Kajsa Margareta Haugen & Anna Stina Valheim

Aligning Value Propositions for Stakeholders in Profitable Sustainable Business Models

Practical Insights from Norwegian Technology Scale-ups

NTNU
Norwegian University of
Science and Technology

NTNU SCHOOL *of*
ENTREPRENEURSHIP

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Abstract

Implementing sustainable business models (SBMs) can play a crucial role in promoting a more sustainable world. To develop profitable SBMs, it is essential to actively create value propositions that address the interests of all relevant stakeholders. The literature highlights that this is regarded as a complex process that is challenging for many companies with SBMs.

The purpose of this master's thesis is to establish a practical understanding and insight of the development of profitable SBMs that manage the aforementioned complexity. The research question the thesis will answer is thus:

RQ: *"How do technology scale-ups consider stakeholders' interests and align value propositions when developing a profitable Sustainable Business Model, in practice?"*

A qualitative case study has been conducted to achieve the purpose of the study. In order to answer the research question, the authors have reviewed relevant literature from the field and conducted data collection from four different technology scale-ups with SBMs, across industries. The study has taken an abductive approach, and the authors have moved between theory and data to find answers.

The main finding from the study is the understanding of the coherence between crucial elements involved in the process of developing a profitable SBM (refer to Figure 3 in Chapter 6.1). This coherence is based on four findings from the master's thesis; Fundamental elements in the establishment phase, highlighting the benefits of industry experience within the core team, user-oriented focus, and solving an established problem in society. This creates an understanding of the identified problem to be solved and lays the foundation for the company's further growth. The second finding is that scale-ups with SBMs should prioritise the value proposition to the customer and that it should encompass short-term cost-savings for the customer. Further, the third finding is that the value propositions aimed at People and Planet are intuitive for scale-ups with an SBM that aims to solve an established problem in society. The fourth finding is the enhancement of value propositions through evidence and the significance of industry knowledge and insight concerning the ability to discern between valuable and detrimental external advice.
The authors emphasise the significance of integrating these interconnected elements to align value propositions with stakeholders' interests and, ultimately, enable technology scale-ups to achieve profitable SBMs.

Sammendrag

Implementering av bærekraftige forretningsmodeller (SBM) kan spille en avgjørende rolle i arbeidet med å fremme en mer bærekraftig verden. For å utvikle lønnsomme SBM-er er det viktig å aktivt skape verdiforslag som ivaretar interessene til alle relevante interessenter. Litteraturen belyser at dette anses som en kompleks prosess som er utfordrende for mange selskaper med SBM-er.

Formålet med masteroppgaven er å etablere en praktisk forståelse og innsikt for utviklingen av lønnsomme SBM-er, som håndterer den nevnte kompleksiteten. Forskningsspørsmålet masteroppgaven skal besvare er dermed:

"Hvordan håndterer teknologi scale-ups interessentenes interesser og tilpasser verdiforslagene i utviklingen av en lønnsom bærekraftig forretningsmodell, i praksis?"

For å oppnå studiens formål har en kvalitativ casestudie blitt gjennomført. For å besvare forskningsspørsmålet, har forfatterne gjennomgått relevant litteratur fra fagfeltet samt gjennomført datainnsamling fra fire ulike teknologi scale-ups, på tvers av bransjer. Studien har hatt en abduktiv tilnærming, der forfatterne har beveget seg mellom teori og data for å finne svar.

Hovedfunnet fra studien er forståelsen for sammenhengen mellom viktige elementer i prosessen å utvikle en lønnsom SBM (se figur 3 i kapittel 6.1). Denne sammenhengen er basert på fire funn fra masteroppgaven; Grunnleggende elementer i etableringsfasen, som belyser fordelene med bransjeerfaring i kjerneteamet, brukerorientert fokus og løsning av et etablert samfunnsproblem. Dette skaper forståelse for det identifiserte problemet som skal løses, og legger grunnlaget for selskapets videre vekst. Det andre funnet er at scale-ups med SBM-er bør prioritere verdiforslaget til kunden, og at det bør omfatte kortsiktige kostnadsbesparelser for kunden. Det tredje hovedfunnet er at verdiforslag rettet mot People and Planet er intuitive for scale-ups med en SBM som har som mål å løse et etablert samfunnsproblem. Det fjerde funnet belyser at verdiforslagene forbedres gjennom evidens og betydningen av bransjekunnskap samt innsikt når det gjelder evnen til å skille mellom verdifulle og skadelige eksterne råd. Forfatterne understreker betydningen av å integrere disse sammenhengende elementene for å tilpasse verdiforslagene til interessentenes interesser, samt gjøre det mulig for teknologi scale-ups å oppnå lønnsomme SBM-er.

Preface

This master's thesis was conducted by two students at NTNU's School of Entrepreneurship (NSE) as the final part of their master's degree at the Norwegian University of Science and Technology (NTNU) in the spring semester of 2023.

The authors express their gratitude to the four case companies, Tibber, No Isolation, Total Ctrl and Fornix, for their valuable insights that greatly contributed to this study. The authors greatly appreciate that the informants agreed to participate and talk so openly and honestly about their approaches.

A huge thank you is extended to supervisor Elli Verhulst for providing valuable feedback, support, and guidance throughout the semester. The authors would also like to acknowledge Lise Aaboen for offering an objective perspective when needed during the thesis process.

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Kajsa Margareta Haugen   Anna Stina Valheim

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Abbreviations

SBM – Sustainable Business Model

SBMI – Sustainable Business Model Innovation

B2B – Business-to-business

B2C – Business-to-consumer

SaaS – Software-as-a-service

HaaS – Hardware-as-a-service

CEO – Chief Executive Officer

COO – Chief Operating Officer

1. Introduction

1.1 Background and actualization

Throughout history, the roles in the market have been divided in such a way that businesses produce while consumers consume. This socio-economic system has consequently contributed to the ongoing exploitation of natural resources and the consequent degradation of ecological and social systems. As a result, pressing global challenges have emerged for both the environment and for the society (Mattera & Gava, 2022; Vallaster et al., 2019; Villamil et al., 2022). To prevent these systems from reaching critical tipping points, a significant shift in the status quo is essential.

While some researchers argue that businesses are often considered to be a key contributor to these challenges, they also posit that businesses hold the potential to reverse current negative trends and become a driver of positive change (Jørgensen & Pedersen, 2015; Vallaster et al., 2019; Villamil et al., 2022). Consequently, there is a growing focus on the "business to solve problems" approach, emphasizing the integration of social and environmental objectives into core business practices (Mattera & Gava, 2022; Vallaster et al., 2019). In this context, a deeper understanding of sustainable business models (SBMs) becomes essential to such objectives (Mattera & Gava, 2022; Vallaster et al., 2019).

The authors refer to SBMs as sustainable business models that include social and environmental considerations in addition to economic aspects. Following, the authors refer to stakeholders as individuals and groups, including society and the environment, that either are impacted by the company in question, or have a vested interest in the activities of the business.

A central and crucial aspect of an SBM is the ability to deliver value propositions to all relevant stakeholders, catering to their broad range of interests (Cardeal et al., 2020; Dalborg & von Friedrichs, 2021; van Riel et al., 2021). Profitability is a crucial variable in any business model (BM) and the literature emphasizes that to achieve profit within an SBM, it is necessary to align value propositions to all relevant stakeholders (Cupertino et al., 2022; Mattera & Gava, 2022).

Developing and aligning such value propositions necessitates a holistic approach that takes into account a diverse range of perspectives and needs (Haugen & Valheim, 2022). However, the literature acknowledges the complexity inherent in this process (Cardeal et al., 2020; Moro et al., 2022; van Riel et al., 2021).

While the literature acknowledges this complexity, there is a dearth of comprehensive research on effectively addressing them (Cardeal et al., 2020; Dalborg & von Friedrichs, 2021; van Riel et al., 2021). Although some progress has been made in attempting to address this complexity, further exploration is required to better understand and navigate the

intricacies involved. Specifically, there is a need in research to delve into the concrete approaches and strategies proposed by various sources in their endeavors to address the complexities of aligning value propositions in an SBM.

Limited research and a low grade of implementation of SBMs have resulted in a growing need for research in the field of sustainable business model innovation (SBMI). This field specifically emphasizes the process of creating value propositions for diverse stakeholders across the three dimensions of People, Planet, and Profit (3 Ps) within an SBM. However, the understanding of how to execute SBMI and what it should entail in practice is still limited due to the inadequate amount of research in the field (Jensen et al., 2019; Stubbs, 2019). In particular, there is a lack of comprehensive knowledge on how exactly the process of developing value propositions for a diverse range of stakeholders along the interests of the 3 Ps unfolds in practical contexts. Therefore, there is a pressing need for further empirical research that examines the practical processes, challenges, and strategies associated with developing value propositions for diverse stakeholders within the practical context of SBMI (Jensen et al., 2019; Stubbs, 2019; Haugen & Valheim, 2022).

1.2 The purpose of the study

By examining the extent of advancements from various sources in practical contexts, insights can be gained into the practical solutions they offer. The implications identified in the preceding chapter have revealed a research gap concerning the practical implementation of SBMs in delivering value propositions across stakeholder interests. Therefore, this study aims to address this gap by obtaining practical insights into the approaches employed for developing SBMs, with a specific focus on Norwegian technology scale-up companies. The study seeks to fill the gap by researching how these companies ensure the delivery of value propositions aligned with the interests of People, Planet, and Profit when developing profitable SBM, in practice.
This gap forms the basis of the research problem addressed in this study:

"How do technology scale-ups consider stakeholders' interests and align value propositions, when developing a profitable Sustainable Business Model in practice?"

The selection of technology scale-up companies pursuing SBMs was due to their representation of operational and growing companies with a scalable SBM. Further, the use of technology has proven to be instrumental in addressing sustainability issues and solving established problems in society through its ability to make an impact. Moreover, the deliberate selection of Norwegian technology scale-up companies allows for exploration within a specific national context. The significance of this context lies in the fact that Norway is committed to becoming a sustainable society, thereby providing valuable case insights.

1.3 Contribution

This study makes significant contributions to both to existing research and entrepreneurs by addressing the research gap in the practical implementation of SBMs in technology scale-up companies.

This exploration addresses the repeated calls in the literature for a deeper understanding of handling the complexities of providing value propositions for stakeholders across the various interests of the 3 Ps in an SBM. Expanding research on this topic provides valuable contribution to research, by providing practical insights on the alignment of value propositions with stakeholders' interests. By focusing on Norwegian technology scale-ups with SBMs, the research offers contextual and practical understanding on the matter.

Despite the recognition of the importance of SBMs, their implementation remains relatively low (Cardeal et al., 2020; Moro et al., 2022; van Riel et al., 2021). By answering the presented research question, this study advances knowledge and provides actionable insights for entrepreneurs seeking to create and implement SBMs, by integrating social and environmental impact into their core business practices, while ensuring profitability—the crucial aspect in any business model. Thus, the findings of this study can play a crucial role in enhancing the chances of success for such ventures.

1.4 Structure of the thesis

The thesis is structured as follows: Chapter 1 serves as the introductory chapter, providing an understanding of the importance of current and future literature in the field. It presents the research question and outlines the subsequent contributions of this master's thesis. Chapter 2 focuses on presenting the relevant literature identified for this study to establish a solid foundation for addressing the research question. Chapter 3 presents the methodology employed for the empirical part of the study, including a detailed description of the research design and reflections on the limitations of the methods. In Chapter 4, the empirical findings are presented and analyzed through a within-case analysis approach. Chapter 5 presents and analyzes the most significant findings across the cases, drawing upon comparative analysis. Chapter 6 discusses the main findings from Chapter 5 and compares them to the literature presented in Chapter 2, followed by a presentation of the findings leading to the conclusion. Chapter 7 presents the conclusion, summarizing the key findings and insights derived from the study. The chapter and the thesis are brought to a close by presenting implications, limitations and suggestions for further research.

2. Theoretical background

The following theory chapter is largely drawn from the comprehensive literature review conducted by Haugen and Valheim (2022), where the authors mapped the current state of research on the three main areas of focus: (1) development of SBMs through sustainable business model innovation (SBMI); (2) interactions between SBMs and profitability; and (3) the use of design processes in SBMI.

Hence, this chapter presents an examination from the current state of research of the concepts sustainable business models (SBMs), sustainable business model innovation (SBMI), and their correlation with profitability. Additionally, it explores the vital aspect of aligning value propositions for stakeholders across the dimensions of People, Planet, and Profit (3 Ps).

2.1. Sustainable business models (SBM)

This section will introduce and briefly describe the main pillars of a business model (BM), in order to support the examination of the concept of SBMs. Following, the authors definition of an SBM is presented. Thereafter, the pre-introduced main pillars of an SBM (stakeholder alignment, 3 Ps and value propositions) will be more thoroughly explained.

2.1.1 The concept of SBM

Sustainable business models (SBM) transcend the boundaries of conventional business models (BM), encompassing their essential features while simultaneously pushing beyond. A common understanding in literature is that the BM framework generally includes four elements: *value proposition, value creation, value delivery and value capture.* The value proposition is perceived to be a critical component of a BM as it establishes the framework of the BM (Ali Shah et al., 2020; Dalborg & von Friedrichs, 2021; Dönmez-Turan & Özevren, 2019; van Riel et al., 2021). The *value creation* and *delivery* of the *value proposition* should be done through a set of activities, processes, capabilities, and resources, where financial returns should be *captured* as an outcome (Bocken N et al., 2020; Dalborg & von Friedrichs, 2021; Dönmez-Turan & Özevren, 2019; Skala, 2022).

However, the concept of BMs, and especially, SBMs, is a relatively new area of research, with various definitions and frameworks being used, bringing a lack of consensus regarding the definition of SBMs (Dönmez-Turan & Özevren, 2019).

A common understanding however in SBM literature, is that a main pillar in the SBM is the value propositions, and how they should be aligned with the interests of stakeholders along a broad range of interests along the, so called, 3 Ps: People, Planet, Profit. Capturing financial returns should be a result of delivering these value propositions (Dalborg & von Friedrichs, 2021; Dönmez-Turan & Özevren, 2019; Skala, 2022; Vallaster et al., 2019; Velter et al., 2020).

More specifically, an SBM should explain, examine, oversee, and convey the following aspects: (i) the value proposition offered by the company to its customers and other stakeholders, (ii) the way in which it creates and delivers this value, and (iii) how it captures economic value while also preserving and renewing natural, social, and economic resources (Haugen & Valheim, 2022). A sustainable business model recognizes the environment and society as key stakeholders, and strives to harmonize the interests of all stakeholder groups An SBM seeks to take a new approach to address environmental and societal needs through the core business model (Bocken et al., 2014).

The literature states that the stakeholders along the interests of the 3 Ps should be considered holistically, and the relevant stakeholders should be considered in order to achieve a successful SBM. Further, in addressing the environmental and societal needs, an SBM can additionally be distinguished between two primary categories. Companies that increase the sustainability of their own operations fall under the first category. The second kind occurs when organizations develop SBMs that aid in resolving environmental and societal problems that the company were not the creator of themselves (Jørgensen & Pedersen, 2015).

2.1.2 The concept of SBM: The author's definition

Due to the inconsistency and lack of agreement in the research conducted in this field, a decision was made to identify and prioritize the most salient and coherent aspects of the literature. This is presented in the chapter above. These aspects were also considered to be in line with the main purpose and motivation behind carrying out the thesis. In consideration of this, in this thesis, SBMs refer to companies that deliver value propositions to a wide range of stakeholders, along the needs of the 3 Ps. In other words, business models that meet the needs of People and the Planet, whilst being financially viable.
Further, the thesis will refer to companies with an SBM aiming to make an impact regarding sustainability or societal problems they have not created themselves.

2.1.3 People, Planet, Profit

According to literature, the concept of SBMs is widely based on companies preserving or replenishing social, ecological, and economic wealth in accordance with the 3 Ps. The 3 Ps is a framework, which is also referred to as the triple bottom line (TBL), that aims to measure the sustainability and success of businesses based on the three key factors of People, Planet and Profit.
The framework was coined by (Elkington, 1994) and is used to evaluate sustainable development, by considering a wider range of stakeholders along the interests of the 3 Ps. The "People" aspect focuses on the social dimension of sustainability. It considers the well-being and impact on individuals and communities (i.e. poverty alleviation, well-being, social justice, community development). The "Planet" aspect focuses on the environmental dimension of sustainability (i.e protecting biodiversity, conserving natural recourses, reducing emissions and waste, mitigating climate change). The "Profit" aspect refers to the economic dimension of sustainability (i.e. running a profitable business to ensure financial

stability and viability, financial resilience, return on investments (Bocken et al., 2014; Vallaster et al., 2019).

Further, the 3 Ps 's framework has evolved by adding two additional dimensions: Purpose and Partnership. These dimensions are said to provide a more comprehensive approach to sustainable development, and the UNs 17 Sustainable Development Goals (SDGs) are categorized into the five Ps (People, Planet, Profit, Purpose, Partnership) to better assess the goals (Larivière & Smit, 2022). However, in the current state of literature on SBMs, a majority refer to the 3 Ps, and less on 5 Ps or SDG (Haugen & Valheim, 2022). The focus of this thesis will therefore be on the 3 Ps.

2.1.4 The role of Profit in an SBM

The term "profit" typically refers to the economic performance experienced when the income from a commercial activity surpasses the costs incurred, thereby enabling the attainment of profitability (Gessinger, 2007). However, "Profit" in terms of the 3 Ps refers to a slightly broader aspect such as promoting economic growth while taking into account the social and environmental impacts of business activities, as well as return on investments or ensuring financial stability, resilience and viability (Bocken et al., 2014; Vallaster et al., 2019). Throughout this thesis, the term "profit" refers to the first definition, while "Profit" specifically represents the concept of Profit in terms of the 3 Ps.

The traditional approach for many businesses has been a firm-centric logic, prioritizing maximizing the profit aspect, which often leads to neglecting environmental concerns (Fehrer & Wieland, 2021). Nowadays however, due to the growing challenges for People and Planet, many industries are adapting and responding with new business models that aim to balance financial and non-financial concerns, including environmental and social factors (Cupertino et al., 2022; Santucci & Esterman, 2016). It is argued for that by emphasizing Profit through SBMs, positive outcomes related to environmental and social factors can be achieved (Baldassarre et al., 2017).

However, designing business models that address social and environmental challenges (People and Planet), whilst capturing economic value (Profit) is according to (Schaltegger et al., 2012), a key challenge. For many, especially corporate businesses, the value of the Profit aspect and the value of Planet and People aspects are still treated independently (Adhitya et al., 2017), which makes it difficult to balance these concerns (Fehrer & Wieland, 2021). On the other hand, there are companies, especially start-ups that prioritize the value of People and Planet over Profit. Companies of this kind are frequently characterized by a limited duration of existence, as empirical observations have indicated (Dalborg & von Friedrichs, 2021). Capturing financial returns should be a result of an SBM, and the Profit-aspect is crucial for financial stability, and crucial for companies in order to achieve societal (People) and environmental (Planet) impact (Dalborg & von Friedrichs, 2021; Longoni & Cagliano, 2016; Mattera & Gava, 2022; Skala, 2022; Vallaster et al., 2019; Velter et al., 2020).

Thus, by prioritizing the Profit aspect over People and Planet, or prioritizing the People and Planet aspect over the Profit aspect, SBMs fail to monitor and balance the indicators of the 3 Ps synchronously and effectively, hindering their success (Dalborg & von Friedrichs, 2021; Jensen et al., 2019).

2.1.5 Harmonizing the interests of stakeholders along the interests of the 3 Ps

Building upon the previous chapter, a successful SBM can be achieved when the interests of stakeholders along the 3 Ps are blended and harmonized (Mattera & Gava, 2022; Vallaster et al., 2019). According to several studies, successfully creating value propositions that benefit all stakeholders along the interests of the 3 Ps is essential for SBMs to achieve financial success while also preserving social and ecological wealth (Dönmez-Turan & Özevren, 2019; Scheel & Bello, 2022; Skala, 2022; Velter et al., 2020). In other words, SBMs must balance Profit with the interests of People and the Planet (Mattera & Gava, 2022). This requires SBMs to create value for a wide range of stakeholders, and if done effectively, can lead to improved financial performance (Cupertino et al., 2022). As mentioned previously, the 3 Ps encompass a wide range of stakeholders and this is not only individuals or groups that are affected by the company such as shareholders, customers, suppliers and partners, but also the society (People) and the environment (Planet) (Elkington, 1994).

Given the wide range of stakeholders with diverse interests, achieving harmony among them requires adopting a broader stakeholder approach. This holistic approach involves considering the creation of value for all stakeholders involved. It is essential to effectively balance and address the interests of these diverse groups (Santa-Maria et al., 2022; Skala, 2022; Velter et al., 2020). However, such a comprehensive stakeholder consideration is often lacking, and relevant stakeholders are not always taken into account. According to research, a narrow focus on either People and Planet or solely on Profit tends to occur when the 3 Ps are not considered holistically. Some researchers argue that this is due to an underestimation of the complexity of sustainable business models, which results in an unbalanced and incomplete approach rather than a comprehensive and holistic one (Baldassarre et al., 2017).

2.1.6 Value propositions

Recent literature takes a further step by not only considering and harmonizing stakeholder interests but also placing greater emphasis on creating value propositions for all relevant stakeholders along the interests of the 3 Ps. A value proposition refers to the unique value that a company offers to its stakeholders (Bocken et al., 2014; Donaldson & Preston, 1995; Tyl et al., 2015).

As described earlier, several articles in the literature state that it is essential for SBMs to achieve financial success while also preserving social and ecological wealth (Bocken, & Kemp, 2020; Dönmez-Turan & Özevren, 2019; Scheel & Bello, 2022; Skala, 2022; Velter et al., 2020). Numerous studies suggest that by delivering value propositions to all relevant stakeholders along the interests of the 3 Ps, it becomes possible to capture financial returns

and ultimately achieve a viable SBM (Bocken et al., 2014; Donaldson &Preston, 1995; Skala, 2022; Tyl et al., 2015; Vallaster et al., 2019; Velter et al., 2020).

Developing such value propositions therefore requires understanding and managing the needs and objectives of multiple stakeholders and creating a product or service that addresses sustainability problems in a way that benefits all involved parties (Boons & Lüdeke-Freund, 2013; Morioka et al., 2017). To achieve value propositions in SBMs, the following three interrelated aspects must first be combined: generating mutual value opportunities for a stakeholder network (Ali Shah et al., 2020), addressing sustainability problems, and developing a product or service that considers stakeholders in addressing these problems (Baldassarre et al., 2017).

Business model literature highlights the importance of a value proposition as a key component of a business model (Ali Shah et al., 2020; Dalborg & von Friedrichs, 2021; Dönmez-Turan & Özevren, 2019; van Riel et al., 2021) and searchers argue that a sustainable value proposition is crucial for the success of an SBM (Bocken et al., 2014; Donaldson & Preston, 1995; Tyl et al., 2015). Typically, when addressing an established problem in society, the value proposition to customers includes social and environmental value as an integral component (Jørgensen & Pedersen, 2015). The degree of sustainability in the value proposition impacts the traction from customer and increases the willingness to pay consequently (Flammer, 2015; Ilyas & Osiyevskyy, 2022), along with increasing the firm's capacity to generate and obtain economic value from the value proposition (Freudenreich et al., 2019; Grewatsch & Kleindienst, 2017; Tamayo & Servaes, 2012).

However the literature does state that there are challenges and lack of research on balancing sustainability and traditional business goals, especially in relation to value propositions (Doorn et al., 2021; Ranta et al., 2020), and creating viable value propositions to all relevant stakeholders along the interests of the 3 Ps, can be a complex and demanding task (Cupertino et al., 2022; Keskin et al., 2013; Mattera & Gava, 2022). For approaching this task, a comprehensive value mapping tool is suggested by Bocken et al. (2013) The tool highlights the importance of engaging a diverse stakeholder network to address conflicting values and offer fresh perspectives. The use of external recourses plays a crucial role in this process. It is designed to be applicable across diverse contexts, from start-ups in the exploratory phase, to the redesign of existing business models, as well as industries spanning non-government organizations and the public sector (Bocken et al., 2013). However, Bocken et al. (2013) recognize the value of their developed tool while, along with other researched emphasize the lack of identified tools and methods in the literature to encourage the creation of, and meeting the complexity of aligning value propositions for SBMs (Bocken et al., 2013; Geissdoerfer et al., 2016).

To address this issue, the concept of sustainable business model innovation (SBMI) has gained increased attention as it is suggested that SBMI offer an approach to tackling the challenge and complexity at hand (Baldassarre et al., 2017; Cardeal et al., 2020; Moro et al., 2022; van Riel et al., 2021)

2.2 Sustainable business model innovation (SBMI)

2.2.1 The concept of SBMI

SBMI is a concept that focuses on creating new value propositions, value creation systems, value delivery systems, and value capture systems that generate value along the interests of People, Planet and Profit. It offers an approach that is applicable independent of industry, company size, or resource access (Baldassarre et al., 2017; Bhatnagar et al., 2022; Santa-Maria et al., 2022; Stubbs, 2019).

Additionally, while numerous studies highlight the importance of multi-stakeholder collaboration in achieving SBMI, there is a lack of practical guidance available to companies on how to effectively engage in such collaborations (Oskam et al., 2021; Powell et al., 2018; Velter et al., 2020).
The absence of research in the SBMI field makes it challenging for businesses to comprehend how to innovate their business models, recognize and develop alternative approaches, and then choose the best course of action (Stubbs, 2019).

2.2.2 Process

At the heart of SBMI lies the important goal of nurturing and maintaining customer loyalty by creating authentic value propositions as the foundation for the rest of the business model (create, deliver, capture). The central process in SBMI involves combining different values and resources internally and externally and engaging all relevant stakeholders in a diverse way to create mutual value opportunities (Bhatnagar et al., 2022; Bocken et al., 2022). SBMI therefore requires a holistic approach. By integrating sustainability efforts systemically rather than on a fragmented basis bolsters the effectiveness and strength of the desired sustainable impact (Ratushnyak & Shapovalov, 2023).
To further achieve its maximum sustainability potential, SBMI must prioritize the alignment of multiple stakeholders' interests. However, this collaborative process is highly challenging in practice due to differing needs of the stakeholders, making it harder for one company to meet all. These differences create significant obstacles in identifying shared value opportunities and overcoming alignment barriers (Oskam et al., 2021; Powell et al., 2018). There is a lack of practical guidance available to companies on how to effectively engage in such collaborations (Oskam et al., 2021; Powell et al.2018; Velter et al., 2020).

Practical recourses to drive SBMI
To enable such stakeholder collaborations however Comin et.al. (2020) highlight that encouraging user involvement in the value-creation process have received attention in SBMI. Furthermore, it is highlighted that including the user also in the development process and

allowing them to participate in the learning process can add value. This inclusion is strongly linked to the increasing focus on stakeholder interaction in SBMs (Comin, et al., 2020).

Researchers have however acknowledged the lack of practical tools and guidelines to support companies in executing SBMI initiatives in practice (Jensen et al., 2019; Santa-Maria et al., 2022; Stubbs, 2019), leading to the recent surge in attention towards design tools as potential resources for driving SBMI (Bhatnagar et al., 2022; Fehrer & Wieland, 2021; Santa-Maria et al., 2022). User-driven innovation is highlighted in this context, which is based on the inclusion of customers, users and stakeholders through an iterative design process (Baldassarre et al., 2017). Within user-driven innovation, design thinking is highlighted as a method that aims to simplify the process of guidance for inclusion and expression related to several stakeholders (Santa-Maria et al., 2022).

According to a study by (Schuit et al., 2017), start-ups that developed their SBM through experimentation focused on customer-centric approaches to generate business opportunities quickly and iteratively using readily available resources. The study had an important finding: early experimentation provides meaningful and low-resource insights on how to adapt business models to fit customer needs. Additionally, it helps strengthen the company's sustainability purpose or strategy. As a result, it becomes possible to minimize costs and perceived risks for the companies that carry out the design and validation of SBMs. Experimentation is also always strongly linked to the value proposition (Schuit et al., 2017).

The experimental practices identified the study by Schuit et al. (2017) were; conversational interview, booklet interview, ethnographic observation, co-creation session, brainstorming, A/B test, focus group, and rapid service prototyping (physical and digital). The mentioned practices can be categorized as typical Design Thinking activities, which support interactions with stakeholders. The dynamics of Design Thinking is also highlighted by Silvestre et al. (2022), as a means of managing the complexity of considering all stakeholders. The authors' literature review (Haugen and Valheim, 2022) identified that some articles present the integration of design in SBMI as a "magic solution" to the challenge of involving all stakeholders in SBM. The authors' reflection in the literature review, related to this, was that although design in SBMI is promising, the development process is so complex that design alone cannot fully solve this challenge (Haugen and Valheim, 2022).

2.2.3 SBMI in scale-ups

Start-ups and scale-ups are particularly known for having a trial-and-error approach where assumptions are gradually validated and adapted according to market needs (Schuit et al., 2017). However, Evans et al. (2017) describe how to enable such experimentation, companies must understand the challenges associated with SBMs and that the business strategy must reflect the complexity of SBMI requiring the company to experiment (Evans et al., 2017). Implementing a SBM requires changes in how the business model is conceptualized in terms of relationships with stakeholders. Such relationships affect the way the firm is managed, and in turn, this affects the firm's behavior. For example, according to entrepreneurial literature,

having industry experience improves the entrepreneurs' ability to make accurate forecasts. Such industry experience enhances the entrepreneur's understanding of industry trends, thereby reducing uncertainty when evaluating a business opportunity. The advantage of industry experience is greater in industries with greater uncertainty, such as high-tech industries, where the industry experience can have a major impact on the decisions made by the entrepreneur (Gavin, 2014).

