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# Building Product Legitimacy to Enter Mature Industries

How may new venture utilize product legitimacy to overcome entry barriers?

Masteroppgave i NTNU School of Entrepreneurship

Veileder: Dag Håkon Haneberg

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Norges teknisk-naturvitenskapelige universitet  
Fakultet for økonomi  
Institutt for industriell økonomi og teknologiledelse



Kunnskap for en bedre verden



## Preface

The thesis is written in the spring of 2023 by a student from the NTNU's School of Entrepreneurship, to complete a Master of Science degree in Engineering and Entrepreneurship at the Norwegian University of Science and Technology (NTNU), Trondheim. The thesis is built on a literature study provided by the student in the autumn of 2022 and has the objective to show the student's understanding of the background and key works in a research area. As well as showing the ability to generate scholarly contributions.

With deep gratitude, the author would like to give a special acknowledgment to her supervisor, Dag Håkon Haneberg, for his constant support, constructive feedback, and superior guidance throughout the period. His knowledge and networking have been invaluable and contributed insignificantly to lifting this thesis. The author would also like to thank all the case participants in this study for their time and genuine interest in the study. Their answers and insights have been valuable for the completion of this thesis. In addition, to pay regard to NTNU for providing the necessary sources to access literature online and other necessary tools to complete the thesis.

Trondheim, 11.06.23

Helene Rønning Moxnes



## Summary

New technology ventures entering mature markets face the challenge of the "liabilities of newness", which leads to a higher mortality rate compared to established firms. This is particularly pronounced in mature markets where newness and smallness are significant factors for hindering the market entry of new ventures. Gaining legitimacy becomes crucial for these ventures as they strive to counteract this liability. Furthermore, new ventures entering mature markets should especially prioritize product legitimacy as it increases the likelihood of engagement with stakeholders in the industry, and create new resources for the ventures. However, achieving product legitimacy poses a significant challenge as new products often face skepticism and resistance from key actors in the market. In addition, there is limited research that encounters product legitimacy making it harder for new ventures to know how to generate this strategically. Consequently, this master thesis aims to address the gap in knowledge regarding product legitimacy by exploring how new ventures acquire product legitimacy and examining the impact of product legitimacy when entering mature markets.

To pursue the purpose of the thesis, a solid theoretical foundation was established to examine the dynamics of market entry and the process of building legitimacy. The study focused on the maritime sector and conducted an empirical analysis involving four ventures operating within this industry, which combined with the literature presented valuable insights. A notable finding was that ventures predominantly relied on organizational mechanisms, such as product demonstration and milestones, to establish product legitimacy. Additionally, associative mechanisms and identity mechanisms were identified as supportive strategies to increase their product legitimacy.

For new ventures to manage the difficulty of gaining product legitimacy and entering a mature market, the study suggests that the ventures early utilize demonstrations of their product, whether it is visual or physical. In addition to using associative and identity mechanisms as support to gain product legitimacy. Furthermore, the new ventures should strategically balance the need for product legitimacy with available resources.





## Sammendrag

Nye teknologibedrifter som entrer modne markeder, står overfor utfordringen med "liabilities of newness", noe som fører til en høyere dødelighetsrate sammenlignet med etablerte selskaper. Dette er særlig tydelig i modne markeder hvor det å være ny og liten er betydelige faktorer som hindrer markesinngang for oppstartsbedrifter. Å oppnå legitimitet er dermed avgjørende for disse bedriftene ettersom de strever med å motvirke denne byrden. Videre bør oppstartsbedrifter som entrer modne markeder spesielt prioritere produktlegitimitet ettersom det øker sannsynligheten for engasjement med interessenter i bransjen som kan skape nye ressurser for oppstartsbedriftene. Imidlertid utgjør oppnåelse av produktlegitimitet en betydelig utfordring ettersom nye produkter ofte møter skepsis og motstand fra nøkkelaktører i markedet. I tillegg er det begrenset forskning som tar for seg produktlegitimitet, noe som gjør det vanskeligere for nye bedrifter å vite hvordan de strategisk kan generere dette. Som følge av dette har denne masteroppgaven som mål å adressere kunnskapsgapet rundt produktlegitimitet ved å utforske hvordan nye bedrifter oppnår produktlegitimitet, samt undersøke virkningen av produktlegitimitet når oppstarts bedrifter entrer modne marked.

For å gjennomføre formålet med oppgaven ble det etablert et solid teoretisk fundament for å undersøke dynamikken i markedsinnganger og prosessen med å bygge legitimitet. Studien fokuserte på den maritime sektor og gjennomførte en empirisk analyse med fire bedrifter som opererte innenfor denne bransjen, som kombinert med litteraturen presenterte verdifulle innsikter. Et bemerkelsesverdig funn var at bedriftene i stor grad brukte organisatoriske mekanismer, som produktvisning og milepæler, for å etablere produktlegitimitet. I tillegg ble assosiative mekanismer og identitetsmekanismer identifisert som støttende strategier for å øke deres produktlegitimitet.

For at nye bedrifter skal håndtere utfordringen med å oppnå produktlegitimitet og entrere et modent marked, foreslår studiet at nyetablerte bedriftene tidlig burde benytte seg av demonstrasjoner av deres produkt, enten det er visuelt eller fysisk. I tillegg til å bruke assosiative- og identitetsmekanismer som støtte for å oppnå produktlegitimitet. Videre bør de nye bedriftene strategisk balansere behovet for produktlegitimitet med tilgjengelige ressurser.



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## 1. Introduction

New technology ventures and firms, with a focus on new innovative technology and improvements, are key actors in the evolution of industries and economic growth (Klapper et al., 2006). To have a significant impact on the industry, the ventures must first gain access to the markets through entry. According to Helfat and Lieberman (2002), market entry is defined as the first manufacturing of a product or the launch of a service, as opposed to "technical entry, which refers to invention or patenting in new fields" (Malerba & Orsenigo, 1999). According to Helfat and Lieberman (2002), factors such as pre-entry resources, entry skills, and the importance of early entry influence the newcomer's success in entering the market (Helfat & Lieberman, 2002).

Regardless, market entry may be difficult due to limited internal resources in new ventures (Bjørgum, 2016). According to research, the main obstacles for new technology firms entering mature markets are a lack of funding, industry-specific expertise, and contacts with potential customers. As a result, new businesses require input from outside sources such as mentors, investors, and so on. Obtaining external resources and funding may be challenging for new ventures because they lack a track record of accumulating entrepreneurial skills and business, which is referred to as "liabilities of newness" (Bjørgum, 2016). According to Zimmerman and Zeitz (2002), "liabilities of newness" cause a lack of trust among the consumers, distributors, and suppliers upon whom the new venture relies for survival.

External actors, however, have the incentive to invest in new ventures if they believe the venture is competent, efficient, effective, worthwhile, suitable, and/or necessary (Zimmerman & Zeitz, 2002). As a result, Starr & MacMillan (1990) refers to legitimacy as "a critical ingredient for new ventures to succeed." Zimmerman and Zeitz (2002) define legitimacy as "a social judgment of acceptance" that is required to provide an organization with access to other resources necessary for survival and growth. Furthermore, legitimacy provides an opportunity to decrease the high failure rate among new ventures due to the "liability of newness" by building trust and credibility toward the venture (Zimmerman & Zeitz, 2002).

Moreover, to enter a market, researchers emphasize that new ventures are more likely to achieve legitimacy among different actors if they possess more knowledge about the venture

and its products (Swaminathan, 1998; Shepherd and Zacharakis, 2003). Spreading awareness about a new venture is, according to Aldrich & Fiol (1994), known as cognitive legitimacy. Karlsson and Middelton (2015) suggest that cognitive legitimacy for new ventures generating novel technology is dependent on making their discoveries understandable to key stakeholders.

Moreover, new ventures entering emerging industries may encounter relatively less difficulty in establishing legitimacy compared to ventures operating in mature industries. This is because emerging industries often lack established rules, regulations, and standards within their business culture (Swaminathan, 1998). In contrast, mature industries are characterized by a limited number of dominant firms, well-established product designs, high entry barriers, and a low rate of entry. When aiming to enter a mature market, new ventures need to prioritize the acquisition and effective communication of product legitimacy to both their customers and stakeholders (Batra et al., 2021; Shepherd & Zacharakis, 2003). This emphasis on product legitimacy aligns with the insights shared by Aldrich and Fiol (1994), who suggest that a higher level of product legitimacy increases the likelihood of customer and stakeholder engagement with new ventures.

However, new products face the challenge of legitimacy to be recognized and accepted by actors in the ecosystem in which they are launched, including customers, competitors, regulators, etc. (Zhang et al., 2021). While new product similarity encounters a legitimacy challenge, few articles have addressed have explicitly focused on the challenge of product legitimacy (Zhang et al., 2021; Batra et al., 2021). Further, Li et al. (2014) suggest that a new venture may use mechanisms such as product demonstration and documentation as an incentive to increase product legitimacy, however, literature supporting this is limited.

In that matter, this master's thesis will study how product legitimacy affects the entry of a new venture into a mature market. The various measures founders may take to obtain product legitimacy will be determined by researching how founders develop and implement legitimacy mechanisms. Furthermore, the purpose is to investigate how this may affect the process and consequences of this activity. To that purpose, the author will examine and describe how new businesses apply legitimacy procedures.

Based on the purpose of this thesis, the author presents two following research questions for this study:

*RQ1: How do new ventures use legitimacy mechanisms to gain product legitimacy?*

*RQ2: How does product legitimacy contribute to gain the necessary resources to enter a mature market?*

The first research question (RQ1) seeks to explore what mechanisms new ventures may use to actively build product legitimacy. The second research question (RQ2) seeks to explore how and why product legitimacy may be important for customers and stakeholders to engage with new ventures and provide them with other resources.

By addressing these questions, the author's research will contribute to a broader understanding of several key areas. Firstly, it will shed light on how stakeholders' judgment of legitimacy is influenced by their knowledge of the product. This insight will enhance our comprehension of the factors that shape stakeholders' perceptions of legitimacy. Furthermore, the thesis will provide valuable insights into the specific legitimacy mechanisms through which product legitimacy can be achieved, as presented by Fisher et al. (2017) and Überbacher (2014). These contributions will benefit not only scientists and researchers but also new ventures seeking to navigate the complexities of establishing legitimacy in mature markets. Additionally, educators will gain valuable knowledge to incorporate into their teaching curricula, enabling them to better prepare future entrepreneurs and business professionals for the challenges of entering established industries.

To ensure both theoretical and empirical contributions, this thesis establishes a solid foundation through the development of a theoretical framework in the following section. Subsequently, Chapter 3 presents the methodology employed, including the research method, justification for the selection of case firms, and the process of industry data collection. Additionally, this chapter acknowledges the limitations that shape the empirical data of the thesis. In Chapter 4, individual presentations of the case firms are provided, alongside the conducted cross-case analysis. The findings derived from both within-case and cross-case analyses are discussed concerning the theoretical insights in Chapter 5. This comprehensive

analysis allows for a deeper understanding of the research topic. Chapter 6 concludes the thesis by summarizing the key findings, presenting implications, and offering recommendations for further research. Moreover, the interview guide utilized for gathering empirical data is included in the Appendix for reference and clarity.

## 2. Theoretical framework

The purpose of this thesis is split into two different aspects, market entry, and legitimacy. To create an understanding of how new ventures may enter a mature market by using legitimacy, a theoretical framework is developed in this chapter. First, the framework presents definitions and theories regarding entering a mature market. Then, the literature regarding types of cognitive legitimacy and legitimacy mechanisms is introduced. Further, the literature presented is connected and used to make a conceptual framework of how product legitimacy may increase a successful mature market entry.

### 2.1 Market Entry

A successful entry may be explained in different ways through several elements that contribute to a market's operations and growth. According to Geroski (1995), market entry can be defined as a process of change where numerous new firms replace a significant number of older firms. Further, he states that an industry entrance serves as an opening for creative technologies. Technological developments, changing customer needs, and market changes are all, according to Geroski (1995) driving the growth of such innovations.

A recent definition of market entry is given by Helfat and Lieberman (2002), which is “market entry is the initial production of a product or provision of a service”. Further, the study of Helfat and Lieberman (2002) shows that the key elements of a firm's performance and qualities are pre-entry resources, networks, and experience (Helfat and Lieberman, 2002). Based on this literature, this section will examine barriers that keep new ventures from entering a mature market. In addition, characteristics and resources that may help new venture to overcome these barriers will be covered.

#### 2.1.1 Barriers to entry

The potential obstacles that a new venture may encounter upon entry and during the survival process are known as barriers to entry. These are consistent with the overhead expenses a new venture must deal with as well as the limited time it has to establish and legitimize itself in the market (Geroski, 1995).

The level and type of entry barriers that new ventures encounter depends on the market stage of the industry and its maturity (Klepper, 1997; Coad and Guenther, 2013). In industries with established product life cycles, clear technology standards, and stabilized market shares, huge incumbent firms with strong, solid, and deeply rooted market positions dominate the market as they have strong brand recognition and customer loyalty as customers tend to exhibit systematic “repeat purchase patterns” (Batra et al., 2021; Samiee, 1994). These firms, known as generalists, maximize their productivity and performance by utilizing most of the resources, ultimately ending up with the majority of the market share and subsequent profits. As a result, new ventures have very few opportunities to explore, and the competition makes it difficult for new entrants to gain market share (Swaminathan, 1998).

Further, the high industry regulations and standards enhance the problems with few resources in the entrance process and are another element that presents obstacles for new initiatives in the setting of industry maturity (Klapper et al., 2006). Meeting stringent quality standards and complying with strict industry laws can be demanding, and obtaining clearance for technological approaches may involve lengthy processes (Malerba, 2007). These factors can also hinder cost minimization, flexible organization, quick time to market, and reduction of uncertainty. Nevertheless, it is recommended to allocate sufficient effort upfront to ensure compliance with industry standards as a preventive measure against future difficulties.

The requirement of obtaining licenses or permits, meeting safety or environmental standards, or complying with other regulations may be expensive, and intensive which further increases the capital required to enter the market (Edwards, 2021). Other high fixed costs that may be associated with a mature market are manufacturing or distribution, that require significant upfront investments. Furthermore, as new ventures lack the production volume and resources of established firms, it can be challenging to achieve economies of scale, which refer to the cost advantages that large firms have over smaller ones (Kor and Mahoney, 2004). These factors may create a high barrier to entry for new ventures that do not have access to the necessary capital (Karakaya and Kerin, 2007). In addition, to overcome other barriers such as competition the new ventures may need to invest heavily to compete effectively, whether it be



in terms of research and development, marketing, or infrastructure (Hitt et al., 2017; Acs & Audretsch, 2010).

Furthermore, Bjørgum (2016) refers to lack of experience and network as barriers, especially for new technology firms entering mature markets. New ventures with limited experience may lack the deep understanding of the market and industry practices necessary to navigate these complexities effectively (Helfat & Lieberman, 2002). This lack of knowledge can hinder their ability to develop and deliver products or services that meet market demands. Additionally, without a strong network new ventures may further struggle to understand the market needs (Berg et al., 2008). These factors make new ventures have to invest more time to gather market knowledge and build networks, which may affect the speed and performance of entry (Helfat and Libemann, 2002). This is especially a barrier as established firms often have well-established networks that they can leverage to their advantage, making it difficult for new ventures to compete on equal footing (Swaminathan, 1998).

### 2.1.2 Entry Characteristics and Resources of New Ventures

New ventures face persistent challenges in overcoming entry barriers and acquiring the necessary resources to establish themselves in the market (Jeje, 2015). The technological, commercial, and functional complexities involved make it difficult for only a few prospective entrants to survive and thrive as independent entities (Jeje, 2015). However, Helfat and Lieberman (2002) propose entry characteristics that can guide new ventures in acquiring the required resources to overcome these barriers. The entry characteristics may be divided into three stages: pre-entry, entering, and post-entry. Each stage presents unique characteristics that new entrants must navigate to achieve successful market entry. By understanding and strategically addressing the requirements and challenges of each stage, new ventures can increase their chances of entering the market successfully and sustaining their operations (Helfat & Lieberman, 2002).

