for customer involvement, and cross-functional cooperation within companies. This study will address these issues to examine firms' successful innovations.

3.5.2 Process innovation

For startups, scaleups, and corporate businesses, process innovation is a crucial part of their innovation plans. It makes it possible for these businesses to increase their operational effectiveness, output, and general competitiveness. Process innovation is the creation and application of new techniques, protocols, or technologies for carrying out company operations. (Mortensen & Bloch, 2005). It entails enhancing the efficacy and efficiency of current processes or developing new ones to accomplish particular business goals.

Startups are renowned for their creative and flexible business practices. Process innovation in startups is one such example. Startups frequently concentrate on developing effective, scalable processes that can be rapidly modified to adapt to shifting market conditions in the context of process innovation. To accomplish this, the lean startup approach is frequently used. Continuous experimentation and feedback cycles are used in this strategy to hone and enhance processes (Blank & Dorf, 2012). Additionally, technology is frequently used by companies to automate and improve their processes. In order to cut expenses and increase efficiency, many startups, for instance, use cloud-based services for data storage, project management, and communication (Ries, 2011).

Scaleups are businesses that have experienced rapid development and are seeking to continue growing. Scaleups face unique challenges as they grow from startups to established

firms. One of the critical challenges for scaleups is to maintain innovation while managing growth. Research suggests that process innovation can help scaleups achieve this balance between innovation and growth (Zimmermann et al., 2020). Scaleups frequently concentrate on streamlining their current processes in the context of process innovation in order to increase output and lower costs. Process re-engineering, supply chain management optimization, and the adoption of new technologies to automate manual chores can all be part of this (Birkinshaw et al., 2016). Scaleups also frequently give invention top priority in their essential procedures. For instance, a software development firm might spend money on streamlining the software development process, which might result in better products and greater client happiness (McGrath & MacMillan, 2000).

Managing expansive and intricate operations is a challenge that corporate businesses frequently encounter. These businesses typically concentrate on increasing the efficacy and efficiency of their current processes when discussing process innovation. Process re-engineering, the adoption of fresh technology, and supply chain management optimization can all contribute to this (Damanpour & Aravind, 2012). Corporate businesses frequently spend money on R&D to produce fresh, cutting-edge procedures. For instance, a pharmaceutical business might spend money on improving the way drugs are developed, which might result in a quicker time to market and higher profits (Tidd & Bessant, 2014).

Depending on the type of business and the sector it serves, process innovation is applied differently in reality. When it comes to implementing process innovation, startups typically have greater flexibility and agility than corporate businesses, which may encounter more obstacles because of their scale and complexity. A culture of constant improvement, sufficient funding,

and a strong commitment for innovation are necessary for the implementation of process innovation to be successful (Damanpour & Aravind, 2012).

3.5.3 Market innovation

In today's dynamic and complex business environment, companies, embracing startups, scaleups, and corporate firms, need to be innovative to gain a competitive advantage. One way to achieve this is through market innovation. Innovation in marketing refers to the use of a novel marketing strategy that involves significant advancements in product design, packaging, , advertising, or product positioning in the market (Mortensen & Bloch, 2005).

Marketing innovations are aimed at satisfying consumer requirements, expanding markets, or placing a company's product in a novel way to boost sales. The implementation of a marketing system that the company has never utilized before sets marketing innovation apart from other changes made to a company's marketing tools. It should be combined with a marketing plan that fundamentally departs from the strategies the business approach or idea has been using in the past. The inventive business may choose to develop the new marketing strategy on its own or may choose to import it from another business or organization and use it. The use of new marketing techniques may be applied to both new and existing items (Mortensen & Bloch, 2005).

As startups have the freedom to investigate untapped markets and upend established sectors, startups are at the forefront of market innovation. The lack of brand awareness, scarce resources, and weak market position are just a few of the difficulties that startups must overcome (Kirsch et al., 2009). According to studies, startups employ a range of market innovation techniques to get around these obstacles and establish a long-lasting competitive edge (Sun et al., 2019). A common strategy is to identify a market gap and target an underserved customer group

in order to establish a niche market (Zott & Amit, 2010). Utilizing digital technologies to break into new marketplaces and develop a distinctive value proposition is a different strategy (Vendrell-Herrero et al., 2017). Additionally, startups can use co-creation techniques to involve customers in the innovation process, boosting customer engagement and developing a network of devoted clients (Tambunan et al., 2019).

Startups that have shown a substantial capacity for growth and have begun to expand their business are known as scaleups. Scaleups now must manage greater complexity, strike a balance between development and profitability, and manage stakeholder expectations, among other new challenges (Brown et al., 2017). Scaleups must continuously innovate in their marketing strategies in order to meet these obstacles. Scaleups can use this strategy to gain access to new markets and take advantage of shared resources by forging strategic partnerships with companies in related industries (Felin & Zenger, 2017). An additional strategy is to forge a powerful brand identity and customer experience that distinguishes them from rivals and builds a base of devoted clients (Royackers et al., 2018). Finally, scaleups can use data analytics and artificial intelligence to understand consumer behavior and market trends and then use that information to inform data-driven marketing strategy choices (Kohavi & Thomke, 2017).

Corporate businesses must overcome specific obstacles to innovate their marketing strategies, such as bureaucratic procedures, aversion to change, and a lack of an entrepreneurial mindset (Christensen, 1997). Despite these obstacles, numerous corporate businesses have adopted market innovation strategies with success to maintain their competitiveness and promote growth. Making a corporate entrepreneurial mindset that encourages innovation and risk-taking is one such strategy (Dess & Lumpkin, 2005). Another strategy is to work with outside parties, such as startups and academic institutions, using open innovation techniques in order to access

new markets and take advantage of new technologies (Chesbrough, 2011). Corporate organizations can also apply design thinking strategies to better comprehend customer requirements and create customer-value-adding solutions (Brown, 2008).

For startups, scaleups, and corporate businesses to stay competitive and spur development, market innovation is essential. The literature review indicates various market innovation tactics that these businesses can employ to establish a long-lasting competitive edge. Niche market development, utilizing digital technologies, co-creation, strategic alliances, brand identification, customer experience, data analytics, artificial intelligence, corporate entrepreneurship, open innovation, and design thinking are just a few of the tactics discussed above. The results of such approaches can help in creating efficient market innovation strategies that take into account the company's particular opportunities and challenges.

3.5.3.1 Product-market fit. The phrase "product-market fit" (PMF) refers to the compatibility of a good or service with the market it targets. As it shows that there is a significant market need for the good or service, reaching PMF is regarded as a crucial turning point in the growth of a startup, scaleup, or corporate firm's service innovation strategy. Achieving PMF, however, is a difficult and iterative process that necessitates paying close attention to customer requirements and feedback. This literature section seeks to present an overview of PMF in the context of service innovation strategies used by startups, scaleups, and corporate firms.

Startups are often dependent on their ground-breaking concepts and game-changing methods of issue-solving. But many businesses fall short because they don't meet PMF. Achieving PMF, in the opinion of Blank and Dorf (2012), is the most important factor in a startup's success. Startups should concentrate on comprehending the requirements of the

consumer and the market, then iteratively develop and test their product or service until it reaches PMF. The Lean Startup methodology, which emphasizes constant customer feedback and iteration, is one strategy startups use to accomplish PMF. Eric Ries (2011) created the Lean Startup approach, which entails creating a Minimum Viable Product (MVP) and putting it through customer testing to get feedback and make changes. The objective is to rapidly revise and enhance the good or service until it meets PMF.

Scaleups are businesses that have experienced some degree of success and want to grow. Scaleups still need to reach PMF in order to expand and penetrate new markets. Scaleups, according to the Digital Transformation (2019), experience particular difficulties in achieving PMF, such as heightened competition and the need to keep innovating while expanding. Scaleups may combine customer feedback, market research, and data analysis to accomplish PMF. In order to create a product or service that satisfies those needs, scaleups, in the opinion of Blank and Dorf (2012), must concentrate on knowing their customer segments and their needs. Agile methodologies can be used by scaleups to iterate rapidly and enhance their product or service.

When it comes to achieving PMF, corporate companies may encounter a variety of difficulties. Corporate firms may find it difficult to accomplish PMF because they frequently place more emphasis on incremental improvements than disruptive innovation (Johnson et al., 2008). However, in order to enter new markets and give their clients value, corporate firms' service innovation strategies still depend on achieving PMF. Corporate businesses may combine market analysis, customer feedback, and agile methods to achieve PMF. Wetzels, Odekerken-Schröder, and Van Oppen (2009) contend that for the purpose of creating a good or service that satisfies the requirements of the customer, corporate firms must concentrate on comprehending

the customer and their needs. Corporate businesses may also employ design thinking techniques to create novel solutions that satisfy the requirements of their clients.