To succeed with such management, companies need to take a broader and long-term view of their relationships, including key internal and external stakeholders (Evans et al., 2017). For the success of SBMI processes to succeed, adaptability and the ability to be dynamic are key skills that should be present in both management and organizational culture (Silvestre et al., 2022). Achieving this enables demands from customers and the external environment to be maintained (Mignon & Bankel, 2022).

2.2.4 Maturing research area

The aforementioned complexities of developing value propositions for SBMs, along with the increasing demand for business that are seeking new ways to generate value for all stakeholders, has driven the growth of research in SBMI. Despite this, it is noted that the field of study is still in its infancy and in need of more research (Baldassarre et al., 2017; Bhatnagar et al., 2022; Santa-Maria et al., 2022; Schuit et al., 2017).

There is a dearth of literature and limited understanding of how SBMI can be carried out in practice (Velter et al., 2020), and how it has been practiced (Haugen & Valheim, 2022; Jensen et al., 2019). For example, literature emphasizes that there is a lack of practical tools and guidelines to assist companies in executing various SBMI initiatives (Jensen et al., 2019; Santa-Maria et al., 2022; Stubbs, 2019). The absence of research in the SBMI field makes it challenging for businesses to understand how to be innovative in their business models, recognize and develop alternative approaches, and then choose the best course of action (Stubbs, 2019; Schuit, Baldassarre, & Bocken, 2017) However, it is important to note that the research field of SBMI has been experiencing significant development and growth, evidenced by the emergence of numerous new scientific publications on the topic in recent years (Haugen & Valheim, 2022).

3. Methodology

In this chapter, the authors will describe the chosen method for the master's thesis. It will be explained how the study has been conducted and the choices the authors have made during the study. The choices are based on what the authors have seen as the most appropriate to be able to answer the research questions of the master's thesis.

RQ: "How do technology scale-ups consider stakeholders' interests and align value propositions, when developing a profitable Sustainable Business Model in practice?"

3.1 Research design

This master's thesis is based on a literature review, which the authors wrote in the fall semester of 2022 (Haugen & Valheim, 2022). Figure 1 below shows an overview of the master's thesis research design and how the authors have organized the study to achieve the aim of the study.
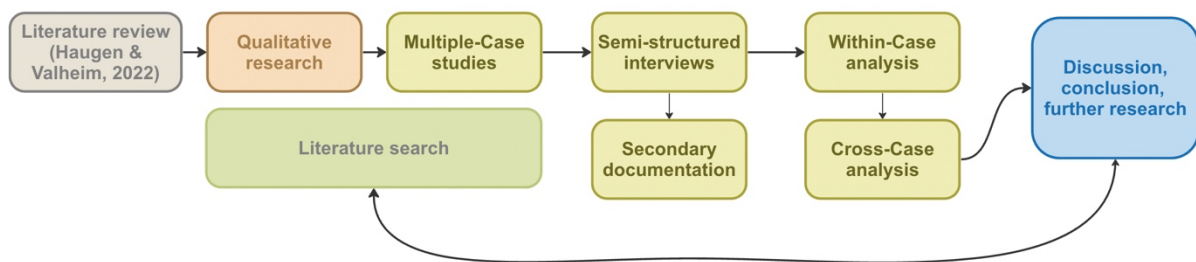
Figure 1: Overview of the research design of the master's thesis

The aim of the study is to understand how technology scale-ups consider stakeholder interests and adapt value propositions during the development of a profitable SBM, in practice. To achieve this goal, four different technology scale-ups have been interviewed and analyzed through a qualitative method. Qualitative methodology provides the opportunity to discover more diversity and nuances in the data, as opposed to quantitative methodology (Flick, 2015). The aim of qualitative research approach is to develop the understanding of phenomena related to people and situations in their social reality (Dalen, 2004). Through a qualitative methodology, the authors were able to gain a deeper understanding of the case companies' processes and approaches to developing a profitable SBM, where they included stakeholders and created adapted value propositions. Qualitative methodology allows respondents to describe and elaborate on experiences in more detail (Flick, 2015).

The study has had an abductive approach, which is a combination of both inductive and deductive elements (Saunders et al., 2019). The abductive approach often begins with a "surprising fact", which is more like a conclusion than a premise. Based on the conclusion, a

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set of possible premises is formed that form the basis for explaining the conclusion (Saunders et al., 2019). The "surprising finding" the authors identified was that the literature described the goal of a successful SBM as mastering the creation of value propositions that meet a wide range of interests along the 3 Ps. The authors were surprised that much of the literature focused on the goal and not the path to the goal, in other words, the authors were missing fundamental elements to achieve the goal in practice. The choice of an abductive approach was made as the authors felt that there was limited research in the area and that there was little literature linking theory and practice. An abductive approach is seen as advantageous when researchers have dual purposes, requiring alternation between theory and data (Saunders et al., 2019).

The study process started with a theory review where the authors found that the existing research in the field resulted in a lot of talk about important facts, without concrete suggestions on how companies could actually implement the facts in practice. The next step for the authors was to use the theory to develop an interview guide, which resulted in new data in the field. After analyzing and reviewing the data, the authors returned to the literature search to look more actively for literature that supported the findings from the collected data. In this way, this abductive study has moved back and forth between theory and data, in contrast to inductive, which moves from data to theory, and deductive, which moves from theory to data (Saunders et al., 2019).

Yin (2003) describes how case studies are a preferred strategy when the baseline is "how" or "why" research questions, as such questions often mean that the researcher has little control over contemporary phenomena or events within some real-life context (Yin, 2003). As the authors wanted to base the study on both contemporary phenomena and varying events, a case study was a natural choice of method. As described, the aim of the case study was to understand how the companies' process has looked in practice, and the authors therefore believe that a case study was the most logical approach.

3.1.1 Multiple-Case study

A case study is an empirical investigation, which enables research to be conducted in depth and within a given context (Yin, 2014). During the previous literature review written by the authors, the authors missed research that addressed practical examples of how companies create a profitable SBM and include stakeholders to align value propositions. A multiple-case study made it possible to investigate how different scale-ups have approached the actions in practice. In this way, the authors obtained views from different scale-ups, resulting in perspectives that could be compared and provided an understanding of different approaches in practice. Case studies can be used when there is a desire to understand complex real-world phenomena in depth (Yin, 2014).

3.1.2 Selection of case firms

Yin (2003) emphasizes that it is important as a researcher not to take a multiple-case study too lightly, as it requires extensive resources and time. The authors chose to include four case companies in the case study to ensure that the work would not be too extensive, but at the same time achieve sufficient variation in the empirical data. Empirical data that is too extensive can create noise and the risk of findings not being discovered in the work, which can reduce the accuracy of the study. When selecting case companies, it is therefore important to ensure that each case company is part of the overall scope of the study and will serve a specific purpose for the investigation (Yin, 2003). To ensure that the study was based on relevant companies, a careful selection process was important.

To start this process, it was important for the authors to establish a clear definition of the term SBM. As mentioned in the literature chapter, the authors' definition of SBM in this study is as follows: SBMs refer to companies that deliver value propositions to a wide range of stakeholders, along the needs of the 3 Ps. In other words, business models that meet the needs of People and Planet, whilst being financially viable. Further, the thesis will refer to companies with an SBM aiming to make an impact related to environmental or societal problems they have not created themselves. Therefore the companies needs to make an impact on the 3 Ps. However, due to the lack of companies making impact in all 3 Ps, the authors will define companies prioritizing People + Profit and Planet + Profit as SBMs. Profit must be included as a main priority due to the aforementioned importance of capturing financial returns in an SBM. Nevertheless, this thesis study does not focus specifically on SBMI due to the limited number of companies driving SBMI that met the research criteria. Instead, the research explores how companies can develop their business models by creating value propositions for the case companies' main stakeholders (see table 5,7,9,11) along the interests of the 3 Ps, which, however, is a critical component of SBMI. Due to the scope of the study, it will not focus on all stakeholders. Before reaching out to relevant companies, the authors used established criteria as a basis. The criteria and arguments for the criteria are presented in the table below:

Table 1: Overview of the criteria and argumentation

Criteria	Argumentation for the criterion
Norwegian-established company	This criterion was established as the authors wanted to base the study on companies within the same geographical area, and Norway was the most accessible market for the authors. Moreover, a significance of this context lies in the fact that Norway is committed to becoming a sustainable society, thereby providing valuable case insights.

Scale-up established after year 2015	The criteria scale-up and establishment after 2015 were chosen as both factors create an indication that the companies have reached a certain stage of growth, while it is not too long since the companies carried out processes in the establishment phase.
Technology scale-up	Technology has proven to drive sustainability, and thus became a natural criterion to create a certain similarity between the different case studies, while allowing for research across industries.
Goal of high impact (People), (Planet) + Profit	The criterion is that the case company must at least prioritize People OR Planet AND Profit, to ensure that the company has an SBM (based on the authors' definition).
Radically innovative business model	A radically innovative BM was set as a criterion as it aims to challenge established industry conventions, introduce new technologies or apply existing technologies in a unique way. BMs of this type were seen by the authors as having the potential to disrupt industries and create transformative change towards sustainability.

The authors found it difficult to establish contact with potential companies. Many emails were sent out, but none resulted in an agreement to participate. Most of the responses were that the companies were short of time and therefore always declined such opportunities. The authors decided to change tactics and set up a prioritized list of five companies they would prefer to base the case study on. The authors then took a more proactive approach to highlight the potential value the study could add to the five companies. The authors' personal networks were also used to get in touch with key people in the companies. This strategy resulted in agreements with four different technology scale-ups. The four scale-ups vary in terms of how far they have progressed in their establishment phase and how far their business operations have progressed. The four companies are in three different industries, but create impact through a radically innovative business model through the use of technology.

3.2 Data collection

Qualitative in-depth interviews were chosen as the method for primary data collection. External documentation from the case companies has been used as secondary data. This was documentation such as white papers, one-pagers, pitch-decks and other documentation that described the companies' business models, stakeholders and sustainability focus. The

secondary data was mainly used to verify and check the primary data. The in-depth interviews allowed the authors to understand the process the companies have gone through, as it gives the informants the opportunity to explain their approach in detail during the interviews. Such interviews are particularly suitable for understanding other people's thoughts, experiences and feelings (Dalen, 2004). Furthermore, it was decided that the interviewers should be semi-structured interviews. Semi-structured interviews refer to the fact that the interview is built on predetermined topics decided by the researcher (Dalen, 2004). This choice was made as it builds on a certain structure while giving the informants the opportunity to raise thoughts that were not requested, as well as giving the authors the opportunity to ask follow-up questions. The structure ensured that all the interviews were based on the same themes. The structure also made it easier to compare the different case companies in order to see similarities and differences between the case companies later on in the process.

All interviews were conducted digitally using the software program Microsoft Teams, with both authors present. This decision meant that both authors would have equal "access" to and the best possible overview of the data material. During each interview, one of the authors was primarily responsible for asking the questions from the interview guide and was the one who asked the most follow-up questions. This was decided so that the informant would not be confused by the fact that both authors were active, and to create as much structure and calmness as possible during the interview. Despite having less responsibility, the second author was able to complement with input such as follow-up questions and notes during the interview.

3.2.1 Respondents

In order to answer the research question, the authors needed insight based on the case companies' business model. It was therefore important for the authors to interview people who had solid expertise and understanding of the company's core and development. People who had been central to the development of the case company would be able to provide the authors with this insight. One requirement the authors set was that the informants should have expertise in the company's business model and a role as either a top-level manager or middle manager in the company. The authors wanted to have the first interview with the company's CEO, as a CEO is the person who often participates in important decisions and the company's development. The authors did not have the opportunity to interview the CEO of Tibber, but were instead able to interview the Country Manger Norway and Design Lead. For the case companies No Isolation and Total Ctrl, it was only possible to conduct one interview per case, so the authors used secondary data to a greater extent to verify and complement the data from the interviews. The authors' first thought when they realized that they only had the opportunity to conduct one interview with two of the case companies was that this was a major weakness in the thesis. The authors then decided to include more case companies in the study to ensure that they had enough data. Before including more case companies, the authors sat down with the data material that had been collected and discussed the scope.

As mentioned earlier, the choice of four case companies was made in order not to risk too extensive data that could create noise in the study. Upon a more careful review of the data material, the authors realized that the data was saturated, which means that the data will provide enough input to answer the study's research questions (Eisenhardt, 1989). On the basis of data saturation, the authors decided not to collect more data, which they later in the process saw as an advantage for the study's results. The table below provides an overview of the six informants with whom the authors conducted interviews. All interviews lasted approximately one hour.

Table 2: Overview of the six informants and interview time.

Tibber	No Isolation	Total Ctrl	Fornix
Country Manager Norway (1hr)	Co-Founder and CEO (1hr)	Co-Founder and CEO (1hr)	Co-Founder and co-CEO (1 hr 10 min)
Design Lead (55min)	Documentation from the company	Documentation from the company	CFO (45 min)

3.2.2 Interview guide

In preparation for the interviews, a semi-structured interview guide was developed. An interview guide ensures that the interviewers do not ask leading questions that shape the informant's answers. Furthermore, an interview guide is important for planning the structure of the interview to make it manageable for the informant to answer the questions asked, such as starting the interview with warm-up questions to prepare the informant (Dalen, 2004). The focus during the formulation was on formulating open questions that would give the informant the opportunity to reflect and explain their own perspectives. In addition, the authors recognized the importance of the question wording, as the interview guide contained several questions that were aimed at a process the informants had completed some time ago, which could require them to reflect their way to the answer. The interview guide was divided into three parts: introduction, main part and conclusion. The introduction focused on open questions aimed at the informant's role and the company's purpose, in order to establish context. The main part contained five themes. The five themes were;

- Development of the business model,
- Stakeholders
- Value proposition
- Measures
- Company profit

The themes came from the literature the authors had acquired, as these themes had proved to be important elements in the development of SBMs. At the end of the interview guide, the authors allowed the informant to ask questions or raise any information, and the authors requested the possibility of further contact if more questions arose (see interview guide in Appendix 1). The estimated time for the interviews was approximately one hour. The interview guide was tested on two start-ups from NTNU's School of Entrepreneurship, which

had similarities with the case companies. This allowed the authors to screen out or clarify questions that were misleading, gave similar answers, gave irrelevant answers, or were perceived incorrectly. The test interviews also made it possible to test the authors as interviewers and the equipment used. After the test interviews, the authors listened to the recording. Dalen (2004) describes that this activity can be important for discovering one's own reactions or ways of asking questions that may affect the informant's answers. The test interviews also helped the authors to get an indicator that the assumed time for conducting the interview was appropriate.

3.3 Data analysis

This section describes the choice of method and approach for the analysis. Thematic analysis was chosen as the method, as thematic analysis is a flexible method that makes it possible to identify patterns across data and participants. Clarke et al. (2015) describes that thematic analysis is an appropriate method for experiential research, where one wants to understand what participants think, feel and do. As the aim was to understand the case companies choice of approach and thoughts, the authors considered this to be an appropriate method for the analysis.

After each interview was completed, the authors started writing down their thoughts and impressions. This ensured that the authors did not forget the first spontaneous thoughts and impressions after each interview. The notes were later used and useful for the coding process. All interviews were transcribed, which gave the authors an opportunity to get to know the material even better. Because the interviews had been audio-recorded, the authors were able to transcribe the interviews verbatim. This prevented the risk of their own assessments influencing the material.

Thematic analysis is a method that makes it possible to identify, analyze and interpret meaning patterns and themes within qualitative data (Clarke et al., 2015). Through the thematic analysis, the authors were able to make both codes and categories available. Codes are the smallest unit of analysis in thematic analysis and can help to highlight typical features and interesting findings in the data, which can later help to answer the research question (Clarke et al., 2015). The codes are the building blocks of the categories, which can be seen as patterns in the material. In this way, the categories become the researcher's framework for organizing and reporting the analytical observations (Clarke et al., 2015).

To conduct the analysis, the steps of within-case analysis and cross-case analysis have been chosen, as these steps enable both the exploration of each case individually and the opportunity to compare and look for patterns across the cases. In the next section, the authors will describe the coding process in more detail, before the with-in analysis and cross-case analysis steps are elaborated and described.

3.3.1 Coding process

The coding was carried out in the software tool NVivo, which helped the authors to maintain an overview and system during the coding process. Different "color codes" and tools in the software program were used to keep track of and separate the data from the different case companies. The first step in the coding process was for the authors to read through each interview, while establishing codes close to the empirical data. Codes close to the empirical data can be words and statements directly from the interview, which can also help authors to maintain the link between code and empirical data (Tjora, 2019). Through this type of coding, the authors felt that there was a greater chance of discovering hidden findings in the material.

After all six interviews had been coded, time was spent creating an overview of the various codes. The themes from the interview guide were then examined in combination with the overview of the codes that had been developed. From this, the authors established three main categories; Sustainable business model, Stakeholders 3 Ps and Value proposition. The authors then began to place the various codes into relevant categories. At the same time, obvious clusters were established and placed in the main categories during the work. Figure 2 shows an overview of the categories and top-level clusters, but it is worth noting that the authors also had several levels of sub-clusters and codes that are not shown in the Figure 2.
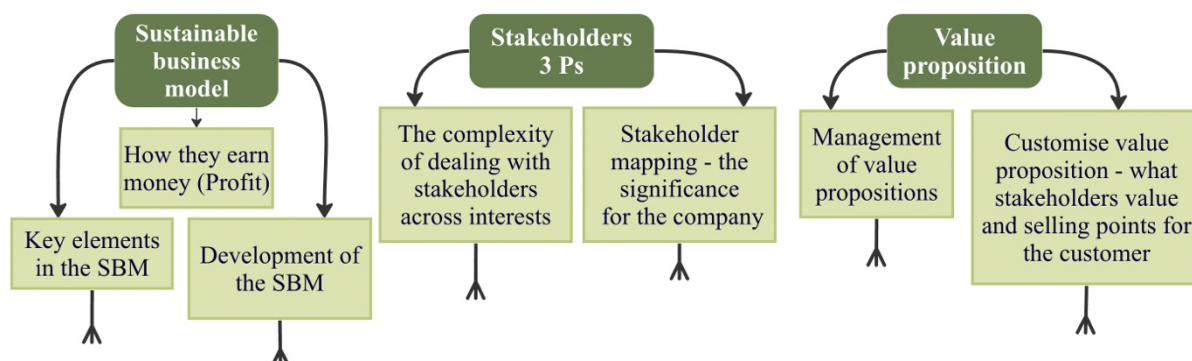
Figure 2: Overview of the categories and top-level clusters

The codes that were initially challenging to place were temporarily set aside as the authors initially prioritized the more obvious and clear patterns. In the authors' experience, the codes that were initially perceived as difficult to place ended up being the most unexpected findings in the study. The coding was an iterative process, where different clusters were changed and restructured several times to ensure that the authors created the most appropriate similarities and patterns. For example, the authors were careful to split the alignment of value propositions and the handling of value propositions into two different clusters. The authors did this to be able to distinguish work that the case companies had done during the development of value propositions with what the case companies had done later to maintain the value propositions.

3.3.2 Within-Case analysis

A within-case analysis is based on the idea that the researcher should become well acquainted with each case independently before comparing across all cases (Eisenhardt, 1989). The within-case analysis gave the authors an opportunity to gain in-depth knowledge of each case and focus on unique events that occurred in the different cases. This had a significant impact on the authors' ability to discover hidden and unique findings. A within-case analysis is also seen as a good tool for researchers to manage the large volume of data that often needs to be processed in case studies (Eisenhardt, 1989).

Chapter 4 presents the analysis from the within-case analysis from the four case companies. Each individual within-case analysis is structured in the same way and with the same headings, which are a result of the different clusters in the coding.
Eisenhardt (1989) describes the advantage of the researchers becoming familiar with the material through the within-case analysis, which has a positive impact on the subsequent process when the researchers compare several different cases and look for differences and similarities across (Eisenhardt, 1989). The authors experienced a very natural transition from the within-case analysis to the cross-case analysis.

3.3.3 Cross-Case analysis

A cross-case analysis is based on the researcher's search for patterns across different cases. For example, during the cross-case analysis, the authors could see the similarity in that all the case companies highlighted that *"impact does not sell".* The fact that all the case companies highlighted this fact allowed the authors to see this as a finding and pattern from the data. The idea behind the method is to prevent quick conclusions based on limited data. The aim of the method is that conclusions are based on different data that have been examined and explored in several different ways (Eisenhardt, 1989). As the authors had first analyzed each case individually, everything was in place to start the comparison. It was thus proven that the authors did not start the cross-case analysis until all the within-case analyses had been completed. In this way, the authors could quickly begin to see similarities and differences within the various themes that had been established. Chapter 5 presents the comparison and search for patterns between the different case companies that the authors conducted during the cross-case analysis. The cross-case analysis is built up with the same structure and headings as the within-case analysis.

3.4 Reflection of the methodology

This section presents reflections on the choice of method and execution. The authors will reflect on the quality of the research and the chosen methodology. Questions will be asked about whether the authors have chosen the most logical approach and whether anything should have been done differently.

3.4.1 Ethics

Before data collection was carried out, the study was assessed by the Norwegian Center for Research Data (NSD). The data collection did not start until approval from NSD was obtained. All informants were informed of their rights through a letter of consent (appendix 2), which was signed and returned to the authors as an approval from the informants. The letter of consent included relevant information regarding the participants' rights, including their ability to withdraw from the case study at any time, as well as a guarantee that all audio recording data will be deleted immediately after the end of the study.
All participants in the case study later received the chapter where their case company was analyzed. This was to give the participants the opportunity to confirm, point out or comment on the content if they thought something had been misinterpreted or misrepresented. This control has also contributed to the study's research quality, which is the subject of the next section.

3.4.2 Research quality

To assess the credibility of the study, the authors have based their assessment on validity, reliability and generalizability. Validity is based on whether the answers the researcher finds in their research actually answer the questions asked (Tjora, 2019). To ensure validity, the authors worked iteratively and thoroughly with the design of the interview guide, in addition to gathering input from the supervisor and conducting test interviews to ensure that the interview guide would lead to relevant and valid data. Later on in the process, the authors returned to the research question to refine it to fit the findings more closely.

Reliability is based on the idea that a researcher should preferably be neutral or objective in their research. It is therefore important for researchers to assess their own involvement and whether it can create noise and risk shaping the outcome of the research (Tjora, 2019). The authors' commitment to the study's topic arose when the authors wrote the previously described literature review in the fall of 2022 (Haugen & Valheim, 2022). Through the study, the authors have acquired more expertise in the field, which has developed in line with their work. The authors believe that this may have had both a positive and negative impact on the reliability of the thesis. On the positive side, the authors have always been curious and interested in learning more in the field, which has led to an open mind and an active search for new knowledge. From a negative perspective, there may be a risk that the authors have drawn conclusions and allowed their own assessments to influence the outcome of the research.

Generalizability is based on whether one can benefit from the research or find relevance in other contexts or cases than those included in the research itself (Tjora, 2019). The authors believe that their choice to base the research on cases from different industries, but with the common characteristic that they are technology-driven scale-ups with an SBM, opens up for companies in different industries to relate to the research. Furthermore, the authors recognize the limitations these choices have also created, such as the fact that the study is based on

scale-ups and technology-based concepts, and thus may not be as applicable to, for example, larger established companies or scale-ups that are not technology-driven. Nevertheless, the authors feel that these limitations have been crucial in enabling them to compare and generalize within the length of the study.

3.4.3 Limitations

Qualitative research is always subject to limitations related to the researcher, as the researcher has a central role in collecting and analyzing the data. There is therefore always a risk that personal assessments and existing expertise have shaped the results. It was also important for the authors to discuss and reflect together on what expertise and values they already possess, in order to create a shared awareness of any limitations that may arise. This has made it important for the authors to be aware of this risk throughout the work of the study. As mentioned, a lot of time was spent on preparing a well thought-out interview guide to ensure that the interviews were as objective as possible. Dalen (2004) describes the importance of "good" questions in an interview situation. By "good" questions, the authors mean that the informant should have the opportunity to provide complementary and content-rich statements that enable the authors to create an understanding of specific episodes or actions, which strengthens the data material.

All the case companies included in this study were founded and established in Norway. Norway is a country that is striving to become more sustainable and implement more sustainable solutions, which the authors believe makes the country a relevant geographical area for the study. However, the authors recognize that this can be seen as a geographical limitation for the study. As it may affect the extent to which companies outside Norway can benefit from the study. Nevertheless, the authors would like to point out that although the companies are established and founded in Norway, two of the case companies have expanded to countries other than Norway, which may minimize this limitation.

Five of the six interviews and transcriptions were conducted in Norwegian. Since the study was to be presented in English, the material was translated into English in connection with the coding process. This may have had a limiting effect on the later material, as translation may risk creating certain changes to the material. The authors' decision to send the material to the case companies for approval may have minimized this risk, as they had the opportunity to make corrections or suggestions for changes if they felt something was misleading.

The collected data was gathered at one point in time, even though the questions were aimed at a long process that took place over several years at the case companies. A limitation associated with this is that the informants may remember errors, view events from the process differently today or unconsciously exclude relevant information. To minimize this risk, triangulation has been used, such as the authors talking to several informants about the same process, as well as access to external documentation from the case company, in order to obtain information from different sources. The authors have also searched for information on the internet, such as the companies' websites, to ensure that the data is correct.

4. Within-Case analysis

This chapter presents a within-case analysis, where the specific findings within each case will be explored. To ensure clarity and coherence, the within-case analysis is organized around three key themes: *Development of the SBM, Managing Stakeholders' Interest within the 3 Ps,and Delivering Value Propositions across the Interests of the 3 Ps.*
The first theme, *Development of the SBM*, explores the development of the case companies' SBM, examining the initial stages of the SBM, the steps taken to transform the identified pain point into a viable SBM, measures implemented to sustain and enhance the SBM as the organization expands, and the key critical elements contributing to the outcome of each case's SBM.

The second theme, *Managing Stakeholders' Interests within the 3 Ps,* examines the strategies used to ensure financial viability and also delves into the complex nature of managing stakeholders and their diverse interests. The chapter begins with a chart over the cases' key stakeholders in terms of the 3 Ps, followed by presenting how the cases approach balancing their interests. However, this chapter primarily focuses on the Profit aspect, as the analysis revealed a higher level of uncertainty regarding how the companies in each case approach and achieve this dimension compared to the clear certainty in achieving impact on the Planet and People dimensions. Therefore, the chapter delves into how the cases effectively address the Profit aspect in conjunction with, and as a consequence of, their impact on People and/or Planet. More specifically, the customer is emphasized as they are regarded a crucial stakeholder within the Profit aspect.

The third theme, *Delivering Value Propositions across the Interests of the 3 Ps,* explores the process of identifying the specific needs of stakeholders, adapting value propositions accordingly, and the strategies employed to effectively manage and deliver value propositions across the three dimensions of the 3 Ps. This analysis maintains a continued focus on the Profit aspect and the cases approach to delivering value propositions for their customers.

Below is a table showing key information about each case and the order they will be presented in the within-case analysis.

4. Within-Case analysis

Table 3: Overview of the four case companies, providing key information

Company	Year of establish-ment	B2B/B2C & customer	Employees	Customer base by countries	Product:
Tibber	2016	B2C energy consumers	50	Norway, Sweden, Germany, Denmark, Finland, France, Netherlands, Spain	**Software:** App giving access to hourly electricity prices, smart analytics, and a clear overview of electricity consumption **Hardware:** Self-developed smart devices sells in Tibber Shop
No Isolation	2015	B2B/ B2C municipalities, organizations and consumers	44	Norway, Sweden, Denmark, United Kingdom, Germany, Netherlands, USA, Australia	**Hardware:** AVI robot - The child's eyes, ears and voice in the classroom Comp screen – Computer with only one-button
Total Ctrl	2017	B2B hotels, restaurants, municipalities.	19	Norway, Sweden, Finland, South Africa	**Software:** System enabling control over food inventory
Fornix	2020	B2B public hospital private clinics	14	Norway, Germany	**Software:** Enables Virtual Reality Exposure Therapy (VRET) software for therapists. **Hardware:** Utilization of third-party hardware that integrates with Fornix's VRET software

4.1 Case 1: Tibber

Tibber mission is to improve the way we buy and use electricity by targeting the B2C market and energy consumers. Tibber aims to offer an improved alternative to the traditional power companies, by offering affordable, green energy whilst encouraging reduced consumption. Tibber has actively chosen not to earn a penny from their customers' electricity consumption, in contrast to many of their competitors in the market. This is done by offering consumers access to a simple and easy-to-use app to manage electricity consumption at home.
This app can analyze power consumption in real time and provide information about power consumption and costs. In addition, Tibber makes it possible to connect your home's smart devices to the platform, which allows you to further automate and optimize your power consumption.