#### *Pre-Entry*

During the early stages of a new venture's journey, prior to market entry, limited resources are often encountered due to their nascent stage and the absence of established operations.

However, the significance lies not in the quantity of resources a new venture possesses before entering the market, but rather in the quality and nature of the resources available at that particular point (Helfat & Lieberman, 2002).

According to Helfat & Lieberman (2002), founders with experience in the market before market entry are highlighted to have an advantage. In addition, pre-entry experiences are proven to keep a new venture alive longer due to technological experience, product understanding, and most importantly market knowledge contribute which may contribute to a more strategic entry (Helfat & Lieberman, 2002). Furthermore, Agarwal et al. (2004) and Audretsch (2009) points to the benefit of having experience from an established company in the particular industry the new venture is entering. In addition, Helfat & Lieberman (2002) states that pre-entry experience creates a standard for post-entry performance, as it provides heterogeneity in the industry among newcomers.

Moreover, the pre-entry network is as important as the pre-entry experience. According to Berg et al. (2008) the social capital increase linearly with new venture sizes of network. Furthermore, a pre-entry network is a resource built on trust that may generate further connections and credibility, which consequently are a positive contributor to entering a mature market (Berg et al., 2008). However, it is possible to build a network when entering, but based on the study of Berg et al. (2008) there is a barrier of antitrust and skepticism in these situations.

### *When Entering*

When new ventures enter a mature market, it is important to keep building the pre-entry resources, such as experience and network, to keep the venture growing. Furthermore, new ventures must keep a fine line between adapting to the industry and staying innovative to remain competitive as industries are dynamic and may change frequently (Helfat & Lieberman, 2002). By actively seeking opportunities to gain industry experience through research, engaging with new employees, and seeking guidance from mentors and networks, new ventures can significantly enhance their understanding of market trends, customer preferences and feedback, and emerging technologies. This experience provides valuable insights that can guide strategic decision-making and help new ventures navigate complexities in mature industries (Eisenhardt

& Schoonhoven, 1996). Establishing and nurturing networks with industry experts, professionals, and potential partners, additionally, may give access to valuable resources, knowledge sharing, and collaboration opportunities (Uzzi, 1996).

Moreover, new ventures distinguish themselves from established actors with their agility, which, according to Hannan & Freeman (1977), is defined as the characteristic of quickly adapting to market changes and customer needs (Hannan & Freeman, 1977). Established firms, on the other hand, may be perceived as more reliable and gain more legitimacy among stakeholders as they exhibit more inert processes. However, new ventures tend to have less inert structures and a higher rate of new product innovations. This characteristic allows them to explore diverse niches and swiftly adapt to the changing environment, which is a common trait among these types of ventures (McKendrick et al., 2003). Furthermore, Choi et al. (2016) argue that the lack of organizational experience serves new ventures with an advantage. Especially as the organizational experience of established firms sometimes hinder their flexibility and adaptability to environmental changes.

Furthermore, financial capital is a vital resource for new ventures in overcoming barriers during market entry as technological ventures meet the high capital requirement for development (Bjørgum, 2016). Grants, bootstrapping, seed funding, venture capital, and debt financing all play unique roles in supporting the development of new ventures' services or technologies. These types of financial capital may provide new ventures with the necessary financial resources to support research and development, product innovation, and market entry (Brouthers & Nakos, 2004).

Patents are an important strategic tool for new ventures in overcoming barriers and achieving a competitive advantage (Gallaud, 2020). Patents allow new ventures to secure their novel technology or processes by providing legal protection and prohibiting competitors from adopting identical services (Hsu and Ziedonis, 2013). Furthermore, patents serve as a signal of technological ability, helping new companies gain credibility and recruit possible partners (Gallaud, 2020). By utilizing patents, new companies may establish a distinct market position, stimulate innovation, and provide the groundwork for long-term development and success.

### *Post-Entry*

Entry, according to Geroski (1995), is a simple action, whereas survival is complex. This is demonstrated by the lower existence of small-scale ventures in mature markets, especially if they lack a strong competitive edge. According to Helfat and Lieberman (2002), pre-entry resources, strong networking capabilities, and expertise are critical to increasing the likelihood of new ventures successfully joining and thriving in a sector. Furthermore, a considerable resource gap between accessible and necessary resources may influence the speed and method of entry. Helfat and Lieberman (2002) especially highlight that in these situations, it becomes crucial for a new firm to thoroughly analyze its strategic choices to get the necessary resources and build the abilities that are needed to succeed in the sector.

#### 2.1.3 Connecting Barriers and Resources

For a new venture to enter and survive in a mature market, it is crucial to understand the relationship between barriers and resources. Barriers, as presented in the literature, act as obstacles that can hinder the entry or survival of new ventures (Geroski, 1995), while resources can be utilized to overcome these barriers (Baum et al., 2011). To illustrate this connection, Figure 1 is presented below.



*Figure 1 - Connection Between Resources and Barriers*

To exemplify, consider a scenario where a new venture faces challenges of meeting technological standards when developing its technology due to financial capital and limited market experience within the team. This barrier may present challenges in both commercializing the product and marketing it effectively if the new venture overlooks the barrier. The reason is that customers may have a preference for products that adhere to safety standards, making it challenging to gain their trust and promote the product successfully. Moreover, regulatory authorities may also deny market entry if the technology does not meet the required standards.

To overcome this barrier, the new venture can leverage resources. They may seek to acquire employees or mentors with expertise in industry standards, enabling them to navigate the regulatory landscape effectively. Furthermore, financial resources can be used to seek assistance from applicable services or consultants, simplifying compliance with the essential requirements. New ventures may therefore effectively overcome barriers that arise during market entry by generating and utilizing available resources.

## 2.2 Building Legitimacy

Legitimacy is essential for new ventures seeking resources to survive and grow in a mature market (Zimmerman & Zeitz, 2002; Lohrke & Landström, 2016). As stakeholders are more inclined to offer resources such as top management, quality personnel, financial resources, and technology when they consider the new venture as competent, efficient, worthwhile, suitable, and/or required (Zimmerman & Zeitz, 2002). In this sense, legitimacy differs from means-ends rationality as a basis for decision-making (Zimmerman & Zeitz, 2002). To fully address the topic, types of legitimacy will be discussed in terms of cognitive legitimacy, which is the subject of this thesis. Furthermore, techniques for establishing legitimacy will be addressed.

### 2.2.1 Types of Legitimacy

Spreading awareness and educating the surroundings about the new venture's existence is, according to Aldrich & Fiol (1994) and Karlsson & Middelton (2015), known as cognitive legitimacy. Moreover, this type of legitimacy is dependent on communicating and making the new technology understandable to stakeholders, particularly concerning the product, founding team, and start-up (Karlsson and Middelton, 2015; Batra et al., 2022; Li et al., 2014).

#### *Venture Legitimacy*

The vision and values of a start-up are important to express to potential customers as it makes the new venture more legitimate (Batra et al., 2021). Consumers' understanding of a start-up, according to Li et al. (2014), "refers to the customers' awareness of organizational culture, structure, and social responsibility." Furthermore, according to Brege and Kindström (2020) and Zhang et al. (2021), a client who feels that a new venture would go to significant measures to nurture the connection is more likely to interact with the new venture. To create start-up

legitimacy with clients, it is, therefore, necessary to explain the organizational attribute to them. The features include the new company's brand, the image produced on social media by the new ventures, the governance systems provided to clients, and so on (Iyer et al., 2020). According to Petkova et al. (2013), increasing the availability of information on key organizational elements increases the startup's visibility in the eyes of stakeholders.

#### *Founders Legitimacy*

The founders of a new venture have a significant impact on the actions and the success of the venture (Shook et al., 2003). According to Li et al. (2014), the customer's knowledge of the founding team is defined as an understanding of the new venture's activities, ideology, and talents. Customers therefore carefully evaluate the founding team before engaging with the new ventures (Batra et al., 2021). It is therefore important for new ventures to emphasize a strong image of the founding team to gain legitimacy among these actors (Li et al., 2014; Lounsbury and Glynn, 2001; Zott and Huy, 2007). Furthermore, Batra et al. (2021) argue that legitimizing the founding team is not only important for gaining customers but also for other stakeholders who similarly have faith in the founding team.

#### *Product Legitimacy*

Product legitimacy refers to the degree to which a product is accepted and recognized by relevant actors in its ecosystem, including customers investors, and other stakeholders (Zhang et al., 2021). It is a critical factor for the success of new ventures, as customers are more likely to purchase products with high product legitimacy (Aldrich & Fiol, 1994). Further, Batra et. al (2021) argue that product legitimacy is the strongest type of cognitive legitimacy on a potential customer's decision to engage with a new venture, regarding B2B. Shepherd & Zacharakis (2003) support this argument through their study with B2C, where they found that customers value product knowledge in determining the legitimacy of a new venture. Further, product legitimacy may be established through a variety of means, including product demonstrations, testimonials from satisfied customers, and positive reviews from influential customers or other stakeholders (Li et al., 2014).

### 2.2.2 Legitimacy Mechanisms

To account for the various types of legitimacy and battle the "liability of newness," several academics have presented legitimacy strategies that can be utilized quickly for new companies to accomplish their goal of allowing and nurturing productive entrepreneurship (Payette, 2014). According to Zimmerman and Zeitz (2002), there are four strategic options new ventures may use to establish legitimacy: conforming to existing norms and rules, selecting favorable contexts, manipulating cultural environments, and creating new social contexts. These are broad techniques that are influenced by a variety of external circumstances; hence, this research will concentrate on the actionable processes indicated by Überbacher (2014) and Fisher et al., (2017). These mechanisms are known as identity, associative and organizational.

#### *Identity Mechanisms*

Identity mechanisms are described by Fisher et al. (2017) as the various tactics that new ventures can use to establish and maintain mechanisms which include storytelling, sensegiving, impression management, analogies, arguments, cultural agencies, collective framing, and symbolic actions. However, this thesis will only cover the two most important mechanisms, which are storytelling and impression management (Fisher et al., 2017), to provide an insight into the types of mechanisms. Garud et al. (2014) claim that storytelling can have both positive and negative effects. If expectations are met, new initiatives may obtain legitimacy among stakeholders by discussing expectations and future requirements (Garud et al., 2014). Furthermore, impression management refers to the behaviors employed to develop and preserve one's image, which may be classified as ingratiation, self-promotion, and exemplifications (Nagy et al. 2012). To gain positive and good reactions from stakeholders, new ventures may flatter their feelings, a practice known as ingratiation. Furthermore, promoting one's performance, known as self-promotion, and showing the new venture as a desired organization, known as exemplifications, may create legitimacy among stakeholders (Nagy et al. 2012).

#### *Associative mechanisms*

Associative mechanisms are, according to Fisher et al. (2017), referred to as strategies that new ventures can use to create connections and relationships with other entities to gain legitimacy. The strategy is utilized by associating themselves with trusted actors or individuals (Zimmerman

and Zeitz, 2002). Furthermore, Plummer et al. (2016) state that leveraging the reputation and track record of trusted actors or individuals is essential for new ventures to enter a market as it reduces their uncertainty toward other stakeholders. Organizational, managerial, and personal ties are presented as the three different levels of network ties that may be leveraged to gain legitimacy (Fisher et al., 2017). Credible investors, reputable incubator programs, industry leaders, and research institutions within an industry relevant to the new ventures are examples of organizational ties. Furthermore, prior top managerial experience and the associated ties to the founder's previous success have been shown to drive increased legitimacy toward investors, given that their results are positive (Colombo and Grilli, 2010; Nagy et al., 2012). Moreover, personal ties involve the founder's individual social network, which is considered a critical asset for emerging ventures (Packalen, 2007). Building new social connections with stakeholders falls under this mechanism, and gaining legitimacy from individuals within stakeholder organizations is necessary to gain access to stakeholders (Johnson et al., 2006).

#### *Organizational mechanisms*

Organizational mechanisms are stated by Fisher et al. (2017) to account “for the organization and structure of a new venture, and achievement of success measures by that venture”. Furthermore, legitimacy is achieved by new ventures if they align with norms and values within an industry or meet specified levels of performance based on the industry's established expectations (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Fisher et al., 2017). These mechanisms are classified into different categories, which include internal milestones and structures, external validation, and the background of leaders (Fisher et al., 2017). Internal milestones and structures relate to how new ventures arrange their knowledge, resources, and organizational structures such as their human capital, board, suppliers, and investors (Meyer and Rowan, 1977; Delmar and Shane, 2004). Furthermore, Choi and Shepherd (2005), Delmar and Shane (2004), and Khaire (2010) propose that new ventures should use demonstrations of their achievements to gain legitimacy. For B2B ventures, continuous product demos and deliverables can be particularly important (Kirmani and Rao, 2000). External validation from the authority or institutional actors is another way new ventures can gain legitimacy, particularly through certification (Sine et al., 2007). Legitimacy may also be achieved through leaders' backgrounds, which accounts for how



their experience gives them the knowledge to handle the upcoming challenges of the new venture (Nagy et al.). Moreover, this mechanism aligns with impression management and will in this thesis be accounted for as identity mechanisms.

### 2.2.3 Connecting Types and Mechanisms of Legitimacy

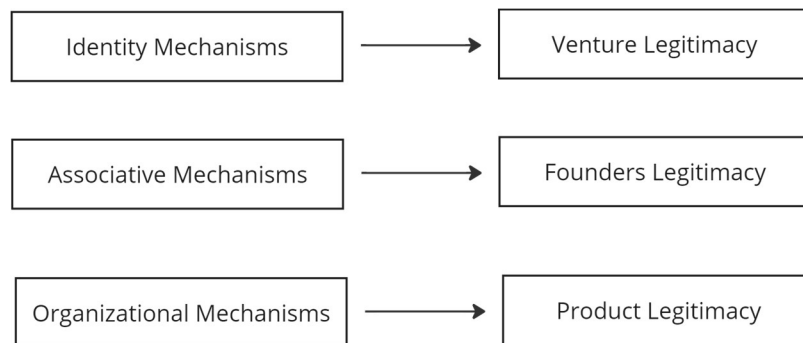
Looking at the different types of legitimacy and mechanisms to build legitimacy, presented in the literature, it is possible to draw connecting lines between their characteristics. Identity mechanisms for instance, such as storytelling and impression management, may be argued to generate more venture legitimacy than founder or product legitimacy. One reason for this is that the identity mechanisms focus on the communication and perception of the venture toward stakeholders (Fisher et al., 2017). This aligns with venture legitimacy, which is exactly to make the venture understandable to stakeholders. To emphasize this, storytelling is a mechanism used by the venture to influence how stakeholders perceive the venture (Garud et al., 2014). Furthermore, storytelling may frequently be employed to develop a feeling of shared purpose and meaning among stakeholders (Garud et al., 2014). Similarly, impression management techniques can shape how stakeholders view the venture's credibility and competence. These mechanisms are crucial for ventures to establish a positive reputation and build trust with stakeholders, which is essential for achieving venture legitimacy (Batra et al., 2021; Fisher et al., 2017).

Furthermore, the associative mechanisms may be argued to particularly generate founder legitimacy. Founder legitimacy is largely built on the personal reputation and track record of the individual founders and by associating themselves with credible actors, the founder can leverage the reputation and track record of those actors to increase their legitimacy in the eyes of stakeholders (Fisher et al., 2017; Plummer et al., 2016). For example, if a founder does not have a track record, but associates themselves with respected investors or research institutions, this can help to enhance their reputation and legitimacy. While the associative mechanisms can certainly help to increase product and venture legitimacy, they are not as critical to establishing legitimacy in these areas. The reason for this is that product legitimacy is, strongly defined by the quality and performance of the product or service being offered, and venture legitimacy is strongly defined by the vision and values, in contrast to associative ties (Batra, 2021). Associative

mechanisms, however, seem to be particularly relevant when building founder legitimacy as strongly is built on personal reputation and track record.