For startups, scaleups, and corporate businesses, achieving PMF is essential to their service innovation plans. Companies need to concentrate on comprehending customer and market needs as well as iteratively developing and testing their product or service in order to accomplish PMF.

3.5.4 Business Model Innovation

A key component of service innovation is business model innovation, which is also a key factor in determining a company's market performance. In the context of startups, scaleups, and corporate companies, there has been an increase in interest in business model innovation in recent years.

A business model innovation can range from partial business model innovations that only affect a firm's products or business functions to comprehensive business model innovations that involve both products and business functions (Perani, 2019). The process of developing and implementing novel value propositions, profit formulas, and/or business models is referred to as "business model innovation." (Teece, 2010). The method by which a company develops, delivers, and captures value is referred to as its "business model". A value proposition, customer segments, distribution channels, revenue streams, expense structure, and important resources and tasks are usually included in a business model (Osterwalder & Pigneur, 2010).

Comprehensive business model innovations are more interesting since they have the potential to significantly impact economic production and supply chains, changing markets and even perhaps generating new ones. They can affect how a company develops items that are

useful for people (product innovation) and how goods are made, sold, or priced (business process innovations) (Perani, 2019).

A variety of business models exist, including those centered on products, services, platforms, subscriptions, and data (Chesbrough & Rosenbloom, 2002). While corporate businesses typically innovate their current business models to stay competitive in the market, startups and scaleups typically concentrate on developing new business models that disrupt established markets (Johnson et al., 2008).

Startups are known for their innovative, disruptive business models that go against the accepted industry standards (Christensen, 1997). In order to discover a product-market fit, startup companies frequently employ lean startup techniques, which involve experimenting with various business models and value propositions. (Ries, 2011). Through iterative testing, learning, and adaptation, this strategy enables startups to rapidly recognize and address customer needs (Blank & Dorf, 2012).

By contrast, scaleup companies are businesses that have effectively attained a product-market fit and are now concentrating on growing their businesses (Monteiro, 2019). These businesses frequently struggle to retain their competitive advantage as they expand their operations, so they must constantly come up with new business models (Saebi et al., 2017).

In order for corporate businesses to stay relevant in the market, they must constantly innovate their business models (Chesbrough, 2010b). These companies frequently have more resources and capacities than startups and scaleups, but because of their size and bureaucracy, they are also more resistant to change (Teece, 2010). They must therefore figure out how to combine innovation with efficiency (Zott et al., 2011).

Utilizing the Business Model Canvas, a visual instrument that assists companies in describing, designing, and evaluating their business models, is one strategy for business model innovation. Customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure are among the nine building elements that make up the Business Model Canvas (Osterwalder & Pigneur, 2010). Startups, scaleups, and corporate businesses have all embraced this tool to develop new business models (Saebi et al., 2017).

The use of service-dominant logic, which stresses the value of co-creation and value-in-use, is another strategy for business model innovation. According to logic that emphasizes the supply of services over the sale of goods, businesses should concentrate on adding value for their clients (Vargo & Lusch, 2004). In relation to digital services and networks, this strategy has been especially useful (Maglio & Spohrer, 2008).

According to the research on business model innovation, it is a difficult and iterative process that necessitates ongoing testing and adaptation (Chesbrough, 2010b). All three types of businesses—startups, scaleups, and corporate entities—face unique difficulties when trying to innovate their business models, but they can all gain from using tools like the Business Model Canvas and taking a service-dominant reasoning strategy.

3.5.4.1 Servitization. Businesses are progressively transitioning to selling services or product-service bundles, or servitization, in the age of Industry 4.0. A business strategy called "servitization" is delivering customers value-added services in addition to conventional lines of products (Baines et al., 2017). This strategy is thought to give businesses new revenue sources, better customer relationships, and more satisfied customers (Kowalkowski et al., 2017).

Servitization is the process through which a company switches from selling items to providing services or product-service bundles (Baines et al., 2017). Instead of only selling customers goods, this strategy entails offering them a whole solution to their problems. It enables businesses to stand out from rivals by presenting a distinctive value proposition (Kowalkowski et al., 2017). Servitization can be classified into product-oriented and service-oriented categories. Selling products and offering fundamental services like maintenance and repair are the major priorities in the product-oriented strategy. The emphasis of the service-oriented strategy is on offering sophisticated services including consulting, training, and customization (Baines et al., 2017).

Innovative companies are those that bring to market new, improved goods and services. These companies frequently adopt cutting-edge technology first and are always seeking ways to enhance their services. Kowalkowski et al. (2017) claims by providing customers with a comprehensive solution to their problems, servitization can be considered as a means for innovative businesses to sustain their competitive advantage. Numerous similar characteristics have been discovered in innovative companies that have effectively embraced servitization. For instance, they typically have a strong focus on what's needed and the preferences of the consumer (Kowalkowski et al., 2017). Additionally, they have an adaptable organizational structure that enables them to quickly respond to shifting market conditions and requests from

customers. Offering customers value-added services in addition to conventional product offerings is a strategy used in company that is growing in popularity. Innovative businesses are especially well-suited to this strategy since it allows them to keep their competitive edge by providing customers with a comprehensive solution to their concerns.

3.6 Success factors in service innovation strategies

Success is a critical concern in startups, scaleups and corporate firms. The opposite outcome, failure, is not usually considered, though potentially of value as a learning experience (Leiper, 1997) . Success is here understood as the implementation and positive market achievement of an innovative service product offer a period of time. Alam (2011) contends that a lack of plan is the primary cause of the high percentage of unsuccessful services. Business organizations must proactively build the NSD (new service development) process if they want to acquire a competitive advantage. Businesses create poor products because they lack customer understanding. Services innovation makes organizations more competitive (Yang & Kankanhalli, 2013). While the goal of improving existing services is to satisfy the needs of the current market, the goal of service innovation is to meet future markets (Tang, 2014). Making their innovation visible to their customers is a challenge for businesses that provide services.

Success of a new service is measured by its ability to grow sales, market share, customer loyalty, and satisfaction as well as by how quickly it enters the market and how innovative it is (Ottenbacher, 2007). New services are not deemed successful if customers are not satisfied. Therefore, firms should take success criteria into account in order to create profitable new services and to strengthen their competitive edge. Information technologies, company strategy and new service plan alignment, as well as consumer and staff participation, are important success factors for the creation of successful new services.

According to a bibliography of critical success factors in service innovation strategies, key factors of successful service innovation are (Kitsios & Kamariotou, 2016):

- Idea generation
- Organizational structure
- New service development process
- Resources
- Market synergy
- Strategy

In order to gain a competitive edge and increase client loyalty, firms should offer high-quality services. Technology is yet another important component, as new technologies aid in the creation of new services by facilitating activities like market research, new service design, and communication between participating staff and customers to ascertain their wants and assess new services. Because new service innovation entails a significant level of risk, managers need to link business strategy with new service innovation strategy and related resources to fit new services with business profiles and market needs (Kitsios & Kamariotou, 2016).

This literature review has aimed to show the several factors involved in successful innovation strategies for start-ups and other service-focused companies. The outcome of strategies will depend on the management and development of products and services in each company. In the next chapter some results from the interviews with start-ups and innovative companies in Norway will be presented.

4. Results

In this chapter some factors involved in the successful development of start-ups, scaleup and corporate innovative companies in Stavanger, Norway will be presented, based on interviews with leading members in 6 companies. The factors to be looked at include products-service innovation, Process innovation, Market innovation, Product-market Fit, Business model innovation, and Servitization. First, the selected companies are presented briefly and then results from the interviews are presented.

Table 1

Background information of the representatives

	Main industry	Individuals interviewed
Company A	Smart Cities	Project Manager
Company B	Real Estate	Chief Technology Innovation Officer
Company C	Digital Service	Chief Marketing Officer
Company D	Overhead Electric Energy	Chief Financial Officer
Company E	Telecom and Network	Head of Innovation
Company E	Water and Wastewater	Chief Marketing Officer

4.1 Product-Service

4.1.1 Confidence in the success

Respondents to the interviews said that their confidence in the success of the product was high. Four of the respondents shared their focus on the needs of the people and coming out with a solution that the customer needs. Start-ups tend to focus more on solving particular problems

that have the potential of scaling and creating a business model that is more suitable with the motive to solve the problem.