Table 4: Overview of Tibber's SBM

Value proposition People and Planet
Tibber is working to create a more sustainable and efficient energy sector that benefits both the Planet and People. Tibber's main value proposition to the *Planet* is to promote smart energy use that contributes to energy savings, and ensure that the energy supplied is clean and renewable. Tibber's main value proposition to People is the contribution to balancing the power grid, thereby contributing to a more reliable energy supply in society.
Value proposition Profit (customer)
Tibber's main value proposition to the customer is that Tibber can help customers optimize their energy use, which in turn results in the customer's ability to reduce their energy costs.
SBM structure (create, capture, deliver)
Create: Tibber creates value through the development of innovative technology solutions and artificial intelligence that help customers optimize their energy use and reduce costs. They also offer additional services such as smart home solutions and electric car charging, designed to further enhance the optimization of energy. *Deliver:* Tibber delivers value to customers through a mobile application and web-based platform. This enables customers to gain insight into their energy consumption, recommendations for energy savings and access to other services such as smart home solutions and electric car charging. Tibber also ensures the delivery of clean and renewable energy to customers. *Capture:* Sales of smart solutions (hardware) generate Tibber's main revenue. Tibber also earns revenue through payments from grid owners. The third revenue stream comes from the subscription model, where customers pay a monthly fee to access Tibber's platform and services.

4.1.1 Development of the sustainable business model

To describe Tibber's development of their SBM, this section starts by describing their establishment phase, where the industry experience of the two co-founders played a significant role. The section goes on to describe Tibber's growth phase and how they have worked to maintain their position in the market. The section concludes by describing various elements that have been crucial for Tibber to achieve an SBM, such as their awareness of sustainability and the goal of creating impact from the start.

4.1.1.1 Establishment phase: From pain to development of SBM

Tibber started when the two co-founders met while working in the energy industry. Both had felt the pain in the industry, despite this, the set-up of the industry was difficult to change and left little room for innovation. With the feeling that there was an untapped potential in the market, the entrepreneurs decided to look at the innovation potential themselves and started Tibber. Country Manager Norway describes Tibber's starting point:

"There was a very non-tech approach to delivering electricity and talking about electricity consumption, and an absolutely terrible user experience. Incomprehensible electricity bills and so on. So the whole starting point for starting Tibber was to make it easier for the user to understand electricity and be able to do something about it."

In other words, Tibber was started with an existing problem in an existing industry, where the two founders had core competencies. From the start, they were aware that they wanted to create a simple solution that would be an innovative first-mover solution in a traditional industry. From the very beginning, the two entrepreneurs had a vision to create a user-friendly app that simplified the energy industry. The first step they took to get closer to the solution was to create a first mock-up, based on their thoughts and vision.

Tibber is aware that an important element of their establishment is based on their timing. Changes in the market, particularly the significant price increase in the Norwegian electricity-market, have played a crucial role in raising customer awareness about electricity consumption. These market dynamics have been instrumental in driving Tibber's acceptance and establishing its presence in the market. Country Manager Norway describes how Tibber created hyper-accessible information for consumers;

"So from electricity consumption being completely inaccessible and incomprehensible, it became hyper-accessible to the consumer end and consumers could have an opinion about it. They also linked some gamification to it, which made it fun for the consumer to experiment with reducing consumption."

With this innovation that Tibber brought to the market, it became clear that they had solved a problem that many consumers had been experiencing and gained a lot of traction from the market.

4.1.1.2 Growth phase: Maintain the SBM and facilitating future growth

Tibber's business model is very much the same as it was when Tibber started and is still based on the industry insights and experience of the two founders. As the company has grown in user base, expanded to more countries, and in line with changes in the market, changes in the business model have been made. Country Manager Norway and Design Lead describes the reason for change as follows:

"*Of course we see competitors coming in, so the process has more or less been a combination of maintaining our position and constantly developing Tibber.*" - Country Manager Norway

"*So in terms of expansion, I would say that we have had to change some things and we have had to adapt to new users as well as to different cultures and systems in other countries and so on. So there has been a lot of learnings as we go.*" - Design Lead

Country Manager Norway highlights Tibber's referral program and how it has contributed to the company's growth. By gaining trust in Tibber, customers can further recommend and "recruit" new customers, thus gaining benefits and bonuses:

"*A lot of our growth is based on our referral program. Because it's all about human relationships. That you as a Tibber customer can recommend Tibber to friends, acquaintances and colleagues. That is absolutely central.*"

4.1.1.3 Achieving a sustainable business model: Critical elements

For Tibber, it has been important to stay true to their business model, that they do not make money from their customers' consumption, so they have ensured that they have no incentives to make their customers use more electricity. The Design Lead further highlights that it is essential with discipline and caution, as working in this way brings more problems than in a more conventional business:

"*I would go so far as to say it's much harder to do this, because there are so many problems compared to standard Shopify websites and the like.*"

Tibber is aware that they are in a "bad" industry, where there is a high environmental impact. As the Country Manager Norway herself says; "*we make a bad industry a little better*". The fact that Tibber is aware of this means that they constantly strive to make everything a little better all the time, in order to build credibility and trustworthiness. Below, the Country Manager Norway describes how Tibber works to strengthen their impact with measures such as sourcing clean energy and assessing hardware to build credibility:

"I think 97 or 98 percent of our environmental footprint comes from the electricity we sell. (...) It's important to participate in research projects related to the environmental benefits of using the power grid more efficiently. It's about having a strategy for sourcing energy. "

In order to create the greatest possible impact, it is important for Tibber that all employees feel motivated and actively work to make the company as good as possible.

"We are a pretty strong value- and culture-driven company (...) my personal opinion is that sustainable business models without a strong culture and value base are not worth much. Because all Tibber employees are ambassadors for our product." - Country Manager Norway

Below, the Design Lead describes his motivation for joining Tibber:

"I joined this company because I wanted to use design to solve problems for people, while at the same time working with something ethical. So now my job involves doing something that benefits the environment and at the same time I get to do the kind of work I prefer to do. "

As Tibber does things very differently from their competitors in the energy industry, it has become important for them to inform and 'educate' their customers. This education is based on how customers can use energy more smartly to save electricity. Tibber does this to strengthen their value proposition to customers. Tibber's Design Lead describes this as follows:

"But I can say that our mission as a company is also empowering people, empowering them to be smart. Right. So we want to bring out the smartness in you and in this way of working. Our mission is to, you know, have an impact on the consumption of energy and lowering and lowering it."

4.1.2 Managing stakeholders' interests within the 3 Ps

The section starts by describing how Tibber adapts to its various stakeholders within the 3 Ps. It goes on to describe Tibber's approach to profit, and how their SBM is designed to link both impact and profit. The section then goes on to describe Tibber's stakeholder mapping, where user and customer are the same stakeholder. Finally, the section presents Tibber's various priorities related to different stakeholders, for example in the hardware development process.

4.1.2.1 Alignment of the 3 Ps

In the table below, key stakeholders for Tibber within each dimension of People, Planet and Profit are presented. It is however important to point out that Tibber has several more stakeholders within the different dimensions, but here is an excerpt from key stakeholders they need to address that were presented from the interviews.

Table 5: Tibber's stakeholders within the dimensions of 3 Ps

People	**Society:** contributing to balancing the power-grid, preventing unnecessary energy consumption, spread awareness of the importance of saving electricity. **Employees**: creating job opportunities, working conditions, fostering a positive work environment. **Customers/user (electricity-consumers)**: simplify electricity-saving measures, pay attention to feedback, customer-service etc.
Planet	**Environment:** preventing unnecessary energy consumption, providing green energy, participating in research projects related to the environmental benefits of using the electricity grid more efficiently, environmental impact reporting, produce responsible hardware. **Hardware suppliers:** ensuring sustainable sourcing practices and procurement. **Organizations focusing on environmental causes:** demonstrate Tibber's commitment to responsible business practices.
Profit	**Customers:** enable customers to reduce their electricity costs **Investors and Financing Institutions***:* expect financial returns on their investment in Tibber. **External business professionals**: concerned about the company's growth and strategy. **Suppliers:** strategically engage with suppliers to optimize costs, ensure quality and reliability.

Stakeholder interests can overlap in several dimensions. For example, Tibber must align with customers' interests in both the People dimension and the Profit dimension. As a B2C company, it is crucial that Tibber creates trust with its customers by showing that it takes their needs and preferences into account, while at the same time providing economic value through energy savings. By focusing on these stakeholders and delivering value along the interests of the 3 Ps, Tibber can align its operations within these interests.

The commitment of working to balance the 3 Ps s has been central for Tibber, from the beginning. Being aware of this, the founders have created a business model that reflects this and takes the balance into account:

"I think that the founders of Tibber have had that as a mindset all along, that these 3 Ps are closely connected. The more customers we get, the more positive impact we can have on all three dimensions. Then we can make money for the owner and investor. We create value for People, the customers. And we create value for Planet. By removing unnecessary

consumption. So it's a pretty close connection. And we have built some mechanisms into the business model itself." - Country Manager Norway

The Country Manager Norway highlights that an important element for the success of SBM is to be clear about what impact you want to make. It is important that the company is clear in their mission and vision of what they want to achieve.

"For Tibber, it's about Sustainable Development Goal number 6. Which is clean energy for all. The entire business model is built around the fact that it should help consumers to reduce their electricity consumption. Everything it does, all product development, all business development, strategic decisions are built around that."

The Design Lead describes how Tibber has built their business model so that they do not end up in a situation where they make money from consumers using more electricity:

"We're not making money on you buying more energy, because if we would do that, by say, putting a fixed price on top of the variable price, then we could benefit if people use a lot of energy. But by not doing that, we are not having any beneficial benefits (...)Yeah, it kind of ties it back all the way to our business model that we are not really trying to earn money on energy."

4.1.2.2 Approach to Profit

Tibber's business model is designed to link the People, Planet and Profit dimensions together. This means that the higher profitability Tibber achieves, the greater impact they create. Country Manager Norway describes this:

"Because of the way we have built our business model, the goal of profitability and the goal of contributing positively to People and Planet are not mutually exclusive, quite the contrary. As I mentioned, the more customers we get, the more positive impact we have."

This way, Tibber can focus on growing its customer segment and automatically achieve a positive impact on the world.

The Country Manager Norway further highlights the importance of being aware of the balance between the 3 Ps in an SBM that constantly needs to be kept in focus, in order to ensure that one P does not compromise others:

"100%, it would be completely irresponsible to say that we should not make money. But how do you build safety valves into your business model so that one dimension does not cannibalize the others? That's the sustainability test. What will this business model look like in 2030 or 2040?"

With this expression, the Country Manager Norway shows that Tibber is thinking long-term and future-oriented.

Tibber makes use of a subscription payment. This was the only source of income Tibber had in the beginning. The subscription solution is based on customers paying a fixed sum to

Tibber every month, which means that Tibber does not charge extra based on the customers' consumption. This payment model is similar to other large Software as a Service (SaaS) companies that are used. Design Lead describes the payment model as follows.

"*Although we have a very low variable price, we don't charge any extras on top of the price that we are getting from Norco. It's exactly the same. We have a subscription-based way of working in line with what today's consumers are used to with subscriptions for Netflix or Spotify and the like.*"

During the development of Tibber, it became apparent that their technology could provide even greater value in combination with hardware products. In the beginning, Tibber sent their customers to electronics stores for these products. After a while, Tibber's founders realized that this could become an additional source of income in their business model. They then developed their own Tibber shop where they sell self-developed hardware, which allows customers to utilize Tibber's technology to an even greater extent and reduce their power consumption.

"*The founders of this company saw that as a challenge: why are we sending people to electronics stores? Why don't we just create our own store? And now the Tibber store has become a big profit machine for us as well*" - Design Lead

Along the way, Tibber has realized how they can increase their revenue stream by offering value in different ways. This has resulted in revenue through subscription solutions to customers and one-time revenue from the sale of products in their own store. "Smart energy users" is the most profitable customer group for Tibber. Country Manager Norway describes Tibber's revenue streams as follows:

"*Our revenue streams are based on a monthly fee, in addition we sell a range of devices through an online shop that you as a consumer can use to reduce costs and consumption, and as well, we receive revenue from the grid owners. That's our business model in a nutshell. "(...) the "smart energy user" is the most profitable customer for us. It is a customer who uses the available technology to reduce consumption.*"

4.1.2.3 Stakeholder mapping process: Customer focus

Tibber's customers are also the users of their service, as they are a B2C company. From the start, Tibber has been concerned with user-friendliness and creating products that meet their customers' needs and requirements, as this is essential in a B2C company. The Design Lead describes how they have worked with this:

"*We have tools to map our stakeholders. These support systems that we have where we can track and tag different things. So, it stacks up over time, which is a reactive way of working with user insights. But then the proactive part, that is where we go out and we do user interviews or usability testing and so on. On top of that we also do surveys.*"

4.1.2.4 Prioritizing stakeholder interests

Tibber's Design Lead refers to the awareness that he always measures changes against business thinking. In other words, he must always ensure that he does not implement changes in the app based on user needs, but that perhaps conflict with the company's business strategy. Furthermore, the Design Lead highlights that he thinks Tibber has made good priorities in light of the complexity of deciding which choices to make, and sees this in the context of the company's stable growth:

"*That is the baseline. So, understanding user needs, but also aligning them to questions like what are the business incentives that we want to focus on? What will bring us to the next phase? (...) That is the hard part, really, doing those things in a good way. What are our priorities and things like that? I think we've been pretty good with priorities so far and we are now a much bigger company. (...) To see it as two parts, I think there's the customer-centric aspects and then there's business thinking, we're looking for the sweet spot between those two things.*"

Furthermore, the Design Lead highlights that prioritization is one of the most important things they do, but at the same time he finds it extremely challenging. Here, the Design Lead describes an example of how he thinks when assessing change against business strategy:

"*A hundred people saying this is what they want, right. It's a pain they have or a wish. And you have to address that individually. Then you have to look at a roadmap. Ask yourself: does this have higher priority than the other things we're trying to do? What are the disadvantages of this and the advantages of it? Is it higher or lower than the others? Will it put us on a course where we think we will get to the right place? Yes, it will. So it's not really a simple action. I think that prioritization is probably the hardest thing to do.*"

With these quotes, it is clear that Tibber puts careful considerations into their choices. It is clear that Tibber is striving to find the sweet spot between business thinking and usability, in order to benefit both Tibber and its customers.

The Country Manager Norway describes how they are constantly faced with making choices in order to think long-term. Such complex dilemmas come up especially in the development of Tibber's hardware:

"*These trade-offs, what kind of products should we develop and not develop, there is a spectrum of possibilities. For example, when we decide to develop a real-time meter for electricity consumption, which all our customers can use. Then we need to consider the resource use of developing and producing X number of thousands of this device. Will it outweigh the inconvenience and negative impact. For example, the use of natural resources, transportation, packaging, the environmental footprint that comes from producing gadgets, that it is outweighed by the use of the products.*"

Furthermore, she highlights that the labels must also reflect consumer behavior and that it is not always only about the environmental aspect, i.e. which product is the best at saving the environment:

"For example, you might choose to develop a product that is more popular with customers but does not have the greatest environmental impact. But more engaged customers may in turn lead to greater reductions in consumption just because they are engaged. These types of choices are faced all the time. In individual situations, trade-offs have to be made."

To find answers to these dilemmas, Country Manager Norway highlights the use of objective standards:

"Sometimes, for example due to high business risk, we use objective tools to determine how to balance these interests. For example, we do life-cycle assessments on all our hardware products. This is useful for finding the least environmentally damaging way to produce it. And then we can do calculations in advance on that product here. How much electricity do we think it will help you save? Will the positive aspects of this outweigh the negative?"

4.1.3 Delivering value propositions across the interests of People, Planet and Profit

This section aims to describe Tibber's process for delivering value propositions to all stakeholders along the interests of the 3 Ps. The first part of the section explains how Tibber has effectively identified consumer needs and the most effective selling points. Next, it describes how Tibber has managed value propositions for stakeholders, where their industry experience and user-centric focus has played an important role in understanding.

4.1.3.1 Adapting value propositions: Identifying what stakeholders value and selling points

Tibber is aware that the value proposition based on financial savings is the one that reaches the most customers. The value proposition based on environmental aspect is what organizations and the Planet as stakeholder, are most concerned about. In the interviews, it is clear that the customer stakeholder is the stakeholder that receives the most attention and the stakeholder Tibber works most actively towards:

"First and foremost, you are reaching the customer when you can communicate that they can save money by managing their consumption. Then it's almost like a bonus for the customer that the environment benefits too. For the Planet dimension, only a small number of customers have Tibber because of the environmental dimension. But there are other stakeholders on the environmental dimension, everything from authorities to the environment itself, but also interest organizations that are concerned about energy sources. For them, environmental savings are the most important part of the value proposition." - Country Manager Norway

The Country Manager Norway highlights that it can be difficult to understand how consumers think and what makes them act in a situation. She highlights that linking multiple value propositions is beneficial in addressing this complexity. Because even if a consumer expresses that they think sustainably and choose sustainability over other things, it may depend on the situation:

"It's probably not something unique to us, but something that everyone who addresses consumers experiences. Unless you can link different value propositions together. Just talking about the environment, because everyone says they want to be environmentally conscious in their choices, can be challenging. Because when it comes down to it, when you're in the store and you have to choose between something more expensive but more environmentally friendly, you choose another option. So consumer behavior is a bit of a wild card that you have to deal with, and you have to be aware of how you communicate that value proposition."

Furthermore, the Country Manager Norway describes how Tibber has worked with different value propositions to address the variation in incentives for customers to save electricity and use Tibber as a service:

"I don't require our customers to have an awareness that they are saving the environment when they save electricity. It doesn't matter to me, as long as you cut your consumption. Whether you're motivated to save money, or whether you just like gadgets and use them, or you think it's fun to check the electricity price every day and think and plan. For me it doesn't matter, as long as you reduce your consumption. For the Planet, it doesn't matter. As long as people actually do it."

By using gamification, a fixed price that is not affected by electricity consumption, and hardware that helps consumers save electricity, Tibber has created a variety of value propositions that can target different types of customers with different interests.

4.1.3.2 Managing value propositions for stakeholders

Tibber's vast industry experience and focus on consumer inclusion and sustainability from day one has influenced the development and made a lot of things come naturally to Tibber. Country Manager Norway describes Tibber's value proposition development initiatives as follows:

"There is a huge knowledge of the industry and industry experience and skilled people (...) Among all the possible things we can develop, what are we focusing on? It's based largely on industry insight and industry experience. (...) Right from the start, the focus has been on the business model that exists today, "the way the energy system is structured, little involvement of consumers, it's not sustainable". So something like deliberate innovation, or now we're going to create a value proposition linked to People, Planet and Profit, we haven't really had much of that. It has sort of come about by itself."

As mentioned earlier, Tibber from the start wanted to create a user-friendly product, which takes the user's needs into account. The Design Lead emphasizes the importance of including and listening to the needs of the users/customers in the development of the product:

"I'm a designer and our business is to consume a product. So, I think close attention to users, and fostering this really close relationship with our user base and our potential.(...) You probably heard Steve Jobs say working backwards from the customer a few times, but I think

it's very true for us that we need to be that kind of company, because people have opinions about this company. People have needs or they want to solve specific problems - in many cases we can meet these needs."

For Tibber, external circumstances, such as the price of electricity, can have a significant impact on the strength of their value proposition. One could say that Tibber has a short-term (quickly visible) and clear value proposition, based on the customer's savings by cutting consumption, and a more long-term value proposition based on the environmental aspect and the benefit to the Planet by consumers cutting consumption. The Country Manager Norway describes the challenges related to communicating the value proposition, especially the long-term one. She further describes the complexity if external circumstances do not "help them out":

"This complexity becomes more apparent when electricity is very cheap. Then it's seemingly less important for people to reduce consumption. That's when the complexity becomes more obvious and when you have to have this somewhat watertight value proposition to rely on. That's when all the dimensions come in. OK, you might not have much to gain from reducing your consumption right now, but the Planet will always have that benefit. The grid will always benefit. Maybe ultimately, if the grid owners can save money by not having to upgrade the grid, then you will also get lower grid tariffs. So it's making it clear that everything is connected, and how your actions and how you think, and whether you have Tibber or not, actually matters. It matters how you act. That is perhaps the most complex thing of all."

Communicating the value proposition varies depending on which stakeholder Tibber is to deliver to, as they have different interests. The Planet as a stakeholder is concerned about the environmental aspect. Tibber considers the value proposition aimed at Planet as easier than others, as it is possible to make calculations that refer to concrete data that shows how they contribute to improving the environmental aspect. When Tibber wants to signal the value proposition to customers, they are more dependent on the customer experiencing the value proposition themselves and seeing that they save money by using Tibber, as it is difficult to know how consumers act in the market. Country Manager Norway describes this challenge:

"Value propositions related to the environment can more often based on objective standards. Because it is possible to calculate it (...) It is very difficult to know for sure how consumers react or act in the market. We can talk about our value proposition related to reducing electricity consumption and that it has an environmental benefit. We can talk about that, but before the consumer experiences that it has a positive impact on their wallet, or that electricity prices become so high that saving electricity actually becomes a necessity. Until they experience this, we have a greater challenge or task in communicating this to customers than in a situation where we "get a little help" from external circumstances."

Country Manager Norway highlights that Tibber has many value propositions, but that not all of them are easy to signal to customers. The value proposition that she herself thinks is one of the coolest and most impressive, is one that Tibber struggles to communicate to customers:

"We have physical evidence that using, for example, electric vehicles or charging boxes to balance the grid has a positive effect on capacity utilization. We have done field tests and demonstrated the technology in quite large research projects. But to communicate that, that it's a strong part of our value proposition on the sustainability side, is quite difficult. It's harder than I thought. I've been thinking that's the coolest part of Tibber's technology. (...) If we can contribute to a greater balance in the grid, in an aggregated model where there are many thousands of consumers contributing, that's mindblowing for the environmental thinking behind it all, and efficient resource utilization. (...) wow, so cool the consumer can contribute to that, and then we can't get it out, not being able to get an awareness around it, it's quite frustrating."

The Country Manager Norway herself highlighted that this is perhaps a value proposition that the market is not quite ready for, and that this may be the reason why they are unable to communicate it better. This is also, as mentioned earlier, a somewhat more "long-term" value proposition, which not every consumer/customer can experience or see based on their own consumption.

Tibber has data showing that they have been able to reduce consumer consumption. With this data, Tibber creates certainty that they are actually delivering the value they say they will deliver.

" I mean, if we look at the numbers, we have data that gives us insight that we are actually doing it, it's not just all bogus. It's also absolutely true that we are lowering consumption for people."

4.2 Case 2: No Isolation

No isolation's vision is to reduce loneliness and social isolation through warm technology. The company has developed two products, the AV1 robot and the Komp screen.

AV1 is aimed at children with long-term illnesses who are unable to participate in class. AV1 is a robot that acts as a child's eyes, ears and voice in the classroom. AV1 is placed on a desk in the classroom, the pupil connects to the robot from home, through their tablet or phone. AV1 has a built-in camera, microphone and speaker, and is controlled through the app, allowing the pupil to see and participate in what is happening throughout the classroom. The AV1 product is aimed at the B2B market, where the customers are municipalities and organizations (like children's cancer organizations).
The Komp screen is a screen for photo sharing, text messaging and video calls. Komp is aimed at seniors and people who struggle with technology. Komp connects analog seniors with their more digital families. The screen has only one button and is connected to an app on the phone of the user's friends and family The Komp screen is aimed at the B2C market, where consumers are the customer.

In this case, the majority of reflections and examples will focus on No Isolation's product AV1 and its associated SBM. This is because the informant primarily provided examples related to the AV1 product, which currently is their primary offering.

Table 6: Overview of No Isolation's SBM

Value proposition People
No Isolation's main value proposition to People is to reduce loneliness and social isolation for individuals. Furthermore, No Isolation can substantiate their value proposition with research indicating that their AV1 product reduces the number of individuals relying on long-term disability benefits.
Value proposition Profit (customer)
No Isolation delivers tailored value propositions to customers based on different markets and products. In Norway, they emphasize the government's requirement to provide equal access to schooling for all children, highlighting how AV1 enables this accessibility. In the UK, the focus shifts to cost-savings, as customers can use the AV1 robot instead of incurring the expenses associated with home schooling for children with long-term illnesses.   The Komp Screen empowers analog individuals to participate in the digital world by simplifying technology.
BM structure (create, deliver, capture)
Create: No Isolation creates value by enabling long-term sick children to digitally participate in the classroom through the AV1 robot, along with creating value through the Komp screen so that analog people can understand and participate in the technological world.   Deliver: No Isolation delivers value through two hardware products, the AV1 robot and the Komp screen. Both products are simple communication products.   In the case of the Komp screen, No Isolation also delivers value through the family app, which is designed to be used on the phone of the user's friends and family, which allows them to send photos, messages and make two-way video calls.   Capture: The AV1 robot generates revenue mainly through the sale of units, as well as a lower subscription payment from customers.   The Komp screen generates revenue through purchase of product in addition to subscription payment.

4.2.1 Development of the sustainable business model

This section starts by describing No Isolation's establishment phase, and how they had a strong focus on the user from the start. The next section goes on to describe No Isolation's growth phase, including how they have been flexible in their approach to reach more

customers. Finally, the section describes various critical elements that have been important for No Isolation's achievement of an SBM, such as the fact that they understand that they must "go the long way, rather than taking shortcuts, which can be bad for sustainability".

4.2.1.1 Establishment phase: From pain to development of SBM

No Isolation has operated under the premise of having a SBM since day one, with a central focus on reducing social isolation. Their commitment to making a positive impact has been a core aspect of the company's mission from the start.

"We have started the whole company with one goal in mind, to make the world a little better." - CEO/ co-founder

For No Isolation, it has been important to focus on users from day one and build the company around user needs. The CEO/co-founder explains the motivation for the decision and how the company started with mapping users and their needs as well as secondary users below:

"We started with the kids themselves, several months of interviews with the kids, teachers and classmates to understand what product we should make. Without doing a background check, you don't know what is most useful, or which idea is the best."

The CEO/co-founder has a focus on usability, and puts effort into actually understanding what one is going to create before starting the development. The following quote goes further into this this:

"There are so many companies that don't do that, it makes me sick. You assume that because you have an idea that sounds a bit good, it's the best idea, and you can't know that until you've done your homework. So a lot of mapping in the beginning against user needs, first and foremost."

4.2.1.2 Growth phase: Maintain SBM and facilitating future growth

No Isolation has a business model where they target both the B2B market and the B2C market. The CEO/co-founder of No Isolation is open to making changes to the business model in the future, if they see a need for it. The CEO/co-founder does not perceive it to be challenging to make changes aimed at B2B customers, but perhaps somewhat more challenging on changes aimed at B2C customers, as she does not have the same contact and overview of private customers. She describes it like this:

"I'm not so afraid of making changes, I get a lot of advice that you can't do that, you can't put up the price, you can't do this and that, but my experience is not really that at all. On AV1, we have few customers. We don't have 10,000 unique customers, we have maybe 200 new customers a year, and you get to talk to them one to one. So to say – hey, now we have changed based on your and others' input…, I do not think that would be a problem. For Komp it has been much more difficult, but it is a consumer product, so then you have to

include the stores that sell Komp and there are customers you don't know about, who have been sitting on the sidelines thinking maybe I should buy one or not. So there is a very big difference between consumer and business-to-business."

No Isolation has been open and flexible on how to get customers to buy and start using their AV1 robot. The CEO/co-founder describes various measures they have used to show customers the value:

"In the UK and Germany, we offer a learning model, but it's primarily there to test. So they will have the opportunity to see what it is like to have three robots.(...) We have long-term rentals for charities. We work with organizations in Sweden for example. They are happy to rent units they need and send them back. But what they want to achieve is that the school and the municipality take the bill and invest in purchasing robots. Because that's not really their job, but they can help show that this actually helps the children they work with. So it's quite a flexible model. Where ultimately you have this buying model, which we clearly sell the most of. And that's kind of where the volumes go. But yes, with a slightly different approach to it then."

By offering both rental and purchase of the AV1 robot, No Isolation shows flexibility in their business model. In addition, No Isolation works with alternative customers such as organizations, like children's cancer organizations, to reach the public sector as a customer.

No Isolation regularly reviews their business model. This indicates flexibility and that they are always open to change for the benefit of the company and their stakeholders.

"We continuously evaluate, and think about what has been smart and what we can afford, and how it would perform in the market. In the course of a month, we end up having a number of meetings on both pricing and pricing strategy, and who we sell to and so on. So it's continuous work." -CEO/ co-founder

The CEO/co-founder highlights that No Isolation is open to support from external business professionals, but that most of the work is done in-house. Furthermore, she highlights that she does not only see such support as a positive. Such external business professionals often do not have the same knowledge of the market and stakeholders that No Isolation have internally:

"I have not been entirely positive about bringing in external help. The main reason why we haven't succeeded so well with that, ... I think many other companies can bring in consultants, and then the consultants say; now we've done a survey, and this is how your competitor does it, etc. and your pricing strategy should be like that. Those types of exercises have worked very poorly with AV1, because the world you're entering is so complex, and we're entering the market with a completely new product."