Product legitimacy, moreover, may be more reflected by using organizational mechanisms than the other types of legitimacy. Organizational mechanisms are based on internal structures that play a critical role in ensuring product quality and, consequently, its legitimacy (Fisher et al., 2017). A well-structured and managed supply chain, for example, may ensure the timely delivery of quality raw materials, leading to a high-quality product that gains legitimacy in the eyes of customers and investors (Fisher et al., 2017). Similarly, the achievements and milestones accomplished by the venture itself can be an essential source of product legitimacy as it creates an understanding of the development of the product. Additionally, continuous product demos and deliverables create legitimacy through proof of a product's functionality and quality (Wang et al., 2014). Lastly, external validation, such as awards and certifications by institutional actors, signals that the product meets a certain standard of quality and performance (Fisher et al., 2017).

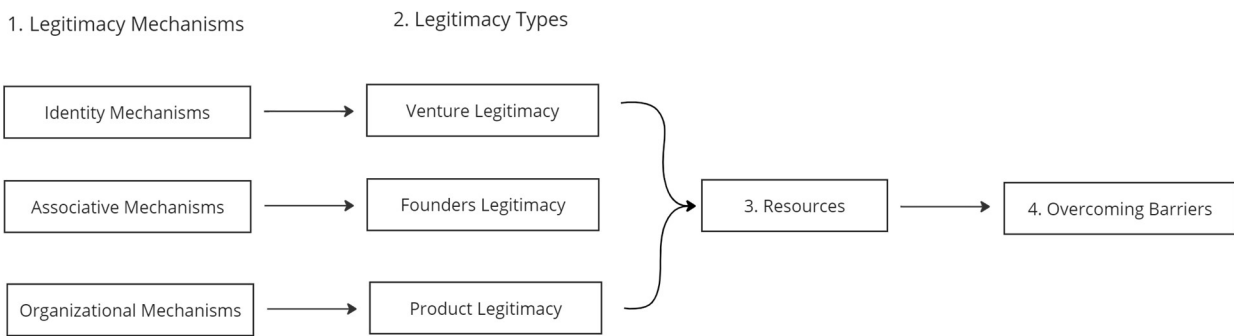
Based on these arguments, this master thesis will use identity mechanisms as a generator of venture legitimacy, associative mechanisms as a generator of founder's legitimacy, and organizational mechanisms as a generator of product legitimacy. To visualize this, Figure 2 is presented below.



*Figure 2 - Connection between Legitimacy Mechanisms and Legitimacy Types*

## 2.3 Synthesis

The literature review reveals various aspects, including barriers, resources, types of legitimacy, and legitimacy mechanisms, that collectively influence the process of market entry. Moreover, it shows how the different legitimacy mechanisms play a fundamental role in establishing cognitive legitimacy for new ventures (Fisher et al., 2017). This cognitive legitimacy further generates valuable resources that aid in overcoming barriers and promoting the growth and success of the venture (Baum et al., 2011; Jeje, 2015). Together, these interconnected factors form the foundation for a successful entry into a mature market, as visualized below in Figure 3.



*Figure 3 - Foundation of a Successful Entry into a Mature Market*

However, the relationship between legitimacy mechanisms, legitimacy types, resources, and barriers is not necessarily straightforward. According to the literature, the author has created a hypothesis that the generation and utilization of resources create an iterative process that involves legitimacy mechanisms, legitimacy types, and resources, where resources lead to the emergence of barriers. To exemplify, the use of identity mechanisms, such as storytelling, can generate venture legitimacy, which, in turn, attracts resources such as financial capital for further development and overcoming financial barriers. This successful utilization of resources can then open up the possibility to employ associative mechanisms of the stakeholder that gave the resources and gain additional legitimacy and resources. The iterative nature of this process highlights a hypothesis of the interdependencies between legitimacy mechanisms, legitimacy types, and resources creating a feedback loop that drives the venture forward, which is visually presented in Figure 4.

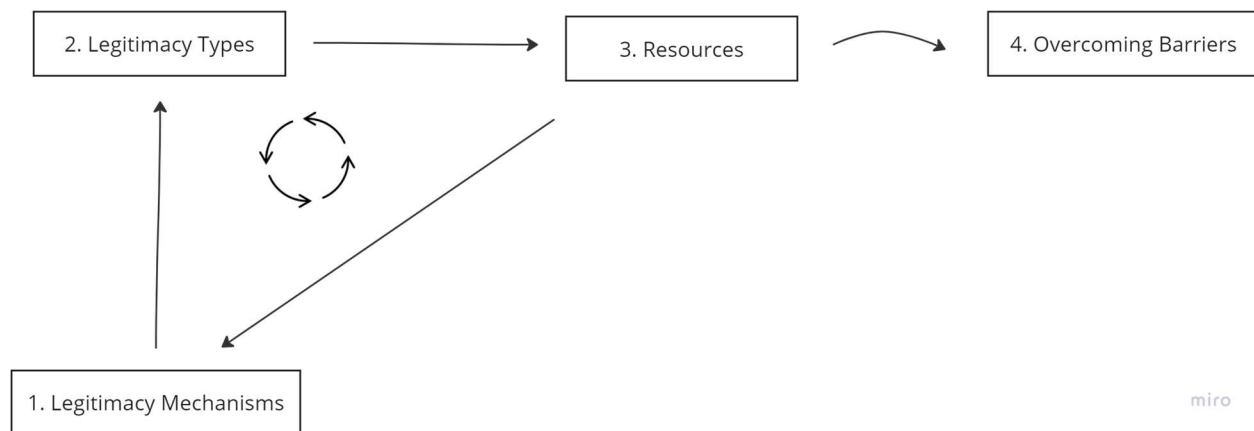


Figure 4 - Hypothesis of a Successful Entry into a Mature Market

The research question "RQ1: How do new ventures use legitimacy mechanisms to gain product legitimacy?" explores the utilization of legitimacy mechanisms by new ventures to establish product legitimacy. By examining the connected factors of legitimacy mechanisms and testing the hypothesis presented in Figure 2, the study can delve into how these mechanisms are employed by new ventures to enhance their product legitimacy. Furthermore, the research question "RQ2: How does product legitimacy contribute to gaining necessary resources to enter a mature market?" focuses on understanding the role of product legitimacy in acquiring the essential resources required for entering a mature market. By investigating how new ventures use interconnected factors to form the foundation for a successful entry, presented in Figure 3, information to answer this question may be presented. This is presented in the following Figure 5.

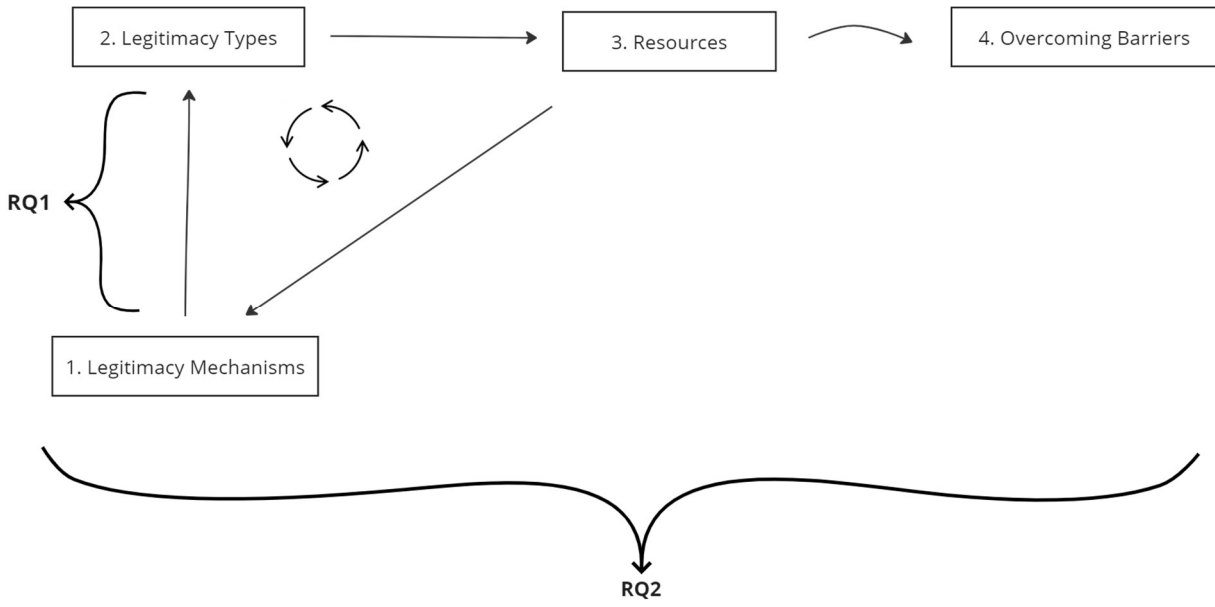


Figure 5 - How to Answer the Research Questions

Based on the initial construction presented in this synthesis the author conducts a qualitative empirical study with case companies in a mature market. The reason is to better understand how product legitimacy currently is used and how legitimacy mechanisms may increase the possibility of entering a mature market. Despite the different outlines presented in the literature and the figures above, it is important to note that this thesis will maintain the structure of the literature review, which are 1. Barriers, 2. Resources, 3. Legitimacy Types and 4. Legitimacy Mechanisms. In the following chapter, a broader presentation of the methodology used will be given.



### 3. Methodology

The research methodology describes how the author has conducted the study to answer the research question of this thesis, which will be presented in this section. Firstly, the research design is presented to create an understanding of the selected strategy for answering the research questions. Secondly and thirdly, the research criteria for the interviews and the data collection are presented. Fourthly, the data analysis is presented to answer the research questions and test hypotheses, and finally, trustworthiness, limitations, and assumptions are discussed to increase the robustness of the study.

#### 3.1 Research Design

Through this study, the author aims to explore how new ventures use legitimacy mechanisms to gain product legitimacy. Additionally, the author wants to explore how product legitimacy contributes to gaining the necessary resources to enter a mature market. With this in mind, the author has chosen a qualitative research approach as it, according to Matthews and Ross (2010), is an excellent approach for capturing and analyzing the experiences and views of individuals. In addition, to providing a foundation for future research.

Further, as ideas, theories, and concepts from existing literature have a strong effect on quantitative approaches (Yin, 2011), the author has chosen a deductive approach. According to Wilson (2010), a deductive approach is known as “developing a hypothesis (or hypotheses) based on existing literature, and then designing a research strategy to test the hypothesis”. The background for choosing this approach is to test if the literature regarding product legitimacy and resources has a relation and if the circumstances apply to a mature market (Gulati, 2009).

Moreover, the analytical technique chosen for this study is a multiple case study since it is supposed to feature two or more exploratory aspects, in addition to being excellent for answering research questions that include the word "how" (Yin, 2011; Yin 2017). Case studies have the aim of making complex situations understandable by examining elements of real-time, which may be helpful when trying to understand the complex legitimation process. By conducting several case studies, more accurate and applicable results are presented in multiple cases generating more details and contrast compared to a single case study (Eisenhardt, 1989).

Multiple case studies have, in addition, been used by several authors presented in the theoretical framework. Furthermore, these authors recommend utilizing the advantage of this technique in complex studies like legitimacy (Nagy et al., 2012; Fisher et al., 2017).

In connection to this and to investigate the purpose of the thesis regarding a mature market, the marine industry will be used to exemplify a mature industry as it is characterized as an industry with high global competition and dominant actors such as DNV, Maersk, and MSC. Furthermore, the marine industry is characterized by high capital requirements and complexity, both regarding the value chain and technology.

### 3.2 Case Selection

To select cases for this thesis, purposive sampling is used as an approach to develop a list of criteria before recruiting informants (Matthews and Ross, 2010). The background for choosing this approach is that it is widely utilized for qualitative, in-depth studies where the interest is to explore the interviewee's unique perspectives (Matthews and Ross, 2010). Further, certain characteristics of informants allow exploration of the research questions for the legitimization process between new ventures and stakeholders.

#### 3.2.1 Criteria for Participants

The criteria for participating as an informant for this thesis are as follows:

**Criteria 1) Have entered the industry as a stand-alone entrant and an entirely new actor**

A new venture as a stand-alone entrant and new actor unknown to the industry has limited or no resources when entering the industry (Helfat and Lieberman, 2002). This helps isolate the impact of factors that gain legitimacy because the new ventures have more or less the same starting point. In addition, it forces the new ventures to strategically focus on building and demonstrating their legitimacy.

**Criteria 2) Be a newly established venture (Younger than 10 years old)**

When a new venture is established they lack a track record and are affected by the liability of newness, however, in most cases new venture gain legitimacy and overcome the phenomena of



newness (Stinchombe, 1965). In such a setting, it is advantageous for new ventures to recall most facts of their venture history and therefore to be of a specific age.

### **Criteria 3) Be selling business to business (B2B)**

The sales and legitimation process for emerging companies in the business-to-business (B2B) context is characterized by a greater reliance on logical reasoning influenced by the buyer's institutional logic, as opposed to emotional judgments typically seen in business-to-customer (B2C) sales. Additionally, the complexity of the sales and legitimation process for new ventures increases due to the higher risk levels faced by B2B clients, especially when dealing with new ventures. This risk factor presents an important area for further investigation, highlighting the unique challenges and dynamics involved in establishing legitimacy and generating sales in the B2B context.

### **Criteria 4) Be operating within the maritime industry**

The maritime industry is used as an example of a mature market as the marine industry has a long history and established players that have been slow to adopt new technologies. In addition, the marine industry is quite diverse, and this diversity could enable you to explore a variety of issues related to mature markets and the liability of newness.

#### 3.2.2 Selection Processes

During the selection process, the author relied on the NTNU School of Entrepreneurship alumni network for cases and leads. Three of the four selected cases were related to the alumni network, and the remaining was discovered through the use of personal networks. The selected cases are as follows:

***Ocean Oasis***, founded in 2020, has marked a pivotal step towards facilitating accessible and sustainable freshwater production for regions facing water scarcity. The core concept revolves around a resilient and mobile floating desalination plant that harnesses the power of ocean waves to drive the offshore desalination process. Ocean Oasis stands out due to its distinctive approach, which enables freshwater production in deep ocean waters. Their groundbreaking solution, protected by a patent, captures the dynamic energy of fluctuating

waves, ensuring a consistent flow of pressurized seawater. Leveraging this innovative technology, Ocean Oasis efficiently converts seawater into fresh, potable water (Ocean Oasis, n.d.).

**Ocean Access**, established in 2020, emerged with a mission to tackle the complex and costly process of transferring extensive datasets from remote seabed locations to shore. Recognizing the significance of oceanic data for environmental research and enhancing our comprehension of the ocean, Ocean Access is dedicated to creating innovative hardware. Their solution is a reliable and autonomous subsea-to-surface communication system that operates independently of existing subsea infrastructure. By achieving this, they aim to revolutionize the gathering of ocean data, opening up new avenues for ocean research and analysis (Ocean Access, n.d.).

**Clean Sea Solution**, which was founded in 2017, has the goal of developing technology solutions for coastal regions that are both economically and environmentally viable. Their primary objective is to prevent and reduce the influx of marine plastic waste into the oceans, thereby making a significant contribution to the long-term sustainability of our planet's oceans. Clean Sea Solution focuses on the development of systems specifically, such as innovative jetties and autonomous drones, designed to clean up plastic waste in high-density areas near the shore (Clean Sea Solution, n.d.).

**EConnect Energy** was founded in 2012 as a pioneering company dedicated to facilitating the widespread distribution of cleaner and more affordable energy worldwide. Their primary focus is on commercializing the Universal Buoyancy System (UBS), a cutting-edge buoy solution designed specifically for liquefied natural gas (LNG) transfer between ships and shore. By leveraging this innovative system, EConnect Energy enables significantly faster installation times, lowers investment costs, and mitigates investment risks. This is achieved by providing a mobile infrastructure alternative to the conventional approach of constructing permanent quays or jetties (EConnect Energy, n.d.).

### 3.3 Data Collection

To explore the hidden and fundamental factors of the study, semi-structured interviews will be utilized as the method allows for a free dialog and follow-up questions (Yin, 2011). In addition,

secondary data will be used to gather relevant data about the participants and ventures. Consequently, validating the information provided in the interviews (Yin, 2011).

### 3.3.1 Conducting the Interviews

The conducted interviews were guided by a set of open-ended questions based on the theoretical framework, allowing the respondents to freely express their thoughts on the concepts being discussed. In addition, this approach enabled the interviewer to delve deeper into statements of interest, aiming to acquire a more comprehensive and descriptive understanding of the underlying phenomena by using follow-up questions and confirmation of statements.