Respondent of firm A shared their confidence in success based on deliveries to their cluster members that help members to gain value,

“I’m confident that deliveries we’re doing towards our members are good. And I’m confident that the members get much value from this.” (Firm A)

Respondent of firm C shared their confidence in success based on their idea of solving a particular problem that a specific segment of people were facing,

“I’m pretty confident, it started as an idea like because of how we’ve all been with our families, helped provide for us on a personal basis. It was a question of un-questionably confirming that there’s an urgent need to raise the digital skills among the elderly, specifically in the population. And Firm C started as a series of video courses, but we quickly realized that there was the need for a different and more sustainable way to contribute to the solution.” (Firm C)

Respondent of firm D shared their confidence in success based on the need they are serving, and that need had been created due to the energy transition and the market trend of electricity,

“I mean, confidence, I guess, I would not say 100% but I think you know if you look at the market, the energy transition, and the electrification trends in the market, you could see that there is the need and the space for this kind of technology that we have. So, I know that I’m confident that there’s a need for it.” (Firm D)

Respondent of firm F shared their confidence in success based on the process they are developing to meet customer needs by solving problems related to water and water waste,

“We have many features of development because we discovered new problems as we move along. I think anything put into development and set for production we are always quiet, you know, has high confidence that it addresses the problem. Of course, we will have kind of discussed the problem with customers beforehand so, that's how we normally think when we put out the feature to be developed is that it's an actual observed problem and that somebody is willing to pay for it. So, it's never 100%. There's always a question will it match customer needs. Will more customers need this and is it technologically difficult? So, yeah, I'd say I would say we're about 80 to 90% Sure. Before putting it into development.” (Firm F)

However, Firm B had different perspectives. Their confidence was based on the models they followed and the resources they had while innovating new products or services. Which shows corporate companies rely more on their ability and models.

“Yeah. I think we're not that confident of success because we have, we have like a Stage-Gate model. Yeah. We are qualified, or at least in different stages. Maybe that tells us that we are not sure when we start if the product will be a success, but we grow more and more confident in the way we're working. In other words, confidence in the success of product-service grows as the models or strategies are developed.” (Firm B)

4.1.2 Understanding the product

When they were asked about their understanding of the product, all the respondents emphasized understanding people and customers more to offer product that are more matchable

with customer's needs. The companies expressed confidence in their product-service meeting needs in the market, a point that will be explained upon further on in the thesis.

4.1.3 Metrics to develop your products

In response to the use of metrics to measure growth or using any tools to increase growth, respondents' strategies varied based on their firm's position and size:

Firm A, Firm B, Firm D, and Firm F shared that they evaluated their projects concerning the value they captured from the customer using tools like salesforce and customer feedback. In addition, Firm D added they measure their physical products using TRL (Technology Readiness Level), and for revenue metrics, they use MRR (Monthly Recurring Revenue) and also IRR (Internal Rate of Return) to determine the profitability of the product.

Firm C shared that, they are now in the developing stage of their services and focusing on the development of the service first, and based on the success of the service they are going to implement further strategies.

Firm E, being a corporate company, shared that they have a specialized department responsible for the marketing and business model of their products and services.

4.2 Process

4.2.1 What was your innovation method for service innovation or product development?

Respondent of Firm A shared, the objective of their service depends on the need of the members of their cluster. They evaluate it on a timely basis. If they found their members are pursuing a certain market, they create strategies to help them penetrate that market. It changes with time and changes with the market and customers and evaluations are done at regular intervals.

Respondent of firm B mentioned using two methods for service innovation, 10 types of innovation and the Stage gate model. They combine multiple aspects of 10 types of innovation to cater to an offering.

Respondent of Firm C shared, in the beginning, they identified the problem and explored the reasons to solve it, and also figured out why existing methods didn't get success. Based on that analysis they identified attributes based on their service utilizing theories and empirical data.

Respondent of firm D stated, they analyzed existing needs in the market and how they can offer their services through their technology. That's their technology roadmap that drives their strategy.

Respondent of Firm E shared their approach to understanding customers' needs, pains, and gains and then developing a service based on that. After developing the service, they ask customers to give feedback on their service. Depending on the feedback they continue or make changes to the service. Which is an iterative process.

Respondent of Firm F indicated using the design thinking methodologies together with customers when developing the product. They used methods such as User Journey, Mockups, MVP (Minimum Viable Product), and Customer Workshops.

4.2.2 Did you try to develop and validate your idea as a hypothesis?

Firm A started on a smaller scale as a conference and grew over time to meet market needs.

“I think we started with 500 people in a conference in 2016 and in 2019 It was 5000. So, it's, of course when you start something you try it a bit smaller, but if you see the interest, you

increase it and our work operations as well. So, now we see that we have more members, and we have more activities.”

Respondents of the other five Firms shared following an iterative process of developing a prototype or MVP (Minimum Viable Product) and validating it through customer feedback till developing the final product and service.

“In normally we make like a prototype and then we tested some potential customers, and we interview them and ask them what they think and so on, and then we go back and do the modification. And we go back again and do the iteration process. That's based on the design thinking method.” (Firm B)

“In the beginning, it's an MVP, and then just, first, validating the concept of our service. Now to scale it, we need validation from more and more businesses and end users as well.” (Firm C)

“So, every product we developed, we always develop that as an MVP. So, and then if there's a demand we develop it further to a final product together with a customer so you get a lot of input from the customer. Until you get the final product that can be scaled and released to the general market.” (Firm D)

“Yes, we do, we first develop an MVP, and based on the market need we develop, change or scrap the product.” (Firm E)

“Most features have followed an iterative approach. MVP (Minimum Viable Product) generates new ideas with the end user. Incremental changes in result/ dashboard design and analytics are applied by adding new data. Product and feature validation through feedback

sessions with key users, product owners, and leaders which is continuous validation and development process” (Firm F)

4.2.3 What kind of product development method did you use? Lean or Agile or traditional methods?

Firm A which is fully service-based does not have a lean or Agile methodology. To develop new services, they use other digital tools for evaluation and processing.

Respondents of Firm B and Firm F shared that they use Agile methodology. Respondent of Firm C indicated using lean methodology. Respondent of Firm D uses Lean on the production side and Agile on the software part. And Respondent of Firm E uses the Blue Ocean strategy to conceptualize the product and the Agile method to develop software.

“Yeah. I think we're a technology company. We use the agile approach they have like a Sprints.” (Firm B)

“I would say it's a lean method of working because we have limited resources. We're going to soft launch it and then continuously improve and do the design and development sprints.” (Firm C)

“I'm pretty sure we use Lean on the production side. Agile I'm quite sure that our software side uses this especially in developing the product since we're using that MVP approach.” (Firm D)

“For the development of any product, we follow the Blue Ocean strategy to understand customers’ needs, pains, and gains. And for software-part, we use Agile methodology to integrate with our product.” (Firm E)

“We use the Agile methodology.” (Firm F)

4.2.4 What innovation methods have proved most effective for you? What would you do again?

What would you recommend to others?

Firm A’s innovation method was based on the market they were serving, and it changed with the particular target segment. They were implementing methods in accordance with the market needs.

“I think it depends on what type of company you are because for startups a specialised department is the most valuable and also the cluster with the network. But if you're a big company like Microsoft, of course, it's more valuable to be able to understand and maybe have some speaking time at the conference we hold.” (Firm A)

Respondent of Firm B mentioned using established models and tools as their innovation method.

“I think the way we do it like stage gate model and design thinking approach and having done it 10 aspects of innovation. All those together give us like a good set of tools to be successful.” (Firm B)

Respondent of Firm C emphasized proper market research to develop the prototype and test it.

“Well, definitely spend a lot of almost all our time on the proper market research. Doing all this research before starting to develop something that's I think that's the smartest thing we've done like not assuming because the assumption is just a very dangerous thing to do because it has never anything you need to know. So yeah, just spending a lot of time on prototypes, testing, validating, and talking to people.” (Firm C)

Respondent of Firm D mentioned doing research to determine the market size and potential of their growth. He also emphasized market research to understand the problem.

“It’s the anything, any business you do. When you enter you need to understand the market size. Is there a market for the product as the market is big enough for all the different players? So, want to emphasize more about market research, like the first beginning strategy, like understanding the problem.” (Firm D)

Respondent of Firm E emphasized the perspective of solving problems to meet customers’ needs as a method for innovation.

“I’d say emphasize the perspective of solving the problem. If someone can develop something that the customer needs that’s the most necessary part of innovation. and also failure is an inherent part of innovation.” (Firm E)

Respondent of Firm F mentioned using the design thinking method for innovation.

“Mock-up / MVP of user dashboards and close collaboration with user groups.” F

4.3 Market issues in product-service innovation

4.3.1 *Target market*

Respondents of all the firms shared that they have a specific target market and offerings in accordance with that market.