4.2.1.3 Achieving a sustainable business model: Critical elements

The CEO/co-founder of No Isolation highlights that she believes there are both advantages and disadvantages associated with having an SBM and aiming to make a good impact:

"You get more positive publicity. There are more people who want to help you, so there's a lot of benefit in wanting to do something good. It matters what the people around you think. But I think our principles and values and things like that often get in the way of that explosive growth. Not always, but often. Because you make such very clean choices. There are no shortcuts and there's no quick fixes. Because you kind of can't do that to the user groups you're working with, to the Planet you're trying to be a part of. Obviously, it's easier to make quick money as a thug than as an uncle. That element is probably a bit of a common theme in this type of company. That you make very clean choices. You have to take the proper route, not the shortcuts. It would have been very nice to take some shortcuts, but you don't do that."

With this statement, it is clear that No Isolation is actively working to make the right decisions at all stages related to the impact they say they are going to make. Despite the fact that certain choices are at the expense of profit and time, they have made an active choice to make the "right" choices.

Understanding that you must take the long way and do things properly is described by the CEO/co-founder in combination with the challenges of selling to the public sector. She highlights that the public sector is often more complex and requires more as opposed to private individuals. The CEO/co-founder highlights that their choice to target the public sector as a customer has probably slowed down their development to some extent:

"The sad thing about wanting the public sector to pay is that the journey to success is much longer, perhaps more difficult, because you have to go through so much more. I could have tried to turn this on its head and said I'm building a slightly cheaper robot, but quite expensive, expensive it will be anyway. Then I targeted parents of children with long-term illnesses. What I got then is a user base of only children with good financial resources. So you don't want to do that. You put your own handicaps on yourselfhandicap yourself to some extent, which is right and important, but which probably also somewhat slows the development of the Company's profit. "

No Isolation uses technology to bring people closer together in situations where it may be physically difficult. In this work, No Isolation has used research, and they feel that they have expertise they can share with users and customers. The CEO/co-founder describes how No Isolation is working to prove that technology can be warm and thereby also strengthen their own value proposition:

"Yes, we are trying to prove that technology can be as warm as it has proven that it can be cold. We bring people together, and we also work quite a lot on spreading knowledge about social isolation and loneliness. We are first and foremost technology developers, but we believe that all the research we read is also useful to others. "

4.2.2 Managing stakeholders' interests within the 3 Ps

The section starts by describing how No Isolation aligns with its various stakeholders within the 3 Ps. It goes on to describe No Isolation's approach to Profit, and the importance of it. Despite the fact that they still prioritize the company's growth, rather than profitability. The section then goes on to describe No Isolation's mapping of both users and customers, although the focus on customers came somewhat later. Finally, the section presents how No Isolation sets different priorities in relation to the range of stakeholders.

4.2.2.1 Alignment of 3 Ps

In the table below, key stakeholders for No Isolation within each dimension of People, Planet and Profit are presented. It is however important to point out that No Isolation has several more stakeholders within the different dimensions, but here is an excerpt from key stakeholders they need to address that were presented from the interviews.

Table 7: No Isolation's main stakeholders within the dimensions of 3 Ps

People	**Users (long-term ill children) and secondary users (parents, teachers):** mitigating social isolation and improve quality of life for individuals. **Society:** mitigating social isolation, preventing school dropouts, reducing long-term disability benefits in society. **Employees*:* creating job opportunities, working conditions, fostering a positive work environment. **Organizations focusing on societal causes:** demonstrate No Isolation's commitment to ethical business practices.
Planet	**Environment**: responsibility to produce responsible hardware. **Hardware suppliers:** ensuring sustainable sourcing practices and procurement.
Profit	**Customers:** enable customers to comply with laws and regulations and reduce customer costs. **Investors and financing institutions*:* expect financial returns on their investment in No Isolation. **External business professionals**: Concerned about the company's growth and strategy. **Suppliers:** strategically engage with suppliers to optimize costs, ensure quality and reliability.

Stakeholder interests can however overlap in several dimensions depending on the context. However, by focusing on these stakeholders and delivering value along the interests of the 3 Ps, No Isolation can aim to align its operations within these interests. They are cautions to balance these interests, however, as mentioned in the introduction to No Isolation their primary focus is on making a positive impact for the People objective, in parallel with Profit being an essential objective:

"Yes, we do try to strike a balance, but both People and Profit are much clearer for us. We produce hardware, and we have a responsibility to ensure that it's done properly. On that side, you look at the Planet. We could do a lot more there, but on People we've had focus from day one, and for Profit we need to focus, otherwise we cannot grow. You try to have a balance on all three, but it's probably People and Profit that we're good at. " - CEO/co-founder

No Isolation's CEO/co-founder further believes that People and Planet does not need to go at the expense of Profit. The 3 Ps go hand in hand, and that it should be a matter of course. She expresses it like this:

"Philosophically, I would say that we need to get to a world where the good companies make more profit than the bad ones. It's very rare to meet someone who actually believes that companies that do something good should not make a profit. But there are a lot of people who think that this might be an issue, which I find incredibly interesting."

It is clear that there is a strong foundation in No Isolation that they all work with an awareness of the impact they have on the world and people.

"We have a couple of customer promises. One of them is to "Never make a profit without making impact"." - CEO/ co-founder

4.2.2.2 Approach to Profit

The CEO/co-founder expresses her awareness that making money is essential to success and to be able to continue what you are doing:

"Mostly as a conviction that if you don't make money doing what you do, you should do something else."

Furthermore, the CEO/co-founder highlights that No Isolations prioritizes investing in the company's growth. The aim of turnover is to continue to develop the company, not to make a profit.

"In a way, we have had quite a lot of turnover from quite early on, and have grown very well. We continue to invest in further growth, so I'm not making money yet. We will get there this year actually, but yes. It's more important to me that the company continues to grow when we have a profit. I don't need a profit for anything. I need No Isolation to be bigger tomorrow than it was yesterday."

It is clear that No Isolation has ambitious goals and that they have a strategy that shows that they are thinking long-term. With this quote, the CEO/co-founder makes it clear that she is constantly thinking one step ahead, and that the most important thing for her is that they are constantly prioritizing growth in both employees and expanding the product portfolio:

"I think the second we get to profitability, and we have put a check, we got that. You go into growth again. Then you want to spend more than you get in. Money on account that is building up, it's nice to build a war chest, but it's much more important to me that the turnover is even higher the following year. Then you spend every penny that comes in on hiring new people and making more stuff."

To find their payment model, No Isolation has largely taken into account the public sector, which is their customer and the market the AV1 robot will be sold. The CEO/co-founder explains this below:

"*The public sector really dislikes the subscription model, which the private market likes very much. A company does not want to spend a lot of cash upfront. They would rather pay as spread out as possible. But in the public sector it's not like that, because you're only elected for a certain period, and if you want to make an impression, you can't take on a broom for the next period. It's quite an exciting, irrational dynamic in the public sector, and we've had to adapt to it. The balance of how we charge is unfortunately very much influenced by that.*"

This shows No Isolation's flexibility and that they have actively looked at what their stakeholders need in order to buy the product. Had it been up to No Isolation themselves, they would have liked to be a subscription-based company, but they realize the importance of being adaptable and adapting to the customer's needs.

"We would very much like to be a purely subscription-based company, i.e. a hardware as a service type of company, where you don't have to pay anything to get the robot, but you pay a thousand kroner a month, or whatever. But there it is clearly twisted. You pay first and foremost for the hardware, and then there is a very small amount afterwards. This is solely so that municipalities can include it in their investment budgets. So we are very much dictated by the market and not by ourselves." - CEO/ co-founder.

No Isolation has had challenges related to how to price themselves. This is explained by the CEO/co-founder in combination with the fact that they have created a new product for the market, which has made it difficult as they have not been able to look at or compare themselves with competitors. In addition, they have the public sector as a customer:

"It's not very easy, because it's a brand new product on the market. There are no municipalities that have a telepresence robot as an item in their budget. We haven't made a better notepad or anything like that that they already buy. So that makes pricing much more difficult. Otherwise we could say that we have higher quality and better, so it's more expensive. Or we deliver something cheaper. And then just be inspired by our competitors. We can't do that."

The CEO/co-founder admits that this has led them to base the price largely on their own costing:

"Unfortunately, we have all too often set prices based on our cost picture. Rather than what is the willingness to pay, and what value. So we have not been good enough at valuation. But yes, we are trying."

No Isolation has several customers to whom it delivers value, but the public sector is where the company earns the most revenue.

"It is the public sector for AV1, which is by far our biggest source of income." - CEO/ co-founder

4.2.2.3 Stakeholder mapping process: Customer focus

No Isolation has focused on user insight from the start and worked actively to understand their user group and their needs. Because of their strong focus on the user, it took a little longer for them to become equally attentive to customer needs. The CEO/co-founder suggests that the user-oriented focus may be related to her background as an interaction designer:

"Users and stakeholders around the users, i.e. teachers and co-providers, and parents, we were extremely systematic from the very beginning. It's probably because it's my education, how to create a product that solves what we aim to solve. Where we haven't been nearly as systematic, until the last year and a half, is on customer needs, and how a municipality operates, what they really need, what problems we solve for them. Because that is something completely different."

Although awareness of customer needs came somewhat later, they have much more competence and awareness of its importance today. Politicians, is another stakeholder No Isolation has worked to better understand, as they have the power to influence the budgets that No Isolations customers are controlled by. This is highlighted by the CEO/co-founder in the quote below:

"Yes, maybe politicians. I think that nobody seems to be thinking about what this will cost in 10, 15, 20 and 30 years' time. It's very sad, and you manage to engage some politicians to a certain extent, but it's a long canvas to ink up."

Here again, she highlights the challenges of politicians working on a yearly basis, and that there are constant changes. As a result, politicians do not think as long-term as many of the timeframes that No Isolation's value propositions are based on. This is discussed in more detail in the section on value propositions below.

4.2.2.4 Prioritizing stakeholder interests

Adapting to everything and everyone can be complex. For No Isolation, this complexity related to stakeholders is largely influenced by the fact that they target the public sector as a customer:

"There are many, especially in the AV1 world, many stakeholders with very different goals and budgets and requirements. And you have to adapt to all of them." - CEO/ co-founder

The challenge No Isolation faces in using AV1 in the school system is that they have to gain acceptance from more than just the municipality that is their customer. The CEO/co-founder describes some of this complexity:

"We have to do all the sales to the municipality and school, as if they had paid for it themselves, even if someone else has paid for it. So it doesn't matter if the robot is given away for free, we have to go out and sell them, because there are so many people who have to agree."

Below is an example where the CEO/co-founder describes this complexity and the acceptance they depend on, in a scenario:

"A typical example for us is that a children's cancer association, let's say they buy one robot, just as an example. And they decide to give the robot to this Ole, and Ole is really happy, because he hasn't been to school for three months, and he knows that for the next two years he will probably be in and out of the hospital a lot. His parents are really happy and think, yes, we can do this. Then Ole's parents call the school, and the school says; what kind of new technology is this, we haven't heard about it before, but okay, ... maybe Ole's parents are already arguing a bit with the school, because they have been dissatisfied with the follow-up he has received, ... because Ole doesn't fit into the system the school has, so these parents have already been fighting a bit with the school. So the school is a bit skeptical when the parents bring this up, but then they have received an information package. We have put it together, because we know that this challenge is coming. The Children's Cancer Society has sent this to Ole's parents, which Ole's parents can send on to the school and say: hey, we've got a robot that works like this, and here's the info package for the teachers, here's the info package for the IT managers in the municipality, here's the info package for the special educators, here's the info package for the school management, here's something for everyone, and here's what the parents of the other children in the class need to know. Because they also need to know that a camera is coming into this classroom, it records nothing, only Ole can see, there are lots of questions that need to be answered before a robot can be deployed."

No Isolation has identified and recognized a multitude of stakeholders who must be informed and persuaded in order to introduce a robot into a classroom setting. The company acknowledges the importance of gaining acceptance from these stakeholders through effective information sharing.

The CEO/co-founder makes it clear that it is not the money that is the problem, but getting acceptance from everyone:

"It's very rare in the public sector that money is really the number one issue. It's the fact that there are so many people who have to say yes to something, or give their agreement, before you can put some form of new technology in a classroom. And we then make as many value propositions as possible, so that everyone gives their approval. Because legally, none of the parents of the other pupils in the class need to say yes to AV1 being placed there. We have taken all the precautions we can. It's complex. It's so much more often than I like to admit."

No Isolation's understanding of the challenges associated with all stakeholders impacted by their AV1 product has helped them understand that they need to think one step ahead and plan for potential challenges that may arise from a child using their product in a classroom.

The CEO/co-founder highlights that of People and Planet dimension, it is the stakeholders within the People dimension that they focus on first and foremost, as this is where they have the opportunity to make the greatest impact. The CEO/co-founder expresses that she would like to make more demands on the Planet in relation to hardware development, but that they are far too small to be able to make such demands. It is with this in mind that they have prioritized focusing on what they do best, which is the People dimension:

"I actually find Planet to be a really difficult place to navigate, especially as a small business, because we don't order anywhere near large enough quantities and components for us to have any influence. We just have to get in line, and we get what we get. And that's fair enough. But reporting on our own carbon emissions, and things like that, it's perceived as almost impossible. So I think Planet is more "tricky" than the rest, but it's also a matter of time and energy. If we had spent as much time on Planet, we would probably have achieved better there as well."

4.2.3 Delivering value propositions across the interests of People, Planet and Profit

This section aims to describe No Isolation's process of delivering value propositions to the wide range of stakeholders along the 3 Ps. First, the section starts by describing No Isolation's process of customizing the value propositions to fit the recipient's needs, and the challenges they faced by focusing primarily on the user and not the customer in the beginning. Finally, the chapter describes No Isolation's managing Value Propositions for Stakeholders and the various challenges they have faced in this process.

4.2.3.1 Adapting value propositions: Identifying what stakeholders value and selling points

No Isolation has different value propositions aimed at the user and the customer. This creates a certain complexity, as the CEO/co-founder describes below:

"We have completely different value propositions for users and customers, so this complexity is definitely there. If we had been able to just execute user value propositions, it would have been a very nice luxury."

As No Isolation sells to different countries, the value proposition may change according to different systems. The UK has a different system for home schooling than Norway. This allows No Isolation to show the financial savings of using the robot as an alternative to home schooling in the UK.

"We don't dare to do this in Norway, because home schooling is a political issue, but in the UK we compare the cost of homeschooling and how expensive it is to provide someone to go to the home of the student who needs it."

No Isolation has utilized a lot of research to show the positive impact their products can have, but again, the focus has been on the value to the user. The CEO/co-founder describes the research they can refer to and why it has not worked as a strong value proposition to the customer:

"It's been really difficult. In the early years, we probably spent far too much time and resources on explaining why this was good for the children themselves. And that's what you want to talk about, so that's what you want to show in the research. we can document an increase in quality of life, we can document higher school attendance, a better chance of completing the school year, and so on. So we spent a lot of time researching that, and realized that it's kind of falling on deaf ears. Everybody thinks it's great, and "goodness gracious that is so nice that Ole can participate", but nobody has money for "goodness gracious that's so nice", so you have to emphasize it on a completely different level."

The CEO/co-founder is aware that No Isolation had an uneven focus on the value proposition aimed at the user/customer at the start. In the beginning, they clearly had the greatest focus on the user, which made it difficult to scale:

"We have had a long journey with both products, and who the right customer is. You are forced to understand customer needs in where you want to grow. So we probably weren't good enough at that when we started, or we weren't good enough to understand our customers' needs. But I feel that we are there now."

"It has not been systematic learning to understand customer needs, it has been learning we have done along the way, and unfortunately lagged a bit behind. We have tried to capture this customer need all the way, and did not fully understand, while the users I felt we have had under the skin since day five."

The CEO/co-founder is clear that they are now primarily focused on the customer needs and the value proposition that is aimed towards them:

"Definitely. Now it's the customer value proposition. (...) I think as long as we keep the value proposition at the customer level, then we know that we can deliver the user value just through the product coming out and we keep working on it on the front-end side."

The CEO/co-founder describes that it is extremely important to be aware of who is going to pay and understand what their needs are. If this is not achieved, it is easy to oversell with value propositions that are not aimed towards them, which can result in a negative outcome.

"That you are either trying to offer something to many more people than the person who is actually going to buy. So this, okay, who am I really talking to, is vital in this world. I wish we had spent a lot more time on: who pays, who pays, who pays, who pays, and what they need to hear, right from the start. Then we would probably have moved a little faster than we have, but that's the way it is."

4.2.3.2 Managing value propositions for stakeholders

No Isolation has had different approaches to reaching out to its various stakeholders. The value proposition aimed at the user has had a clearly more systematic process than the customer value proposition:
"For users, we have a crystal clear design model, so the value proposition there is that we start with the value and then we create a product that responds to that. But for the public sector, it's been just lots of initiatives, and consultants and experts and testing, testing, testing, testing, testing, until you end up with something." - CEO/ co-founder

In No Isolation, user experience (UX) design and the focus on user experience has been a foundation from the start:
*"We are almost obsessed with design, and how much power UX, i.e. user experience and user testing, has." – CEO/*co-founder

The CEO/co-founder is also open to the possibility of changes among their stakeholders. For example, related to their other product Comp Screen. When a new generation that are more IT-literate becomes users, they may be able to make certain changes that create even more value for the customer, but the CEO/co-founder is quite sure that there will still be a need for a simple computer:

"We are absolutely certain that there will always be a group of people who need the simplest of technologies. There will be dementia, it certainly doesn't look like there will be a good solution to it. People are going to be sick for a long time, have strokes. So I think the basic level of comp, it doesn't look the same forever, but that's the core: you should be able to continue to talk to your family even if you can't do anything else. I think that will always be relevant and right and important. But then comes the question of whether we can suddenly have menus that are text to speech. Voice command. Whether a new generation of users will accept it, for example. We have tested this now and currently 90-year-olds are not interested in talking to a machine. But that may change and have much greater opportunities, in terms of what we can actually do as we move forward."

One of the major challenges associated with the value proposition No Isolation delivers is that the savings for the customer that can be achieved with the AV1 Robot becomes visible after X number of years. This does not go along with how the public sector thinks, or in other words, with the budgets used in the public sector. The CEO/co-founder describes this dilemma below:

"I know that at a societal level we have generated some billions in savings for Norway, because these are children who do not drop out of school, manage to complete their education, perhaps return earlier. And unfortunately, nobody cares about that calculation. So even if we say, here is the input you need, and here is the effect you get out of it, the mayor does not sit and think about what it costs him to have a disability pensioner in ten years. It's not in his budget, it's not part of a calculation he ever has to deliver on. So for him, we are very often an added cost. So we've had to find new ways to explain it, such as the fact that you are required by law to provide home education or education at the same level as the other children. Can you do that? No, you definitely can't. Should you take action? Yes, you should. Here's a quick fix for you."

In this quote, the CEO/co-founder describes how their value proposition is often seen as an added cost by the client, which has forced No Isolation to look for an alternative value proposition. This resulted in a value proposition aimed at addressing the client's demand for statutory education for all children.

It is clear that No Isolation has a clear goal of ensuring that they deliver the value they say they will deliver. To achieve and ensure that value is delivered, they use external research. Below are three different arguments from the CEO/co-founder on why and how they use research:

"I think it's been very important, and especially in the light of social media, where the business model and what you say you're going to do are often not connected. Because you're going to do what the money tells you that you should do. So that belief has been kind of important then." - CEO/ co-founder

"We have a lot of external research, a lot of external research, I'm sticking to AV1, its effect in the world. Are we actually doing what we say we're going to do?" - CEO/ co-founder

"I am out there saying something as brazen as we are reducing loneliness. That's not something you can say without having it externally documented. You need to have external evidence that it's true then."

Furthermore, the CEO/co-founder emphasizes that they are very concerned that No Isolation should have full control over what technology they roll out in the world, and also investigate unconscious consequences that may arise in connection with their products:

"It is so important to find out, is my robot increasing bullying? Could it be that some people feel more excluded because of it? All these questions that I can think of and haven't thought of. Perhaps most importantly, the questions I haven't thought of. Can anyone else see if they exist? I think you just have to put everything you have on the table and give full access to users and how it works. And dare to hear what you get in response. And take it into account further. So I wish many more companies would do that, regardless of whether they work for good or not. History has shown that these unforeseen consequences are often much worse than the potential positive effects."

The fact that No Isolation can demonstrate risk mitigation and research creates credibility for customers, which can be a decisive factor in customers actually making a purchase:

"It is important for investors and for customers to know that we have done our homework here. What makes them buy is that you say I'm helping you fulfill your legal requirement to provide education to these students. That's what makes them buy, but what makes them feel confident about buying is knowing that a background check has been done. Background checks that this actually contributes positively and not negatively." - CEO/ co-founder

4.3 Case 3: Total Ctrl

TotalCtrl's vision is to revolutionize the food industry by tackling food waste and improving food traceability. Since its establishment in 2017, the company has been at the forefront of this mission. With their software, they have revolutionized food inventory management by replacing outdated pen-and-paper methods.

TotalCtrl primarily operates in the B2B sector, catering to customers such as hotels, restaurants, and municipalities. The software is mainly utilized by chefs as the primary user, enabling efficient food inventory management.
Within just one month of implementing TotalCtrl's solutions, customers have witnessed 35.4% reduction in food waste and 60% decrease in time expenditure. By assisting their customers in optimizing inventory control and curtailing their cost of goods sold, TotalCtrl simultaneously fosters positive impacts on the Planet.

Table 8: Overview of Total Ctrl's SBM

Value proposition Planet
Total Ctrl's main value proposition for Planet is to significantly reduce food waste. By optimizing resource utilization, the generation of CO_2 gases is minimized, resulting in a positive environmental impact.
Value proposition Profit (customer)
Total Ctrl's main value proposition for Profit (customer) revolves around enabling customers to optimize their operations, leading to substantial cost reduction.
SBM structure (create, deliver, capture)
Create: Total Ctrl creates value through digitized inventory management that enables businesses to streamline inventory processes, reduce food waste and improve overall operational efficiency.   *Deliver:* Total Ctrl delivers value by licensing their software to the customer.   *Capture:* Total Ctrl license their software through a SaaS model, which ensures recurring revenue. Additionally, they receive implementation costs from customer.

4.3.1 Development of the sustainable business model

This section starts by describing Total Ctrl´s establishment phase, where their industry experience and focus on user involvement were two key factors in their development. The next part of the section goes on to describe Total Ctrl's growth phase, where the CEO highlights that patience and flexibility have been important to ensure Total Ctrl's growth. Finally, various critical elements that have been important for Total Ctrl's achievement of an SBM are described.

4.3.1.1 Establishment phase: From pain to development of SBM

Total Ctrl was founded based on personal experiences within the food industry, where they could see the problem of food-waste first-hand. They saw an urgent need for technology, and developed a solution to the challenges of food-waste. The CEO/co-founder of Total Ctrl expresses their own experience of the problem:

"When we started the company, it began with feeling the need ourselves. We developed something that we felt solved the challenges we faced when working in the food industry ourselves."

To solve these challenge of food-waste, Total Ctrl worked closely with their users by using their feedback to guide the development process, whilst using customer feedback in how they could make money while also having a positive impact:

"All of our technology has been built together with the users, and in the same way, we have built our business model with our customers- how we make money, how we build the company, and how we measure impact." - CEO/co-founder

The statement suggests that the company values customer and user input and collaboration in building their products and business.

4.3.1.2 Growth phase: Maintain the SBM and facilitating future growth

Total Ctrl´s target markets is the hospitality market and municipality market, which are both immature markets. However, to maintain their business model and facilitate their future growth, they rely on the steady growth of the markets, and that they have made sure to build credibility and develop their product. The CEO/co-founder describes the situation as following:

"So fortunately we have good backers in relation to the fact that we have built credibility and a product. And we have a future market that will only continue to grow. The goal by the end of next year is to be profitable. But, it takes time"

To further facilitate for their growth phase, the CEO/co-founder emphasized that being patient and adaptable is essential for long-term success:

"It's important to be flexible and adaptable. You have to be adaptable in terms of how you make money and who you make money from. We had to give away some of our technology for free during the pandemic, for example. We had to charge for being on stages, seminars and workshops to make money. You have to be flexible when others are struggling financially. So if you can't be patient and adaptable, you probably won't succeed as you continue to grow."

The process of developing their business model has been characterized by experimentation both with in the business model, and its acceptance in different markets:

"We have pivoted a bit through the company, to find out where things fit, and then we have tested the same technology in different markets, like kindergartens, hospitals, food centers and now we are in hotels and restaurants - CEO/co-founder

The CEO/co-founder elaborates by saying how it is needed to continuously test to identify where the money and impact lie:

"You have to test as you go. And see where the money lies, where the effect lies."

Total Ctrl has incorporated suggested structures from external business professionals develop their business model:

We've been to the Foundry Institute, for example, where they run a relatively intense boot camp on your whole business. You get to really test your business model and get a lot of help from there. We have also participated in Impact Startup and that part of it to see the effect on the Impact we do. We've received help from a lot of people who have come up with frameworks or structures they recommend based on their experience." – CEO/co-founder

Further, she states that especially getting such feedback from external business professionals can be challenging, however, they value the process of having to defend their choices, as this helps ensure that the work is truly valuable and aligns with the company's overall goals. The company is conscious of continuously improving and valuing diverse perspectives, and the CEO/co-founder suggests that these external perspectives can help companies look inwards and identify potential flaws in their approach, such as a misaligned product-market fit or incorrect pricing, which can be corrected to improve their performance:

"It's always good to get new eyes on something you've been working on for a while. For us, it's good to defend what we're doing. When you go through strategy processes internally and with external actors, you get a number of questions that are perhaps a little uncomfortable. You have to defend what you have been working on for several years. It's very good, because then you also get to do that extra check-in about whether this is something that actually creates value, (...) When you have worked with something and certainly when you have founded something, you are completely obsessive about what you do. You think and believe that this is something that has a right to life. But if the customers don't come, or you don't make money, or you can't hire people, then you have to look inward and see if you're in the right place, if you're in the right market, if you have the right product, if you have the right

people. Is it too low pricing, too high pricing? Those kinds of things are very good to look at through new eyes."

*4.**3.1.3** Achieving a sustainable business model: Critical elements*

The CEO/co-founder explains how a crucial factor for achieving an SBM is setting criteria for partnerships in terms of customer finances, and identifying partners and customers based on this. By assessing the financial stability of the companies they work with, potential financial risks to their own business can be avoided:

"We have some defined checkpoints in terms of what we want from a partner or a customer. For example, now when we work with hotel chains, hotels must have a certain turnover. They can't be financially unstable. So that we make sure that we don't go bust in terms of our own finances and invoicing. Then we find those that match the criteria, then we sign an agreement on it, and things start to happen"

Even if Total Ctrl have become more profit-oriented, they are still driven by a strong mission and have ambitious goals to make an impact fighting food waste. The CEO/ co-founder strongly expresses that in order to build an impactful business, rather than one focused purely on profit - patience is essential:

"I think it takes longer to build a business that focuses on sustainability. If you have sustainability on your agenda and impact is what you want to create, it will take longer than setting up an online t-shirt shop. If you're going to make an extremely big impact, you have to be patient and listen to the market when you're building."

The CEO/ co-founder also highlights the importance of being responsive to market feedback, and adds that to create impact in an emerging market, one needs stamina and the ability to see the long-term perspective whilst waiting for demand to grow:

"We have probably been too early in such an immature market. You have to have persistence to ensure that when the market is ready, you get the ketchup effect you need. So for our part, or as a tip to anyone who is in an immature market who knows that it will explode, you need persistence.

The "ketchup effect" refers to the delayed and sudden surge in demand or growth after a period of slow progress. In the context provided, it means that in an immature market, persistence is needed to wait for the right moment when demand suddenly increases significantly, similar to ketchup flowing out of a bottle.

In addition to stamina and the ability to see long term when operating in an immature market, you need to have identified triggers that will occur in the market:

"You need triggers in the market. For our part, there will be laws and regulations that will trigger a very good effect for us." - CEO/co-founder

4.3.2 Managing stakeholders' interests within the 3 Ps

This section starts by presenting how Total Ctrl has aligned their various stakeholders along the interests within the 3 Ps. The section then goes on to describe Total Ctrl's approach to profitability and the importance of prioritizing Profit. Furthermore, the section highlights Total Ctrl's awareness related to mapping customer needs. Finally, the section highlights how Total Ctrl has made different priorities related to their different stakeholders' interests, through a flexible approach.

4.3.2.1 Alignment of the 3 Ps

In the table below, key stakeholders for Total Ctrl within each dimension of People, Planet and Profit are presented. It is however important to point out that Total Ctrl has several more stakeholders within the different dimensions, but here is an excerpt from key stakeholders they need to address that were presented from the interviews.

Table 9: Total Ctrl's main stakeholders within the dimensions of 3 Ps

People	**Society:** optimizing resource utilization, raising awareness about the importance of preventing food waste.
	Users (chefs): easier and more efficient execution of work tasks, meeting user-needs.
	Employees: creating job opportunities, fostering a positive work environment, working conditions.
	Industry Partners and Collaborators: joint research, sharing of expertise to address common challenges in the industry.
Planet	**Environment:** minimizing generation of CO_2 gases by preventing food-waste.
	Organizations focusing on environmental causes: demonstrate Total Ctrl's commitment to sustainable business practices.
Profit	**Customers:** enable customers to reduce their cost, by meeting user needs.
	Investors and financing institutions: expect financial returns on their investment in Total Ctrl
	External business professionals: concerned about the company's growth and strategy.
	Suppliers: strategically engage with suppliers to optimize costs, ensure quality and reliability

Stakeholder interests can overlap in several dimensions, but by focusing on these stakeholders and delivering value along the interests of the 3 Ps, Total Ctrl can align its operations within these interests.