The interview process commenced with an introduction to the topic, followed by an explanation of data anonymization and processing, as well as an overview of what the interview process would entail. The discussion then centered around the new ventures and the backgrounds of their founders, along with an exploration of the current status of their products. A timeline was established to provide a chronological framework for addressing the legitimacy mechanisms employed by the ventures.

As important insights were revealed, it is concluded that the author was effective in capturing the fundamental components of the process by using a semi-structured interview. However, it should be noted that several participants thought about themes mentioned in previous parts, straying from the basic interview pattern. Nonetheless, all relevant areas were covered in exhaustive detail. Similarly, some of the informants had difficulties understanding the word legitimacy. To cooperate with this, similar words such as trust and credibility were used. These different terms have an interconnected and distinct meanings as legitimacy means to establish acceptance in various contexts, trust means to establish confidence, and credibility means to establish belief (Jijelava and Vanclay, 2017).

Additional information regarding the interviews, including the informant's position, interview type, duration, and date are presented in Table 1.

<b>Case Company</b>	<b>Position of the Informant</b>	<b>Type of Interview</b>	<b>Duration of Interview</b>	<b>Date of Interview</b>
Ocean Oasis	Founder and CEO	Online, MS Teams	40 minutes	April 21 <sup>st</sup> , 2023
Ocean Access	Founder and CEO	Online, MS Teams	60 minutes	April 25 <sup>th</sup> , 2023
Clean Sea Solution	Founder and CSO	Online, MS Teams	45 minutes	May 4 <sup>th</sup> , 2023
EConnect Energy	Founder and CEO	Online, MS Teams	50 minutes	May 5 <sup>th</sup> , 2023

*Table 1 - Detailed Information about the Interviews*

3.3.3 Secondary Data

To better understand the information the informant presented in the interview, the author discovered a variety of secondary data regarding the selected cases and informants. Following the interview, secondary data was used to both find and validate information applicable to the case. This was done to obtain additional non-random information about the participants and procedure, as well as to contribute several pieces of evidence to the research (Yin, 2011). Moreover, it was essential to gather background information on interview candidates as it comprises information about the firm, its size, maturity, and the participant's position. LinkedIn, the cases web pages, and articles online were utilized to further confirm and strengthen the author's grasp of situations concerning the new ventures.

3.4 Data Analysis

To conduct the analysis, the raw data obtained from the case companies' interviews were initially processed comprehensively. The voice recordings were first converted into text format through transcription using the touch-typist technique. This involved listening to the recordings and simultaneously typing verbatim to ensure accuracy (Saunders et al., 2009). The initial transcript was reviewed multiple times to ensure quality control, with non-verbal communications of the

interviewees identified and recorded, while filler words such as 'you know', 'like', 'so', and 'umm' were omitted. Transcriptions were done within the same week as the interviews to prevent data overload and provide a better understanding of the data concerning the research questions (Saunders et al., 2009).

Further, theoretical coding was utilized which is described by Holton (2007) as “the identification and use of appropriate theoretical codes to achieve an integrated theoretical framework for the overall grounded theory”. The method entails creating codes that are based on the perception of definitions presented in the theoretical framework, which for this study are as follows:

#### *Barriers*

- Competition
- Industry Standards & Regulations
- Capital Requirements
- Economies of Scale
- Network Effect

#### *Resources*

- Experience
- Network
- Agility
- Capital
- Patent

#### *Types of Legitimacy*

- Venture Legitimacy
- Founders Legitimacy
- Product Legitimacy

#### *Legitimacy Mechanisms*

- Identity Mechanisms
- Associative Mechanisms
- Organizational Mechanisms

When the codes and definition were chosen the transcribed data were imported into NVivo, a Computer Assisted Qualitative Data Analysis Software (CAQDAS), specifically designed for qualitative data analysis. In this program the transcribed data was analyzed paragraph by paragraph to select one or more codes for the data that aligned with the perceptions of the codes, resulting in applying these codes to different data (Glaser, 1978). This was done for all four cases individually, and the data was then characterized into the applied codes in NVivo. Moreover, the author conducted a within-case analysis of each case, examining and categorizing the data according to specific codes. The findings were then presented in alignment with the identified code outline. Additionally, a cross-case analysis was conducted, comparing the categorized codes of each venture. This approach enabled the exploration of differences and similarities among the case firms, providing valuable insights through comparisons across multiple cases. By presenting both within-case and cross-case analyses, the study opens up opportunities to uncover patterns and variations in the data, enhancing the understanding of the research topic (Khan and VanWynsberghe, 2008).

### 3.5 Trustworthiness of the Method

The procedural and methodological approach must be correctly captured and held to academic standards to guarantee the validity of a study's findings and the academic advancement of research. However, a qualitative study provides a wide range of subjective data, which may make it challenging to accurately recreate the respondent's reality and the analyzed events. Lincoln and Guba (1985) advise assessing credibility, transferability, dependability, and confirmability to overcome this challenge and determine trustworthiness. The author's interactions with these factors to ensure the validity of the thesis will be covered in more detail in the following sections. The author will also discuss any potential restrictions and presumptions that could affect the strategies used and analysis in this section.

#### 3.5.1 Credibility

According to Seale (2004) and Walle (2015), the definition of a study's credibility is the validation of findings and outcomes in which the researcher respects the subjective reality encountered by the informants. Credibility is further defined by Lincoln and Guba (1985) as the act of maintaining respondents' true impressions when data is reviewed and turned into results. To better comprehend the informants' perspectives and establish credibility, the author employs a variety of tactics.

However, as the new ventures are in fragile situations regarding relationships with valuable stakeholders, they might withhold some information. To avoid this situation as much as possible, the author has actively used follow-up questions to clarify situations, secondary data to gain more information, and triangulation to validate the information. Triangulation, described by Heale and Forbes (2013) as “the use of multiple theories, data sources, methods or investigators within the study of a single phenomenon”, is employed by the author to validate and enhance the interview data (Lincoln and Guba, 1985).

Furthermore, Anney (2014) emphasizes how important it is to have knowledge within the field of study, both to avoid misinterpretation of information and to understand the context. She especially acknowledges the advantage of being engaged in the field while completing the study. The author has during the master's program been involved in entrepreneurial environments and

activities, which is claimed to increase the credibility of the study (Onwuegbuzie and Leech, 2007).

### 3.5.2 Transferability

Applying facts and findings of a study to other situations with other respondents is defined as transferability (Krefting, 1991; Merriam and Tisdell, 2015). According to Bitsch (2005), transferability is accounted for by facilitating 'thick description' and purposeful sampling. By presenting well-formulated explanations of the setting, procedure, and experience level, the author is accounting for transferability.

### 3.5.3 Dependability

A dependability study is, according to Krefting (1991), a study that may be repeated or replicated by others. However, as qualitative studies are based on human actions each study may be unique, in contrast to quantitative studies (Krefting, 1991). To assure consistency and deal with dependability, the method that has been carried out in this study has carefully been addressed by the author. In addition, elements that have been evaluated by the author as unique in the study have especially been addressed. The interview guide has, furthermore, been added as an attachment to the thesis to further assure the methodology for data collection.

### 3.5.4 Confirmability

To present a confirmable study, the research methods and findings must be free from the author's bias and be based on objectivity (Krefting,1991). In other words, the findings should avoid being based on motivations, biases, or views, and be entirely based on the research condition and the gathered data (Krefting,1991). Actions that have been used to keep this study neutral are semi-structural interviews to keep an open agenda, in addition to presenting the conceptual framework at the end of the interview to avoid navigating answers.

Further, the amount of data required to legitimately answer the research questions is dependent on the quality of the data collected by the author (Granheim & Lundman, 2004). To guarantee useful data quality, the authors concentrated on re-formulating unclear replies from informants in response to a specific question, allowing the informant to either confirm or reject



their statement throughout the interviews. In addition, the interview recordings were replayed several times to ensure consistency, neutrality, and objectivity of the data.

### 3.5.5 Limitations and Assumptions of the Method

By acknowledging and emphasizing these limitations and assumptions of the method, the author aims to increase transparency and minimize any potential biases that could impact the objectivity of the paper. Additionally, to avoid limiting the transferability of the findings in other studies, the author describes the elements of the case selection process that should be acknowledged.

- While the cases studied primarily involve hardware solutions, it is important to recognize that this emphasis on hardware may oversimplify the findings, especially when considering software-based cases.
- Three of the cases studied are all the result of individuals from a particular entrepreneurial ecosystem, where approaches and viewpoints are regularly shared, which is likely to reflect in their perspective specifically on the start of their journey, resulting in a somewhat homogeneous starting point.
- The author also experienced some variety in the respondents' understanding of legitimacy, hence in those situations the author converted the phrasing to "trust" to contractually validate their stakeholder's relationship, this may have affected the result in terms of the specific outcome under consideration.
- Some of the informants encountered difficulties in understanding the term "legitimacy" during the interviews. To solve this, alternative words such as "trust" and "credibility" were employed to ensure effective communication and comprehension. Oversimplify the concept of legitimacy may result in not capturing its full complexity.
- The interviews focused on how the ventures entered the market, however, the ventures are of different ages which may have caused some shades have been lost in memory.
- The interviews were conducted and transcribed in Norwegian; however, the coding and analysis were performed in English. This decision was made because all the informants and the author are Norwegian. However, it is important to acknowledge that this

language transition may have led to some loss of information during the coding and analysis process.

- The interviews conducted for this thesis were carried out via video, which could have potentially influenced the dynamics and understanding of the interview process
- The limited number of cases analyzed in this study may affect the extent to which the findings can be generalized, however, it is limited how generalized a quality may be.
- The use of theoretical coding and defining codes based on the authors perception of the literature might have resulted in the potential loss of certain information and findings.

## 4. Analysis

The analysis of the acquired data encompasses four within-case analyses, each focusing on a specific new venture, as well as a comprehensive cross-case analysis that encompasses all the new ventures. Firstly, the with-in-case analysis will highlight the findings of the new ventures individually. Further, the cross-case analysis aims to provide a holistic understanding by exploring patterns across the different ventures. Ultimately, a summary table will be presented to encapsulate the key findings of the study.

### 4.1 Within-Case Analysis

The within-case analysis begins by providing a concise overview of the new venture. Subsequently, it summarizes the process of entering a mature market, focusing on the order of sub-categories outlined in the theoretical framework, namely barriers, resources, legitimacy types, and legitimacy mechanisms. This approach enables a comprehensive understanding of the venture's journey within the established market context.

#### 4.1.1 Ocean Oasis

Ocean Oasis, founded in 2020, aims to provide a clean alternative to conventional desalination techniques, hence increasing the availability of fresh water in coastal locations worldwide. Ocean Oasis introduces a groundbreaking invention that permits freshwater generation in deep ocean waters by absorbing changing wave energy and converting it into a steady flow of compressed saltwater (Ocean Oasis, n.d.).

##### 4.1.1.1 Barriers

Ocean Oasis encountered early challenges in presenting their innovative freshwater distillation technology. This difficulty was primarily due to the market being firmly dominated by major players who held exclusive customer relationships. As a result, Ocean Oasis faced significant barriers in establishing their presence and showcasing the unique benefits of their solution. The solid position of these established actors created a formidable barrier to entry, making it difficult for Ocean Oasis to compete effectively and gain market share.

*"This is a highly established market with conservative and major players. The adoption of new technology is progressing slowly."*

Further, Ocean Oasis has encountered significant barriers when it comes to securing funding and capital, primarily due to the ambitious scale of their product and the substantial size of their 100-ton prototype. The magnitude of their endeavor, coupled with the capital-intensive nature of developing and refining such a large-scale technology, has posed challenges in attracting the necessary financial support. Securing funding for a venture of this magnitude requires a considerable amount of convincing, as investors often seek reassurance and proof of concept before committing substantial resources.

#### *4.1.1.2 Resources*

To navigate the competitive landscape, Ocean Oasis has employed a strategic approach to delivering and selling their product to their competitors. This strategic utilization of structural inertia serves as a valuable resource, enabling them to penetrate the market with their innovative technology. By leveraging the existing infrastructure and networks of their competitors, Ocean Oasis can overcome barriers to entry and establish their presence in the industry.

*"Instead of competing directly with established water providers, we have chosen a strategy where we offer a service to those who could potentially be our competitors. This approach allows us to enter the market more easily."*

Partnerships and investors have played a crucial role for Ocean Oasis, providing more than just financial capital. They have also contributed valuable networks, knowledge, and market experience. These partnerships and investor relationships have enriched the company's capabilities by offering access to a broader network of industry contacts, facilitating valuable collaborations, and opening doors to new opportunities. Additionally, the expertise and experience brought by these partners and investors have provided valuable insights and guidance, enabling Ocean Oasis to navigate the market landscape more effectively and make informed decisions. The CEO of Ocean Oasis describes this in the following quotes:

*"Several investors have been involved since the early stages, with significant operations in the shipping and aquaculture industries. These are competent organizations with whom we have*

*been able to collaborate and who have helped us solve practical problems.”*

*“We have actively utilized supporters such as partners overseas office as facilitators. We are currently participating in an American accelerator program specific to our industry, which provides valuable introductions to potential customers and key stakeholders in the field. Through these initiatives, we are building our network and expanding our industry knowledge, thus enhancing our credibility and legitimacy in the market.”*

Moreover, Ocean Oasis is patenting their technology to protect their technology.

#### *4.1.1.3 Legitimacy Types*

##### *Venture Legitimacy*

Ocean Oasis effectively demonstrates robust venture legitimacy among stakeholders, driven by their early success in securing investors for the company. This early investor support not only validates the company's potential but also instills confidence in external stakeholders, showcasing that Ocean Oasis is a promising venture worth investing in. Furthermore, the founders of Ocean Oasis recognize the significance of sharing their vision to attract partners and investors.

*“In addition to sharing information about the company and the product, there is a vision and our theory of change. Actively communicating this has been crucial for us and has helped attract the important partners and investors who have joined our team.”*

##### *Founders Legitimacy*

The founders of Ocean Oasis possessed a strong foundation of legitimacy from the very beginning of the company, attributed to their extensive experience in entrepreneurship and their dedicated work in promoting sustainability within the energy and maritime sectors. Drawing upon their entrepreneurial background, they brought valuable insights, strategic thinking, and a proven track record of success to the table. This solid foundation of experience has strengthened the confidence of stakeholders, investors, and partners toward the company and technology. The legitimacy of the founders is especially shown during a product demonstration, as the CEO of Ocean Oasis explains as follows:

*“We have a complex technology, but in most cases, it suffices for me, without a technical background, to explain how the solution works.”*

#### Product Legitimacy

The financial resources received from the European Union (EU) serve as a compelling testament to Ocean Oasis's high product legitimacy. This is due to the stringent rules and regulations imposed by the EU for quality-checking the product and technology that the venture is developing. The fact that Ocean Oasis successfully secured funding from the EU indicates that their product has undergone a thorough evaluation process, ensuring its compliance with rigorous standards set by the EU.

*“We also have EU funding, which has received very positive feedback. ... In my experience, there has been a thorough review and quality control of the technology and product we are developing.”*

The product has achieved an impressive Technology Readiness Level (TRL) of 6, which signifies a significant advancement in its development and a high product legitimacy. TRL 6 represents a high level of technological maturity, indicating that the product has undergone extensive testing and validation in relevant environments (Raffaini & Manfredi, 2022). This is particularly remarkable considering the product has not yet been commercialized.

Furthermore, the product legitimacy of Ocean Oasis is evident through product demonstrations, where even founders without technical expertise can effectively present the product and successfully establish partnerships. This signifies the intuitive design and user-friendly nature of the product, enabling non-technical individuals to grasp its value proposition and articulate its features and benefits to potential partners.