Respondent of firm A indicated that their primary target market is everyone related to building up Smart City. In relevance to that, they are working with startups and investors.

“Well, I work a lot with startups and investors. Yeah. So, for me, my target is investors, but also, of course, good startups. But we see it in the cluster in general, it's everything from

municipalities to universities to established companies as well. So, because we're a cluster and we want to work across sectors, our market is kind of everyone who is related to building up Smart City.” (Firm A)

Respondent of Firm B mentioned they are operating in the real estate industry. For that, they are developing real estate infrastructure and offering the technology as their services.

“We are a real estate developer and technology company that delivers service for the real estate industry. Our customers are the real estate industry. So, the tenants that are in the buildings, that's where the real estate industry is, that's the customer. So, like, also the people that maintain the buildings and so on, so everybody that's concerned with rounding off the building and using the building.” (Firm B)

Respondent of Firm C shared, based on their offering and business model they have two target segments as a two-sided platform. One is the businesses that need digital materials for their services and another segment is users that need help to enhance their digital skill set.

“It's a two-sided platform. It's a b2c [business to customer] free service for people who need to enhance their digital skill set. So, they can go to our website which is free for them, and they can access all this material and use it to know themselves. On the other side, it's a b2b [business to business] solution. It's a tool for businesses to create this material that's free for the user, if you understand so that businesses will be the ones who access this tool and create the material that will help their clients, and then that sense, their clients will be more self-sufficient and be able to use their digital products in a better way. It's not very easy to explain the two sides of the offerings.” (Firm C)

Respondent of Firm D shared, they are operating in the energy industry. Their target market is overhead electric powerlines operators.

“Our market is the PSO and the DSO. Transmission system operators like Statnett. So, our market is overhead powerlines, so we don't cover underground cable, or low or medium voltage- so high voltage. Those are our market expands. So anywhere in the world where [operators work] with an overhead line, high voltage. It's our market.” (Firm D)

Firm E, shared, they are more specific to a certain industry with a broader market segment. Their target market is people within the industry they are operating but their innovation can vary relating to the problem of their interest.

“It's more open to the market like trying to solve the problem. We have a little bit of freedom but usually, it should be within the energy grid or telecom like broadband. Its service domains.” (Firm E)

Respondent of Firm F stated, they operate their services in Water Utilities and Smart Cities segment. Offering services in both public and private sectors.

“Norway + Nordic countries specifically Water Utilities and Smart Cities segment. In Nordic countries, it's mostly about public sectors. In the private sector: hotels, insurance companies – others that have problems with water” (Firm F)

4.3.2 Market Research Process

Depending on the type of products-services and target market, firms take different market research approaches to understand the market. Firms gather knowledge and customer insights and based on that they launch their offerings.

Respondent of firm A shared, they start by discussing about them and potential members to get relevance for building smart cities. Based on that they offer their services to that potential member firms.

“Always have to talk with them first, like a meeting where we explain a bit about Firm A, and they get to explain a bit about their company. And then we see that these are not relevant at all for smart cities. Then we will not offer them to be a member. And maybe we'll offer them some other cluster, which will give them more value.” (Firm A)

Respondent of Firm B stated, they don't follow any established scientific method for their market research. Based on their own study of the market they make their assumptions.

“I don't think we have a scientific method just, I don't know, go by the gut feeling and so on. So also, we read a lot about what's happening in the market and what are the megatrends and so on. I think based on various, like knowledge-based Yeah, we tried to read a lot and see what's happening in the market and so on. And then we do our own assumptions based on the knowledge that we get from the probe understanding the market.” (Firm B)

Respondent of Firm C indicated, doing in-depth studies by themselves to understand the market. They work closely with both B2B clients and B2C users to understand the needs of clients and users.

“Yeah, so we combine reading previous reports on the population's overall digital skill set, but most importantly like I already mentioned, we do the in-depth studies ourselves. And that's to understand the actual needs, the pains, and also the possibilities with both the b2b clients and the b2c users. So, we involve both parties to a great degree in the development and then the understanding of the market.” (Firm C)

Respondent of Firm D shared, they work for market expansion following market regulations that is suitable for their growth.

“So, our initial market target and core target market are in Norway. The Scandinavian countries since the regulations are pretty much the same. And of course, we want to go to Europe at some point and eventually, where there are their ongoing changes in the regulations.” (Firm D)

Respondent of Firm F noted, they work closely with the customers to understand the market and use agents to reach customers. And from knowing and offering their services to the clients they get the idea of the most important problems.

“We work to understand the market like, we’ve worked a lot of it in, direct customer dialogue. We’ve, we’ve had a call center pretty much help us get into contact with that. We have we’ve had direct meetings with more probably than 100 municipalities. To try to know, and sell our solution and that also gives us quite an idea on okay, what are they using today? What’re their problems, their most important problems, etc.” (Firm F)

However, Firm E shares different strategies to understand its market. First, they launch the product in the market unofficially and observe customer response to get customer insight and the impact of the product:

“It's almost like beta testing. It depends on the testing that you roll service or a product out in the market, but you don't say that now it's launched to say we would like to have some volunteer hours. We would like to see if people are buying it, but we will not officially launch it. Right. It's a low-risk kind of market approach. Because you will want to see whether people use it or if they are, how much they will pay for it or if they pay for the service. So, it's somehow like the final test of service.” (Firm E)

4.3.3 Do you use any market orientation scale to measure your company's market-oriented approach?

An approach for the firms known as "market orientation" places a high priority on determining customer requirements and desires and developing goods and services that address them. About the market-orientation measurement of their approaches, firms shared different approaches to determine their market-oriented position and the steps they undertook to improve:

Firm A indicated evaluating their projects at regular intervals and using a tool named "Change Board". They also present new projects at regular intervals. After evaluating the old and new projects and the value they will gain from the projects they decide on continuing the projects.

Firm B mentioned their approach of using customer insights to evaluate their customer-oriented approach. They want to implement data-driven strategies to measure their approaches in the future.

Firm C which is in the developing phase of its services trying to evaluate its services and to what extent they meet its customer requirements.

Firm D shared, they are a little more advanced than the existing market. They are solving a problem that will make a great change in the electric energy consumption market. For that, they are explaining to customers what they can offer to better people's lives, society, and the world.

Firm E develop a product based on clients and customer needs and after that, they get insight from client and customer experiences of the product to determine if the product matches customer expectations.

Firm F shares a strategy of evaluating image positioning to measure a market-oriented approach. They try to evaluate themselves based on what image they portray in the market in terms of cost-benefit, Environmental benefits, and reduced environmental risk in water/wastewater operations.

4.3.4 Market-oriented/nonmarket-oriented strategies?

The firms shared different market-oriented strategies they implement to grow in the market:

Firm A explained its steps to grow in the market. After the selection of potential members, they approach them officially and inform them of firm A's offerings.

Firm B shared that it's hard to find the best suitable approach due to the lack of proper standardized KPIs (Key performance indicators). They evaluate themselves based on the reputation they have in the market from customers' satisfaction, partners, and investors. Their key strategy is to differentiate themselves in the market by offering additional services to capture customer value.

Firm C mentioned a continuous improvement strategy based on customer insights. They want to grow by adding more b2b clients and creating content for clients to serve customers.

Firm D shared its primary strategy is to expand in Norway first. The strategy is to increase market share as soon as possible by offering low-price technology which is very scalable as a monthly subscription usage.

Firm E mentioned using a spin-in and spin-out tool for innovation. "Sometimes, Internal ideas are going into companies inside the business units, and it will help you to make a target or

a market. Sometimes it comes from the outside and spins in. Yeah. And sometimes it goes like this and spins out.”

Firm F prioritized the strategy of building a customer base and increasing market share. They are focusing on minimizing bureaucracy to reach customers and promoting their offerings through social media.

All the companies shared an approach of actively identifying and relating to their market.

4.4 Product-Market Fit

4.4.1 *Customer insights*

To achieve product-market fit firms use different methods to get customer insights. Firms shared using methods such as Market Research, Focused group, Design Thinking approach, Workshops, and pilot projects to get relevant customer insights.

Respondent of Firm A shared, doing market research to determine a focused group related to Smart Cities. After that they evaluated relevance based on the information available online.

“Actually, from Innovation Norway because they have like lists of all the companies in Norway. They also, you can filter, and you can see like, who is related to smart cities. And then it's quite manual. After that, you have to google and check out the company site and see if it's if it seems interesting. So, we don't have like an analytical tool. So quite a big manual job.” (Firm A)

Respondent of Firm B shared, developing prototype first and following the design thinking method. They interview customers to get insights and validate their offerings.