It is clear that Total Ctrl are committed to aligning interests along the 3 Ps. The CEO/co-founder advocates for the importance of balancing the ability to generate profit and create value for both the interests of People and Planet:

"It is not an either-or situation, it must be all three. There must be a balance. You have to create value for Planet and People, and then the customers must be willing to pay for the value you create. And if you want to create a big impact, then you must have a business that creates jobs, value, and can grow. That has been our core. By doing this, we ensure that it is beneficial for both People, Planet, and Profit."

The CEO/co-founder stresses that these three elements, People, Planet and Profit, are not mutually exclusive but must be considered together for a successful and impactful business. However, as mentioned in the introduction to Total Ctrl, their primary focus is on making a positive impact for the Planet objective, in parallel with Profit being an essential objective.

4.3.2.2 Approach to Profit

In regards to the Profit aspect of the 3 Ps, the CEO/co-founder believes that focusing on financial goals can facilitate sustainable business growth:

"If you constantly relate to, and tie the business to, money, it will be easier to grow as a sustainable business."

The current profitability situation of Total Ctrl is highly characterized by the state of their scaling and operating in an emerging market. The CEO/co-founder believes that their strategy will lead to profit this coming year:

It has become increasingly important for us to become more profitable as a company, because we are at a commercial stage in the company. We are now working towards profitability. Next year, we aim to be profitable. So, we are still in a phase where we are burning more money than we are earning. But that is also part of being a software company in a relatively immature market. You have to invest to reap the benefits later. So for us, we are now funded by a combination of customer revenue, investor capital, and EU funding."

Total Ctrl´s payment model is based on a software-as-a-service (SaaS) model, where they license out technology for a monthly fee to their customers, in addition to charging for implementation costs. The company's motivation with the SaaS model is to generate recurring revenue with minimal friction whilst achieving the desired impact. However, despite their desires, they are concerned with being flexible, such as adapting in times of crisis.

"Our business model is a SaaS model, where we licence technology. We make money by getting a monthly fee and on implementation costs (...) We have always said that we will deliver software, we will not deliver any hardware, and we should preferably not be consultants. We have had to be consultants when there have been times of crisis, to get some extra money in the account. But we want to deliver software, and the goal is to just press a button and the business will take care of itself, and then you get the impact you want." - CEO/co-founder

Their flexibility in their payment model, however, is not only for short term solutions such as in times of crisis, but is also an ongoing process in which if they do not receive the desired payment, they need to make changes to their business model or pricing strategy. Additionally the CEO/co-founder says they actively take steps to increase the perceived value of their service in order to maintain profitability and increase revenue without increasing customer acquisition:

"If we see that we are not getting enough money for things, then we have to change something."

"We are doing things now to make sure we can increase the prices of our solution. By creating more perceived customer value."

4.3.2.3 Stakeholder mapping process: Customer focus

Total Ctrl's customers and users are separated. The customers are the decision makers and are concerned with financial benefits, whilst the users are those who will use the Total Ctrl solution. Technical development is done in close collaboration with the users, and the company has been very user-focused from start:

"Yes, we are very much like that first... Discovery phase, where our designers talk to our users and uncover the why, why, why.... Then we create designs and mock-ups, and then we test it with the users. Once it is validated with the users and customers, then it is developed. During development, it is tested with users and customers to get feedback. Then an assessment is done. We've started to track more metrics in terms of what features our customers are using of our solution, or the users of the solution. What is it that provides customer value or impact on time savings, cost savings or food waste reduction? We have become more and more aware of tracking things." - CEO/co-founder

It was not until later that Total Ctrl shifted their focus from the users to the customer interests. This will be further elaborated in chapter 4.3.3.1, in the context of value propositions.

4.3.2.3 Prioritizing stakeholder interests

In terms of prioritizing stakeholder interests, the CEO/co-founder highlights the company's journey of pivoting and testing their technology in different markets. This demonstrates their commitment to understanding where their product best fits and aligning with the needs and interests of different stakeholders. They have encountered obstacles, that hindered their ability to sell the technology, leading to prioritizing other markets where they could align better with the needs of:

"We have pivoted a bit throughout the company, and we have tested the same technology in different markets, such as daycare centers, hospitals, food banks, and now we are in hotels and restaurants. We have pivoted to find out where things fit. There are numerous obstacles in the market right now that hinder innovation. For example, in the grocery market, where we initially worked, there were many agreements that prevented us from even selling the technology. They wanted to create it themselves and have control over the data. There were many barriers like that, which led us to choose to switch terrain."

Further, the company emphasizes the need for flexibility and adaptability, which indicates their willingness to adjust their approach and offerings to cater to changing market conditions and the challenges faced by their stakeholders. By working closely with the restaurant and hotel industries, despite the difficulties they have faced, the company showcases their commitment to collaborating with stakeholders and finding solutions that meet their needs:

"You have to be very flexible and adaptable. It's important, as we have experienced the pandemic, wars, high food prices, interest rates, and electricity prices. Our market, the restaurant and hotel industries, have been hit quite hard. However, we have worked together with them and to sell to them. It's important to be flexible and adaptable." - CEO/co-founder

4.3.3 Delivering value propositions across the interests of People, Planet and Profit

This section aims to describe how Total Ctrl delivers value propositions across the interests of the 3 Ps. First, it presents how Total Ctrl adapts value propositions to stakeholders' needs by identifying what they value and see as selling points. For example, Total Ctrl has understood that cost savings are a good selling point to the customer. Finally, this section presents Total Ctrl's approach to managing value propositions for stakeholders, emphasizing their utilization of support from external business professionals to optimize their value propositions.

4.3.3.1 Adapting value propositions: Identifying what stakeholders value and selling points

The CEO/co-founder of Total Ctrl discusses the importance of tailoring both communication and value propositions to different stakeholders. They suggest that it is important to adjust how one phrases things to ensure that they resonate with the intended stakeholder.

Understanding the needs and priorities of these different groups is critical for achieving effective communication and value propositions. Further, there should be multiple value propositions based on the specific needs and priorities of the receiver, to ensure the value propositions are specific rather than vague:

"You have to adjust how you phrase things. We are very aware that different actors have different value propositions. Yes, you can try to shape a value proposition that encompasses everything, but then it becomes very vague. If we are going to sell, we have to press the buttons that the customer actually responds to." - CEO/co-founder

The CEO/co-founder provides an example related to the above statement:

"In our case, it is the hotel manager and those in charge of the hotel chain that are the customers. While the users of our solution are the chefs and employees. The employees are concerned with efficiency for a simpler everyday life, while those at the top are concerned with the finances."

Further, the CEO/co-founder note that while sustainability is essential, it is not what sells. They acknowledge that sustainability can attract customers who are interested in that aspect, but ultimately, the focus needs to be on the financial benefits to the customer. They also suggest that it is challenging to build a business solely based on sustainability, it should rather be emphasized as an added benefit:

"When we approach customers, we have to talk money. That's not where we talk sustainability. You can put sustainability in a sentence, but that's not what sells. If you communicate only sustainability, it's difficult. Sustainability can be the thing that gets you more attention, but again, you don't sell on the Planet. You sell on Profit. (...) What has been a bit challenging is that the Planet, or People aspect is under Profit. When you see Profit, you have more room to do something on Planet and People. That's what makes things happen. Profit has to be the core, and then the others are built on top of it."

Despite the importance of communicating the financial benefits to the receiver, the CEO/co-founder again stresses the fact that the 3 Ps are not mutually exclusive but must be considered together, and that effective communication is key. For example, bringing forward how food waste, which is the core of Total Ctrl's business, can contribute to financial saving for the customer. The CEO/co-founder believe businesses will become increasingly aware that sustainability does not necessarily have to be a cost, but rather an opportunity that can lead to financial benefits:

"I think more and more people are realizing that if you are more sustainable, you can potentially save a lot of money. In our case, we have to say that food waste is a cost. If you cut food waste, you save a lot of money. You get better margins. It's better for your bottom line."

The CEO/co-founder also discusses how value proposition for the customers were not their first priority at first, the priority was value propositions for the users:

"We have had to prioritize. I would say that at first we prioritized the value proposition to users of our technology. As the years have gone by, we have turned it around to be more prioritized towards those who buy our solution. In other words, the decision makers. In our case, it's two different people. For us to scale and make a profit, we need to sell. So the value proposition has to be more aimed at decision makers than users."

Furthermore, the CEO/co-founder describes that Total Ctrl was not as dependent on sales and income in the beginning because they had funding. It was not until the commercialization phase that they realized that they had to focus more on customer sales. Therefore, they began to focus more on customer interests than user interests:

"In the past, we worked a lot developing technology together with our users. Then it wasn't so important to get money. We had support arrangements and so on, which meant that we could survive on that. Now that we were entering the commercial phase, we had to think more about how to generate sales."

It was through working closely with customers that they gained a better understanding of what the customer's needs were. This is how the CEO/co-founder describes it:

"As we developed with them, we gained more understanding of where the customer value lay, what their needs were, what they were willing to pay for what we made, and how much impact it had on their economy, efficiency and sustainability."

However, communicating financial savings for its customers has not always been Total Ctrl's strategy. The company began with a focus on reducing food waste, but later realized that their customers were more interested in cost savings and efficiency. As a result, Total Ctrl shifted their value propositions to emphasize the financial benefits of reducing waste. It has been a process of learning towards coming to the point that they are at now:

"We started with a focus on food waste. But we saw that our customers were not so interested in food waste. So we had to focus more on cost savings and the financials." - CEO/co-founder

The CEO/co-founder further explain how they switched the value they communicated from sustainability towards cost saving, but that does not mean the sustainability aspect should not be communicated:

"So we see that we have a triangle or a pyramid. Where our customers think about money first. And then they think about efficiency. And then they think about sustainability. And our pyramid has been somewhat upside down."

The phrase "our pyramid has been somewhat upside down" refers to a shift in the order of importance given to different factors. the CEO/co-founder explains that initially, their communication emphasized sustainability as a primary value proposition. However, they recognized that their customers prioritize financial considerations (money) as the most significant factor, followed by efficiency, and lastly, sustainability.

4.3.3.2 Managing Value Propositions for Stakeholders

It is clear that Total Ctrl focuses on identifying pain points, to see where value can be created. However, identifying the pain of food waste is easier said than done, especially due to the nature of the market Total Ctrl is operating in. Communication alone will not uncover the pain. By observing daily operations, Total Ctrl has uncovered the pain point of food waste, and has been able to raise awareness among customers and thus solve the problem:

"We see quite often, for example, that if you interview customers or users and try to find out what they need and where the biggest pain is, that's one thing. But if you observe users in daily operations, you see a completely different situation. They have completely different pains and completely different things they want to get rid of. It has been very important for us not to be completely blind to the fact that what they say is the truth. But when we actually follow what they do, it's much easier for us to address their pain, when we know so much about their operations." - CEO/co-founder

By identifying the hidden pains of the user, Total Ctrl can raise awareness of the pains to the customer, who might not be aware that they have a lot of food waste, and that this is costing them a lot of money. The CEO/co-founder elaborates with an example:

"The food industry in general is a very traditional industry. So you're very much on autopilot if you work there. You follow the old routines. Everything is old-fashioned. You don't think things need to be improved because you are so set in the system. If you ask a chef about food waste, he will say that there is no food waste. Because he's a chef, that's professional pride. You shouldn't throw food away as a chef. But if you observe a chef, you will see that there is quite a lot of waste."

Further, the CEO/co-founder emphasizes it is not just about identifying and addressing the pain, but stresses the benefits of having multiple perspectives on their value propositions, maintaining their business model, and facilitating its future growth. Total Ctrl has therefore sought out support from external business professionals when needed, especially at the request from investors. They highlight the importance of incorporating advice from external business professionals in their processes, in order to define and refine the company's value proposition:

"We have been through processes internally, but also had an external consultancy firm brought in, at the request of investors, as they wanted us to take an even deeper dive into our company, business model, and growth potential. External actors have helped us define how we have proceeded. Or helped make the value proposition make sense." - CEO/co-founder

Nowadays, Total Ctrl have now become more aware of the customer value than just the user value:

"We have been very sprint-focused when developing technology, so testing quickly in the market to get feedback and check the willingness to pay before putting a lot of resources into it. (...) We work and develop technology together with our customers. We get a lot of data

from our customers, so we create value from the data we get from them. And then we deliver a digital tool that they use in an operation."- CEO/co-founder, Total Ctrl

Further, the CEO/co-founder emphasizes due to the nature of the market they operate in, many customers may be set in their ways and resistant to change. In order to meet those, making strategic moves to enhance credibility and reputation has been key:

"So when Norway sees that you get publicity from the US, for example, we suddenly become more interesting in Norway. So we have made some moves that have given us greater credibility."

"We work in a very niche area. Our focus has been on food waste and optimizing kitchen operations. So we are very niche. That makes us experts in an area that nobody knows much about. We have built a credibility that has gained a lot of attention from researchers and academia, both abroad and domestically. "

Such credibility helps build acceptance and traction in their target market. Further, the importance of knowledge transfer to stakeholders is highlighted. By promoting awareness and education to address the problem of food waste and its impact on the environment. The CEO/co-founder indicates that by doing this, they can make potential customers aware of the expenses related to food waste and in turn light a spark that can make Total Ctrl's Value Proposition sink in faster.

"We communicate a lot to our stakeholders about the food waste issue. We want to ensure that people become more aware and get the right knowledge from the right expertise. Food waste is talked about relatively little in general. Especially considering how much of an impact it will have on greenhouse gas emissions, and if you eat your food, then you are doing the best you can to reduce greenhouse gas emissions. Not many people know that. Nor do they know how much it costs, or how much it represents in terms of CO2 emissions. Or how easy it can be to fix"

To ensure a significant impact on Planet and the financial benefits for the customer, Total Ctrl has specific criteria for their customers that need to be met. The CEO/co-founder gives an example of their hotel-customers, and explain that for Total Ctrl´s solution and value proposition to generate a substantial effect, they need to be applied within a specific hotel chain, country, and connected software-system. By focusing on customers that meet these criteria, Total Ctrl can maximize the potential impact of their technology and deliver the most value to their target market:

"Our customers need to be in a certain chain, a certain country and connected to a certain system to make a big impact with our technology. "

Further, when creating and communicating value propositions, the CEO/co-founder emphasizes the importance to not deliver overpromising value propositions, due to the necessity of creating trust, respect and credibility with customers:

"So we see that it has an effect, as long as you manage to create trust and respect and credibility and deliver what you actually say you will deliver. Many businesses get burned by

over-promising and under-delivering. So yes, be transparent and honest and build trust, and you'll get quite far (...) and actually create real value for customers."

These statements emphasize being honest, transparent, and focusing on delivering actual value in order to achieve success in business.

4.4 Case 4: Fornix

Fornix's vision is to promote a more sustainable world by helping to improve mental health worldwide. Fornix is dedicated to expanding the tools and resources available to therapists when treating anxiety disorders so they can better meet patients' individual needs. Fornix targets the B2B market and has primarily public hospitals as customers.

Anxiety disorders affect a significant portion of the population. Traditional therapy approaches often rely on exposure therapy, which can present challenges and limitations. To address this, Fornix offers a VR-based solution, Virtual Reality Exposure Therapy (VRET), immersing patients in a virtual environment to safely confront their fears while therapists provide guidance.

VRET goes beyond exposure therapy, and their user-friendly solutions require minimal preparation and simulate diverse scenarios. Therapists can monitor patients by streaming the virtual environment to devices. This accessibility and engagement contribute to making therapy more accessible, less resource-intensive, and ultimately more effective. By empowering therapists to provide personalized care and helping individuals overcome anxiety disorders, Fornix aims to make a positive impact on mental health worldwide.

Table 10: Overview of Fornix's SBM

Value proposition People
The value proposition Fornix offers to the People dimension is that they facilitate for controlled exposure therapy, which means that even more patients can be offered this treatment and address more anxiety disorders. Broadly defined, their value proposition to People is a healthier society and better quality of life.
Value proposition Profit (customer)
Fornix's value proposition to the customer consists of both cost savings and increased efficiency levels for the customer. Fornix's solution enables therapists to offer more effective exposure therapy treatments that require fewer resources, as the solution allows the treatment to be performed in the therapist's office.
SBM structure (create, deliver, capture)

Create: Fornix's technology enables patients to immerse themselves in a constructed virtual environment, to enable controlled exposure to address their specific anxiety disorders.

Deliver: Fornix delivers value through a VR-based software solution they have developed. The software is so forth utilized through third-party VR-glasses.

Capture: Fornix earns revenue by licensing through a SaaS model, ensuring recurring income streams.

4.4.1 Development of the sustainable business model

This section starts by describing Fornix's establishment phase, where understanding the industry has been a key factor. The chapter continues by describing Fornix's establishment phase and how they have made strategic priorities and assessments to gain as much influence as possible in the direction they want to go. Finally, the section presents various critical elements that have been important in Fornix's achievement of an SBM.

4.4.1.1 Establishment Phase: From pain to development of SBM

Fornix are concerned with being close to the industry they are operating in (health industry), by having People in the team that have worked in the industry and felt the pains first-hand. Additionally, this industry is characterized by many pains, especially regarding time, money and resources. The COO explains it as follows:

"We have clinicians on the team, one who is a clinical psychologist and then we have one who has a PHD in psychology, and they have worked in the field and felt the pain points. It's also clear that the health care system is under pressure in all sorts of ways, especially in terms of time, money and resources"

However, Fornix´s team did not have this industry knowledge from the beginning and had to rely on intuition and instinct to understand the mentality of the industry. However, the co-CEO/co-founder explains that they knew from the beginning that they needed to prioritize acquiring first hand industry-competence and experience in the core-team, even though they by external business professionals were recommended against using their resources towards this:

"In the beginning we didn't have so much knowledge about the industry. Zero knowledge really. Our starting point was gut feeling and the instinctive understanding we had of the industry. That's why we initially prioritized having psychologists in the core team. Even though business advisors suggested we not use money on this but rather hire in psychologist-consultants as needed."

The strategy of involving psychologists in Fornix's core team early on has provided them

with valuable industry knowledge. Initially, obtaining this insight was challenging due to the fragmented nature of the industry. However, they successfully combined the experience external industry experts with customer input to understand pain points, that it is too resource-intensive to conduct physical exposure therapy. Despite external business professionals recommending against it, the co-CEO/co-founder recognized the importance of acquiring firsthand competence and experience within the core team. They firmly believed in prioritizing this approach and could effectively communicate how their solution addressed the identified pain points:

¨*We have insight into how they work and how things work for them. That was difficult to get in the beginning. Because it's very fragmented. Nationally and internationally. The only way of doing it is to have experience from the industry, which is what we don't have. Or else you employ people who have worked in the industry. And then combine that with talking with enough customers until they start to get a feeling for it. Then we can communicate the pain points that we are aware of and how we fix them*¨ – co-CEO/co-founder

4.4.1.1 Growth Phase: Maintain the SBM and facilitating future growth

According to the COO, the original business model of Fornix has remained intact. They assert that this model is highly effective in ensuring a steady stream of income and minimizing friction. For example, as the company's portfolio of offerings has grown, they have created opportunities to sell packages or offer discounts to incentivize customers to purchase more:

"I would say that our business model is as it was initially conceived. The model is very cooperative - it provides repetition of income and it's not very input heavy, and as the portfolio increases, it allows you to sell, for example, different packages and discounts, i.e. adjust the model."

In order for Fornix to maintain their business model and facilitate future growth, they are thinking strategically and considering different ways to arrange the elements of their plan in a way that will give them the most leverage in the direction they want to go. The co-CEO/co-founder explains how that they are focused on building on their existing advantages rather than trying to overcome weaknesses:

¨*How can I put the puzzle pieces on the board so they carry the most possible weight in the direction I want to go, in terms of the company. It all comes back to my favourite expression; criticality. You get a breakthrough where you are ten times stronger than what you're up against.*¨

It has been essential for Fornix to actively not receive input from external business professionals with no understanding of the industry, even if they have a successful track record in business. Actively not receiving input means deliberately avoiding or rejecting advice from external business professionals who lack industry-specific understanding. Fornix believes decisions should be based on industry knowledge and rejects input from those who

don't comprehend industry dynamics. They emphasize that it is important to understand the unique mentality of each industry and make decisions based on a logical and optimal process. By disregarding advice from those who do not comprehend the industry's nuances, the company asserts that they can make better-informed decisions that align with their industry's requirements and avoid potential pitfalls or detrimental consequences. The co-CEO/co-founder assert that when they are confident that their decision is the best, they do not listen to others who may suggest otherwise:

"We say no to all those who do not recognize and understand that the psychology of an industry can be completely different. It doesn't matter what you learn at BI or from 20 years experience in the business world. People who are not aware that industries can have completely different mentalities, we get hundreds of emails every week from people who want to accelerate our sales internationally. I say no all the time, and then they call and say why? Because you have no idea how this industry works. This is the way you're bankrupting us. Even though these are people that may be experts in business models. (...) If you are absolutely sure that your solution is the best, you can ignore what these people say. And the times it's happened with us, it's always worked."

Fornix quickly adapted their strategy they have now for developing their business model as a consequence of a bad experience of involving such external business professionals with no understanding of the industry:

"The first time we got external help, we realized that it was the wrong way to do it. And since all the external people who have come to us have said that they think they can help, they have been given a chance a few times. And it has always been as we thought it would be. " - co-CEO/co-founder

4.4.1.3 Achieving a sustainable business model: Critical elements

The COO explains how they further increasing customers willingness to pay and attracting international customers, by increasing their credibility by providing clinical evidence, this element plays a significant role for Fornix:

"We are about to publish more research, and are soon starting a large RCT (randomized controlled trial), so that we get even more clinical weight on what we sell and then again you will see that there will be even greater willingness to pay from those who may be a little skeptical. Some demand that it is clinically documented, that it is proven. So the willingness to pay is expected to increase in line with that. Additionally, it´s needed for the international market, which requires that you have it."

The co-CEO/co-founder reflects on the balance between sustainable and ethical considerations, alongside economical considerations in an SBM, and how important it is to team members and employees whose values align with the companies. When they have a sense of purpose and are more motivated to work towards the company's goals, this can lead to a greater chance of success:

"It's kind of a strategic choice, I know for myself that I'm much more motivated when I work on tasks that I see have a global impact and can somehow create ripple effects in a positive way. And I know that I want to bring in the people who are also motivated by that, because the fact that you get an extra magic in the team reduces the chance of things going wrong"

4.4.2 Managing Stakeholders' Interests within the 3 Ps

This section starts by presenting how Fornix aligns with all different stakeholders along the interests within the 3 Ps. The section then goes on to describe Fornix's approach to profitability. Furthermore, the section highlights Fornix's early awareness related to mapping customer needs and Fornix's ability to meet these needs. Finally, it highlights how Fornix has made different priorities related to the work with stakeholders.

4.4.2.1 Alignment of the 3 Ps

In the table below, key stakeholders for Fornix within each dimension of People, Planet and Profit are presented. It is however important to point out that Fornix has several more stakeholders within the different dimensions, but here is an excerpt from key stakeholders they need to address that were presented from the interview.

Table 11: Fornix's main stakeholders within the dimensions of 3 Ps

People	**End- users (patients***): reducing anxiety disorders and improve quality of life for individuals. **Society:** contributing to healthy lives and well-being for all at all ages. **User (psychologists):** easier and more efficient execution of work tasks, meeting user-needs. **Employees:** creating job opportunities, working conditions, fostering a positive work environment. **Organizations focusing on societal causes:** demonstrate Fornix's commitment to ethical business practices.
Planet	**Environment**: responsibility to connect responsible third-party hardware to customers. **Hardware suppliers:** ensuring sustainable sourcing practices and procurement.
Profit	**Customers:** enable customers to reduce their cost by meeting users' needs. **Investors and financing institutions:** expect financial returns on their investment in Fornix.

	External business professionals: Concerned about the company's growth and strategy.
	Suppliers*:* strategically engage with suppliers to optimize costs, ensure quality and reliability

Stakeholder interests can overlap in several dimensions. For example, Fornix needs to approach suppliers differently in the contexts of Planet and Profit, and aligning customer and user interests should not come at the expense of one another. By focusing on these stakeholders and delivering value along the interests of the 3 Ps, Fornix can align its operations within these interests.

The co-CEO emphasizes that Fornix has consciously adopted a neutral approach to the Planet aspect, driven by the need for criticality and focus in areas where they already excel. The balance between People and Profit however are so integrated in their core business, it is a matter of course that they should not come at the expense of each other. The co-CEO/co-founder explains how it is rather the opposite, due to Fornix's strategic choices, People and Profit interconnect and reinforces on each other:

"We have made a conscious choice to link our continuous need for profit to the need for People. It's a reinforcing effect. First and foremost it's profit, but because of the link we are always very people-oriented."

Further, the co-CEO/co-founder reflects upon the perceived difficulty of achieving profit in an SBM. He has a perception that it is not solely the nature of the business model that poses a challenge in reaching profit in an SBM. Rather, he believes that those who are drawn to such start-ups often prioritize sustainable and ethical considerations over profits and financial gain. This prioritization increases the risk of going bankrupt. He concludes that those founders should learn to balance the need for sustainable practices with the need for profitability, and become comfortable in communicating both:

"My perception is that the people who often come into these SBM start-ups are the type of person who already tends to talk more about those things. Less about profit. Less about money. And that, paradoxically, because of the right people, it can be more difficult to get funding and to keep track of the finances because they see it as secondary. So they're more likely to go bankrupt. I don't think the problem is that it's just hard to be profitable in an SBM. It's simply because of the people who are focusing on, in my opinion, the right things. The good, the important thin's in the world. But founders have to learn to speak with two tongues. And be equally comfortable with both."

4.4.2.2 Approach to Profit

As previously stated, Fornix has made a conscious decision to link its continuous need for profit to the need for People. Relating to this, The co-CEO/co-founder explains that the

company has made a strategic choice to prioritize quality over quantity, which has resulted in a people-oriented approach and a profit that is dependent on delivering high-quality products or services:

"Internally in the company we focus more on profit. But what is so beautiful is that we have a fortunate formula there, where our profit is completely dependent on the People dimension. We have chosen to go for quality over quantity. And once you do that, because of the strategic choice, your profit becomes totally dependent on being able to deliver something that is qualitatively so good that on the People side it cannot be compared to what others can deliver. We have made a conscious choice to link our continuous need for profit to the need for people. It is a reinforcing effect"

As aforementioned, Fornix has to have a SaaS model as this secures them a steady stream of income, and is not particularly input-heavy. Further, the company has well-paying customers (mainly public hospitals), and have never had significant financial problems. However, the co-CEO/co-founder clarifies that the company is not yet profitable because they have increased the size of their team in line with their increasing income. If they wanted to be profitable, they could do so by reverting the team:

"We have never had any particular money problems. We have very well-paying customers. But we are not profitable yet. But that's because we've increased the team in line with the increase in customer income. What we have now, of things that we deliver, is based on things that are produced by a much smaller team than we have now. And the team that we've grown to now can produce more so we can get to result in a bigger customer base next year. So if we want to be profitable now, less than three years after the start-up was founded, we can. Then we'll go back to the team we had a year ago. Seven people. And then we are profitable. And much more"

Fornix have been conscious of focusing where the best financial possibilities are. The COO claims that Fornix therefore has consciously chosen to focus on the public sector, as they identified this to be their largest market in Norway. They have a high willingness to pay for Fornix solutions, as the problems they address are so significant:

"Public hospitals have been what we have focused most on in the first phase, the reason why we have gone for that and not the private market is because in Norway the public sector is by far our largest market. (…) So the economic aspect is very good and it may well have to do with the fact that the problem is so large and so extensive, which means there is a willingness to pay for it"

Following, the co-founder/co-CEO argues further benefits with their market of focus, and that is would be challenging to find similar financial support in the private consumer sector, as the willingness to pay is not as high:

"We have come to understand the specialist health services and how they work, so we can expand. What we've discovered is that there's a ton of room for improvement in this area. And let me tell you, there's a real desire for our services, not to mention some serious money available. Public hospitals are willing to shell out a significant amount for our headsets, but

private consumers tend to be more cautious and don't spend nearly as much on them. So good luck getting a private consumer to pay the same."