#### 4.1.1.4 Legitimacy Mechanisms

##### Identity Mechanisms

Ocean Oasis has effectively utilized storytelling as a powerful tool to frame the compelling vision of the company and articulate the profound impact it holds on the marine environment. By skillfully weaving narratives that capture the essence of its mission, Ocean Oasis creates a captivating storyline that resonates with stakeholders and audiences alike as the CEO elaborates:

*“In our storytelling, we focus on impact, the potential for emission reduction, and the lesser harmful effects on the marine environment. This forms a crucial part of our communication strategy. In addition to conveying information about our company and product, it represents our vision and theory of change. Actively communicating these aspects has been of utmost importance to us, and it has played a significant role in attracting the key partners and investors who have joined our journey.”*

#### Associative Mechanisms

The utilization of associative legitimacy mechanisms has played a vital role in Ocean Oasis's journey by enabling them to establish a strong network within the industry and create valuable opportunities. This has allowed them to tap into existing networks, gain access to resources, and open doors to collaboration and partnership opportunities as elaborated in the following quote:

*“Currently, we are participating in an American accelerator program specifically tailored to our industry, where they provide warm introductions to potential customers and key stakeholders.*

*[...]. For example, we were introduced to an American foundation and were awarded a \$100,000 prize from them.”*

In addition, Ocean Oasis has greatly benefited from the support and involvement of piggybacking investors and other organizations, as it has been significantly positive in the eyes of other actors within the industry. By aligning themselves with reputable investors and collaborating with established organizations, Ocean Oasis has gained increased credibility and trust which is substantiated in the following quotes:

*“Furthermore, we have obtained EU funding, [...]. Many investors and potential customers have reacted favorably to this.”*

*“What has been crucial in building and demonstrating ourselves as a capable player in delivering what we aim to achieve is receiving significant support from the right investors, which adds credibility to our endeavors.”*

## Organizational Mechanisms

Ocean Oasis has faced difficulties utilizing organizational mechanisms such as technology prototypes and demonstrations due to the size of their 100-ton prototype. However, they remain committed to showing their innovative solution to stakeholders, particularly to investors and actors that may support them financially, and have strategically navigated these challenges to build trust and gain support.

Moreover, Ocean Oasis has adopted a strategic approach to effectively communicate their objectives and milestones to stakeholders. They have demonstrated their resilience and capability to achieve their goals, despite their product not yet being ready for commercialization. By proactively sharing their progress, outlining their goals, and showing their dedication and determination, Ocean Oasis has instilled confidence in stakeholders regarding their ability to deliver on their commitments.

*“There has been a structured effort, [...], to demonstrate over time that we deliver on what we say we will do, even though it may take some time before we are ready to collaborate on projects with them.”*

### 4.1.2 Ocean Access

Ocean Access was founded in 2020 to collect previously uncollected ocean data. Ocean Access is addressing the growing demand for remote ocean monitoring across several sectors by inventing a completely submersible ocean data buoy that can travel up and down the water column (Ocean Access, n.d).

#### 4.1.2.1 Barriers

Financial support has posed a significant barrier for Ocean Access to enter the market, primarily due to the high costs associated with hardware development and testing. The CEO of Ocean Access explains it as follows:

*“High capital request is especially a barrier when dealing with the development of hardware, it is expensive. This is particularly true when dealing with underwater technology and things that need to be tested in the ocean. You can't just sit at your desk and test it. That makes everything very costly. Access to boats and docks alone becomes a significant expense, not to mention the*



*need for a mechanical workshop and an electronics workshop. So, all of these aspects pose immense challenges, and they have certainly contributed to the slow progress in our case. We definitely feel the impact of these challenges.”*

Moreover, Ocean Access encountered the challenge of industry standards and regulations as the founders initially possessed limited knowledge about the market. This proved to be particularly challenging, given the constant emergence of new issues regarding requirements.

#### *4.1.2.2 Resources*

In the process of developing the product, securing financial capital has emerged as one of the most critical resources for Ocean Access. To obtain this capital, the founder's network and their previous experience with entrepreneurship and engineering have played instrumental roles. Leveraging their connections and expertise, they were able to tap into valuable financial resources right from the start. Moreover, being part of an entrepreneurial ecosystem has provided the new venture with additional opportunities, such as participating in pitch contests and similar events.

One significant outcome of engaging in these contests was the chance for Ocean Access to join a well-known accelerator program. This accelerator not only provided financial support but also served as a platform for introductions to potential partnerships. This support and exposure proved invaluable in strengthening the venture's network and facilitating collaborations with key industry players.

Furthermore, in their efforts to overcome the challenges associated with industry standards and regulations, Ocean Access has taken proactive steps to expand their team and stay abreast of market developments. While Ocean Access has made considerable progress in navigating these barriers independently, they have also recognized the need for external support. To address this, the company has entered a paid partnership, seeking help from a trusted and experienced company.

#### 4.1.2.3 Legitimacy Types

##### Venture Legitimacy

Ocean Access has skillfully gained venture legitimacy among its diverse range of stakeholders by effectively sharing their compelling vision, and openly expressing and articulating their long-term goals and aspirations. Which has given the company a strong foundation of credibility and authenticity.

Moreover, the founder of Ocean Access strongly believes in the significance of expressing a bold and ambitious vision and goals when engaging with stakeholders such as investors or organizations. Recognizing the importance of capturing the attention and imagination of their audience, the founder understands that a compelling vision serves as a powerful tool for showcasing the true potential of the business:

*“Big goals and vision, I believe that's important. Whether it's for investors or when applying for a position within an organization. If someone is going to provide you with funding to develop something and take it further, I think it's important to be able to think big. I truly believe that.”*

##### Founders Legitimacy

The founders of Ocean Access demonstrate a high level of legitimacy, given their backgrounds in engineering and entrepreneurship. Additionally, their initial network and the connections they have cultivated while working on the venture further contribute to their credibility. This is evident in the founders' positive interactions with current stakeholders, suggesting the establishment of a promising partnership as the CEO explains in the following quote:

*“Of course, he (stakeholder) also has an interest in technology and what we are working on. But above all, I think he has become an important resource for us because we have established a good relationship. He wants to help us as founders, that's what I believe.”*

##### Product Legitimacy

At the beginning of Ocean Access' journey, there were limitations in visualizing the prototype. As stated by the founder:

*“The prototype was pretty lousy”.*

Despite this, the company managed to secure financial support, although it suggests that the product's legitimacy was initially low, and the support was granted based on other factors. The infusion of financial investment enabled further development of the prototype.

Subsequently, Ocean Access received a call from a German company expressing interest in their product. The fact that the German company reached out based on the technology suggests an increase in the product's legitimacy. This contact signifies a potential validation of Ocean Access' product offering, indicating growing recognition and interest from industry players.

#### 4.1.2.4 Legitimacy Mechanisms

##### Identity Mechanisms

Utilizing the sharing of the venture's vision as an identity mechanism, Ocean Access has successfully attracted and recruited individuals possessing valuable expertise to develop the product. Capturing the interest and commitment of knowledgeable professionals who align with their goals has been effective for Ocean Access.

Furthermore, Ocean Access has implemented a proactive approach to engaging stakeholders by effectively sharing their compelling vision. This strategic initiative has proven to be highly impactful, generating positive outcomes. As explained in the following quote:

*" We have shown and explained our vision for the product. And in some cases, that's enough to generate interest and get people on board. Whether it's customers or even when recruiting, it applies as well. You can sell products before you even have them."*

##### Associative Mechanisms

The founders of Ocean Access have taken advantage of associative ties with their families and friends to gain a network in the industry. They did this by calling relevant people in the networks of their relatives and then snowballed on that network to get in touch with other relevant people and actors in the industry.

Further, Ocean Access has strategically worked to create a network with employees in a well-established company, in this thesis called Y. This strategic network has created several

possibilities for Ocean Access as piggybacking Y creates legitimacy and credibility, especially since Y has given recourses and shown their trust towards the new venture. In addition, they got in touch with another established actor, identified as Z, that they partnered with to land their first customer as the founder explains:

*"That we are not just a small startup here in Trondheim with six to seven employees, but that we managed to collaborate with an established player that has been working in subsea technology for 30 years. [...] The fact that we got them on board, I believe, was decisive in securing that contract."*

#### Organizational Mechanics

Ocean Access has utilized organizational mechanisms by showing stakeholders their goals and milestones. In addition, the company has demonstrated the product through visualization such as drawings and pitchers. Ocean Access also presented technological details about the product to get a holistic picture of the concept as explained in the following statement:

*"Design with 3D modeling [...], we presented a concept to them, saying that this is something like what we can create for you. But we didn't build anything, no prototype or anything like that."*

#### 4.1.3 Clean Sea Solution

Clean Sea Solution was established in 2017 with the vision of creating commercially and environmentally sustainable ocean technology solutions for waterfront areas. By developing cutting-edge stationary and autonomous systems for the collection of plastic waste from canals, rivers, harbors, marinas, lakes, and other waterfront areas both above and below the water surface, Clean Ocean Solution empowers marinas, harbors, and waterfronts to preserve our oceans with autonomous marine litter collection.

##### 4.1.3.1 Barriers

Clean Sea Solutions has encountered multiple barriers impeding their entry into the market, but a particularly noteworthy challenge has been the substantial capital requirement linked to the development, testing, and continuous improvement of their hardware product. This intricate process demands significant financial resources for conducting research and development,

procuring necessary equipment, carrying out extensive testing procedures, and iterating the product based on feedback and market demands.

Moreover, Clean Sea Solutions acknowledges the difficulties faced by startups when it comes to participating and competing in tender processes, particularly with public entities. These processes often involve strict requirements, extensive paperwork, and substantial financial resources. For a startup, allocating such resources can be a significant burden, diverting valuable time and finances away from crucial business operations and development.

*“Especially when dealing with public entities, there is a threshold for participating in tender processes. For a startup, it is virtually impossible to participate in a tender. It is too costly and time-consuming.”*

Furthermore, when it comes to installing a floating dock within a marina, Clean Sea Solution has experienced barriers in complying with industry norms and laws. The regulatory authorities' rules and norms have caused challenges for the firm in gaining the essential permissions and approvals for their product.

#### *4.1.3.2 Resources*

To tackle the barrier of high capital requirement, Clean Sea Solution has used a funding strategy relying on grants, soft funding, and small investments from friends and acquaintances to keep their equity in the company. To achieve these kinds of funding networking has been essential. Networking has played a vital role in securing these types of funding, as it has facilitated valuable connections and relationships. Through effective networking, Clean Sea Solution has not only secured financial support but has also been able to forge partnerships with key stakeholders for product development, testing, and iteration. To mention some, Clean Sea Solution has partnerships with a renowned technological university in Norway, one of the country's largest suppliers of floating docks, and a well-known Norwegian telecommunications company. These partnerships have provided Clean Sea Solutions with access to expertise, resources, and infrastructure that are instrumental in furthering their mission.

Patents have emerged as a crucial resource that Clean Sea Solutions has effectively utilized to safeguard their innovative technology, maintain a competitive advantage, and attract

investors. The company recognizes the significance of protecting their intellectual property rights and has invested considerable time and resources in securing patents for their solutions.

Moreover, Clean Sea Solutions has effectively employed structural inertia as a method to navigate tenders and industry regulations. By adopting mutual business models such as the sale and loan of their products, the company has found a way to adapt to the requirements and constraints of the market. This approach allows Clean Sea Solutions to maintain a flexible and agile position while still adhering to regulatory frameworks and meeting the needs of potential clients.

#### *4.1.3.3 Legitimacy Types*

##### *Venture Legitimacy*

Clean Sea Solution seems to demonstrate venture legitimacy evident from the fact that a significant portion of their employees have proactively reached out to the company rather than the company actively seeking out employees. This organic interest and engagement from potential team members indicate that individuals have recognized and embraced the vision of Clean Sea Solution, aligning with the shared values of cleaning and maintaining the cleanliness of marinas, harbors, and waterfronts. An example that was enlightened reads as follows:

*“He wanted to transition to our company because he liked the model of us aiming to create commercial, sustainable solutions.”*

##### *Founders Legitimacy*

The founders of Clean Sea Solution may not possess a technical background, but they bring valuable experience from diverse fields that are integral to the success of the venture, including sailing, plastic, waste management, and entrepreneurship. This collective expertise establishes a robust founder's legitimacy, instilling confidence in stakeholders. The company leverages the diverse skill sets within the team to effectively communicate with stakeholders, recognizing the significance of their knowledge and background in building trust and credibility. The CSO explains it as follows:

*"I have extensive experience in sailing and harbors. I understand how people in that segment think, while Per, who has more knowledge about politics than I do, can bring more credibility in situations where politics is the focus."*

Clean Sea Solution recognizes the vital role of demonstrating their knowledge and background to investors, understanding that founder's legitimacy plays a pivotal role in securing their support.

#### Product Legitimacy

Among the individuals interested in joining the new venture, the product's legitimacy appears robust, as their attraction lies predominantly in the technological aspects of sea cleaning. This is explained further in the following quote:

*"In relation to the people who have contacted us, it is primarily the product they are drawn to. The fact that we are working on developing technical solutions for maritime cleanup is what captures their interest, and they envision how they can contribute their knowledge in that area."*

Furthermore, when the product was launched and commercialized, it garnered increased legitimacy, especially considering the scarcity of new ventures in the marine industry that have successfully brought a product to market. By having a product that is available and ready for use, Clean Sea Solution demonstrates their commitment and capability to deliver practical and effective solutions. This enhances their legitimacy and credibility among stakeholders, as they prove their ability to execute their ideas and bring innovative products to realization.

#### 4.1.3.4 Legitimacy Mechanisms

##### Identity Mechanisms

Storytelling and impression management is identity mechanisms that Clean Sea Solution has utilized in a great matter to perceive their vision to stakeholders. The company expresses through presentations and on their website how Clean Sea Solutions arose from three founders with different backgrounds with a shared passion for addressing the plastic pollution problem. By presenting themselves as a diverse team united by a common cause, the founders aim to establish a strong identity and build credibility with stakeholders who are passionate about environmental conservation.

### Associative Mechanisms

Associative ties have been utilized by Clean Sea Solutions to gain legitimacy among stakeholders. This has mostly been done by expanding their network through their existing network. Through their collaborative partnerships, Clean Sea Solutions has gained increased visibility and attention in the industry. As their partners actively promote and support their initiatives, the company's credibility and legitimacy have been further reinforced. This heightened exposure has attracted the interest of a broader audience which the founder explains:

*“Over the years, we have gained much more visibility through our partners. There is more happening within our organization, more activity, and you hear about it.”*

### Organizational Mechanisms

Clean Sea Solution has recognized the importance of visually showcasing the product to stakeholders during a presentation of the venture, considering the challenges associated with physically demonstrating the dock as a product. In that matter, the company is in the process of making high-quality 3D models and videos of their products to show to their future stakeholders.

#### 4.1.4 EConnect Energy

EConnect Energy was established in 2012 with a vision that sustainable energy should be accessible and cheap to everybody. EConnect Energy challenged "business as usual" in the marine, shipping, and energy sectors by pioneering the world's first jettyless LNG transfer, answering the demand for a cost-effective and ecologically sound solution in the LNG value chain.

##### 4.1.4.1 Barriers

At the outset of EConnect Energy, the company faced substantial hurdles due to the absence of a proven track record, both in terms of their corporate standing and market-ready technology. This presented a considerable challenge in establishing their credibility and managing risk perceptions. Consequently, EConnect Energy encountered difficulties securing financial support for the development of their technical solution. Furthermore, the company struggled with a lack of market knowledge and experience about the technology they were pioneering. Additionally, they faced the challenge of building a network of contacts and industry connections due to their newness:



*"We were completely new to the entire market and the technical aspects."*

Additionally, their disruptive technology and its potential to replace traditional methods encountered resistance from established industry players. Skepticism arose from those reliant on labor-intensive practices, leading to a clash of ideologies, as explained in the following quote:

*"There has been an issue with substitutes and the fact that we introduced a disruptive technology, and therefore many have been working against us. It has been quite challenging."*

#### *4.1.4.2 Resources*

As EConnect Energy faced a lack of experience in the market and technical aspects, the founding team focused on recruiting skilled people to join the company and fill the knowledge gaps. Furthermore, they sought assistance from academic institutions and specialists, and they established beneficial connections with several institutes at a well-known technology university in Norway. They also sought advice from important industry experts and garnered support from experts and reputable industry figures. The founder explains it as follows:

*"We needed to acquire talented individuals who understood both the market and the technology. [...]. We approached master's students and professors to join our vision and assist in technical development [...]. We targeted key individuals in our niche market as mentors, advisors, or contacts."*

Moreover, to create a network in the industry the venture reached out to potential partners and experts through various channels. They engaged in cold calling and utilized their network for support. Through these calls, they got into conversations where they got endorsements of influential figures increasing the venture's credibility.