“We try to do like prototyping. First, we have like an interview like that's a design thinking method and then you make a prototype and then you go back and you ask them again, is this what you meant and then if they say no, you have to reconsider and then go back and then make some changes and present the solution again. I would say that's the way we do it.” (Firm B)

Respondent of Firm C shared, doing workshops to get customers' insights. They test their offerings with the target group based on customers' feedback.

“Yeah, we do a lot of workshops, to throw out ideas and see what works and what doesn't work. Like is there any stone we haven't turned yet. So, a lot of workshops and testing with the target group and they can contribute with actual feedback on specific functions that we need to have or maybe not have. We do spend a lot of time on feedback on how we present like design and layout. But we're also focusing on like to meet their expectations. We need to focus on sort of the biggest pains of being not digital today.” (Firm C)

Respondent of Firm D shared, they do pilot projects initially with customers to get insights. They gather insights for both product design and software development.

“I guess to start from the beginning, you always go for pilot projects like initially you always need to find that one customer is willing to test your technology and you're able to track and record the results of that project. It can be an insight into the design or it can be an insight into the software side. And then once you have that customer, really a couple of those, and then you're able to explain to the bigger customers what we did with this customer, we're able to increase their capacity by 25-35%. And I think this is what we can do for your company too.” (Firm D)

Respondent of Firm E shared, doing Workshop and Design thinking method to get customer insights and develop products that customers need.

Respondent of Firm F indicated, doing mock-ups and workshops to get user feedback. Through understanding user needs they develop product features.

“User feedback sessions from mock-ups and workshops. Understanding the end user and what are they are trying to do in their job. What features do they need and apply and which do they not over time” (Firm F)

4.4.2 How do you analyze external factors and internal factors or resources to achieve market fit?

Firms shared their strategies for analyzing external factors and internal factors to match their offerings to the market:

Firm A shared, first, they look for a specific problem. To come out with a solution they organize internal resources to match that problem. To support themselves they also look for external resources that they can utilize to come out with a better offering and growth.

Firm B mentioned, for the nature of their specific market which is real estate they emphasize investment analysis. They also analyze proper locations to develop a certain project that will give more value to the customers, and they can put the right pricing or rent on them.

Respondent of Firm C shared, they were adamant that they wouldn't write a single line of code until they had enough knowledge. Therefore, they put a lot of effort into creating and sketching prototypes. In addition, they do demos for their clients and end users while evaluating market needs.

Respondent of Firm D shared that their service is a combination offering of their industry. They start with pilot projects, which give them a step into the customers. External factors such as regulations, if there are any important changes in the regulations like in the US recently, then it's a game-changing external factor for their firm's growth.

Respondent of firm F shared that they examined new markets and nations, acquiring all the information they require about a new market. Starting a direct interaction with customers or other target audiences is where they learned the most.

4.4.3 How do you plan to innovate your service radically in the future to surprise customers by surpassing their expectations?

Respondent of Firm A shared, to innovate service radically they want to improve their way of following up with customers to surpass customer expectations.

“We usually evaluate and do this by the end of the year, it's maybe I want to create a more a better way to follow up on all of our members, because the way it works now, it's like the one that screams the loudest is the one that gets the most help. And so, for my part, I would be really glad to change the way we follow up on the customers.” (Firm A)

Respondent of Firm B indicated, they are trying to bring radical innovations in their offerings and find it difficult due to market competitiveness. To do that they are focusing on the commercial segment and standard operations.

“Yeah, we try to do some radical innovation also. But it's very difficult and hard to surprise people because there are so many newer things that are happening at the same time. So, it's really hard to come up with something new and innovative. That's radical. So, I think we are mainly focusing on the commercial part and the standard operations.” (Firm B)

Respondent of Firm C shared, to innovate their services radically they want to integrate components in their solutions of high quality.

“I hope we can get many of the wow factors, but we just need to prioritize because we have few resources. So, we need to be creative now, so that in the future when we do have more funding, for example, we can start with implementing more of these Wow factors. “WoW factors” are the components in the solution that will ensure the high quality.” (Firm C)

Respondent of Firm D shared, to innovate radically they want to implement automation in their services. And they want to educate their customers by showing what customers actually need.

“That's part of our plan. You know this is just like us getting in there and having our system software is the first step to the ultimate goal. You have to think like an operator. What do you want, you want everything to be automated, everything to be connected, I want to be informed when there's snow in the eyes, I want everything to go up and down to adjust automatically. I want automatically to let renewables come into my grid when I have capacity. So those are the things is basically, ultimately that's the ultimate product. So, you need to show the customers what they want actually. To show them this is what you need. So, they don't know sometimes what they need, but if you can show them, you can visualize them, what it could look like when everything is automated.” (Firm D)

Respondent of Firm B indicated that, to innovate radically they want to invest in User Interface (UI) and User Experience Design (UX) to offer better ease of use of their services to the customer.

“UI and UX – and area that we will invest much more heavily into the more attractive look and feel, better ease-of-use” (Firm F)

As can be seen, all the firms wanted to enhance the experiences of the customers

4.5 Business Model Innovation

4.5.1 *What is your business model?*

Respondent of Firm A shared, they are offering non-profit services to their clients. Their activities are mostly funding based.

“We are like publicly funded. And for the money that we receive from, from the companies, it's, we do activities on their request. So, I feel like your business model usually covers the way you earn money. So, as we don't earn money, we are more funding based.” (Firm A)

Respondent of Firm B shared, their business model is to earn from renting out buildings and square meters.

“So, our main business model is to just rent out square meters and buildings. We add some services like Wi-Fi and some new services. So that's to give the customer added value.” (Firm B)

Respondent of Firm C stated, they want to offer their services for free to the end users. And they are going to earn from their B2B clients for whom they create digital materials.

“It's going to be a software-as-a-service license-based offering. So, businesses will be paying for the tool. The tool will help you create step-by-step guides for your client or end users. But for the end users are getting it for free” (Firm C)

Respondent of Firm D shared, their business model is to sell their hardware products once initially and later earn from software subscription as monthly recurring revenue.

“I guess to start with that business model. So, we're in the hardware software business, we sell the hardware one time with some margin. And then we are a software subscription business. So, we provide software subscriptions. So that's your recurring revenue business model.” (Firm D)

Respondent of Firm F indicated that their business model is to offer software as a service (SaaS) and earn from monthly subscriptions. Based on the size of the implementation of their product and the need for support of customers they are going to charge customers monthly.

“SaaS – monthly license fee depending on the size of implementation, support needs”
(Firm F)

As may be noted, all the firms have clearly identifiable sources of income or funding, and rely on securing this revenue as a part of their business model.

4.5.2 Do you use any Startup canvas or Business canvas techniques?

A Business model Canvas and value proposition are strategic tools to solve customers' problem or satisfy customers' need. In response to using these tools, all the firm's respondents shared that they use these tools to develop value propositions and these tools have been super helpful in dialogue with their different partners. One exception was two respondents who were not sure what tools were used.

4.5.3 Quality, variety, and cost-efficient are three motivations for the standard product innovation model. Which one did you focus on?

As a motivation for the standard product innovation model, Firm A focused on quality as they are non-profit. Firm B focused on variation, Firm C focused on quality, Firm D focused on Cost efficiency and, Firm F focused on both cost efficiency and quality.

“We want to give value to the companies and we're nonprofit. So, we focus more on quality in our offerings of giving value to the members.” (Firm A)

“I think we're mostly concerned about the variation. We also use like, for the four lenses of innovation, the product is desirable in the market and the customer wanted it and so on. And also, like sustainability, timing is really important now, because we used to have like three lenses, but now we have the fourth one which is sustainability.” (Firm B)

“I would say definitely almost 100% quality. So, in our opinion in the field of raising the digital skill sets in the population, there is no product or solution without quality.” (Firm C)

“We're still going to be cost-efficient. That's going to be our main selling point. As we scale we're more focused on the MRR monthly recurring revenues. So as long as we keep the cost of our hardware cheap, we're able to, you know, focus on the software side of the business. Yeah, so it's a low-cost strategy.” (Firm D)

“Both Cost 2 and Quality. Too much variety will hamper scaling.” (Firm F)

Firm E is more concerned about the market. They innovate their services with any or a mix of these three motivations that suit better to meet customer needs.

“Our niche market is telecommunication and networking. So, we develop products to solve customers’ problems in this area. Which can be any or a mix of them.” (Firm E)

4.5.4 How did you support your funding?

Respondents of firms shared, to support themselves in the beginning and developing their products and services they received funds from different sources.