4.4.2.2 Stakeholder mapping process: Customer focus

The market Fornix operates in is also seen by many as a difficult market to enter. The co-CEO/co-founder does not agree with this, and argues there is just a lack of understanding of the market:

"A lot of people in the start-up community in general and in business complain that the healthcare market is hard to get into. But what my partner and I realized is that most people just don't understand how the healthcare market works. The healthcare industry is run by people who are very nervous. It's people who are not guided by the same mindset that we find in business in general. It's a completely different world. It's been crucial for us to learn to understand that world"

Further, it has been important for Fornix to not only map stakeholders' interests, but to map which stakeholders they should focus on, which resulted in clinics and public hospital as customers. Also, they wanted to put their focus on one type of user, and concluded that it was for psychologists was where they could make the least complex solution:

"We decided that we would focus on clinics to be our customers, our paying customers. So, if we worked with clinics and focused on just that as customers, then we could focus our product towards one type of user - psychologists. That it was sort of customized to them, to how it met their needs. And we could also go in and work with clinically demanding issues, because they are qualified to work with that. If we had done things differently, we would have sold to private individuals, or created an app that people can download on their own VR glasses. It won't be clean, the point is that it will be complicated and chaotic" - co-CEO/co-founder

4.4.2.3 Prioritizing stakeholder interests

The co-CEO/co-founder argues that dealing with stakeholders along the interests of the 3 Ps can be hard, but that it does not have to be hard if you understand the different interests of those stakeholders. In the beginning they did not have this awareness and understanding, which in turn made it hard to deal with them:

"I would say it can be difficult, but it doesn't have to be difficult. We can turn the situation around. I don't find it difficult anymore to do it at all. In the beginning it was difficult because I didn't have enough information about how things were different with the various stakeholders, so I couldn't communicate in different ways to them. But once I got it, it was not difficult at all"

The co-CEO/co-founder discusses the importance of learning how and what to communicate to stakeholders. They provide an example that highlights the significance of focusing on

communicating strengths rather than areas where they are only partially strong. For instance, in regards to the Planet aspect, while Fornix's solution reduces transportation emissions for clinics, it also utilizes third-party hardware that is not easily recyclable, negating the positive impact of the reduction of emissions. This situation creates uncertainty regarding the effectiveness of their actions. Based on this example, they suggest that it is better to prioritize communication where they can create real value, rather than emphasizing the reduced transportation aspect:

"If we talk about the environment, the only thing that will appear is that we don't have any clean ways to communicate that we are really good at the environment. Then we lack criticality in effect. That is, yes, maybe we reduce a little bit the impact related to transportation out of a clinic, for someone going through exposure therapy. But we use third-party hardware, which is not very recyclable. So it's kind of an offset, right? Effect, that is, the value I'm trying to describe, it's kind of in the gray area"

The co-CEO/co-founder further argues that not all stakeholders' interests should be achieved, such as those external business professionals who have had strong interests in advising Fornix in how to run their business. The co-CEO/co-founder explains that it has been essential for the success of Fornix to understand from early on, not to fulfil the wishes of all stakeholders:

"It has been crucial for us to learn to dare to say no to people in their 50s who have been in business for 30 years. They have wanted to tell us why they are much better equipped to know what to do. We wouldn't be where we are today if we hadn't dared to do that. We've already hurt our reputation with some potential customers by doing things the way we were advised."

4.4.3 Delivering value propositions across the interests of People, Planet and Profit

This section starts by describing Fornix's process for adapting value propositions for their various stakeholders' needs, where it is highlighted that clear and good communication has been an important element. Finally, the section describes how Fornix has managed the delivery of value propositions to their various stakeholders, which has turned out to happen quite naturally, due to the huge problem they are solving.

4.4.3.1 Adapting value propositions: Identifying what stakeholders value and selling points

In regards to delivering value propositions across interests of the 3 Ps, the co-CEO/co-founder further expresses the importance of criticality when communicating. All uncertainty in communication should be avoided as it can create confusion and undermine the message, and the communicating needs to be simple and clear:

"All uncertainty is bad news in communication. All uncertainty. It's not for the internal team when you work together, but when you have to communicate to stakeholders. It should be

clean and simple, so a baby can understand it. If we don't have criticality on the environment, we don't talk about it.

When adapting the value proposition to the customer, the value to the customer needs to be emphasized, not the value the patient gets. The co-CEO/co-founder gives an example of how they communicate with hospitals about a solution to reduce anxiety disorders. Instead of talking about the psychological benefits for the patient, they focus on how Fornix solution makes the job easier and less costly for the hospital. To come to this strategy, attaining insight into how the hospitals work has been essential in order to understand this target audience and tailor the value proposition accordingly:

"When it comes to the Profit aspect, it's a bit different. We have to communicate what directly makes the customer want to buy. If we say we want to reduce people's anxiety disorders to the hospitals, they say this is great and fantastic. Now you've wasted 10 seconds. They don't say that. They don't think it's stupid, but you've spent time that you could have spent on an argument for why you should buy the solution. Then it's immediately into everything that makes the job easier for the people who work there. And the things that simply make the job less expensive. We have insight into how they work and how things work for them."

However, the COO discusses their thoughts around different value propositions when selling a solution to private psychology clinics versus public ones. In contrast to the public sector where the aim is to reduce the number of patients, in the private sector it may be necessary to frame the value proposition differently, as they do not want less patients. Rather than emphasizing speed of recovery, Fornix brings forward the ability to treat a broader patient segment or offering alternative treatments to make the clinic more competitive. This again underscores the importance of tailoring the value proposition to the specific needs and priorities of the target market:

"If you go more towards the private health sector, it will perhaps be a slightly different value proposition because if you have private psychology clinics and you say that you are going to get your patients well faster, then you are in a way saying that you are removing their patients. They obviously want people to get well, but you may have to twist the value proposition a bit and say that if you use our solution, you can also take in a broader patient segment, for example, and those who want other types of treatment and you may get something that makes you more competitive against other private clinics or psychologists"

The co-founder/co-CEO again emphasizes the importance of having insight and understanding in order to adapt value propositions to stakeholders with different needs. One specific thing in regards to this that they learned along the way was that there are big differences even within the same group of customers. This is because there are a lot of variations in how mental health is treated due to the fragmentation of the healthcare industry. Also customers' understanding of technology varies and some are more open to it than others, which is something Fornix needs to adapt to. Overall, the co-CEO/co-founder emphasises the need for understanding the complexities and variations within the industry in order to effectively provide value propositions:

"There is a wide variety of interests. It's all about insight and understanding. It can be instinctive and it can be learned. We were lucky that we understood a bit of the mindset of the health sector early on. But one thing we didn't quite understand early on was that different customers with very many of the same problems with patients can be very interested and others not. So you have to understand the problem before you can solve it. What we saw was that the healthcare industry is so fragmented in mental health. So the way they provide treatment varies. The patients they treat vary. The money they have varies. The local relationship, what kind of resources they have available. And also so it's like local factors vary. And that includes a lot of things. So the biggest variation comes from there"

The value propositions for Fornix customers and users is dependent on the value they can provide for the patients. The effect and value of the solution is clear and possible to observe first hand, and the COO indicates that as long as they create enough value for the user, they will have a strong value proposition for the customer:

"Because meeting the demands of the patients is a bit like meeting the demands of the hospital. Because if you don't make something that triggers the patient's anxiety, the hospital won't buy it either. So, as long as you make something user-friendly that triggers anxiety etc., you give value to the hospital because it meets the patient's needs"

However, contrary to the above approach connected to instinctive understanding and attaining practical insight, the co-CEO/co-founder takes a different approach when delivering value propositions to investors. In this case, he bases his approach nearly exclusively on professional literature and the experiences of others. The co-CEO/co-founder stresses the importance of being able to "speak the same language" as the investors order to build trust and convince them to invest:

"If there is one area where I base everything I do mainly on the literature and the experience of others, it is in communicating with investors. It's the only area where my own judgement is the last word. They are used to using a certain language. If you don't use it, I understand very well that they can't be convinced. It's all about trust. So you have to be able to use their jargon, and focus on how my company can create lots of financial value for them"

4.4.3.2 Managing value propositions for stakeholders

It has been an important strategy for Fornix to seek out input from external industry experts to gain a better understanding of what the stakeholders think, look for, and value. As a result, the team was able to better understand what specific groups were willing to pay for and what kind of problems were most commonly encountered within the diagnostic group. As a consequence of this work, they identified that a value proposition should be tailored to a specific patient group with particularly difficult challenges that required real exposure and were hard to achieve in reality. The co-CEO/co-founder explains how they saw where they can make the biggest impact and so forth, the strongest value proposition:

"We chose to work actively to collaborate with the professional community through psychologists who are actively working. Not only those who are employed by us, but psychologists who are actively working. And public specialty care and academia through the department of psychology at the university. We felt so strongly that we didn't have enough insight to know how to do it ourselves. This gave us a better ability to understand what customers were willing to pay for, what was nice to have, but what was not critical, and what types of issues also within diagnostic groups that recurred.(...) For example, we came to the conclusion that our value proposition must be able to target a patient group, where it is otherwise particularly difficult, where there is a possibility that you can only raise things very much by real exposure, and where it is also difficult to achieve it in reality"

Fornix highly value such advisors from within the industry, whom, however are not experts in business or business models, which the co-CEO/co-founder finds paradoxical:

"On the other hand, the professionals from industry, industry experts who are not, for example, business people, but psychologists and professors, we actively use them to this day as advisors. But they are not experts in business models, that's the paradox"

The co-CEO/co-founder explains that to determine the most effective way to achieve a desired goal, they begin by using a hyper-rational perspective, removing any personal beliefs or biases. When they cannot come up with a solution, The co-CEO/co-founder reflects on the value of seeking advice from professionals in the industry, to refine their ideas and ensure that they are on the right track:

"It must be logical, from a hyper-rational perspective. Take away what you think and feel, and what others do. And if I don't come up with anything, then we talk secondarily. Then we double-check through the professional community within the industry, so that means the psychologists"

Further, much of the processes for creating value propositions has come rather naturally for Fornix. It is rather the opposite, that they have to prioritize what they should focus on:

"People come and say you have to do this, there is huge potential. If we had said yes to all the potential value propositions people felt, we would have spread ourselves way too wide." - COO, Fornix

The COO further discusses a reason for why their value propositions have come naturally is due to the fact that Fornix has developed a lot of their technology in line with the needs of customers. Just by being in this process, the value propositions come naturally:

"It often falls naturally when it comes to the value proposals, and since it's part of a development project, it's more about shaping it, so that they say what they want and then you create that. Then you get a lot of the value propositions just in that process.

An example of this is in the early stages of collaboration with a customer, Fornix were initially focusing on treating phobias, but learned from the customer that the applications they already had, could treat PTSD and general anxiety disorders and so forth, again make a bigger impact on a larger number of patients:

"A concrete example is that we developed early applications for specific phobias, such as fear of heights and spiders, and thought that the customer could use us to treat the specific phobia we had developed for. But then XX hospital came along and said that we can use this to treat general anxiety and PTSD. So then there was an input that you can actually use it for a much broader course of treatment and it changes a bit how you proceed when you meet the customer, right? Because then you no longer just offer the small niche but it encompasses a much larger problem and so forth, much more patients" – COO, Fornix

However, it is important for Fornix to not follow all those potential leads, as they want to direct their focus to where they are the strongest. The co-CEO/co-founder advocates for that it's not worth spending time on something unless it creates real value, and again highlights the concept of criticality, which refers to the effectiveness of an action in achieving its intended goal:

"When you talk about things like this, it all comes back to criticality. That is, there's no point in spending time on something unless you're going to create something real. Unless it provides some real value."

Further, the co-CEO/co-founder indicated a benefit of creating impact for People regarding value propositions, as the value proposition for People is easy to understand for people. Especially in combination with numbers:

"Our value proposition within the People dimension is what I said. We will create a healthier society. And improve quality of life. But it doesn't take much effort to realize that that's what we should communicate with. It's only you as a human being who feels that it resonates, right. We've seen that it resonates when we've communicated in that way. We also know that people like simple and meaningful numbers. It's easier to understand. That's where the eradication of hunger and the annual cost of anxiety disorders come in. If there were no anxiety disorders, we could cure hunger ten times a year. On all that is lost"

Further, it is not only about creating the value propositions, for Fornix where they have to use the most of their resources is to communicate to the right people:

"You have to try to find the enthusiasts who have some interest in technology, because if you meet those who do not have much interest, it is more difficult to get through. People's understanding of technology varies. And people immediately realizing the potential. That's how I got XX hospital as a customer. The head of the clinic for that whole region of clinics got it immediately." – co-CEO/co-founder

For those who are late-adopters, Fornix needs to physically demonstrate their solution, as they have experienced this to be a successful strategy with an 80-90% conversion rate from demo to paying customer.

"To avoid people with poor understanding of VR ruining things, because it's still like that, we offer free physical demos, no matter where they are in the country, or in the Nordics. And then we have an 80-90% customer conversion rate" - co-CEO/co-founder

"Then there is the customer acquisition cost aspect, this is a significant expense for us. Largely because while we can talk about our product all we want, it's when people actually try it that they truly get excited and see its potential and become customers. It's probably going to be like that until VR becomes so widespread that everyone knows about it. It's a market that is very much maturing" – COO

Delivering high-quality products and building trust with the stakeholders is a conscious strategy Fornix has made. The co-CEO/co-founder says that that while the company is driven by a desire to make a positive impact in the world, it is also motivated by the need to be profitable and that is done by providing real value to its customers:

"Our company always wants that number to add up, so we are driven as much by wanting to make a good impact in the world, but also by wanting people to know that we are worth their money. So we have to be able to deliver the highest quality. It should never be comparable to what anyone else can deliver. That's the rule of thumb we have. Whatever you do, it should be embarrassing to use other solutions."

5. Cross-Case Analysis

In the previous chapter the empirical findings were categorized and analyzed at an individual case level. This chapter describes the main findings revealed across the cases. The findings are presented within the same key themes, and categorized with the same sub-chapters and sub-sections as the previous chapter. The sub-sections are further organized in to new paragraphs to ensure clarity of the findings revealed across cases.
The findings from the analysis presented in this cross-case analysis serve as a foundation for the discussion provided in chapter 5.

5.1 Development of Sustainable Business Model

In this sub-chapter, the companies' establishment phase is presented first, before the analysis moves on to the case companies' growth phase and finally, critical elements that have proved to be important for the various case companies during the development of their SBM are highlighted.

5.1.1 Establishment phase: From pain to development of SBM

The following sub-section discusses the establishment phase of the development of the SBMs for the four case companies. In this context, the findings suggest the importance for these companies of starting by addressing specific established societal problems, leveraging industry experience, adopting a user-centered approach, and considering market timing and awareness.

Established problem: All four companies started with an established problem in society that they aimed to solve. For Fornix it was the limitations of traditional therapy methods for anxiety disorders, for Total Ctrl it was the challenges related to food waste in the food industry, for No Isolation it was the isolation children experience due to illness, and for Tibber it was the unnecessary consumption of energy and lack of user-friendliness in the energy industry.

Industry experience: Tibber and Total Ctrl, were started with the founders themselves having industry experience and having felt the pain in the industry themselves. Fornix was quick to bring industry experience into the team and thus had this expertise from the start.

User-centered approach: All four companies adopted a user-centered approach when developing their products and business models, but only No Isolation and Total Ctrl actively used it in the start-up phase. No Isolation is the company that used the most extensive user-centered approach and based much of its start-up on it. Among other things, they started with extensive interviews with both primary and secondary users to identify different needs,

before starting the development of their first product. Total Ctrl also worked with users in the development process of their product and tested along the way.

5.1.2 Growth phase: Maintain the SBM and facilitating future growth

This sub-section presents elements that have influenced the case companies' establishment phase and elements that are important for their further growth. First, the findings related to the case companies' different views on support from external business professionals without industry insight are presented, followed by the importance of the case companies' priorities during development and their flexible approach. Finally, the sub-section describes the methods Tibber and No Isolation have used to increase their customer base.

Support from external business professionals without industry insight: Both Fornix and No Isolation highlight the importance of understanding the nature of the industry they operate in. Both highlight that it has been crucial to their growth and acceptance in the market. In light of this, both Fornix and No Isolation have been skeptical about receiving support and taking advice from external business professionals, as they do not know the industry in the same way as they do internally. Among other things, No Isolation has experienced a number of challenges related to having the public sector as a customer, and has found that external business professionals cannot help in this situation. Fornix utilized advice from such actors in certain situations in the start-up phase, with poor experience, and has therefore chosen to cut this out completely. Total Ctrl Total Ctrl Total Ctrl, on the other hand, has utilized advice from external business professionals in several situations and sees great value in having external perspectives on what they do.

Flexibility and patience: All four companies' business models are essentially the same as when they started. Despite this, all have highlighted that they are open to making changes if they see that it benefits the company and their customers. This reflects the flexibility of the companies. Tibber, Fornix and No Isolation have only seen a need for minor changes. For example, Tibber has made certain changes by expanding to more countries and Fornix has been flexible in how they put together package deals of their product to sell more to the customer. Total Ctrl is the company that has had to be the most flexible, as they faced major challenges during the pandemic and had to turn a lot of their operations around and work more as consultants. As a result, Total Ctrl has realized that they need to be patient, experiment and test along the way to understand what the right way to develop the most successful SBM is.

Tibber is the only one of the four case companies that only targets the B2C market, and highlights how important their customer referral program has been for their growth, and has been an important contributor to the increase in customers. No Isolation has been open and flexible in their approach to gaining more customers, for example by using organizations as an alternative customer to reach the public sector as a customer.

5.1.3 Achieving a sustainable business model: Critical elements

This sub-section reveals identified critical elements that have contributed to the ability to achieving an SBM, as demonstrated by the case companies. Within this context, the cases demonstrate the significance of clarity in impact and mission, trustworthiness, education and awareness, alignment of values and culture, balancing sustainability and profitability, long-term perspective and patience, and responsiveness to market feedback. While these cases operate in different industries and markets, they share commonalities amidst their differences. Through exploring these critical elements, insight is gained into necessary critical elements for making a positive societal impact while achieving an SBM.

Approach to education and awareness: Even though the four the case companies all have different impacts they want to make and are in different industries and markets, all the cases present a new product/solution in their in their respective markets. As a result, it has been clearly crucial for three of them (No Isolation, Tibber, Total Ctrl) to prioritize education and awareness among their stakeholders.
It is noteworthy that these educational efforts not only address the specific pain points the companies' solutions target but also contribute to the broader picture of sustainability. This emphasis on education and awareness aligns with the companies' wish for market success, along with their commitment to making a positive impact related to, but beyond their specific solution. To exemplify, Tibber's primary educational-focus lies in educating customers about smart energy usage, providing them with knowledge to optimize their energy consumption. No Isolation directs their efforts towards spreading awareness about social isolation and loneliness, aiming to inform and educate people about these pressing issues. Additionally, Total Ctrl takes an educational approach by highlighting the environmental impact of food waste, promoting awareness and knowledge in this area.

Alignment of values and culture within the company: The case companies highlight how the founders and employees internally in the company prioritize ethical considerations and making a positive impact over purely focusing on profit. They are driven by a shared desire to create meaningful change and address societal and environmental challenges. The importance of fostering a robust company culture and values that align with the companies' missions is consistently emphasized across all cases. Tibber, No Isolation, and Fornix attribute their success to their value- and culture-driven approach, recognizing it as a critical element in SBM.

Long-Term Perspective and Patience: All the companies emphasize the need for patience and a long-term perspective when developing an SBM, while also highlighting the significance of building trustworthiness. They acknowledge how these elements are crucial in sustainability-focused ventures, but that it therefore often take longer to establish compared to purely profit-focused ventures. Total Ctrl and Tibber exemplify this notion by highlighting the need for discipline and patience, as working in this type of business landscape takes more time as it brings more problems than in a more conventional businesses landscape. This is further exemplified by the difference of setting up a sustainability focused business compared

to an online shop. No Isolation echoes this sentiment, emphasizing that there are no shortcuts or quick fixes in this type of business, resulting in their dedication to operate with integrity. They acknowledge that such principles and values hinder explosive growth, but they firmly believe that the significance of operating with integrity outweighs this, something No Isolation believes is an element that is a common theme in this type of company.

5.2 Managing stakeholders' interests within the 3 Ps

This sub-chapter firstly presents the case companies alignment of the 3 Ps. Further is more specifically examined how the case companies approach the Profit aspect of the 3 Ps, this is in coherence with the precedence described in the introduction to chapter 4. Further is examined how the case companies approach stakeholder mapping, with a specific focus on customers, aligned with the above precedence of the focus on the Profit aspect. Following, is a presentation of how the case companies prioritize and manage stakeholder interests along the 3 Ps. Overall, the sub-chapter emphasize the importance of profitability for long-term impact, and highlights how prioritization is crucial in aligning the dimensions of the 3 Ps, and that effective communication plays a key role.

5.2.1 Alignment of the 3 Ps

This sub-section presents how the companies align the 3 Ps, and how they approach People and Planet.

Balancing the 3 Ps: All case-companies believe in the alignment of the 3 Ps and aim to be companies that has positive impact while making profit. By expanding their customer base and their growth, these companies concurrently expand their positive impact for People or Planet. For example, several of the case companies highlighted how their business model has ensured that they enable a balance between the 3 Ps.

Clarity of impact and mission: All the examined case-companies emphasize the importance of being clear about the impact they want to make and aligning their mission and vision accordingly. This clarity serves as the foundation for developing their business models, strategic decisions, and product development around their desired impact. While all cases aim to make a positive impact, their specific areas of focus differ. Tibber focuses on reducing electricity consumption and providing clean energy, No Isolation aims to combat social isolation, Total Ctrl tackles food waste reduction, and Fornix addresses mental health challenges.

Balancing sustainability and profitability: The cases however recognize the challenge of balancing above sustainability goals with financial profitability. They however believe that it is possible to achieve. Isolation and Fornix discuss the challenge of balancing sustainable practices and profitability. They acknowledge that those drawn to SBMs often prioritize

sustainable and ethical considerations over financial gain, and this might be the reason that many companies aiming at making an impact, fail due to their lack of financial understanding and interest. They emphasize the need to prioritize the People/Planet aspects equally with the Profit aspect, along with the ability to be comfortable in both worlds.

5.2.2 Approach to Profit

This sub-section delves into the case companies' approach to the Profit aspect of the 3 Ps and explores their perspectives on payment models and long-term financial approach.

Approach to Profit: Acknowledging the importance of profitability, all companies understand its correlation with their long-term ability to create their desired environmental and/or societal impact. However, all the companies prioritize investing in company growth and emphasize the importance of continuous expansion and impact rather than immediate profitability. All companies perceive profitability as a vital indicator of their business model's viability and financial longevity. Revenue generation and achieving profitability are considered fundamental goals that support their mission and ensure ongoing growth. They aim to build SBMs that can withstand market fluctuations and economic challenges.

Approach to payment model: All the companies recognize the importance of the necessity to generate revenue to sustain operations and accomplish goals, and they adapt their strategies and payment models, while keeping the 3 Ps in mind, and make sure they can meet internal financial desires. However, they clearly adapt their payment-models, and revenue generation strategies to align with the preferences and dynamics of their target customers. This flexibility enables them to capture market share and drive profitability.
While Tibber targets the B2C market , No Isolation targets the B2B market with their main product (AV1) and the B2C market with their secondary product (Comp), whilst Fornix and Total Ctrl predominantly target the B2B market.
Fornix and Total Ctrl generate their main revenue by software-as-a-service (SaaS) based subscription payment-models, both have this model mainly due to the desire of generating recurring revenue. However, both also leverage additional, albeit smaller, revenue streams from implementation and development costs from customers.
In contrast, Tibber initially relied solely on a subscription payment-model. However, the company subsequently adjusted its approach by keeping the subscription-fee relatively low, while diversifying its revenue sources. They now generate a substantial portion of their income from selling self-developed hardware products. Additionally, they have established a third revenue stream from grid owners.
No Isolation also desire to operate on a subscription-based payment-model through a hardware-as-a-service (HaaS) framework. However, they have had to adapt to the dynamics of the public sector, which prefers upfront payments over subscription models. Their primary source of income in their B2B sector therefore stems from upfront payments for the hardware, supplemented by a small subscription fee.

5.2.3 Stakeholder mapping process: Customer focus

This sub-section is about stakeholder mapping, the analysis showed that the stakeholder that has required the most focus in the case companies is customer-stakeholders. The section starts by describing the case companies' overall view of stakeholder mapping and their method for conducting mapping, then describes the situation when user and customer are the same stakeholder, followed by a description of when user and customer are not the same stakeholder. The section concludes with a description of how Fornix has mapped segments in order to target the right user and customer.

Overall view of stakeholder mapping: Overall, the four case companies have taken stakeholders' interests into account when developing their SBMs. All have focused a lot on their users and worked to understand their needs. Several of the case companies also worked closely with their users during the development process. In addition, the case companies have identified factors in the market and work to understand their customers' needs and how their solutions affect People, Planet, and Profit.

User and customer, the same stakeholder: As Tibber is a B2C company, where the user and the customer are the same person, it has been particularly important for them to focus on usability. They have used various tools to map their stakeholders and work proactively with user interviews, usability testing and surveys.

User and customer, not the same stakeholder: No Isolation and Total Ctrl do not have the same customers as users, which has meant that they have had to map these stakeholders separately. This is adressed further in the sub-section about value propositions. No Isolation has been systematic in mapping and understanding the user group and their needs from the very beginning, but admits that it took some time before they became equally conscious of the importance of assessing customer needs, which incidentally were similar to Total Ctrl. Another stakeholder No Isolation has worked to map and understand is politicians, as they are stakeholders that can influence the customer's ability to buy the product, as politicians have an important voice in the public sector budget. No Isolation's challenge with politicians is that they often only sit for a few years, and thus see No Isolation's value proposition related to savings in 10+ years (due to fewer people on disability benefits) as an added cost. Total Crtl has focused on developing a user-friendly solution that meets the users' needs and requirements. In addition, Total Ctrl worked closely with users during the development process, which simplified this process. More recently, Total Ctrl has started tracking metrics to understand which features provide customer value or impact on time savings, cost savings or food waste reduction.

Map segment: For Fornix, it has been crucial to build a solid foundational understanding of the healthcare sector, and as a result, they have focused extensively on mapping how professionals in the field think and make decisions. Additionally, Fornix has worked to

identify different segments to determine which segment they should target as users and customers. This led them to prioritize psychologists in the public sector as users, as they found it to be the least complex group to cater to. In addition, the public sector was the customer segment with the highest willingness to pay

5.2.4 Prioritizing stakeholder interests

This sub-section starts by describing how the companies have worked with priorities to manage stakeholders with different interests. Finally, it describes No Isolation's complex situation related to the AV1 product, where they have had to understand many different stakeholders' needs in one situation.

Determining priorities: All companies have highlighted that prioritization is crucial when it comes to managing stakeholders with different interests along the dimensions of People, Planet and Profit. Tibber's Design Lead mentioned that prioritization is the hardest thing to do and that they always strive to find the sweet spot between business thinking and usability. Tibber's country manager also highlighted prioritization in the light of thinking one step ahead, such as analyzing which hardware to produce both from an environmental aspect, but also by considering which product creates the greatest engagement among customers, which in turn can lead to less environmental impact. Tibber was aware of the balance between the 3 Ps from the start, which resulted in their BM mirroring the balance between the 3 Ps and helping them with this automatically.
A similarity between Fornix and No Isolation is that they are both clear that they have not spent resources on the Planet dimension. Both describe this in terms of priorities. That they have focused on what they can do best, namely the People dimension.

Understand different stakeholders' needs: No Isolation is perhaps the case company that has experienced the most complexity in adapting to different stakeholders. The reason is their AV1 product, which is used in classrooms. Before No Isolation can place a robot in a classroom, many different stakeholders must give their approval. Along the way, No Isolation has realized that the solution to getting acceptance is to adapt information to the different stakeholders. By identifying potential problems that could arise, No Isolation has been able to address the problems with information to reduce the risk of someone saying no to the deployment of the product.

5.3 Delivering value propositions across the interests of People, Planet and Profit

This sub-chapter begins by examining how the case companies identify the values and selling points that stakeholders deem important, and how they adapt their value propositions accordingly. Further, is explored how the case companies effectively manage those value propositions.

5.3.1 Adapting value propositions: Identifying what stakeholders value and selling points

This sub-section starts by describing how the case companies have worked to combine profitability with impact to create value propositions for the customer, and goes on to describe the importance the case companies highlight of communicating adapted value to stakeholders. The sub-section further describes the benefit of multiple value propositions to meet the broad spectrum of interests, and that the case companies highlight that "impact does not sell". Finally, it is highlighted that two of the case companies had too much focus on the user in the beginning, which meant that it took some time before they realized the importance of focusing more on the customer.

Profit united with impact: All four companies focus on creating SBMs that are profitable, in combination with creating social/environmental impact. For example, Total Ctrl's solution for cutting food waste can help reduce environmental impact while also contributing to increased savings for the customer. Tibber's energy-saving solutions are good for the environment, but also help customers save money on their electricity bills. No Isolation solution helps to minimize isolation while meeting the state's requirements for mandatory education for all children. Fornix's solution enables more patients to be offered healthcare, while creating both cost savings for the customer and increased efficiency for the users. These examples show how the case companies reconcile stakeholder interests with profitability and social/environmental impact.

Communicate adapted value proposition to stakeholders: All the case companies highlight that an important element in adapting value propositions to different stakeholders is communication. To master communication, the case companies say that you first need to understand who you are talking to and their needs. Then it is possible to adapt the communication and convey the value proposition in a more appropriate way. Total ctrl highlights that understanding the needs and priorities of different stakeholders is crucial to achieving effective communication of value propositions. Fornix promises that all uncertainty should be avoided to ensure that the message is not undermined, which in turn ensures clear and simple communication to the intended stakeholders. No Isolation also emphasizes the need to understand who is going to pay (the customer) and what their needs are to avoid overselling of value propositions that are not aimed at the customer.