*"Positive statements from renowned individuals in the industry had a significant impact."*

In addition, the venture pursued funding opportunities from grants, soft funding, bootstrapping, and customers to develop the product and scale the company. The CEO explains it as follows:

*"We sought grants from organizations [...]. It was purely bootstrapping and grants. It was the main source of funding [...], but we also had customer financing quite early on."*

Moreover, EConnect Energy targeted agile organizations for collaboration and implementation of their product to get experience, feedback, and financial support to develop the solutions. They managed to establish a partnership with a relevant industry player which provided them with exactly these resources, especially financially as they pre-paid for the product.

*"We collaborated with one of Spain's largest infrastructure companies and got paid in advance. If we made a mistake or if the product didn't turn out as expected, we were willing to take the risk of refunding the payment."*

The venture has also pursued patenting strategies to safeguard their developed innovations and employed legal means to provide its intellectual property and maintain a competitive edge:

*"We monitored competitors closely and utilized patents and agreements for protection."*

#### 4.1.4.3 Legitimacy Types

##### Venture Legitimacy

EConnect Energy shows that they have achieved venture legitimacy by sharing the vision of the company among different actors. They have, among other things, gained partnerships with master students and professors at NTNU and attracted experienced people to the company by sharing their vision, which helped the technology development. Furthermore, the company has achieved a larger network and trustworthiness by sharing the vision of the company:

*"We were allowed to speak at conferences where we could address an audience of 200-300 people within our niche market. We talked about our vision and what we wanted to achieve, particularly focusing on the problem rather than the solutions. After each talk, there were always 1-3 individuals from the audience who approached us, expressing their enthusiasm for what they were working on or sharing that they had experienced the same problem."*

### Founders Legitimacy

EConnect Energy got partners when showing 3D models and drawings of the product which show that the partners had faith in the founders to accomplish and carry out their goals and visions. Especially since the customers had to pre-pay for the product to be developed.

Furthermore, the founders' legitimacy has been achieved by EConnect Energy through their ability to complete and achieve their big and hairy goals that were prevised as challenging by others. This has created huge credibility for the company as the CEO elaborates:

*“People laughed a little at it, as we started out as students [...] But then we showed that we delivered on what we had promised. We brought something big and ambitious to the market, and it worked.”*

The result of this is that the industry now looks at the founders and the people behind the company as people that are capable of creating a functional solution for any problem regarding port infrastructure:

*“The market looks to EConnect Energy as the solution for their port infrastructure issues within the fluids. If they have problems, they turn to EConnect Energy, and fix what the customers need from point A to B”*

### Product Legitimacy

The product legitimacy of EConnect Energy has increasingly grown and is now strong as customers turn to EConnect Energy when they have issues with infrastructure regarding ports, which generates more customers and partners to scale the business.

In addition, partners pre-paid for the products by looking at visualization of the product which may communicate that the legitimacy of the developed product was present as EConnect Energy states that the customers are driven by products or services that can cut costs.

Furthermore, product legitimacy has increased as big energy companies have approved the technology. The reason is that these companies have strict rules and strategic testing of the product before they buy it. As the product has been bought by big energy companies it radiates a high technology standard and legitimacy.

#### 4.1.4.4 Legitimacy Mechanisms

##### Identity Mechanisms

EConnect Energy has used storytelling by framing themselves as a part of the future and how their solution could make more sustainable and cheaper transfers of liquid and gas. Specific examples of how EConnect Energy worked with this are presented in the following quotes:

*“Walking around at X on the technical side and at the Institute of Marin Technology. And getting both master's students and professors to join our vision.”*

*“We also visited many companies in Norway. We were on a tour, spending a couple of months traveling around Norway specifically to meet different industrial companies within our niche market and present our vision.”*

Further, they used impression management by enlightening their commitment and competence through their correspondence and product deliverables. To enlighten this, the CEO states as following:

*“Those people who have worked behind the scenes have all the way managed to achieve something that is very ambitious and groundbreaking, things that people don't believe are possible.”*

##### Associative Mechanisms

The founders of EConnect Energy started out using their associative tie to their home university to gain a network in the industry. They did this by calling relevant people in the industry and saying that they were students and attended a well-known theological university in Norway. In addition, the founders used the networks of their existing network to find relevant people to talk to and referred to their common relation when they made contact. The CEO of EConnect Energy explains it as follows:

*“Just Google your way through, call someone at the switchboard, and try to speak with someone knowledgeable about the topic. We made phone calls, claiming to be students from X. Once you've spoken with someone, you ask if they have any tips for other people you should talk to. Then you work your way further in. That was one approach. Another method was to leverage*

*our network to find individuals who could help us. We went beyond what they might have done with a random person on the street.”*

The company has also used letters of intention with relevant people and actors to make the company desirable and trustworthy to other actors. This has resulted in actors checking out EConnect Energy as a company and their technology, all these actors built a reputation that made it easier for EConnect Energy to get to their customers. Additionally, getting a statement from a well-known person was important for the company:

*“It had quite a lot to say that a well-known name in the industry that everyone knows as the “God Father” made a statement is very good and important”*

Further, the CEO explains that EConnect Energy has used big energy companies to gain legitimacy towards other customers:

*“When other customers see that an energy giant has bought us, it's like, ok, then we don't have to ask. We just expect that the technical aspects and the products will work, and buy it.”*

#### Organizational Mechanisms

In the early stages of EConnect Energy, the company sold its product before it was done. They did this by showing actors 3D models and drawings of the product and presenting their goals and milestones to produce the product. Early on they got a breakthrough and got customers and capital to build their first prototype. EConnect Energy, further, utilized product demonstration through videos and pictures during the production of the prototype:

*“When we built the first system, it was a huge demonstration. We had drones and cameras. [...] It was for a product demonstration, both for the customer and internally.”*

In addition, EConnect Energy states the importance of showing the product physically to customers through product demonstrations through the following quote:

*“We also have delegations from abroad coming to Norway for a tour of the product, trying to drive the car a bit before they make a purchase. We have made extensive use of that. It is a very*

*valuable experience. It's not like buying a car and feeling the steering wheel and getting that sensation. That's how it is in the industry now."*

## 4.2 Cross-Case Analysis

The cross-case analysis will be conducted to create a more holistic understanding of patterns between the cases. The aim is to describe this study's findings regarding the variations across the four teams within the teams; barriers, resources, legitimacy types, and legitimacy mechanisms.

### 4.2.1 Barriers

One common barrier faced by the four case companies is the lack of experience and network within the industry. Starting as relatively new ventures, they have encountered challenges in establishing themselves and gaining credibility due to limited industry knowledge and connections. Further, all companies encountered significant high capital requirements, and challenges in securing funding and capital for their ventures. The capital-intensive nature of their technologies, coupled with the need for hardware development, testing, and compliance with industry standards, have created substantial financial barriers.

Several companies have, furthermore, experienced difficulty with entering the market due to competitors. Ocean Oasis and EConnect Energy have faced difficulties in presenting their innovative technologies in the market due to dominating, major players. These established actors held exclusive customer relationships, making it challenging for new entrants to establish their presence and showcase the unique benefits of their solutions. The slow adoption of new technology in conservative markets further added to the barriers faced by these companies as EConnect Energy encountered resistance from industry players reliant on traditional, labor-intensive practices. Clean Sea Solutions, additionally, highlights the challenges faced by startups in participating and competing in tender processes, particularly with public entities. The stringent requirements, extensive paperwork, and substantial financial resources involved in these processes made it impractical for startups to allocate resources effectively. This specific barrier was not mentioned in the other case studies.

Moreover, barriers concerning industry standards and regulations have also been acknowledged. While Clean Sea Solutions encountered challenges in complying with industry

norms and laws, Ocean Access faced difficulties due to limited knowledge about market requirements and emerging issues regarding industry standards and regulations. Understanding and adhering to these regulations posed distinct challenges for each company, impacting their progress differently.

#### 4.2.2 Resources

To overcome the barriers and be able to enter the market successfully all the case companies have recognized the importance of building networks and leveraging existing relationships to navigate the industry landscape effectively. In addition to the lack of experience and technical understanding. Partnerships and networking have, therefore, played a crucial role in the success of all four companies regarding this barrier. Ocean Oasis, Ocean Access, EConnect Energy, and Clean Sea Solution have all formed partnerships with industry players, investors, and academic institutions to access valuable networks, knowledge, and expertise. These partnerships have provided support, guidance, and access to resources necessary for product development, testing, and market entry. EConnect Energy and Ocean Access have, in addition, especially focused on filling knowledge gaps by recruiting skilled individuals, seeking advice from academic institutions and experts, and targeting industry mentors.

The case companies have further strategically utilized resources such as structural inertia and patents. Ocean Oasis and Clean Sea Solution have leveraged structural inertia by delivering their products and services to potential competitors, allowing them to penetrate the market and establish their presence. EConnect Energy and Clean Sea Solution have recognized the importance of patents in protecting their technology and maintaining a competitive advantage. This strategy is not explicitly mentioned in the other case studies, suggesting a difference in their approach to protecting intellectual property.

Moreover, all four companies have employed various funding strategies to address the high capital requirements of their ventures. Common for all the ventures is that they have sought grants and soft funding. Further, Clean Sea Solution has had investments from friends, acquaintances, and customers to secure financial support. EConnect Energy has focused on gaining customers and has not had any investors to fund their venture. This approach has allowed

them to maintain equity and fund their operations while reducing dependence on traditional sources of funding. While Ocean Access and Ocean Oasis have focused on and gained investors early on in the market entry.

Additionally, to get around the regulatory barriers, Clean Sea Solution has navigated tenders and industry regulations by adopting mutual business models such as providing sales and loans of their products. Further, Ocean Access has sought external support through paid partnerships to address the challenges associated with industry standards and regulations.

#### 4.2.3 Legitimacy Types

##### *Venture Legitimacy*

The ventures interviewed in this thesis recognize the importance of sharing their vision and long-term goals with stakeholders. They understand that a compelling vision serves as a powerful tool for attracting investors, partners, and employees. By effectively communicating their vision, they create a sense of credibility, authenticity, and alignment with shared values. By their participation in conferences where the ventures share their vision in presentations and speak to audiences within their niche markets. This external engagement provides opportunities to connect with individuals who share their enthusiasm or have experienced similar problems, leading to partnerships, support, and validation.

Furthermore, the different cases have obtained venture legitimacy with different strategies. Ocean Oasis stands out for its early success in securing investors, which validates the company's potential and instills confidence in external stakeholders. Early investor support plays a significant role in establishing venture legitimacy and attracting further interest from stakeholders. This aspect is not explicitly mentioned in the other case studies. Clean Sea Solution gains venture legitimacy through organic interest and engagement from potential team members. This indicates that individuals recognize and embrace the vision of the company, aligning with the shared values of sustainability and cleaning marinas, harbors, and waterfronts. The company's vision serves as a magnet, attracting like-minded individuals to join the team. There is no explicit mention of organic employee interest in the other case studies. EConnect Energy and Ocean Oasis leverage their vision to gain partnerships with master students and



professors at NTNU. By sharing their vision and problem statement at conferences, they attract individuals who express enthusiasm for the company's goals and share similar experiences. These academic partnerships contribute to the venture's legitimacy and support the development of their technology. This academic collaboration is not highlighted in the other two case studies.

### *Founders Legitimacy*

The founders, in all four cases, bring valuable experience to the table, either in entrepreneurship, engineering, sustainability, or other specific fields. This experience contributes to the founders' legitimacy and instills confidence in stakeholders regarding their ability to lead and succeed. While the founders of Ocean Oasis, Ocean Access, and EConnect Energy possess a technical background in engineering, the founders of Clean Sea Solution do not. Even though none of the ventures had a relevant engineer background in their product it seems to have increased the founder's legitimacy within the team. Clean Sea Solution, moreover, compensates for this by bringing expertise from diverse fields, such as sailing, waste management, and entrepreneurship. This highlights different paths to legitimacy, emphasizing the importance of expertise in specific domains, which the other ventures are lacking. Furthermore, all the founders of the four ventures have cultivated networks and connections that further enhance their credibility. These connections provide additional legitimacy and contribute to the establishment of partnerships and collaborations.

However, each company employs different strategies to demonstrate founder's legitimacy. Ocean Oasis highlights their technical expertise by explaining the solution to stakeholders without a technical background. Ocean Access emphasizes their positive interactions and relationships with stakeholders, showcasing their credibility. Clean Sea Solution emphasizes the diverse backgrounds of their founders and the importance of showcasing knowledge to investors. EConnect Energy establishes credibility by achieving challenging goals and delivering on promises, thereby earning industry recognition and trust. The different strategies impact the founder's legitimacy on stakeholders in the cases. In Ocean Oasis and Ocean Access, it strengthens stakeholders' confidence, attracting investors and partners. Clean Sea Solution builds trust and confidence in the team's ability to address plastic waste and sailing-

related issues. For EConnect Energy, the founders' track record of delivering on ambitious goals establishes credibility and positions them as the go-to solution for port infrastructure challenges.

### *Product Legitimacy*

In all four cases, there is evidence of external validation that contributes to the product's legitimacy. For Ocean Oasis, the funding received from the EU serves as a testament to the product's compliance with rigorous standards. Ocean Access's interaction with a German company indicates growing recognition and interest in their technology. Clean Sea Solution's product attracts individuals based on its technical aspects, and the commercialization of the product further enhances legitimacy. EConnect Energy's partnerships with big energy companies and the pre-payment from customers reflect the product's high standard and legitimacy.

Furthermore, product legitimacy is supported by technological advancement in three out of the four cases. Ocean Oasis achieves a high Technology Readiness Level (TRL) of 6, indicating extensive testing and validation. Clean Sea Solution emphasizes the technological features of their sea-cleaning solutions, attracting individuals with expertise in that area. EConnect Energy's technology is approved by big energy companies, highlighting its high standard and legitimacy.

Moreover, the cross-case analysis shows the difference in establishing product legitimacy among the cases. Ocean Oasis establishes a high product legitimacy early on through EU funding, which indicates a thorough evaluation process and compliance with stringent regulations. In contrast, Ocean Access initially faces limitations with the prototype's visualization, suggesting a lower level of product legitimacy. However, they receive financial support, indicating that other factors contributed to securing the investment. Ocean Oasis emphasizes the user-friendly nature of its product, enabling non-technical founders to effectively present it and establish partnerships. This highlights the intuitive design and value proposition that appeals to stakeholders. There is no explicit mention of user-friendliness or intuitive design in the other case studies. EConnect Energy's product legitimacy is reinforced by its market position as the go-to solution for port infrastructure issues within the fluids. Customers turn to EConnect Energy for problem-solving, generating more customers and partners. This market recognition further

enhances the product's legitimacy. There is no explicit mention of such market recognition in the other case studies.

#### 4.2.4 Legitimacy Mechanisms

##### *Identity Mechanisms*

Storytelling has been employed by all four case studies as an effective identity mechanism to shape stakeholders' perceptions of the ventures. By sharing narratives that highlight their vision, mission, and the impact they aim to create, the ventures create a compelling storyline that resonates with stakeholders. Storytelling has been shown to help establish a strong identity, build credibility, and attract individuals who align with their goals. Further, sharing the vision serves as a powerful tool for generating interest, building trust, and conveying the potential impact of the business.

Ocean Access leverages the sharing of their vision as an identity mechanism to attract individuals with valuable expertise. By effectively communicating their vision, they capture the interest of knowledgeable professionals who align with their goals. Moreover, Clean Sea Solutions focuses on presenting themselves as a diverse team united by a common cause. They emphasize the shared passion for addressing the plastic pollution problem, aiming to build credibility with stakeholders passionate about environmental conservation.

Further on, EConnect Energy and Ocean Oasis emphasize impression management as an identity mechanism. EConnect Energy highlights the commitment and competence of their team members, creating a perception of ambition and groundbreaking achievements. Ocean Oasis emphasizes the impact and lesser harmful effects on the marine environment, conveying a sense of responsibility and dedication. The other case studies do not explicitly mention these elements of impression management.