“We are a part of the Innovation Norway cluster program. We have projects funding, which we apply for, that can be from the EU,” (Firm A)

“We got big support from the Norwegian Directorate of Health. we have now received grants from Innovation Norway. We will be going into an investor process and trying to recruit investors that match our values and investors that have the right motivation to come on board.” (Firm C)

“We have investors from the start and venture capital investors. We always actively search for funding from Innovation Norway. Any grants out there if we may grab those opportunities.” (Firm D)

“First bootstrapping and earning our salary through consulting. Now we are venture capitalist (VC) backed. We got funds from Lyse. Our objective is to secure pre-series A funding round, Norwegian and/or international investors.” (Firm F)

4.5.5 Do you think collaborating with other firms helps your R&D to be more innovative?

From the reply of all the firm’s respondents, collaborating with other firms give them access to new kinds of business and increases market and revenue generation. It helps both ways for the firms, they are helping and also getting help from others. Firm B mentioned that the absorptive capacity of the company is a key element in converting the learning from others into

something useful for the company itself. That is a key element to focus on while cooperating with other firms.

However, Firm F noted the potential threat of misunderstanding second-hand customer insights. Sometimes what is good for other firms might not be useful for the firm itself.

This would indicate that there is an element of caution when collaborating with other companies, in particular in relation to understanding the market and customer expectations.

4.6 Servitization and service innovation

Respondents of all firms shared the need to shift from offering products only to a product-service bundle offering which is also known as servitization. Here some of their statements are provided from their interviews to support moving towards servitization. As this theme arose from their conversations, the researcher brought these statements further when respondents were answering other questions for the interview to elaborate on the topic. That services were an integral part of product innovation seemed clear:

“There’s also a way of seeing that we’re growing because they’re willing to pay for our services.”

“But what their services are, isn’t that important to us? It can be everything from hardware to software to an app.”

“We grow more and more confident in the way we’re working and then what if we don’t have to believe in the product and service that we just bought the process.” The implied risk is what the firm would believe more in the process of development rather than the product or service.”

“So, we try to not only be a real estate [company], not only renting out square meters [but] also provide a certain amount of services and also added value to the customer.”

“To sort of cover the need, that businesses have when they try to make guides and step-by-step sort of recipes to how to use their digital services because that’s what the end user needs. So we went from like a static provider to software that’s much more sustainable and addresses the needs.”

“But then as we get more clients in more content and more users, we will of course be more quantitative in our insights gathering and then continue our development on the fact that we get in from how they use the service and what they are missing. Like the function should be implemented next based on the next need that they would have.”

“So that’s ... also behavioral psychology because today’s digital services do not take into account effects of aging.”

There was a consistent view that the customers’ or users’ reception of services was pivotal to service innovation:

“Make sure that the first impression of the service is okay, this is cool. It does cover my basic needs.”

“We’re very focused on having the right communication in the service. So we do spend a lot of time on feedback on how we present like design, yeah, layout, and stuff like that, and not giving the user too many choices. In this service, we make it super simple, which is very hard.”

“So you’re able to adjust and change or adapt your existing services and at the same time, they can give you an idea of future services that you can offer that they don’t have yet. So that’s

part of the technology roadmap that we prepare, you know, to help us plan which services should be prioritized first because of the market needs and the market feedback that we get.”

“You have to think like an operator. What do you want, you want everything to be automated, everything to be connected, I want to be informed...”

“You could move along and you can also track the usage of a service. There is one service that we have been working with for a couple of years... It’s like a sensor using IoT networks that we also launched in this region. We launched the first version of it from our departments and then said, " Okay, we need some services here.”

“We didn’t know if anyone would like to pay for it or if any customers were interested in these facts. So, we did like what we call a proof of concept. Pilots.”

“We first investigate what the customers want and what they need, what are their pains and gains, and what terms are used. And then we will try to develop a service or a product that solves their problems.”

One respondent emphasized: “Customer and user interaction – regular product feedback meetings with key users... The past 2 years have been spent getting more to the point on end-user problems and values and talking less about tech.”

User adaptation is an: “area that we will invest much more heavily into-the more attractive look and feel, better ease-of-use.”

With these statements it should be clear that service innovation and customer contacts play an important role when considering the successful operation of startups, scaleups, and

corporate companies. In what follows some of the main findings from this research will be discussed and summarized.

5. Analysis and Discussion

To answer the research questions, semi-structured qualitative interviews were conducted with service firms that have successfully developed new services and linked them to the market. The interviews were conducted in person or via video conference, depending on the preferences of the participants. All interviews were recorded and transcribed verbatim. The researcher analyzed the data using an intersubjective analysis approach, which involves identifying patterns and themes in the data and interpreting them in the context of the research questions (Creswell, 2013). The researcher followed a deductive coding process to identify themes and patterns in the data, and an iterative process to refine analysis over time.

Overall, the researcher identified six main themes in the data analysis: (1) product-service innovation, (2) process innovation, (3) market innovation, (4) product market-fit, (5) business model innovation and (6) servitization.

5.1 Product Service Innovation

Based on the interview data, it can be observed that most of the respondents had a high level of confidence in the success of their products. Four out of the six respondents focused on understanding the needs of the customers and developing products or services that address those needs. The findings of this study support (Desouza et al., 2008), idea development and creation are the first stages of the innovation process. Customers and end users of the items are most likely to provide ideas for effective product development. The respondents from Firm A and Firm D highlighted the need for their products in the market due to energy transition and market trends in electricity. The respondent from Firm C emphasized the need to raise the digital skills of elderly people. While the respondent from Firm F mentioned that they approach their product

development process by solving problems related to water and water waste as service provided for their customers or users.

On the other hand, Firm B which is a corporate company, had a distinctive perspective on their confidence in the success of their products. They based their confidence on their ability and structured models while innovating new products or services (Baines et al., 2017). They grew more confident in the way they worked and the process they followed, rather than in the product itself, while keeping in touch with clients or customers.

Regarding understanding the product, all the respondents emphasized the importance of understanding people and customers to develop products that are more matchable with customer needs. This highlights the significance of customer-centric approaches in product development (Desouza et al., 2008).

In terms of metrics used to develop products, Firms A, B, D, and F used tools like salesforce and customer feedback to evaluate their projects in terms of the value they capture from customers. Firm D also measured the physical products using TRL (Technology Readiness Level) and used metrics like MRR (Monthly Recurring Revenue) and IRR (Internal Rate of Return) to determine the profitability of the product. Firm C is in the developing stage of their services and focusing on the development of the service first, and based on the success of the service, they will implement metrics and strategies. Firm E, being a corporate company, has a specialized department responsible for the marketing and business model of their products and services.

In general, the evidence indicates that a customer-centric strategy and comprehension of customer needs have a substantial impact in a product's success. In addition, measurements and

techniques like customer feedback, TRL, MRR, and IRR can be used to assess the value customers have provided and figure out how profitable a product is.

5.2 Process innovation

The interview data suggests that the firms use various innovation methods for their service innovation or product development. The methods used by the firms include evaluating the needs of customers, identifying problems and reasons for the lack of success of existing methods, analyzing the market needs, and developing an MVP (Minimum Viable Product) and validating it through customer feedback till the final product is developed. They also use design thinking methodologies, and combining multiple aspects of 10 types of innovation to cater to an offering (Chesbrough, 2010a; Tidd & Bessant, 2020).

The firms also use different product development methods, including Lean, Agile, and traditional methods. Some firms, such as Firm A, which is fully service-based, do not follow a lean or Agile methodology. Others, like Firm B and Firm F, use the Agile methodology, while some firms use a combination of Lean and Agile methodologies.

Based on the interview data, it appears that an iterative approach to product development, which involves developing an MVP and validating it through customer feedback, is most effective for the firms. The firms also seem to benefit from using established models and tools, such as the 10 types of innovation and design thinking methodologies.

To sum up, businesses that employ an iterative method of product development and combine it with tried-and-true models and methods are more likely to be successful in service innovation or product creation. This strategy enables businesses to create products that are more

closely matched to consumer requirements, which may lead to improved levels of client satisfaction and increased sales.

5.3 Market innovation

Based on the interview data, all of the firms have a specific target market and their offerings are in accordance with that market (Zott and Amit, 2010). Respondent of Firm A shared that their primary target market is everyone related to building up Smart City, including startups and investors. Respondent of Firm B mentioned that they are operating in the real estate industry and their customers are the real estate industry, including the tenants in the buildings, and people that maintain the buildings. Respondent of Firm C shared that they have two target segments as a two-sided platform - businesses that need digital materials for their services and users that need help to enhance their digital skill set. Respondent of Firm D indicated that they are operating in the energy industry and their target market is overhead electric powerlines. Firm E is more specific to a certain industry, but with a broader market segment, targeting people within the industry they are operating, but their innovation can vary relating to the problem of their interest. The respondent of Firm F stated that they operate their services in the Water Utilities and Smart Cities segment, offering services in both public and private sectors.