Different value propositions to a wide range of interests: Tibber states that it is appropriate to have several value propositions linked together, mainly because they are a B2C company. Tibber highlights this in light of the fact that it is often difficult to understand consumer behavior, as it can be so different depending on the individual. The divergence in consumer behavior has thus made it important for them to connect multiple value propositions together to manage this complexity. They thus have a range of value propositions that can appeal to different types of consumers, such as those motivated by financial savings, those who like gadgets and technology, and those interested in saving the environment.

The impact doesn't sell: All four companies claim that it is not the impact they create that makes the customer make a purchase. No Isolation and Total Ctrl, in particular, first tried to sell the impact as a value proposition, but realized that this did not work. Both case companies highlighted that they experience that the customer sees the impact more as an add-on value proposition, and that the impact must therefore be sold in combination with other value propositions. Both Total Ctrl and Tibber have understood that it is financial savings that appeal to most of their customers. Fornix sees that their efficiency aspect that leads to financial savings provides the greatest value to most of their customers. In contrast, No Isolation has seen that it is their ability to help the customer with the requirement of statutory education for all children that works best as a selling point to their customers.

Shift of focus from user to customer: Both Total Ctrl and No Isolation realized later in their development that they needed to reprioritize their main focus from user to customer. They realized this in the phase where they wanted to scale and grow. In light of the fact that it is the customer who is the stakeholder who pays for the solution and the stakeholder who essentially creates the company's profit. Both of the two case companies realized, as discussed in the paragraph above, that they had to tweak their value propositions to fit the customer's needs in order to generate more purchases. For example, after working closely with customers, Total Ctrl realized that the customer was not focused on cutting food waste itself, but that the value proposition had to be based on the cost savings they could achieve with it. For No Isolation, it eventually became clear that municipalities do not pay for value that only becomes visible after 10+ years, which required No Isolation to find the alternative value proposition of helping the customer with the statutory education of all children. No Isolation has conducted a lot of research to document their effect and impact. In connection with handing over the research results to the customer, it also became clear that the customer did not care much about this impact, but that it could function more as an add-on value proposition that could be the final persuasion for the customer to buy their product. Both companies now focus primarily on the customer and delivering customer value.

5.3.2 Managing value propositions for stakeholders

This sub-section examines how the case companies manage their value propositions for stakeholders. Firstly is presented how they address the needs of their users and/or customers by linking cost-saving benefits for customers with the case companies' desired impact for People or Planet. Further, is explored the significance of building credibility to substantiate the proposed value. Furthermore, this section provides insights into the case companies' approaches to effectively communicating the value propositions and enhancing stakeholder satisfaction.

Impact – cost-savings: All of the cases focus on creating an impact, which forms the basis for their solutions and business models. They primarily aim to address established societal and environmental problems by prevention in their various areas. A further common theme

amongst these cases is that the positive impact resulting from these preventive measures can be linked to cost-savings for the customers.

Long-term and short-term value propositions for customers: The cases recognize the presence of both short-term and long-term value propositions. However, all cases have come to understand the importance of showing immediate benefits for the customers, leading to the need of short-term value propositions for customer.

Short-term cost-savings: Further, for the customer it is a pattern in three of the cases that they should be about cost saving for the customers as the short-term value. They need to be able to experience or see this based on their own consumption. As aforementioned, the impact all the cases make, can be directly linked to their customers ability of saving money. For Tibber, Total Ctrl and Fornix have realized that the short term value proposition for customer needs to be about saving money. For Tibber the customer can save money though reducing their electracy consumption, Total Ctrl save money on reduced food waste, and Fornix on reduced expenses related to exposure therapy. For No Isolation the municipalities can save money on less people in society being unable to work. For No Isolation, this is however too long term for Norwegian customers to understand/value. It is rather the opposite, that in the public sector, because the cost saving is long term, they in the short term only challenges in the public sector, where their value proposition is often seen as an added cost. Hence, no Isolation encounters difficulties in demonstrating the long-term cost-saving benefits to the public sector. However, in another geographical market, the UK, the system for homeschooling is different, and by using the AV1, the municipalities can immediately save money. Thus, immediate cost-saving is the value proposition in the UK market. In the Norwegian market they had to find an alternative value proposition. This resulted in a value proposition aimed at laws and regulations for statutory education for children. Further, Tibber has also seen that the value proposition making the most impact, and is most impressive, is to long term and they therefore struggle to communicate this to their customers, wherefor they communicate the value proposition of the customer's immediate savings.

Overall, the companies recognize that communicating short-term cost-saving benefits is effective for customers, even if it may not always be the most comprehensive value proposition. Establishing and communicating value propositions for profit-targeted stakeholders (customers) therefore appears to be the most challenging. However, value propositions related to the People and Planet dimensions are easily understood and communicated, as these companies have built their business around the desired impact they aim to make.

The basis for creating value propositions: For Fornix and Tibber the value propositions for customers has come quite naturally, due to their good industry understanding. Additionally, for Fornix, the value propositions have come naturally as they align with customer demands because the problems they solve are significant and visible. By offering solutions that effectively address these pain points, Fornix naturally presents a compelling value proposition. To reinforce this statement, due to their ability to address similar pain points in

other segments, Fornix declines numerous potential value propositions, due to a desire to focus on their current main segment. In the case of Tibber, their value proposition emerged from their early recognition of the importance of consumer/user inclusion. Being in the B2C market where the customer and user are the same stakeholder, Tibber instinctively understood the value of focusing on meeting their user/customers' needs directly, leading to a natural value proposition.

Similar to Tibber, No Isolation and Total Ctrl were early on determined to focus on the product's usability, to take into account the user's needs, as this is what could facilitate for the desired impact. Thus, the value proposition for users came naturally. However, in contrast to Tibber, No Isolation and Total Ctrl the user and the customer is not the same stakeholder. They both only had a strong understanding and focus on understanding and addressing the user-needs at first, and the understanding for customer needs came later. Both say they should have understood this earlier. However, for Total Ctrl, by being so good at focusing on the user, they could show the customer that what they do actually creates a difference. As they understood that communication alone with users will not uncover the pains, they instead observed, to uncover pain areas, raise awareness of those pains for the customers, and so forth, address the pain. By identifying the hidden pains of the user, Total Ctrl can raise awareness of the pains to the customer, who might not be aware that they have a lot of food waste, and thus provide a value proposition.

Credibility to enhance the value propositions: Credibility is a constituent theme throughout the analyses of the companies. In this paragraph is highlighted how credibility is important to enhance the value propositions of the case companies.

All the four companies aim to enhance their value propositions, by increasing their credibility through ***providing evidence of the proposed value***. They employ diverse strategies to achieve this objective, yet they all strive to provide evidence of their positive impact on the People or Planet dimensions (the established problem they aim to solve). By showcasing their ability to fulfill their value propositions and aligning their actions with their promises, these companies aim to earn the trust of their stakeholders, especially customers.

No Isolation places a strong emphasis on delivering the value they promise by actively incorporating external research and evidence to support their value proposition. Additionally, they go the extra mile by thoroughly investigating potential unintended consequences of their products, ensuring that they truly deliver on their commitments. By prioritizing such assurance, No Isolation establishes a high level of credibility, strengthening the value proposition and increase the chances of customers making a purchase.
Fornix, too, recognizes the significance of external research in providing clinical evidence, along with monitor data to ensure they deliver what they promise. The credibility they establish through this approach plays a vital role in enhancing their value propositions and influencing customers' willingness to pay for their offerings.

Tibber leverages data as a key tool to substantiate their delivery of the promised value. Moreover, they place a strong emphasis on allowing customers to experience the value proposition firsthand, thereby providing tangible evidence of the value they offer.
In contrast, Total Ctrl focuses on building and maintaining credibility by avoiding overpromising in their value propositions. This approach is particularly important when engaging with resistant customers, as it ensures that the value proposition is heard and understood without raising unrealistic expectations.

Further, in their pursuit of enhancing their value propositions through credibility, three of the case companies *recognize the importance of seeking external expertise.* However, they differ in their sources of external expertise, which has been highlighted previously in the analysis.
Total Ctrl places great value on support from external business professionals. Incorporating this perspective into their value propositions adds credibility to their claims, and so forth, enhances the value proposition. In contrast, both Fornix and No Isolation highly prioritize external industry expertise, from within their respective industries. By leveraging industry-specific knowledge, they effectively build credibility and further enhance their value propositions.

6. Discussion

The discussion chapter is based on the main findings from the cross-case analysis and has therefore a new structure. However, the chapter discusses across the case companies, in a similar approach to the cross-case analysis. The discussion is a combination of findings, literature and the authors' own thoughts. The chapter starts with a discussion of the connection between the various findings made during the study. Each individual theme in the context is then discussed in more detail. The first theme in the context is fundamental elements in the establishment phase, then the value proposition to the customer (Profit) is discussed, before the discussion moves on to the value proposition to People and Planet, and finally managing stakeholder complexity in relation to making an impact while also making a profit. Finally, the chapter presents a summary of the main findings that have been discussed, leading to the conclusion.

6.1 The correlation between the study's findings

Haugen and Valheim (2022) highlighted in their literature review that developing and adapting value propositions in an SBM requires a holistic approach, where a number of different perspectives and requirements are taken into account. Several other authors have highlighted that this complexity is present and creates challenges for companies during the development of SBMs (Cardeal et al., 2020; Moro et al., 2022; van Riel et al., 2021). The authors have also been aware of this complexity during the study. For example, they often felt the challenge that the various themes and elements in the study are strongly interdependent and interconnected. The authors have repeatedly experienced challenges in placing and understanding how different elements should be categorized, as they often fit in more than one place. This challenge was particularly visible during the coding work in the analysis.

To achieve balance among the interests of the various stakeholders, the literature has highlighted that SBMs require a broader stakeholder approach. This broader stakeholder approach requires the SBM to deliver value propositions to all involved stakeholders along the interests of the 3 Ps and balance them (Santa-Maria et al., 2022; Skala, 2022; Velter et al., 2020). This study is based on four case companies, where the findings have shown that they are all committed to achieving the aforementioned balance. Despite the literature highlighting the importance of that balance, it is also highlighted in the literature that the holistic assessment of stakeholders' interests along the 3 Ps of SBM tends to be lacking. In other words, that relevant stakeholders have not been taken into account (Baldassarre et al., 2017). In other words, the aforementioned literature is in contrast to the insight provided by the four case companies in the study.

According to the literature, a risk is when the holistic assessment is not in place, as the focus is often either on People and Planet OR Profit (Baldassarre et al., 2017). Lack of holistic

assessment can hinder successful and viable SBMs (Dalborg & von Friedrichs, 2021; Jensen et al., 2019). Furthermore, Baldassarre et al. (2017) believe that the lack of a holistic approach and imbalance between the 3 Ps is due to a tendency to underestimate the complexity of SBMs. In light of this, the authors have identified that there is a lack of literature clarifying what the holistic perspective actually entails and requires in practice. The authors believe that this starting point makes the four selected case companies highly relevant, as they have been able to describe how they have proceeded to master the holistic perspective on the balance and provided relevant insights to complement the missing literature.

However, it is interesting to compare the fact that the case companies do not actively pursue to create an impact on both People OR Planet, they actively make an impact on either People or Planet, along with prioritizing Profit on an equal level. This is interesting as Baldassarre et al. (2017) suggested that there is typically a prioritization of People and Planet OR Profit, when the holistic assessment is not in place. All companies are however aware of balancing the 3 Ps, but two of the case companies in particular highlight that they do not find it possible to take active measures aimed at Planet while focusing on creating impact for People. The case companies' prioritization was however already hinted at in the selection process, where the case companies were selected based on criteria that involved solving an established societal problem and achieving scale. Nevertheless, this comparison may suggest a finding about the advantageous prioritization of either People and Profit OR Planet and Profit to master the holistic perspective (the prioritization of 2Ps is discussed in more detail in 6.2).

The fact that the case companies have mastered the holistic perspective has resulted in the fact that the authors have been able to identify several findings that have indicate to be effective in practice to manage the balance and complexity. In this context, the authors have gained increased insight and overview of how the different elements of the case companies' development process are interrelated and influence each other. The main features of the insights gained by the authors are presented in the Figure 3 below, where the relationship between the different elements is presented (Scaled version in appendix 3).
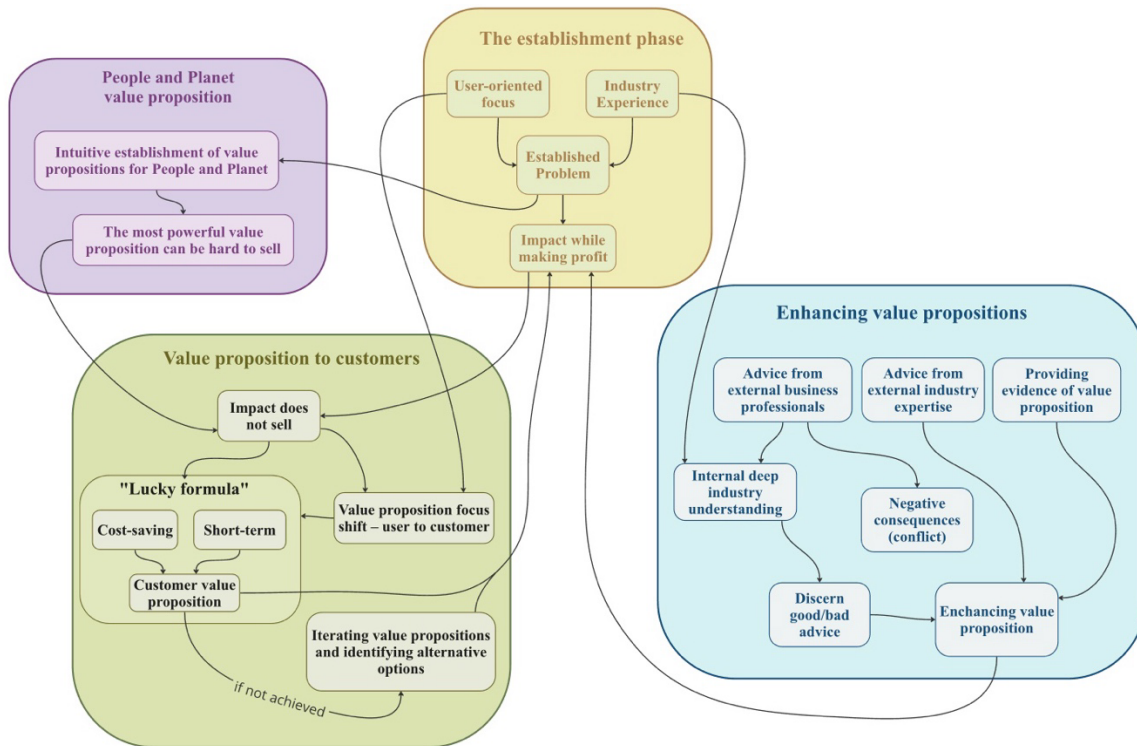
Figure 3: The correlation between the study's findings

6.2 The establishment phase: Fundamental elements

Industry experience: The findings show that the case companies' internal industry experience has been a fundamental element in their establishment phase. Their industry experience has enabled them to identify and understand the problem from the start. In addition, the understanding of what they need to create and how they can best create a solution that meets the problem and their stakeholders' interests within the 3 Ps. The authors have not found literature within the context of the study that supports the use of industry experience during the development of SBMs, however, the authors have identified that the finding is supported in the entrepreneurship literature. Entrepreneurial literature highlights that industry experience provides better forecasts for entrepreneurs, for example, industry experience increases the entrepreneur's awareness of trends in the industry which can reduce the entrepreneur's uncertainty when assessing the venture (Gavin , 2014). The case companies have had industry experience in that the entrepreneurs first worked in the industry themselves and were familiar with the problem, or that the entrepreneurs brought in professionals from the industry into the core team at an early stage. For example, in the case of Tibber, the two founders had several years of industry experience from the energy industry, and during this time identified several pains in the energy industry that they wanted to do something about.

6. Discussion

The findings from the data collection also show that utilizing support and advice from external industry experts is widely used. It is used as a measure to build understanding of the industry and what choices and decisions the company makes that the industry will accept.

Based on the findings of this study, it is clear that industry experience or industry insight is particularly important for companies operating in complex industries, such as the public sector, as two of the case companies do. Complex industries can function differently and operate in a different mentality than what companies are used to, and the findings show that industry experience can help ensure that the right choice is made to be accepted in such industries. This is congruent with Gavin (2014) that argues that the advantage of industry experience is greater in industries with greater uncertainty, such as high-tech industries, as industry experience has made it easier for the entrepreneur's decision-making. The authors believe that there is a clear similarity between their findings and those of Gavin (2014), indicating that this specific BM-research is applicable for SBM-research.

User-oriented focus: Based on the findings, we see that the case companies that did not have direct industry experience at the start, used a user-oriented focus to a greater extent. User-oriented focus can be compared to what the literature calls user-driven innovation, which is based on the involvement of customers, users and stakeholders through an iterative design process (Baldassarre et al., 2017). Design thinking is a method in user-driven innovation, which is also highlighted in the SBMI literature (Baldassarre et al., 2017; Santa-Maria et al., 2022). Despite the similarities, between the study's view of user-oriented focus and the methods mentioned in the literature, the authors find that there are certain differences in their views. The authors believe this may be related to the fact that the literature is still at an exploratory level, which is also supported by several researchers (Baldassarre et al., 2017; Santa-Maria et al., 2022). The authors believe that a challenge related to the exploratory nature of the literature is that it does not adequately reflect its use in practice. For example, the authors' literature review (Haugen & Valheim 2022), identified that some articles portraying the implementation of design in SBMI as a "magic solution" to solve the complexity of involving all stakeholders in an SBM. The findings from the study do recognize that user-oriented focus has provided great value and had an impact on the development of the business model and overall operations, especially for two of the case companies. However, this has been highly dependent on several other elements as well (see Figure 3). The authors therefore agree with the literature that user-oriented focus is a good method for including stakeholders in the development of an SBM, but do not agree with the literature that portrays the methods as a one-sided solution to meet the complexity.

Furthermore, the findings show that the user-centric focus proved to be beneficial when the case companies were mapping users and secondary users to understand the problem from their perspective. For example, No Isolation was able to establish good basic insight into their user group through months of work with several in-depth interviews, and in this way gain a good understanding of the problem: that long-term sick children lost large parts of their education and became more and more isolated in the hospital bed. During the mapping process, No Isolation also gained an understanding of additional secondary users who were

close to the user and would also be affected by their future solution, such as teachers, students in the classroom and parents. No Isolation's understanding of secondary users has been an important element in their development, which is mainly due to their user-oriented focus. The main reason why the authors have included the element of user-oriented focus in the establishment phase chapter is partly because it has proven to be fundamental to the case companies' ability to create good solutions that suit their users, but also because it has had several important ripple effects in many other parts of their business model.

The findings from the data collection also show the benefits of applying a user-focused approach during the development of the user-focused solution. The inclusion of users has helped the companies to better understand their needs and made it possible to create value targeted and more accurate to these needs. For example, through interviews, observations or user testing. Congruent with the findings, the literature encourages the inclusion of users in the value creation process. For example, it is highlighted that the inclusion of the user can add value to the development process and open up further innovation opportunities (Comin, et al., 2020). As well as that a trial-and-error approach makes it possible to validate assumptions and adapt to market needs during development (Schuit et al., 2017). No Isolation and Total Ctrl have in particular done all this.

Based on the discussion of industry experience and user-oriented focus above, the authors find that industry experience and/or a user-oriented focus are important elements in laying the foundation for understanding what the problem to be solved is. This groundwork is essential, especially since all cases have had the intention of addressing a specific established societal problem, bringing more complexities than, for example, an online t-shirt shop. The essentiality of the problem they solved is presented in the next chapter. With a good understanding of the problem, a company is more likely to succeed with a solution that actually addresses the problem area. Industry experience or a user-oriented focus are thus seen as two good methods for building this understanding and how the problem affects different stakeholders within the 3 Ps. This can be seen in light of what the literature highlights about the use of the design thinking method within SBMI, which shows that design thinking leads to a more systematic/holistic perspective (Santa-Maria et al., 2022). The authors also find that the findings show that such methods are essential in industries that are seen as more complex, as entrepreneurs need to adopt a different mindset than what they are used to in order to adapt to these differences. Finally, the authors emphasize once again the importance of looking at user-oriented focus with a nuanced view. The authors emphasize that it is a good tool for improving the holistic perspective, but that it is not a complete solution for achieving a holistic perspective, as it depends on many more elements (see Figure 3).

Established problem in society: This paragraph focuses on the established problem in society and its impact on the case companies in this study. All the companies in this study were founded with the intention of addressing a specific societal problem. Although this was a pre-defined criterion for the companies and not a surprising finding, the findings further confirms

that what these companies say they stand for is consistent with what they do, and fall into the category of SBMs suggested by (Jørgensen & Pedersen, 2015) which aim to solve sustainability problems not caused by the company itself.

The confirmation of the intentions of the case companies aligns with the SBMI literature, specifically the work of Bocken et al. (2018), who emphasize that a primary step in the modeling process is to integrate sustainability into the core purpose of the company. The cases examined in this study demonstrate that even though these businesses may not have intentionally followed SBMI processes, they can still serve as valuable examples for understanding how companies can develop SBMs. These cases can be compared to existing SBMI literature and other companies that have intentionally undergone SBMI processes, providing insights into the effectiveness and potential of different approaches.

Further, a significant finding, as depicted in the map in Figure 3, is that solving an established societal problem has been a fundamental element that has influenced various aspects of the case companies' business models and overall operations.

This observation is intriguing because if the companies belonged to the first category of SBM suggested by Jørgensen and Pedersen (2015), which involves adapting to address social or environmental problems caused by their own actions, the element of addressing an established problem in society would not be present. As shown in the map Figure 3, this absence would subsequently impact other elements of the development and execution of the SBM. Hence, the authors suggest that the development of SBM and SBMI may differ depending on the category of SBM being pursued. This finding is noteworthy, as existing literature on SBMs and SBMI often focuses on companies with an SBM of the first category. Additionally, the literature frequently fails to distinguish between different categories of SBMs, using various types interchangeably without recognizing the specific category they belong to. Therefore, the authors argue that clear differentiation of SBM categories is necessary to provide more appropriate insights.

Furthermore, in connection with the crucial element of solving an established problem in society, the findings highlight the importance of how the problem is addressed in relation to providing economic benefits as a result of the solution. While this aspect is extensively discussed in Chapter 3, it is crucial to emphasize its significance here. The literature indicates that the second category of SBMs typically, as a result of addressing an established problem in society, involves social and environmental value as an integral part of the value proposition to customers (Jørgensen & Pedersen, 2015). However, the findings of this study contradict this notion, due to the finding that the case companies discovered that short-term cost savings align more closely with customer interests than sustainability in any form. The ability to provide such a value proposition to customers became an integral part of their success. Solving an established problem in society has not only influenced the solutions the case companies have developed and the value they strive to deliver but has also played a pivotal role in their ability to monetize their solutions.

Impact while making profit: The findings from the study show that it is not only possible, but crucial to balance the 3 Ps in an SBM, i.e. to create impact while being profitable. Similarly,

the literature highlights that emphasizing Profit in SBMs makes it possible to achieve positive results related to environmental factors (Baldassarre et al., 2017). It is important to point out that the findings from this study show that several of the case companies have highlighted that they primarily prioritize only two of the 3 Ps, but that Profit is always one of the two, as profit is fundamental to the future operation and growth of the company. This is explained by the fact that they want to focus on what they do best if they do not have the resources to deliver on all three dimensions. The literature highlights that start-ups in particular tend to prioritize impact over profit, which creates an uneven balance between the 3 Ps (Dalborg & von Friedrichs, 2021; Jensen et al., 2019). In addition, the literature highlights that a lack of profit can result in a tendency for limited longevity and financial instability for the company (Dalborg & von Friedrichs, 2021), as profit is a fundamental element for companies to achieve sustainability (Dalborg & von Friedrichs, 2021; Longoni & Cagliano, 2016; Mattera & Gava, 2022). This finding, in light of the presented literature, indicates that prioritizing two of the 3 Ps, as long as Profit is one of the two, can be beneficial, especially when resources are limited. Regardless of whether the case companies prioritized two or three of the 3 Ps, all were clear on the importance of prioritizing Profit on equal terms with the impact they wanted to make, in addition to mastering communication in "both directions". This was highlighted by two of the informants' statements: *"Mostly as a conviction that if you don't make money doing what you do, you should do something else"* and *"founders have to learn to speak with two tongues".* The first quote can be seen in light of the fact that they see the achievement of profit as a confirmation of the company's ability to make a long-term impact. The second quote refers to the fact that it is crucial as an entrepreneur with an SBM to understand the importance of prioritizing the Profit aspect, preferably from the start, to facilitate and ensure viability and the ability to exert impact for a long time to come.

6. 3 Value proposition to customers

Impact does not sell: The findings from the data collection reveal a significant trend: "impact does not sell." While Fornix and Tibber understood this early on, No Isolation and Total Ctrl initially emphasized the impact of their products as a value proposition but found it to be ineffective. Instead, customers view the impact as an additional value rather than the primary reason for making a purchase. Consequently, all four companies have recognized that economic savings resonate more strongly with customers and lead to successful sales. This statement challenges the existing literature that claims sustainability-oriented products or services attract customers and increase the willingness to pay (Flammer, 2015; Ilyas & Osiyevskyy, 2022). It also challenges the notion that the degree of sustainability in the value proposition impacts the firm's capacity to generate and obtain economic value, ultimately resulting in better financial performance (Grewatsch & Kleindienst, 2017; Freudenreich et al., 2019; Tamayo & Servaes, 2012).

However, it is important to note that reaching the understanding of that economic savings resonate more strongly with customers was not a straightforward process for the case

companies. This partly aligns with existing literature stating that developing a range of value propositions in sustainable business models (SBMs) is complex and challenging (Cardeal et al., 2020; Dalborg & von Friedrichs, 2021; van Riel et al., 2021). Limited research exists on effectively navigating these complexities and meeting the diverse needs of stakeholders (Cardeal et al., 2020; Moro et al., 2022; van Riel et al., 2021). The authors argue that while the existing literature acknowledges the complexity of creating value propositions in SBMs, the true challenge appears to lie in understanding and crafting the right value propositions that align with customers' interests, rather than for all stakeholders.

Where the findings do align with literature however, is literature acknowledging the challenges and lack of research on balancing sustainability and traditional business goals, especially in relation to value propositions (Doorn et al., 2021; Ranta et al., 2020). Addressing the limited research on the topic of this paragraph, the finding that "impact does not sell" and that economic savings have a stronger appeal to customers and drive successful sales can serve as a valuable insight to the theory and research field in navigating the complexities of value proposition development. By recognizing these factors, it is possible to mitigate that complexity.

Cost-saving + short-term = customer value proposition: All of the cases focus on creating an impact for People and/or Planet, and this forms the basis for their solutions, value propositions and business models. In relation to this, the findings show that the impact can be directly linked to potential cost-savings for the customer – referring to the aforementioned "lucky formula". Concurrently, the case companies have also identified that the value proposition that aligns the most with customers' needs is the ability to reduce costs. This applies to the majority of their customers, both in B2B and B2C. Therefore, the value propositions that best align with customer interests is enabling cost savings.

Further, the cost saving in question needs to be able to be experienced or seen based on the customer's own consumption, along with being an immediate benefit. Hence, it needs to be short-term and not long-term. With short-term/long-term we mean that for example, that Tibber's customers can already see on the monthly electricity bill that they have saved money (short-term) in contrast to No Isolation's municipality-customers, who will experience the cost-savings related to less people with disability-aid in 10+ years (long-term).

All in all, the findings in the study have identified that emphasizing short-term cost-savings is what strongly resonates with customers, leading to successful sales. Hence the paragraph title, *Cost-saving + short-term = customer value proposition*. Thus, enabling the case companies to achieve their desired outcome of *"impact while making a profit."*

By enabling impact though the users, the customer can save money, and the case companies can earn money. The fact that the case companies do this, aligns well with the SBMI literature where it is stated that the process of SBMI should result in value propositions that generate value along the interests of People, Planet and Profit (Baldassarre et al., 2017; Bhatnagar et al., 2022; Santa-Maria et al., 2022; Stubbs, 2019). However, Schaltegger et al. (2012) claim that designing business models that enable firms to capture economic value while delivering social and environmental benefits is a key challenge (Schaltegger et al.,

2012). The findings show that the case companies have effectively navigated the complexity by establishing impact as the foundation of their company and building their solution, value proposition, and business model around it. Through the "lucky formula", when their customer base expands, the impact is concurrently expanded, allowing the case companies to drive positive change while creating profitability. This aligns with the literature saying that the delivery of the value proposition should be done through a set of activities, processes, capabilities, and resources, where financial returns should be captured as an outcome (Bocken et al., 2020; Dalborg & von Friedrichs, 2021; Dönmez-Turan & Özevren, 2019; Skala, 2022).

The case companies by doing this, create impact whilst making profit, as emphasizied by Baldassarre et al. (2017) that profit through SBMs, can lead to positive outcomes related to environmental factors.

However, while the literature emphasizes the need for financial returns as an outcome of the value proposition, it provides limited guidance on how to achieve them. This lack of clarity and accessibility of the economic benefits of transiting away from the traditional shareholder-first principle towards the stakeholder-principle in SBMs may according to Raja et al. (2021) and Uchihira et al. (2016) deter companies from pursuing SBMs, and thus inhibiting their potential positive contributions to the environment and society.