##### *Associative Mechanisms*

Associative mechanisms are actively utilized by all four ventures through expanding their networks by leveraging existing relationships and connections. They do this by reaching out to relevant individuals within their networks and making use of associative ties to gain access to key stakeholders in the industry. By leveraging these networks, they create opportunities for

collaboration, knowledge sharing, and resource acquisition. However, the quality of associative ties differs among the case studies. Ocean Oasis and Ocean Access mostly utilize existing networks within the industry, while EConnect Energy mostly leverages its association with a well-known theological university and Clean Sea Solutions mostly expands its network through collaborative partnerships. The specific quality of associative ties varies, but the underlying principle of utilizing existing relationships remains consistent.

Furthermore, all the cases have strategically created collaborative partnerships and associations with industry actors to enhance the ventures' legitimacy. By partnering and aligning themselves with established organizations and reputable actors in the industry, they have increased their legitimacy. In addition to contributing to the ventures' visibility, exposure, and reputation, ultimately attracting the interest of a broader audience. Ocean Oasis, Ocean Access, and EConnect Energy employ a piggybacking strategy to enhance their legitimacy. Ocean Oasis aligns with reputable investors and collaborates with established organizations, while Ocean Access strategically networks with employees in a well-established company, and EConnect Energy leverages associations with big energy companies to enhance their legitimacy and gain trust from other customers. Furthermore, EConnect Energy also utilizes letters of intention and endorsements from industry experts to establish trust and desirability. These documents and statements from well-known individuals contribute to the venture's reputation and make it easier for them to approach customers.

### *Organizational Mechanisms*

The case studies recognize the significance of demonstrating their product to stakeholders. However, each case study employs different visualization techniques to showcase their product. Ocean Access utilizes drawings and pitchers, Clean Sea Solution is in the process of creating high-quality 3D models and videos, EConnect Energy uses 3D models, drawings, videos, and physical product demonstrations, and Ocean Oasis focuses on effectively communicating objectives and milestones rather than specific visualization techniques. Regardless of the different strategies, all the ventures have experienced that demonstrating the product helps stakeholders understand its capabilities, visualize its potential, and build confidence in the venture's ability to deliver on its promises.

Moreover, the case studies also emphasize the strategic communication of goals and milestones to stakeholders. By proactively sharing their progress, objectives, and timelines, the ventures aim to instill confidence and demonstrate their commitment to achieving their goals. Clear communication of goals and milestones helps stakeholders understand the venture's vision and progress, fostering trust and support.

#### 4.3 Summary of Analysis

To summarize the findings derived from both the within-case analysis and the cross-case analysis, the following table is presented.

<b>Case</b>	<b>Barriers</b>	<b>Resources</b>	<b>Types of Legitimacy</b>	<b>Legitimacy Mechanisms</b>
<b><i>Ocean Oasis</i></b>	Capital Requirements Lack of Experience Network Effect Competition	Structural Inertia Experience Network Capital Patenting	Founder Legitimacy Product Legitimacy Venture Legitimacy	Associative Mechanisms Identity Mechanisms Organizational Mechanisms
<b><i>Ocean Access</i></b>	Capital Requirements Lack of Experience Network Effect Industry Standards & Regulation	Experience Network Capital	Founder Legitimacy Product Legitimacy Venture Legitimacy	Associative Mechanisms Identity Mechanisms Organizational Mechanisms
<b><i>Celan Sea Solution</i></b>	Capital Requirements Lack of Experience Network Effect Competition Industry Standards & Regulation	Structural Inertia Experience Network Capital	Founder Legitimacy Product Legitimacy Venture Legitimacy	Associative Mechanisms Identity Mechanisms Organizational Mechanisms
<b><i>ECOconnect Energy</i></b>	Capital Requirements Network Effect Lack of Experience Competition	Experience Network Capital Patenting	Founder Legitimacy Product Legitimacy Venture Legitimacy	Associative Mechanisms Identity Mechanisms Organizational Mechanisms

Table 2 - Summary of Analysis



## 5. Discussion

To assess potential insights that may answer the research questions, this chapter will discuss the relationship between the presented literature, the findings of the analysis, and the research questions. Firstly, to examine the alignment between the empirical findings and the conceptual framework, the result of this study will be discussed concerning the literature. Secondly, the findings will be discussed concerning the research questions to assess the extent to which they have been addressed and answered. Finally, reflections regarding the study will be presented to make room for discussion about why these results were given in particular and why some findings may be lacking.

### 5.1 Addressing the Theoretical Framework

The connection between the theoretical framework and the analysis is important to discuss as it creates a validation of the study. This discussion will, therefore, focus on how the theories regarding market entry and building legitimacy, presented in the theoretical framework, are applied or not applied in the empirical analysis of the four cases. In addition, the conceptual framework presented by the author will be evaluated.

#### 5.1.1 Market Entry

The theoretical framework presents barriers such as competition, limited experience and network, industry regulation and standards, and lack of financial capital when entering a mature market. The analysis of the four ventures presents that these barriers apply, however, not all barriers apply to every venture. For instance, all cases faced challenges in establishing themselves due to limited industry knowledge, financial capital, and network. Furthermore, Ocean Access and Clean Sea Solutions encountered difficulties in complying with industry norms and laws due to it being demanding, time-consuming, and expensive (Malerba, 2007; Klapper et al., 2006). Moreover, EConnect Energy, Clean Sea Solution, and Ocean Oasis have encountered the struggle to enter markets dominated by major players as these players maximize their productivity and performance by utilizing most of the resources (Swaminathan, 1998). Nevertheless, the analysis effectively illustrates the impact of these barriers, which are on the companies' progress (Geroski, 1995).

The findings, furthermore, underscore the importance of resources such as networking and knowledge sharing in navigating the industry landscape, particularly before market entry, which aligns with Helfat & Lieberman's (2002) literature. This is exemplified in the case of Clean Sea Solution and Ocean Oasis, which managed to secure a range of resources and opportunities ahead of the other two companies, starting with a robust foundation of pre-entry knowledge and networks. Additionally, the analysis recognizes the value of possessing in-house experience and obtaining financial capital, particularly when establishing technologically intensive ventures, as supported by prior research (Agarwal et al., 2004; Audretsch, 2009). However, there are variances in the utilization of certain resources, specifically agility, and patenting. The limited mention of agility across all cases may be attributed to the absence of explicit discussion during the interviews, as it is expected that all new ventures employ agility as a fundamental quality (McKendrick et al., 2003). On the other hand, the difference in patenting adoption among the cases can be attributed to the time-consuming and expensive patenting process, coupled with the absence of guaranteed enforcement or defense against potential violations, as explained by the CEO of ECOnnect Energy in the analysis.

Moreover, the analysis emphasizes the crucial role of resource acquisition in overcoming barriers and achieving successful market entry, as evidenced by the collective efforts made by all ventures to secure necessary resources. Clean Sea Solution, for example, effectively used its network and industry ties to achieve new connections with well-known actors in the industry (Helfat and Lieberman (2002); Berg et al., (2008). These connections gave them access to experience, finance, and regulatory assistance, allowing them to manage the barriers, especially regarding capital and industry laws and standards. This aligns with the findings of Berg et al. (2008) which imply that social capital increase linearly with new venture sizes of the network. Similarly, Ocean Access leveraged its pre-entry network with research institutes to establish in-house knowledge and skills to develop its product. By using their network as a resource, they have provided vital expertise and assistance, allowing them to overcome the barriers of lacking industry experience (Berg et al., 2008). Moreover, Ocean Oasis and Clean Sea Solution have leveraged patenting to protect their technology. Allowing them to overcome the barrier of competition by maintaining their competitive advantage and establishing a strong position in the



market (Hsu and Ziedonis, 2013). Furthermore, Clean Sea Solution has experienced that patenting their solution has had a positive effect on investors (Gallaud, 2020).

### 5.1.2 Building Legitimacy

Three types of cognitive legitimacy are presented in the theoretical framework, which are founders, ventures, and product legitimacy (Batra et al., 2022) along with legitimacy mechanisms that may create the different types of legitimacy. These mechanisms are called associative, identity, and organizational mechanisms (Fisher et al., 2017). Drawing from the theories on legitimacy types and mechanisms, the author proposed a relationship between them, illustrated in **Feil! Fant ikke referansekinden..**. These arguments have been used as a baseline for this master and suggest that identity mechanisms generate venture legitimacy, associative mechanisms generate founder's legitimacy, and organizational mechanisms generate product legitimacy. The case studies provide empirical evidence supporting these theoretical arguments.

Clean Sea Solution and Ocean Oasis effectively utilized identity mechanisms to establish venture legitimacy. Ocean Oasis strategically crafted their brand and storytelling to position itself as a pioneer in sustainable agriculture which resulted in an awareness of their vision among stakeholders (Li et al., 2014; Fisher et al., 2017). Furthermore, Clean Sea Solution has utilized storytelling to preach their vision to potential employees, which worked to gain venture legitimacy as a lot of the current employees were recruited this way (Li et al., 2014; Garud et al., 2014). Moreover, EConnect Energy and Ocean Access have utilized their associative ties with established actors and individuals to gain founders' legitimacy and increased their networks (. Similarly, Ocean Oasis aligned themselves with reputable investors and collaborated with established organizations. By aligning themselves with key stakeholders in the industry, they were able to validate their approach, gain support, and tap into existing networks for distribution and market access. Additionally, the analysis reveals that the utilization of organizational mechanisms played a crucial role in gaining product legitimacy for the ventures. For instance, EConnect Energy has utilized product demonstration to communicate their technical expertise and differentiate themselves from competitors, which worked efficiently as they obtained product legitimacy among customers and got sales (Li et al., 2014; Kirmani and Rao, 2000). Similarly, Clean Sea Solution focused on building a robust operational infrastructure to

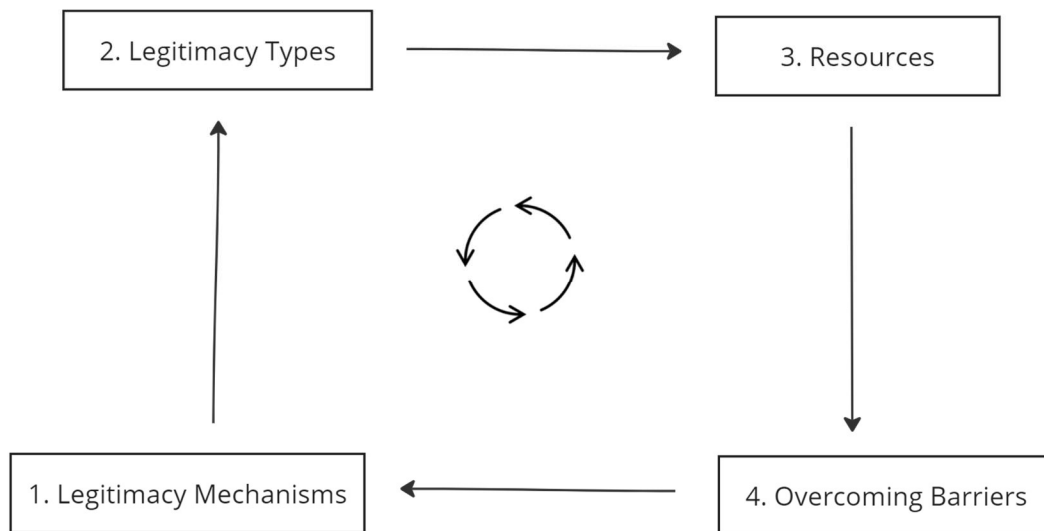
demonstrate their ability to effectively address marine pollution. Showing their waste management systems, monitoring technologies, and scalable processes enhanced the legitimacy of the product as stakeholders got a broader understanding of the product (Batra et. al, 2021; Li et al., 2014; Kirmani and Rao, 2000).

However, the analysis of the four cases suggests that multiple legitimacy mechanisms can interact and reinforce each other in shaping different types of legitimacy. For example, Ocean Oasis demonstrates how associative mechanisms, such as piggybacking, also play a vital role in establishing product legitimacy. As Ocean Oasis has associated themselves with the EU, their product has become more accepted and recognized by relevant actors in its ecosystem which reflects product legitimacy (Fisher et al., 2017; Zhang et al., 2021). Similarly, EConnect Energy shows how organizational mechanisms, such as external validations, contribute not only to product legitimacy but also to venture legitimacy. By demonstrating adherence to industry standards, EConnect Energy enhances the venture's focus on safety measurements concerning their technology towards their customers (Li et al., 2014). These findings highlight the complex interplay between different legitimacy mechanisms and the dynamic nature of legitimacy formation. New ventures may employ multiple legitimacy mechanisms simultaneously to establish various types of legitimacy, depending on their specific contexts and goals. Therefore, understanding the interrelationships between different legitimacy mechanisms and their collective influence on overall legitimacy is crucial for a comprehensive understanding of how ventures gain legitimacy in the market.

### 5.1.3 Revisiting the Conceptual Framework

Based on the presented literature regarding market entry and building legitimacy, the author developed a conceptual framework that highlighted the iterative interplay between resources, legitimacy mechanisms, and legitimacy types. In this framework, it was proposed that resources act as a catalysator for overcoming barriers, as shown in Figure 4. However, when analyzing the different cases, it becomes clear that the findings only partially support this initial hypothesis. Instead, the analysis suggests that overcoming barriers should be seen as an active part of the iterative process, rather than an output.

As the cases shed light on the dynamic nature of the relationship between resources and barriers, it becomes evident that the barriers play an activating role in engaging new angles of the legitimacy mechanisms. For instance, Econnect Energy has utilized financial capital to both develop and further patent their innovative technology. Gaining financial resources has helped EConnect Energy in overcoming the barrier of high capital requirements regarding the development of the product. Further, the development of the product has been used in demonstrations as an organizational mechanism to gain product legitimacy which creates new financial resources to support the patenting of the technology. This reveals that overcoming barriers is a part of the iterative process, other than being a linear output. This iterative process reflects the dynamic nature of building legitimacy and highlights the active role of overcoming barriers, which are visualized in Figure 6.



*Figure 6 - Revised Foundation of a Successful Entry into a Mature Market*

However, the analysis also highlights situations where the utilization of resources did not lead to the expected outcomes or where barriers persisted despite resource availability. Ocean Oasis, for instance, despite having access to significant financial resources, encountered regulatory constraints that hindered their market entry. This indicates that the process of overcoming barriers is complex and not solely reliant on a single resource that can address a

specific barrier. Instead, it emphasizes the importance of leveraging a combination of diverse resources that can partially or fully resolve one or more barriers.

## 5.2 Addressing the Research Questions

To acknowledge the extent to which the research questions have been addressed, the findings will be discussed concerning the research questions. As this study has two research questions, the discussion will be divided into two parts. The first research question will focus on the acquisition of product legitimacy by looking at parts of the conceptual framework. Furthermore, the second research question will focus on the contribution of product legitimacy by looking at the connection of the whole conceptual framework. Figure 7 is presented to visualize the strategy for answering the questions.