The market research process also varies among the firms based on the type of products-services and target market (Brown, 2008). The respondent of Firm A shared that they start by discussing about the market and potential members with a relevance for building smart city solutions. Based on that they offer their services to potential member firms. The respondent of Firm B shared that they do not follow any established scientific method for their market research. Based on their own study of the market, they make their assumptions. The respondent of Firm C

shared that they do in-depth studies by themselves to understand the market. They work closely with both B2B clients and B2C users to understand the needs of clients and users.

Overall, it appears that the businesses have a solid understanding of their target market, as evidenced by the way their goods are designed. The market research methodology varies, though, and some businesses rely more on their own assumptions than on scientific approaches, which might result in mistakes in how the market is understood. Businesses that collaborate closely with customers and users to comprehend their demands and problems may have a better grasp of the market and be better able to provide pertinent solutions.

5.4 Product-Market Fit

Based on the interview data, firms use different methods to get customer insights for achieving product-market fit. These methods include market research, focused groups, design thinking approach, workshops, and pilot projects (Eric Ries, 2011; Blank and Dorf, 2012). The respondent of Firm A shared doing market research to determine a focused group related to Smart Cities. The respondent of Firm B noted developing a prototype first and following the design thinking method. The respondent of Firm C indicated doing workshops to get customers' insights, while the respondent of Firm D mentioned doing pilot projects initially with customers to get insights. Respondent of Firm E shared doing workshops and the design thinking method to get customer insights and develop products that customers need, and Respondent of Firm F shared doing mock-ups and workshops to get user feedback.

Regarding analyzing external factors and internal factors or resources to achieve market fit, firms shared their strategies. The respondent of Firm A noted looking for a specific problem, organizing internal resources to match that problem, and also looking for external resources that

they can utilize to come out with a better offering and growth. The respondent of Firm B emphasized investment analysis for the nature of their specific market which is real estate. The respondent of Firm C put a lot of effort into creating and sketching prototypes while evaluating market needs. The respondent of Firm D shared that they start with pilot projects, which give them a step into the customers' realm of experience. The respondent of Firm F shared that they examined new markets and nations, acquiring all the information they require about a new market.

To innovate service radically in the future and surprise customers by surpassing their expectations, respondents shared some views. The respondent of Firm A mentioned wanting to improve their way of following up with customers to surpass customer expectations. The respondent of Firm B shared trying to bring radical innovations in their offerings and finding it difficult due to market competitiveness. The respondents of Firms C and F shared that they are always trying to innovate and improve their services to exceed customer expectations.

5.5 Business model innovation

From the interview data, it seems clear that the respondents from different firms have different business models, motivations for standard product innovation, and ways of supporting their funding. All the firms, except A and D, use the Business Model Canvas and Value Proposition Canvas tools to develop value propositions and find them very helpful in dialogue with all the different partners (Osterwalder & Pigneur, 2010).

Firm A offers non-profit services and is mostly funding-based, while Firm B's main business model is renting out buildings and square meters. Firm C offers free services to end-users and earns from their B2B clients. Firm D sells hardware products once and later earns from

software subscriptions as monthly recurring revenue, and Firm F offers software as a service (SaaS) and earns from monthly subscriptions.

Regarding the motivation for standard product innovation, Firm A focused on quality, Firm B on variety, Firm C on quality, Firm D on cost efficiency, Firm E on any or a mix of quality, variety, and cost-efficiency, and Firm F on both cost efficiency and quality.

To support their funding, the firms received funds from different sources such as Innovation Norway, the Norwegian Directorate of Health, venture capital investors, and grants.

Regarding the importance of collaborating with other firms, all firms, except for Firm F, found collaborating helpful in increasing market and revenue generation. Firm B highlighted that the absorptive capacity of the company is a key element in converting the learning from others into something useful for the company itself.

The Business Model Canvas and Value Proposition Canvas tools are used by all the different firms, despite the fact that their business models, goals, and funding sources vary. They are all aware of how important it is to collaborate with other businesses to enhance market share and income generating. At the same time there is an emphasis on understanding their market and customer needs.

5.6 Servitization and service innovation

The interview data offered sheds light on how businesses view servitization and service innovation from their viewpoints and methods. The necessity to switch from just delivering items to a product-service bundle offering, where the emphasis is on providing value-added services to consumers, was a frequent concern among respondents. Additionally, respondents stressed the

significance of comprehending what customers want, creating solutions for customer problems and delivering a great user experience (Kowalkowski et al., 2017).

According to one of the respondents, they "believe more in the process of development than the product or service." This implies that rather than just providing a product, the emphasis is on building a service that is sustainable and meets the requirements of customers. Another respondent emphasized the significance of providing customers with value in addition to just renting space. This fits with the idea of servitization, in which businesses shift toward providing a wider range of services (Barnett et al., 2013).

The significance of user adaptation, the requirement for an appealing appearance and feel, and improved usability were also discussed by respondents. In order to make sure that the service is presented correctly and does not provide users too many options, one respondent mentioned devoting a lot of effort to gathering feedback. This shows that businesses are concentrating on offering a straightforward and efficient customer experience. Additionally, respondents stressed the need of user and customer engagement, especially the need for regular meetings with important users to gather feedback on products. This demonstrates the dedication of businesses to comprehending customer demands and ensuring that the services offered create value and solve difficulties for customers.

The information as a whole indicates that businesses are moving toward a more service-oriented strategy and are concentrating on offering clients value-added services. The focus is on comprehending consumer demands, creating long-lasting solutions to meet those goals, and delivering a great user experience. This fits with the idea of servitization, where businesses shift toward providing a wider range of services.

5.7 Framework Section for a Successful Innovation Strategy

According to studies, companies that use an integrated innovation strategy can produce successful innovation (Pisano, 2015). Based on the interviews collected from the respondents, the researcher suggests an integrative framework following the theoretical perspective of Zhao, F. (2005). The framework involves six sections: Product-service innovation, process innovation, Market innovation, Product market fit, Business model innovation and Servitization on the basis of Tidd and Bessant (2020). The proposed framework is outlined here based on the findings of this study and the supporting literature. The model might serve as a contribution to the implementation innovation strategies that could assist businesses in achieving successful service innovation.

5.7.1 Framework for Product-service innovation

Understanding a customer's needs and creating goods or services that meet those needs require a customer-centric strategy. As a result, the first step is to carry out customer research and collect client feedback to learn about their preferences and trouble concerns. Surveys, focus groups, and interviews are just a few of the techniques that can be used to do this. From idea generation through commercialization, the product development process has various stages. Design, testing, and validation must all be part of an organized and effective process. This procedure needs to be adaptable enough to take customer feedback and market developments into account. Measuring the value gained from customers and the product's profitability are crucial for determining the success of the product. Metrics like salesforce, TRL, MRR, and IRR can help in this. It is crucial to frequently assess the product and modify the approach in light of the results obtained. Collaboration with external partners and stakeholders can enrich the

innovation process with fresh viewpoints and knowledge. This may entail collaborating with vendors, clients, or other businesses in the sector to create novel goods or services.

5.7.2 Framework for Process innovation

To find new areas for innovation, businesses should first assess the needs of their customers. To better understand client wants and preferences, this may entail performing market research and customer surveys. Following the identification of the customer's wants, businesses could concentrate on locating any challenges or problems that customers may be having with current goods or services.

The following stage is to create a Minimum Viable Product (MVP) that satisfies the specified consumer needs and resolves any issues or problems. The minimum viable product (MVP) ought to be a straightforward prototype that can be quickly created and tested. Customer feedback should then be used to confirm the MVP. To acquire customer input and pinpoint areas for improvement, this may entail running surveys, focus groups, or user testing. The product needs to be updated and modified in response to user input. Up until a finished product is created that satisfies the needs of the consumer, this iterative process of development and improvement needs to persist.

Businesses should think about utilizing proven frameworks and tools to direct their innovation strategy. These can include the approaches for design thinking and the 10 types of innovation, which have both been proved to be successful at encouraging innovation. It is suggested that businesses approach product development iteratively. This entails creating an MVP, confirming it using customer input, and then fine-tuning and upgrading the product. By using this strategy, businesses can create items that are better suited to meet the wants of their customers, which may lead to greater levels of client satisfaction and higher sales.

5.7.3 Framework for market research and target market

The target market must be identified, and its clients' particular demands and problems must be understood. By carrying out market research, examining market trends, and interacting with potential clients, this can be accomplished. As noted, all of the firms in this study have an identified target market, based on their product and venture point in Stavanger, Norway. The offerings can be adapted based on the determined target market and customer requirements. The solution to the customer's problems and compliance with their expectations should be provided through the good or service.