The findings demonstrate a connection between the companies' financial outcomes and the lucky formula. This formula is what enables the value proposition of short-term cost-saving, drives customer payments and ultimately leads to financial gains for the case companies.

Iterating value propositions and identifying alternative options: The findings reveal that the cases have reached the point of coming to the value proposition that strongly aligns with customers interests, by numerous iterations on the value proposition. Finding the right value proposition for customers has been especially challenging for No Isolation. In the Norwegian market they could only offer long-term cost-saving, which meant they had to identify alternative value propositions. This resulted in their current value proposition aiming at laws and regulations for statutory education for children. In the UK-market however, the homeschooling system differs, and by using No Isolation's solution, municipalities can immediately save money, as No Isolation's value proposition in that market is related to short-term cost-saving. These findings align with (Keskin et al., 2013) saying that creating a viable value proposition in an SBM can be a complex and demanding undertaking, which may require multiple product-market iterations, as sustainability goals needs to be reconciled with economic objectives. The findings show that the case companies adapt to the customer needs rather than their own needs, in alignment with the SBMI literature, where Silvestre et al. (2022) say that for the success of SBMI processes, adaptability and the ability to be dynamic are key skills. The study shows evidence of the importance for the case companies to creating value propositions that benefit their main stakeholders, as this is needed for them to reach their goal of creating impact whilst creating profit. Also this is in line with the SBMI literature of (Dönmez-Turan & Özevren, 2019; Scheel & Bello, 2022; Skala, 2022; Velter et al., 2020) saying that successfully creating value propositions that benefit all stakeholders is

essential for SBMs to achieve financial success while also preserving social and ecological wealth.

Based on the findings, it becomes evident that, in regards to the value proposition for the customer, that if only the cost-saving aspect is included without the short-term element, it is not effective in terms of customer interests. Therefore, if only one of these elements can be pursued, an alternative value proposition needs to be identified. The word "alternative" is emphasized, due to the fact that the other three case companies utilize the short-term cost-saving value proposition, and No Isolation, in markets where applicable, also employ the short-term cost-saving value proposition. All in all, the short-term cost-saving value proposition is what most strongly resonates with customers, but both the elements need to be included. If only one element is possible, it becomes necessary to identify alternative value propositions, even if they resonate less strongly with customers.

Value proposition focus shift – user to customer: In the SBMI literature, there is also a lot of focus regarding value propositions specifically targetting the user, and less so for the customer. According to Comin et.al. (2020), user-oriented approaches receive a lot of attention in SBMI literature. The findings however, show that the cases (especially two) had very user-oriented approaches to start with, but that they wish they had been as customer-oriented earlier. The consequence of their unbalanced focus was that it took time for them to realize that the value proposition to the customer and users was not the same, and that the customer was not making purchases because of the impact value proposition they were giving users.

Following, the observations of the study align with many of the principles of SBMI, but it is clear that the existing literature on SBMI tends to provide rather general guidance.
The case companies' ability to adapt their value propositions to meet customer needs is evident, highlighting the importance of adaptability and dynamism in successful SBMs, as suggested in the SBMI literature (Silvestre et al., 2022). However, it is notable that the focus on customers is a significant factor contributing to the success of these case companies, which is not extensively covered in SBMI literature.

It is clear that the success of the case companies in adapting their value propositions to meet customer needs has been a significant aspect in their SBMs. However, despite the case companies operating in different industries with distinct solutions, what triggers the customers interest the most, is the same. This could be attributed to their shared objective of creating an impact, alongside the finding that "impact doesn't sell." Therefore, to facilitate customers in making an impact, the incentive must be a short-term cost-saving value proposition, despite solution and industry.

6.4 Value proposition People & Planet

Intuitive establishment of value propositions for People and Planet: A finding in the study is that that companies, such as the case companies of this study, categorized under (Jørgensen & Pedersen, 2015) suggested second category of SBMs naturally generate viable value propositions for People and Planet. The case companies demonstrate a significant societal impact through their solutions, leading to the development of robust value propositions for People and Planet. Interestingly, despite the fact that many of the questions were consequently aimed at the 3 Ps (see appendix 1: Interview guide), the study's informants primarily emphasized Profit-related value propositions. This is potentially due to the ease and inherent nature of value propositions for People and the Planet. Existing literature acknowledges the complexity of providing value propositions that cater to the interests of all relevant stakeholders along the interests of the 3 Ps s in an SBM (Cupertino et al., 2022; Mattera & Gava, 2022). The literature on SBMI further notes the challenges arising from the varying needs of stakeholders, making it increasingly difficult for a single company to satisfy them all (Oskam et al., 2021; Powell et al., 2018). The authors however contend that the specific challenges encountered in establishing value propositions differ based on the category of SBM. The findings show that for the second category SBM, their primary challenge lies in meeting the stakeholders needs in the Profit aspect. Consequently, if companies executing the first category SBM, where the primarily focus is on internal sustainability, the development of value propositions for People and the Planet might face challenges in those aspects. The study suggests that creating value propositions for People and the Planet is comparatively easier when companies concentrate on resolving well-defined societal problems, as opposed to issues stemming from their own operations. Drawing from the study's findings, it is argued that a noticeable disparity exists in establishing value propositions for the 3 Ps between the first and second categories of SBMs.

The most powerful value proposition can be hard to sell: The findings show that it has generally been easy for the case companies to communicate the value propositions aimed at People and Planet, but that it has been difficult to sell the solution based on these value propositions. This can be seen in the context of that the value proposition should, as aforementioned, ultimately be both cost-saving and short-term. Further, the companies recognize that basing their value propositions for customers solely on short-term cost-savings may not encompass the full potential of their offerings. For example, Tibber is struggling to show and sell their biggest value proposition, that their customers together can balance the power-grid on a whole new level, which will have huge societal and environmental benefits. Even though Tibber themselves think this is one of the coolest value propositions they can create, it receives little attention and engages less than they first thought.
In relation to this, the findings from the data collection shows that establishing and effectively communicating the value proposition to Profit-oriented stakeholders such as customers and investors appears to be the most challenging aspect for these companies.

The authors believe that these findings indicate that large, strong value propositions can often work less well than simpler, more concrete, value propositions. The authors see a pattern of

customers needing simple value propositions that they can easily understand and implement in their everyday lives. Big value propositions can quickly be seen as hypothetical and elusive to the customer, which makes it difficult for them to see the impact. The authors draw the conclusion that when delivering value propositions, it is important to remember that people are simple and want simple value propositions that are adapted to their understanding and do not require too much of them. For example, Tibber's customers may not even know what a power grid is or what it means to balance the grid better.

6.5 Enhancing value propositions

Providing evidence of the value propositions: The findings show that building credibility is important in order to strengthen the value propositions for stakeholders, with the main aim of bolster the acceptance from skeptical stakeholders along with influencing customers purchase decisions and willingness to pay. The case companies operate in a multi-stakeholder business environment and have understood that building credibility has been important. An identified way to achieve this is to establish credibility by providing evidence of the value propositions. This is mainly done by undertaking external research projects, data-driven monitoring, avoiding overpromising on value propositions and allow customers to experience the value firsthand.

External advice: The case companies actively and passive receive a lot support and advice from external business professionals. Whilst the findings revile this to be beneficial especially in order to enhance their value proposition, an intriguing finding is that opinions differ regarding the benefits of "*support from external business professionals*". Two cases express hesitation towards such expertise, mainly because they mean those experts do not have enough understanding for the industry in question. This is intriguing considering they both operate the public sector, which often considered a complex sector. The authors have not found any relevant literature to support this finding of hesitancy towards support from external business professionals in complex industries. The authors assume that this is because the literature in general does not address the importance in SBMs of understanding the industry, as earlier described.

On the other hand, Total Ctrl has had positive experiences with support from external business professionals, and whilst that sector is traditional, perhaps, it is less complex. This indicates that the effectiveness of support from external business professionals to enhance value propositions varies depending on the context, particularly in regards to the industry in which a company operates, and negative consequences can be very damaging, but positive consequence can be very strengthening for the credibility, value proposition, and overall business operations. This finding both supports and contrasts with Bocken et al. (2013) suggestion of a comprehensive value mapping tool for use in the development of SBMs. It emphasizes involving a diverse stakeholder network to address conflicting values, and that it is beneficial for providing fresh perspectives and addressing conflicting stakeholder demands

among stakeholders, where external participants and facilitators play a crucial role. It is designed to be applicable for both start-ups and in redesigning existing business models, and to be applicable across industries, including those in the public sector (Bocken et al., 2013). Hence, the finding for Total Ctrl aligns with the literature of Bocken et al. (2013) but specifically due to the statement that the tactic is applicable for the public sector, the finding contrasts to the literature. Further, the findings reveals that the decision to seek support from external business professionals is often driven by investor interests. However, instead of leading to addressing conflicts as suggested by Bocken et al. (2013) this can instead lead to conflicts of interest among stakeholders. For instance, conflicts may arise if the founder recognizes the lack of benefit from support from external business professionals, but the investor insists on its implementation. Similarly, if the founder lacks the ability to evaluate the quality of advice from external business professionals, implementing such advice can create conflicting interests within the industry, negatively impacting relationships with customers and partners. Hence, it becomes crucial to attract the right investors along with the ability to value input from external sources, while also ensuring having a deep understanding of the industry to discern between valuable and detrimental advice.

Industry insight as a fundamental element: Referring to the paragraph above, to be able to take those choices*,* a deep understanding of the industry within the team is essential. Further, as we have seen, it is very clear that all the cases have this - both from having been in the industry themselves, and from seeking further insights from within the industry. This highlights the importance of having a deep understanding of the industry within the team in order to make informed decisions. This deep understanding of the industry is crucial for the cases we have examined, as it enables them to navigate the complexities of their respective industries. Therefor we see that we again come back to the essentiality of having or actively seeking industry insight, as the consequences of having it or not having it may bring major ripple effects in to many other parts of the success of the business. In the case companies, the industry experience is a major factor for enabling them to thrive in their respective fields.

6.5 Findings leading to the conclusion

The first finding in the study provides a more holistic insight into the relationship between the various fundamental elements identified. This holistic understanding shows that the elements are interdependent and influence each other. For technology scale-ups, this understanding can be a significant contribution to the development process of profitable SBMs in practice.

The findings in the theme *fundamental elements in the establishment phase* shows that four identified elements in particular are closely interrelated and strongly dependent on each other. These elements are industry experience, user- oriented focus, established problem and impact while making profit. All four case companies started with an established problem in society,

which laid the foundation for the entire company's further growth. Furthermore, the findings show that all the companies either had industry experience from the start or actively brought in industry experience in the core team or had a high user- oriented focus in the beginning. This allowed them to gain a fundamental and deep understanding of the problem they wanted to solve. Furthermore, this finding shows that all the case companies were early on aware of the importance of prioritizing and balancing the Profit dimension in the same way as the People and Planet dimensions. All of the case companies emphasized the importance of understanding that they could not achieve impact without profitability, and that this understanding was fundamental to the company's future and growth.

The next key finding in the study is the importance of the *value proposition to the customer.* All case companies highlighted that "impact doesn't sell", and that the value proposition to the customer had to be based on cost saving in addition to an immediate (short term) saving for the customer. The finding led to the identification of the "lucky formula" that several of the case companies refer to, that the impact the case companies enable through the customers' use of their solution can be directly linked to cost savings for the customers. Furthermore, the finding showed that if the company cannot deliver a value proposition with short-term cost savings, there is a need for an alternative value proposition that can generate a willingness to pay from the customer. An example of this is in No Isolation's case, that they could only offer long-term cost-savings in the Norwegian market, and therefore utilized the requirement for statutory education for all children as a basis for their value proposition to the customer. It is worth noting that in the UK market, where it was possible to offer short-term cost-savings, No Isolation used this value proposition, which emphasizes that short-term cost saving is the strongest value proposition to the customer. In conclusion, the finding showed that those companies that initially placed a strong emphasis on a user-centric approach recognized the critical importance of shifting their focus to prioritize the customer as the primary stakeholder, as they are the ones paying for their solution. This insightful shift proved to be crucial in terms of prioritizing the Profit aspect in their SBM.

The findings in the third theme in this study is the *value proposition for Planet and Profit*, which has proved to be relatively natural for all the case companies. The study shows that this is mainly due to the fact that the companies started with the starting point; "an established problem in society", and that this in turn has created a natural path to the solution that has resulted in clear value propositions aimed at People and Planet. Furthermore, the finding highlighted that when faced with major societal problems to be solved, the value propositions are often intuitive to formulate. At the same time, however, they can be almost too big and abstract for people to understand immediately, which has proven to be significant. Even if a significant positive impact is achieved (and thus strong value propositions aimed at People and Planet), it is sometimes necessary to further substantiate these value propositions to ensure that they are understood by the recipient.

The findings in the fourth theme in the study surrounds *Enhancing value propositions.* The findings underscore the significance of seeking support from external industry experts to deepen their, as mentioned earlier, crucial understanding of the industry. Seeking such

expertise and understanding the industry's nuances play a vital role in their success. Specifically, the case companies highlight that industry understanding strengthens a company's credibility and makes a company better equipped to seek out and address potential challenges that may arise, as well as the ability to communicate effectively with the industry. However, to meet these interrelated factors, patience and a long-term perspective is vital. Furthermore, insights are provided on the topic of seeking and utilizing support from external business professionals with limited industry specific experience. Once again, the importance of industry knowledge is highlighted, enabling companies to know if it is advantageous to employ or deploy advice from such actors. Such support from external business professionals can bring both positive and negative consequences, the findings show that the effectiveness and consequences are context-dependent.

All in all, these presented elements collectively empower companies to navigate complexity of stakeholders and ultimately achieve their desired impact within their respective fields.

7. Conclusion

The first part of this chapter serves as the conclusion to the study, summarizing the key findings derived from Chapter 6. Following that, the second section will present the implications, limitations, and potential areas for further research based on the findings presented in this thesis.

7.1 Conclusion of the study

The study is based on the understanding in literature that profit is a crucial variable in any BM, and value propositions need to be offered to all relevant stakeholders along the interests of the 3 Ps to achieve profit in an SBM (Cupertino et al., 2022; Mattera & Gava, 2022) However, creating and managing such a wide range of value propositions poses challenges and complexity (Cardeal et al., 2020; Moro et al., 2022; van Riel et al., 2021). Limited research in the field and low implementation of SBMs have led to the emergence of the research area of SBMI. However, there is still limited research on how SBMI should be implemented, particularly regarding the innovation process involving the delivery of stakeholder value propositions, in practice (Jensen et al., 2019; Stubbs, 2019). Therefore, the study aims to explore how technology scale-ups with SBMs have achieved this in practice, leading to the following research question:

"How do technology scale-ups consider stakeholders' interests and align value propositions, when developing a profitable Sustainable Business Model in practice?"

The study's main contribution, according to the authors, is the insight related to the coherence between the key fundamental elements in the process of approaching a profitable SBM (see Figure 3, in chapter 6.1). The coherence is based on the master's thesis' four findings; *The establishment phase: Fundamental elements, Value proposition to customers, Value proposition People & Planet, and Enhancing value propositions.* The authors consider the establishment of these interconnected elements as premises for technology scale-ups solving established problems in society through their SBMs. This approach facilitates for the alignment of value propositions with stakeholders' interests and thereby enabling the development a profitable SBM, in practice.

As mentioned earlier in the methodology chapter (see section 3.1), the study has used a qualitative method with an abductive approach, which has naturally influenced the study's conclusion. The choice of methodology has enabled the authors to develop an understanding of the phenomena the different case companies have experienced in their social reality during the development of their SBM (Dalen, 2004). The conclusion therefore naturally does not consist of an answer with two lines under it, but rather of a set of premises that can contribute to insight into contributing elements to the development, which are closely interconnected and mutually dependent.

7.2 Limitations and implementations

The authors did not have relevant existing research within the specific context (developing a profitable SBM in practice) to build on, which made it challenging to narrow the scope within a large potential topic. Despite this, the authors were able to delimit the study in an appropriate way to answer the research question. However, due to these assumptions and time constraints, the study has not been able to go in depth, which can be seen as a limitation. Despite this limitation, the authors believe that the study has not only established a valuable contribution to the research field, but also a foundation for further research.

In light of implementing the research findings, the authors do not perceive this limitation as critical. As opposed to contributing to understanding at a detailed level, this study contributes to an understanding of interrelationships and critical elements within these interrelationships. This can contribute to how aspiring companies can assess their ability to combine the presented elements within the given interrelationship. With this, companies can establish an understanding of, for example, how a possible lack of one of the elements can have a negative impact on another, or how one element can strengthen other elements. The contribution can also be used to establish an understanding of what should be prioritized in an SBM, such as prioritizing the value proposition to the customer early on.
With a fundamental understanding of the findings from the study, companies can build an understanding that they cannot take short-cuts during the development of SBMs, as they must rather take the long way by making thoughtful and prioritized choices. Finally, the authors would like to highlight the choice to base the study on case companies from different industries, which in turn creates implementation opportunities across industries.

A final limitation the authors would like to highlight with the study is that the study is based on SBMs that were started with an established problem in society. This creates a limitation as solving an established problem has been so fundamental in the correlations presented in the study (see Figure 3). The authors thus see the limitation in that the findings are most likely not applicable or relevant to all types of SBMs, such as those SBMs that address social or environmental problems caused by their own actions i.e. a problem internal to the company. The study is thus primarily relevant and implementable for the group of SBMs, where they solve an established problem in society that they have not created themselves.

7.3 Further research

As referred to several times, the study was conducted in a maturing field. The authors have been able to contribute broader insight in relation to the research question, but want to highlight that there is still much room for further research in the field.

To address the firstly presented limitation and implication in this study, regarding the limited depth of analysis, further research is recommended. Exploring the same or similar research

question in a more in-Depth manner would be valuable, considering that the authors did not deem this to be feasible or purposeful within the scope of this study. However, now that the presented groundwork has been established in this study, it presents an opportunity to delve deeper into the following areas, which are both feasible and intriguing:

The first suggestion for further research is to explore the question that this study has aimed to answer, but to go deeper into it by comparing and analyzing the contrasts between the different case companies studied. The authors suggest that this can be done through physical workshops with the case companies. By facilitating discussions and brainstorming among the case companies during a workshop, the authors believe that many interesting findings can emerge. This approach will force the case companies to argue further for their choices and reflections in different situations. By comparing the case companies based on the findings from the study, a deeper understanding of why they have made the choices they have made, and how it has affected their SBM, can be achieved. This discussion can provide better insight into the case companies' strategies and decision-making processes within the specific context (developing a profitable SBM in practice). The authors believe that such a study will allow the case companies to come up with new findings together, by collaborating and combining what has worked best for each of them. The authors believe that this could contribute to an even deeper understanding of the research question.

To address the second limitation and implication presented in this study, an intriguing avenue for further research would involve replicating the method and approach employed in this study, but conduct a study based on a selection of cases with SBMs belonging to the first category of SBMs, addressing social or environmental problems caused by their own actions. This could reveal similarities and differences of pursuing the first or second category of SBMs, with in the context of the aim of this study. Raising awareness of the differences between the two categories could serve as an important contribution to the sparse research in this area. Moreover, this further research could offer aspiring entrepreneurs valuable insights into identifying the most suitable track for their future ventures.

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Appendix

Appendix 1: Interview guide

Intervjuguide norsk

Formell introduksjon
Introduksjon til informanten: rask introduksjon om «forskerne» og oppgaven
Oppgaven har som mål å forstå hvordan selskaper i praksis håndterer stakeholders i en sustainable business model (SBM).
Formaliteter når det gjelder lengde, opptak og transkripsjon (anonym).
- *Be om tillatelse til å ta opp og transkribere intervjuet*
- *Alle filer og transkripsjoner er konfidensielle, vi sletter filene når vi*
fullfører oppgaven
- *Data som inngår i oppgaven er anonymisert, men inneholder informasjon om selskapet samt navn på selskapet og informantens rolle.*

Har du spørsmål før vi begynner?

_____

Oppgaven har som mål å forstå hvordan selskaper i praksis håndterer stakeholders i en sustainable business model (SBM).

Sustainable business models
I vår oppgave refererer Sustainable Business Models (heretter SBMs) til selskaper som leverer verdi til en brett spekter av stakeholders, langs behovene til de 3 P´erne; people, planet og profit. Det er altså en forretningsmodell som oppfyller behov til people og planet, mens de samtidig er økonomisk levedyktige.
SBMer kan også deles inn i to grupper; de som øker bærekraften internt i selskapet, og de som ønsker å løse bærekraftsproblemer eller samfunnsproblemer de ikke har skapt selv. Vi fokuserer på sistnevnte gruppe.

Stakeholders i en sustainable business model
Stakeholders i en SBM inkluderer enkeltpersoner eller grupper som påvirkes av selskapet, eller selv kan påvirke selskapet. Dette inkluderer ikke bare feks. aksjonærer og kunder, men også samfunnet og miljøet. SBMs tar hensyn til alle sine stakeholders og forsøker å balansere økonomiske, sosiale og miljømessige hensyn
Oppvarmingsspørsmål

Hva innebærer din rolle i (navn på bedriften)?

Kan du kort beskrive hva (navn på bedriften)gjør?

Vi har jo valgt dere som case selskap da vi mener dere har en SBM og jobber aktivt for å gjøre en positiv impact i forhold til People, Planet og Profit.
- Hva tenker du om det?
- Vil du si at dere har en SBM?

Hoveddel

Utvikling av forretningsmodell

Kan du beskrive kjernen av deres nåværende forretningsmodell?
- Kan du beskrive prosessen dere har hatt for å komme frem til forretningsmodellen deres. Fra start til nå?
- Har dere tatt inspirasjon fra andre bedrifter eller organisasjoner eller fant dere veien til deres forretningsmodell selv?
  - Konkrete eksempler?

Hva er dine tanker knyttet til; det å skape verdi til people og planet, uten at det skal gå på bekostning av profitten deres?

Er det noe annet som du tenker har vært avgjørende for utviklingen av forretningsmodellen?

Stakeholders

Kan du gi noen eksempler på ulike stakeholders dere har innen;
- People (mennesker, samfunnet)
- Planet (miljø)
- Profit (selskapets økonomiske ytelse)

Fokuserer dere mer på en av de 3 katoriene people planet eller profit? Altså hvordan er fokuset deres fordelt?

Opplever du at de 3 Pene kan gå på bekostning av hverandre?

Hvordan har dere arbeidet for å kartlegge deres ulike stakeholders interesser?
- Er det varierende fremgangsmåte avhengig av stakeholder?

Er det noe annet du vil trekke frem som har vært viktig knyttet til stakeholders?

Verdiforslag

Kan du beskrive deres verdiforslag innenfor aspektene People, planet og Profit?
- Hadde dere noen konkrete tiltak for å komme frem til det/dem?

Hvordan har dere jobbet for å bemøte/håndtere variasjonen av interesser hos deres stakeholders, når det gjelder verdiforlag?
- • Har dere prioritert verdiforslaget til visse stakeholders?
- Hvorfor?

Har visse stakeholders innenfor aspektene People, planet og Profit vært mer krevende/vanskelig å ta hensyn til enn andre, med tanke på å forme verdiforslag?
- • Hvordan har dere håndtert disse utfordringene?

Har dere oppdaget eller under arbeidet forstått at dere leverer verdi til flere en dere først trodde?
- • Isåfall, Hvem og hvordan oppdaget dere det?
- • Er det noen stakeholders dere har identifisert gjennom mer aktivt søk, ut ifra de verdiforslagene dere allerede har?
  - o Isåfall, Hvem og hvordan identifiserte dere dem?

Har dere gjort noen konkrete endringer i deres forretningsmodell ut ifra det vi har snakket om nå, om stakeholders og verdiforslag?

Tiltak

I litteraturen som omhandler SBMs er det mye fokus på at det er vanskelig å forstå og møte stakeholders på tvers av et brett spekter av interesser, og at det å klare å skape verdiforslag rettet mot deres ulike interesser er komplekst.
- • Hva er din oppfatning/ erfaring av denne kompleksiteten?
  - o Klarer du å beskrive med et konkret eksempel på noe som har vært komplekst?
  - o Hvordan håndterte dere det?

Har dere kun arbeidet internt med utviklingen av forretningsmodellen eller også leid in ekstern hjelp?
- • Hvilken betydning tror du dette har hatt for utviklingen av forretningsmodellen?

Har dere benyttet dere av rammeverk/ metoder eller verktøy i utviklingen – hvilke i så fall?
- • Kan du beskrive mer i detalj?

Er det noe du vil trekke frem som har hatt stor betydning i utviklingen av forretningsmodellen?

Hva er dine tanker knyttet til å endre forettningsmodellen i fremtiden?

- Er det noen tiltak du vet allerede nå dere skal sette igang, mtp. å utvikle forretningsmodellen?

People, planet**, Profit**

Det er tydelig at bedriften deres bidrar til å løse problemer knyttet til «people and planet». I litteraturen er det er debatt om hvorvidt slike bedrifter kan være profitable eller ikke. Profit er avgjørende for den økonomiske levedyktigheten til enhver forretningsmodell og er dermed også viktig for å oppnå bærekraft. Derfor;

Kan du beskrive dine tanker knyttet til deres regnskap?

Hva har dere for strategi for å oppnå fremtidig lønnsomhet (profit)?
- Øke inntekter?
- Senke utgifter?

Tror du at det er ekstra vanskelig å lykkes med å bli profitabel i en SBM enn i en tradisjonel business model?

Avslutning
- Er det noe mer du ønsker å tilføye?
- Har du noen spørsmål?
- Har du noe dokumentasjon eller data som vi kunne fått tilgang på som kan være relevant? (*Forretningsplan, pitch deck osv.*)
- Er det noen andre i selskapet du tenker vi burde snakke med?
- Er det greit å kontakte deg senere ved eventuelle oppfølgingsspørsmål?

Takk for at du tok deg tid til å bli intervjuet. Om ønskelig kan kapitelet som omfatter deres bedrift bli tilsendt for gjennomlesing og godkjenning.

Appendix 2: Letter of consent

Are you interested in taking part in the research project

Aligning Value Propositions for Stakeholders in Profitable Sustainable Business Models: Practical Insights from Norwegian Technology Scale-ups

Purpose of the project
You are invited to participate in a research project.
A thorough literature search has identified that a critical success factor for sustainable business models (SBM) is the company's ability to deliver value propositions for stakeholders across the interests of people, planet, and profit. However, according to the literature, this is a challenging and complex process that can be met by sustainable business model innovation. The aim of the master's thesis is to research to which extent three Norwegian technology scaleups with SBMs have the awareness and ability to deliver such value propositions for stakeholders across the interests of people, planet, and profit.

Which institution is responsible for the research project?
Norwegian University of Science and Technology (NTNU) is responsible for the project (data controller).

Why are you being asked to participate?
The participants have been selected based on the criteria of participants operating in the management group in Norwegian Technology Scaleups.

What does participation involve for you?
The study will include individual interviews with three employees within each company of the case study.
Each interview will last for about 60 minutes. Both students conducting the thesis will be present at each interview, in addition to the informant. Each informant will be asked the same questions from the interview guide, which has a semi-structured form. The questions will deal with the informants' experience of how the companies' involve their stakeholders across interests in their sustainable business model.

Participation is voluntary
Participation in the project is voluntary. If you choose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you choose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data

We will only use your personal data for the purpose(s) specified here, and we will process your personal data in accordance with data protection legislation (the GDPR).

The interview will be recorded on tape, and is then transcribed and coded.
All personal data will be treated confidentially. There are only the two students, in addition to their Supervisor, who will have access to the personal information provided. In the publication of the master's thesis, only the name of the company, and which roles have been intervjued will be publicised.

What will happen to your personal data at the end of the research project?
The planned end date of the project is December 2023. All personal data, including any digital recording, will be anonymised at the end, and will not be used for any further projects.

Your rights
So long as you can be identified in the collected data, you have the right to:
- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?
We will process your personal data based on your consent.

Based on an agreement with *NTNU,* The Data Protection Services of Sikt – Norwegian Agency for Shared Services in Education and Research has assessed that the processing of personal data in this project meets requirements in data protection legislation.

Where can I find out more?
If you have questions about the project, or want to exercise your rights, contact:
- *Via students*
  - Stina Valheim
    - Annasva@stud.ntnu.no
    - +47 486 53 862
  - Kajsa Haugen
    - kajsah@stud.ntnu.no
    - +47 417 50 486
- *Via supervisor*
  - Elli Verhulst
    - elli.verhulst@ntnu.no
    - 73590164

- *Data protection officer at the institution responsible for the project:* Thomas Helgesen

If you have questions about how data protection has been assessed in this project by Sikt, contact:

- email: (personverntjenester@sikt.no) or by telephone: +47 73 98 40 40.

Yours sincerely,

Stina Valheim & Kajsa Haugen

I have received and understood information about the project *"Development of Sustainable Business Models by Including Stakeholders Across Interests: Practical Insights from Technology Scaleups"*

and have been given the opportunity to ask questions. I give consent:

- to participate in an interview

I give consent for my personal data to be processed until the end of the project.

(Signed by participant, date)

Appendix 3: Scaled version of figure 3