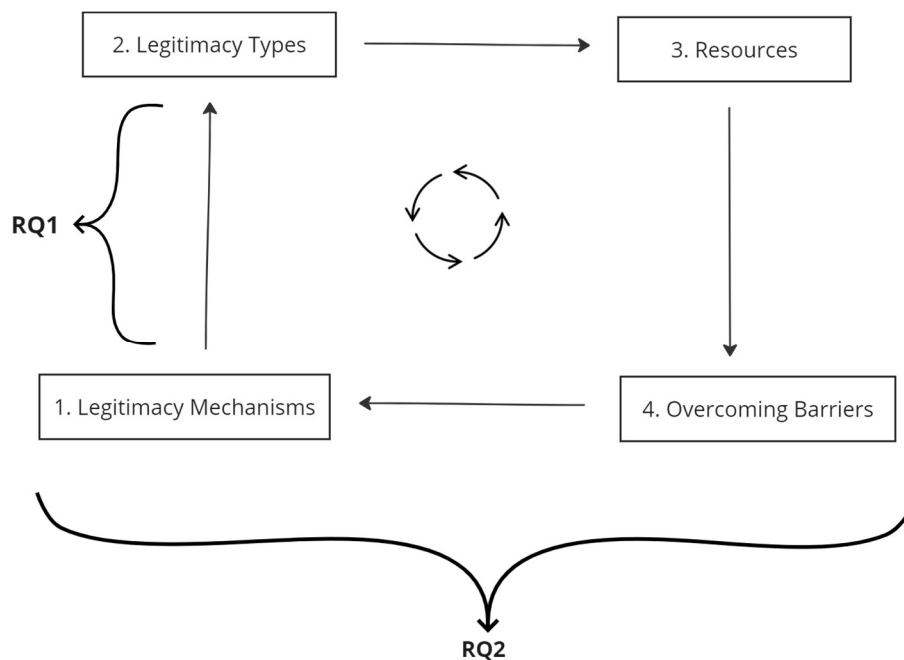


Figure 7 - Revised How to Answer the Research Questions

### 5.2.1 Acquisition of Product Legitimacy

The connection between the hypothesis and analysis shows that all legitimacy mechanisms may contribute to creating product legitimacy. Nevertheless, it is possible to argue that organizational mechanisms, such as product demonstration and milestones generate more product legitimacy

as they provide a tangible image of what is going to be developed and at what speed. The analysis of the ventures supports the argument that product demonstration and milestones have a stronger impact on product legitimacy compared to storytelling and associative mechanisms. For example, in the case of Ocean Oasis, the analysis shows that their successful product demonstration of the innovative water desalination technology, along with showcasing milestones such as pilot projects and partnerships with reputable organizations, generated a high level of product legitimacy. Stakeholders were able to witness the functionality and effectiveness of the technology firsthand, leading to increased confidence and trust in the venture's product. These findings provide support to the literature of Li et al. (2014), which suggests that product legitimacy can be established through various methods such as product demonstrations, testimonials from satisfied customers, and positive reviews from influential stakeholders.

In contrast, the analysis reveals that identity mechanisms, while still contributing to product legitimacy, may require additional efforts to establish credibility and trust. For instance, Clean Sea Solution employed storytelling to convey their vision of combating marine pollution through their waste management system. However, the analysis highlights that some stakeholders expressed skepticism and required further evidence and validation to fully believe in the venture's product legitimacy. This suggests that storytelling alone may not have the same level of impact as product demonstration in generating a strong sense of legitimacy.

Similarly, the analysis indicates that associative mechanisms can contribute to product legitimacy. For instance, EConnect Energ used its network ties with a well-established energy company to provide external validation and enhance the perception of their product's legitimacy. However, the analysis also reveals that the impact of these associative mechanisms depends on the recognition and trustworthiness of the partners involved. In cases where stakeholders were not familiar with the partner's reputation, the endorsement may not have carried the same weight or significantly contributed to product legitimacy.

The utilization of organizational mechanisms, such as product demonstration and milestones are, however, evident throughout the analysis, where ventures showcased their technological advancements, conducted live demonstrations, and provided evidence of their

product's capabilities. In addition, by using organizational mechanisms, ventures create a sense of reliability and transparency, allowing stakeholders to assess the feasibility and potential of the product. However, it is important to consider that product demonstration alone might not be sufficient in all cases. New ventures should, therefore, also consider other mechanisms such as associative and identity to address different aspects of product legitimacy.

#### 5.2.2. Contribution of Product Legitimacy

Product legitimacy plays a crucial role in facilitating market entry for new ventures. Based on the analysis, it enhances the cognitive legitimacy and trustworthiness of the new venture in the eyes of potential customers, partners, and investors. When a product is perceived as legitimate, it instills confidence and reduces perceived risks associated with adopting a new offering. This can be particularly important when entering a mature market where customers may already have established relationships with existing providers. Through the demonstration of product legitimacy, new ventures can overcome skepticism and gain acceptance, which ultimately enhances their ability to acquire the necessary resources for successful market entry. This finding is consistent with the research conducted by Aldrich and Fiol (1994), who highlight the significant role of product legitimacy in the success of new ventures. According to their findings, customers are more inclined to purchase products that possess high levels of product legitimacy, further emphasizing its importance in driving consumer behavior and facilitating the success of new ventures.

Moreover, the analysis shows that product legitimacy acts as a differentiator and competitive advantage for new ventures. In a market crowded with established players, having a product that is perceived as legitimate can help new ventures stand out and attract attention. Product legitimacy signals to customers that the offering is valuable, innovative, and capable of addressing their needs or pain points. This differentiation can create opportunities for new ventures to carve out a niche or capture market share from incumbents. These findings substantiate the literature of Batra et. al (2021) and Shepherd & Zacharakis (2003), which argue that product legitimacy is the strongest type of cognitive legitimacy on a potential customer's decision to engage with a new venture, regarding B2B.

However, there are also challenges associated with establishing product legitimacy. Ventures need to invest resources and efforts to demonstrate the legitimacy of their product strongly. This can involve conducting extensive product testing, acquiring certifications, and providing evidence of performance and customer satisfaction. These efforts require time, financial investment, and a solid understanding of the market's expectations. To guarantee that the costs of building legitimacy are reasonable and consistent with their overall strategy, ventures must carefully weigh the requirement for legitimacy against the resources at their disposal.

### 5.3 Reflections on the Study

To summarize the discussion, the interplay between different legitimacy mechanisms and the dynamic nature of legitimacy formation is complex and new ventures may employ multiple legitimacy mechanisms simultaneously to establish various types of legitimacy, depending on their specific contexts and goals. However, the findings emphasize the importance of utilizing organizational mechanisms to acquire product legitimacy as it provides tangible evidence of the product's development and progress. Furthermore, findings highlight that product legitimacy reduces stakeholders' skepticism and helps ventures differentiate themselves in crowded mature markets and attract attention. This contributes to gaining the trust and credibility of stakeholders which facilitates resource acquisition and access to enter the market successfully. One notable reflection is that product legitimacy comes with challenges that require the new venture to strategically allocate their resources.

While this study examines several legitimacy mechanisms, it is important to acknowledge that certain mechanisms outlined by Fisher et al. (2017) and Überbacher (2014) were excluded for it to be manageable for the author. Future research could, therefore, include the impact of additional mechanisms, such as sense-giving, cultural agencies, and collective framing, on the establishment of product legitimacy and the attainment of successful market entry. By including these mechanisms, a more comprehensive understanding of the factors influencing product legitimacy and market entry can be obtained.

Furthermore, it is important to note that this research focused solely on Norwegian hardware ventures operating in the maritime industry. To enhance our understanding of experience as a factor in new venture legitimization, future studies can expand the scope to include ventures from different countries and industries, as well as a wide range of products and services. Additionally, it would be valuable to include the perspectives of various stakeholders regarding product legitimacy. This broader approach would provide a more comprehensive and diverse understanding of the role of experience and stakeholders' views in the legitimization of new ventures.

Moreover, this study provides insights into the factors that affect the use and effectiveness of different legitimacy mechanisms, helping us understand how they contribute to the product legitimacy of new ventures. Further research may build on this and look at how the different legitimacy mechanisms interact with each other and how they collectively influence the product legitimacy of new ventures. By further studying this, it may gain an increased understanding of the complex dynamics involved in building legitimacy in a mature market.

Overall, the study provides valuable insights for entrepreneurs, policymakers, and scholars interested in understanding the dynamics of new ventures' entry into mature markets. This is provided by addressing the gap in the existing literature concerning product legitimacy. For instance, the study builds upon the findings of previous studies, such as Aldrich and Fiol (1994) and Batra et al. (2021), which highlight the positive correlation between product legitimacy and stakeholder engagement. These studies suggest that when a new venture establishes a higher level of product legitimacy, it enhances its ability to attract and engage stakeholders. Furthermore, this research contributes to the understanding of how new ventures can strategically generate and leverage product legitimacy. It explores the methods and approaches that new ventures may employ to establish and enhance the legitimacy of their products. By identifying and addressing the challenges associated with achieving product legitimacy, such as those discussed by Zhang et al. (2021), the study provides practical insights for new ventures to effectively navigate the path towards legitimacy.



## 6. Conclusion

The purpose of this study was to explore how new ventures achieve product legitimacy, in addition to how product legitimacy influences a new venture's entry into a mature market. Considering both the influence of legitimacy and market entry, the study is built on literature concerning the concepts of barriers and necessary resources to enter a mature market, types of cognitive legitimacy, and legitimacy mechanisms. Moreover, four case studies were conducted, where the new ventures were interviewed to gather relevant information concerning the research questions:

*RQ1: How do new ventures use legitimacy mechanisms to gain product legitimacy?*

*RQ2: How does product legitimacy contribute to gain the necessary resources to enter a mature market?*

To answer the first research question, the study confirms that new ventures utilize all types of legitimacy mechanisms, presented by Fisher et al. (2017), to establish product legitimacy. However, the analysis especially emphasizes the use of organizational mechanisms to create a sense of reliability and transparency, allowing stakeholders to assess the feasibility and potential of the product. Furthermore, it is important to acknowledge that organizational mechanisms alone might not be sufficient.

To answer the second research question, the study demonstrates that product legitimacy contributes as a crucial tool to enhance the venture's cognitive legitimacy and increase the possibility of a successful market entry. As product legitimacy act as a differentiator and reduce technological risk and skepticism of the venture among stakeholders, it increases the possibility of acquiring essential resources such as capital and experience.

Based on these answers, the study contributes to the lack of literature concerning the impact of product legitimacy. Especially, substantive the findings of Aldrich and Fiol (1994) and Batra et al. (2021) which suggest that the engagement of stakeholders increases when a higher level of product legitimacy is expressed by the new venture. Furthermore, it provides an

understanding of how a new venture strategically may generate and utilize product legitimacy, and counteract the challenges in achieving product legitimacy (Zhang et al., 2021).

### 6.1 Implications for Further Research

In the research area of new venture legitimacy, there is room to further develop an understanding of product legitimacy towards stakeholders, as it is an incentive that is critical to both the product development and survival and growth of the new venture. Based on the findings in this study, the following suggestions are found important to further study this area:

- This research focused specifically on Norwegian hardware ventures in the maritime industry. To gain a broader understanding of the role of experience in legitimizing new ventures, future studies could be conducted across different countries and industries, considering a wider range of products and services. Additionally, exploring stakeholders' perspectives on product legitimacy would be a valuable addition to further enhance our understanding in this area.
- Further research could delve deeper into exploring the interactions between different legitimacy mechanisms and their impact on the product legitimacy of new ventures. By examining additional cases and contexts, researchers can uncover more nuanced insights into the complex dynamics of product legitimacy formation.
- This study explores various legitimacy mechanisms, some legitimacy mechanisms outlined by Fisher et al. (2017) and Überbacher (2014) were excluded. Future research could expand the study by including the impact of sensegiving, cultural agencies, and collective framing on establishing product legitimacy and achieving successful market entry.

### 6.1 Implications for Practice

Based on this study regarding product legitimacy, new ventures may learn and use the following findings to increase their legitimacy:

- This thesis suggests that new ventures entering a mature market focus on utilizing organizational mechanisms to differentiate themselves from other competitors and

reduce the technological risk and skepticism of the venture among stakeholders. The venture should especially prioritize working on product demonstrations, either visually or physically, and milestones as early on in their journey and keep updating this as the venture grows. Furthermore, the venture should actively present product demonstrations and milestones to stakeholders as it allows ventures to capture attention, generate early adopters, and set a strong foundation for market entry.

- New ventures are additionally advised to leverage associative and identity mechanisms as supportive measures to gain product legitimacy. However, the primary focus should be on organizational mechanisms, as it is particularly important to allow the venture to show its capabilities, demonstrate the feasibility of the product, and reduce risk among stakeholders.
- Furthermore, the study recommends that new ventures adopt a thoughtful and strategic approach to building product legitimacy by carefully evaluating the need for legitimacy concerning the resources they have available. This is particularly significant considering that achieving product legitimacy can be demanding in terms of resources and time, which are often limited for new ventures.



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## 8. Appendix

### 8.1 Interview Guide in Norwegian

#### **Formell introduksjon**

Masterstudent ved NTNUs Entreprenørskole m/ BSc Marin Teknikk. Masteroppgave har utspring fra et litteraturstudie gjennomført i høst hvor det kom frem at det er viktigere å bygge produktlegitimitet kontra gründerlegitimitet og bedriftslegitimitet I modne market, og kan dermed påvirke inngangen til et oppstartsselskap.

#### **Problemstilling**

- RQ1: How do new ventures use legitimacy mechanisms to gain product legitimacy?
- RQ2: How does product legitimacy influence the new venture to enter a mature market?

#### **Agenda**

- Kommer til å gå gjennom temaer som produktportfølge, barrierer, ressurser og interensenter, men ønsker I hovedsak å ha fokus på refleksjon, og høre om dine tanker og erfaringer.

#### **Formaliteter når det gjelder lengde, opptak og transkripsjon**

- Be om tillatelse til å ta opp og transkribere intervjuet
- Alle filer og transkripsjoner er konfidensielle, filene slettes når oppgaven fullføres.
- Data som inngår i oppgaven er anonymisert, men inneholder navn på selskapet og informantens rolle. Ok?

#### **Spørsmål?**

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#### **Generelt**

1. Kan du fortelle I grove trekk deres histore fra start av selvskapet lil kommersialisering av første produkt?

## **Produktportefølge**

1. Kan du beskrive bedriftens nåværende produktportefølge?
  - a. Hva er hovedproduktene eller -tjenestene deres?
2. Kan du ta meg gjennom utviklingsløpet fra ide til hvor dere er idag, så detaljert så mulig?
  - a. Hva har vært barrierer dere har møtt på?
  - b. Hva har vært nødvendig for å få disse ressursene?
  - c. Hvordan har dere jobbet for å få tak i disse ressursene?

## **Makedsinngang**

1. Hva var deres strategi når dere entret markedet med et nytt produkt eller en ny tjeneste?
  - a. Hvilke utfordringer har dere håndtert i markedet med eksisterende aktører?
  - b. Hvordan har dere bygget tillit og etablert troverdighet hos potensielle kunder og interessenter?
  - c. Hvilke tiltak har dere implementert for å minimere risikoen for å mislykkes?

## **Ressurser**

1. Hvilke ressurser trengte dere for å gjennomføre deres markedsinngangsstrategi i et modent marked?
  - a. Hvordan skaffet disse ressursene, for eksempel finansiering, menneskelige ressurser, teknologi, eller andre?
    - i. F.eks. Hvordan har dere kommunisert deres produktporteføljen til potensielle kunder og interessenter deres?
  - b. Hvordan håndterte dere utfordringer knyttet til skaffe og forvalte nødvendige ressurser?
  - c. Hvordan prioriterete og fordelte ressursene deres for å sikre en vellykket markedsinngang?
  - d. Hvordan er dere være fleksible og tilpasse dere endringer i behovet for ressurser over tid?

## **Interessenter**

1. Hvem har vært de viktigste interessentene for selskapet?
  - a. Når og hvorfor begynte disse interessentene å samarbeide/interagere med bedriften?
2. Hvilken rolle spiller interessentene deres når det gjelder å skape innovasjon og forbedring av selskapets produkter og tjenester?
3. Hvordan identifiserer dere interessenter som kan bidra til selskapets vekst og suksess?
  - a. Hva er deres "approach" for å få til et samarbeid?

## **Funn**

1. Det er identifisert noen barrierer for å entre det maritime markedet: High capital requirement, Lack of experience, Lack of industry background, Industry standards, Competition.
  - a. Har dere opplevd noen av disse barrierene?
  - b. Hvilke spesifikke ressurser vil du knytte til de ulike barrierene?
  - c. Hvilke av disse barrierene vil du si er mest essensielt å overkomme for å entre markedet? Noen dere vil legge til?
2. Identity: Storytelling, sensegiving, impression management.  
Associative: Relationships and connections with organizations, individuals and other entities.  
Organizational: Milestones and structures, leaders background and external validations.
  - a. Noen dere har opplevd å bruke mer enn andre?

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## **Avsluttning**

- Mulig å få tilgang til dokumenter som kan underbygge det du har snakket om i intervjuet?

*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.*