5.7.4 Framework for Achieving Product-Market Fit

Firms must first have a thorough awareness of the demands, problems, and preferences of their target market in order to establish product-market fit. Methods including market research, focus groups, workshops, pilot projects, and design thinking can be used to achieve this. Businesses should select the approach that is best for their unique products and target market. This is exemplified by several of the companies in Stavanger. To discover potential possibilities and difficulties for attaining product-market fit, firms should examine both internal and external aspects, including available resources and capabilities. External considerations include market developments, competition, and customer behavior.

5.7.5 Framework for Business Model Innovation

Application of the Business Model Canvas and Value Proposition Examples of firms can be found that use canvas tools to create value propositions. This emphasizes how crucial these tools are for developing new business models. These tools can be used by practitioners to provide a clear image of their present business model and pinpoint areas that need development.

The value proposition canvas aids in comprehending client needs and developing goods and services that satisfy those needs.

Companies got funding from a variety of sources, including grants, venture capitalists, the Norwegian Directorate of Health, and Innovation Norway. This emphasizes how crucial it is to choose the appropriate funding sources for business model innovation. Practitioners should investigate several funding options and choose the ones that will best support their innovation initiatives.

Collaboration helped firms increase their market and income generating. One of the companies stated that turning what is learned from others into something helpful for the company itself depends on the company's ability to absorb new information. This emphasizes how crucial cooperation is to the development of new business models. To strengthen their efforts at innovation, practitioners should seek out chances for collaboration and find possible collaborators.

5.7.6 Framework for Servitization

Servitization means to offer value-added service experiences and to go beyond simply selling a product to satisfy consumer needs. It means to create a great user experience. Instead of just offering a product, firms invest in the development process to make sure the service is presented well and adds value for clients. To enhance the service, to give it a pleasing appearance and feel, streamline the process, and gather feedback from customers. In order to meet consumer wants, pinpoint market gaps, and create a user-friendly experience, a customer-centric strategy needs to be developed. Firms establish routine product feedback sessions with important users to learn about their requirements and preferences and to develop a rapport with clients.

5.8 Limitations

There are a few limitations to consider when assessing the contribution that this study offers. The sample size of the chosen companies is limited, and they may not all be standard of Norway's service innovators. Additionally, the cultural context is a significant factor. According to Hofstede (1991), theories and concepts about organizations are also culturally conditioned. Organizations are also bound by culture. The results of the current Norwegian study in this regard are not necessarily indicative of organizations in other countries. Finally, the study did not examine how external variables, such as market conditions and industry trends, can affect strategies for service innovation.

When these constraints are considered collectively, it is clear that more study would be beneficial, particularly if it involved quantitative analyses with bigger sample sizes conducted in various cultural contexts.

6. Conclusion

In this thesis, the goal has been to determine successful product-service innovation and market-fit strategies implemented by a sample of successful firms located in Stavanger, Norway. For this study, qualitative data have been collected through interviews from different levels of service firms. The data point to how different firms innovate their product-service offers depending on the level of the company and type of business. The findings provide an insight into the service innovation strategies, focusing on startups, scaleups and corporate companies in this study.

This study has followed the theoretical perspectives of Tidd and Bessant (2020) and Perani (2019) focusing on the different modes of innovation. As identified, broadly innovation takes place in several modes: 1. Product service innovation. 2. Process innovation 3. Market innovation and 4. Business model innovation. The researcher has expanded two additional themes, Market-fit under Market innovation mode and Servitization under Business model mode which is emerging strategically for the success of service innovation. This research offers a contribution to academia by analyzing empirical data on these modes of innovation. This will help practitioners and mostly businesses within the region, to understand innovation strategy, and questions such as collaboration and funding.

In the product-service mode of innovation, the study found that most of the respondents had a high level of confidence for the success of their product. The first step towards innovation is idea generation, that they tried to solve as a practical problem coming from people. Thus, making it an opportunity for offering a service. The understanding of the product seemed crucial for all of the respondents for the success of innovation. Firms also used different measurement

tools such as customer feedback, TRL (Technology Readiness Level) and MRR (Monthly Recurring Revenue) to assess the value that customers get.

In the Process innovation mode of service innovation, this research found that firms used methods to evaluate customer needs, identifying problems, analyzing market and developing an MVP (Minimum Viable Product). And validated MVP through customer feedback and using design thinking methodologies. Using Lean, Agile and traditional methods were also found to innovate new Product-service.

In the Market innovation mode of service innovation, this thesis found that all of the firms had a specific target market for their product. The process of market research varied among the firms depending on their offerings and niche market. It is emphasized that firms that co-create with customers have an edge for the success of their innovation. The research also found that, to achieve product-market fit firms used different methods for instance, market research, focused groups, design thinking approaches and pilot projects. For continuous improvement, firms planned to identify the key needs of their customers through feedback and innovate to surpass customers' expectations.

In the Business Model innovation mode of service innovation, the study found that, firms used different tools such as Business model canvas and value proposition canvas to develop business models. To get support for funding to develop new product services, firms approached sources such as Innovation Norway, The Norwegian Directorate of Health and Venture Capital investors. Collaborating with other firms was also found helpful for the firms to innovate new product-service solutions. Offering a product-service bundle was a matter of concern among respondents in order to provide value added services to the customers. To get competitive

advantage firms are more inclined toward offering comprehensive services than just providing a product.

Based on the literature and findings, the researcher has suggested a framework for successful service innovation strategy consisting of some important factors emerged from the empirical data. That will help practitioners to understand regional service innovation strategies. This thesis will help practitioners to understand, the Norwegian market for innovation specifically Stavanger. And also, business network, local and regional challenges. Practitioners will get an understanding of the helpfulness of collaborative innovation and to get support from funding. They will also get an idea of how a comprehensive service offering through a product-service bundle can help to achieve competitive advantage.

In summary, this thesis focused on the significance of service innovation and a product market fit as it investigated the service innovation strategies of six successful organizations in Stavanger, Norway. The study found that successful companies are moving toward a more service-oriented strategy where the emphasis is on offering customers value-added services. The research also emphasized the significance of comprehending customer requirements, creating sustainable solutions that fulfill those needs, and offering a great user experience. Additionally, the finding suggests that successful companies employ a variety of service innovation strategies, such as product-service innovation, process innovation, market innovation, product-market fit, business model innovation, and servitization. This research also helps to understand local and regional markets for innovation, which will aid in market forecasting and access to local funding systems. This study offers insights into the service innovation strategies of successful businesses in Norway, which may be helpful for practitioners and policymakers in creating and executing successful services.

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Appendix

Interview Guide

An email attaching questionnaire and description of this master's thesis will be sent to selected companies. Respondents will participate in the interview process voluntarily to support this study. Their Identity and Business Identity will not be recorded and kept secret. While processing the data, to identify the respondents, codes will be used such as A,B, C etc. . And after completion of the research, all recorded data will be deleted. Data will be managed confidentially, and other people will not have access to it. GDPR law will be followed to collect and process this information.

Questions for interview

Product

1. How confident you were about the success of the products? If 100% then why?
2. How important is to understand the product?
3. Are you using Metrics to develop your products? Growth hacking? Customer Acquisition Cost?

Market

4. What was your target market?
5. How did you work to understand the market?
6. Do you use any market orientation scale to measure your company's market-oriented approach?
7. Market oriented/ nonmarket oriented strategies?
8. How do you analyze external factors and internal factors or resources to achieve market fit?

Innovation Methodology

9. What was your innovation method for service innovation or product development?
10. What innovation strategy you thought in the beginning?
11. Did you try to develop and validate your idea as a hypothesis?
12. What kind of product development method did you use? Lean or Agile or traditional methods?
13. Do you use any Startup canvas or Business canvas technique?
14. Quality, variety and cost are three motivations for standard product innovation model. Which one did you focus?
15. What innovation methods have proved most effective for you? What would you do again? / What would you recommend others?

Customer Oriented approach

16. Does your innovation approach is to only fulfill customer needs?
17. While developing a product to what extent you prioritize customer expectations?
18. How did you get user insights?
19. What type of user interface gathering method you choose? (Workshop, Design, Market analysis & Focused group) design thinking? Design sprint?
20. What type of insights did you get?
21. How do you plan to innovate your service radically in future to surprise the customer by surpassing their expectations?

Affiliation and Collaboration

22. What is your business model?
23. How did you support your funding?
24. Are you affiliated with an international company? Collaboration with other companies?
25. Do you think collaborating with other firms helps in your R&D to be more innovative?
26. How important is to increase R&D intensity?