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Towards Net – Zero: *Venture Capital Investment In Green Startups*

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Abstract

Venture capital plays an important role in supporting sustainable entrepreneurship, innovation and green startup growth. The following thesis identifies opportunities and challenges that follow the green transition and net zero agenda. With a focus on their investment decisions, motivations and impact of government policies on venture capital investment, the following thesis identifies opportunities and challenges that follow the green transition and net zero agenda. Using qualitative research this thesis identifies venture capitalists' perception on green startup investments, by providing new insight into the dynamics of the VC industry in Norway. In contrast to some established literature, the study finds high VC investor willingness and positive perception of green startup ventures. Questioning the notion of investor hesitance towards high risk investments in the green startup sector, the study highlights new market opportunities within impact, early-stage Venture capital investments.

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1.0 Introduction

Solving the wicked problems of the world seems like a daunting task, however, performing systemic change is both possible and highly necessary (Meadows, 1999; Simons, 2017; Holtslag et al., 2017). With increasing pressure on humanity to reach sustainability goals, interest within the field of entrepreneurship and innovation towards new sustainable technology solutions have proliferated (Bocken, 2014, 2015). The types of changes needed require great fundamental shifts in both the purpose of business and how it is being conducted (Bocken 2014, 2015). Here, business model innovation (BMI) is viewed as an approach for mainstream companies to redesign and integrate sustainability into their activities, while at the same time it has also been viewed as an enabler for startups to design, integrate and pursue sustainable business from its early conceivment (Stubbs & Cocklin, 2008; Porter & Cramer, 2011; Bocken et al., 2014).

Research on innovation and corporate responsibility indicates that bigger companies have an advantage when it comes to reaching sustainability goals (Bos-Brouwers, 2010). This is due to their power in overcoming challenges related to initiating incremental innovation processes, embedded in financial and knowledge resources combined with long term strategic management advantages in which their smaller counterparts do not (Bos-Brouwers, 2010). However, a disproportionate rate of radical innovations originates from the smaller counterparts (Bocken, 2014). Even though start ups are resource scarce, the lower degree of formalisation together with agile and dynamic entrepreneurial management style, seems to have a positive impact on the speed in which radical innovation is performed (Bocken et al., 2014 ; Bergset & Fitcher, 2015), possibly implying a greater impact from startups in the ongoing transition towards a greener and more sustainable economy.

The entrepreneur has for a long time been recognized as a catalyst for innovation (Schumpeter, 1933). It is however in more recent times that entrepreneurs and startups have been lifted as crucial co - actors in the role to create, discover and exploit opportunities for sustainability, with innovations leading towards market tranformations (Cohen & Winn, 2007; Dean & McMullen, 2007; Desa, 2012 ; Johnson & Shaltegger, 2020). Startups have in many instances brought up solutions to both societal and environmental challenges (Hall et al., 2010, ; Pacheco et.al., 2010), they also play a key role in the emergence of sustainable innovations and business

models (Bocken et. al., 2015). As a progression of institutional and social entrepreneurship followed by ecopreneurship, entrepreneurship for sustainable development (ESD) has established itself as an important factor for contributing to sustainable development (Cohen & Winn, 2007; Dean & McMullen, 2007; Hockerts & Wüstenhagen, 2010 ; Schaltegger & Wagner, 2011; Shepherd & Patzelt, 2011; York et al., 2016 ; Johnson & Schaltegger, 2020; Anand et al., 2021). This has led to an emergence of entrepreneurs bringing forth sustainable innovations that transform market deficiencies into profitable market opportunities, replacing non - sustainable forms of production and consumption while capturing and delivering value for a broader range of stakeholders (Lüdeke, 2019). Further, they foster different views on the solution at hand of ecological or social issues (Schaltegger & Wagner, 2011).

Green startups can be found across all industries, stretching from segments within agriculture & forestry, air and environment, biofuels & biochemicals recycling and waste, solar, transportation, water and wind (Cummings et al., 2016). As a result of its widespread presence, scholars tend to use both *green* and *clean* interchangeably when talking about sustainable startups, making the definitions both fluid and somewhat vague. Nevertheless, it seems like the start-ups having this definition all share the common purpose of wanting to reduce the overall social or environmental impact in different ways (Cummings et.al, 2016; Mrkajic et al, 2017)). This through identifying as high tech ventures offering green products / services using green technologies (Mrkajic et al., 2017). In this thesis, green startups are viewed as start-up ventures that develop and sell products or services that have a net positive environmental impact and contribute to a “greening of the economy” (Bergset, 2015), aiming to implement sustainable business models, solve certain challenges in the eye of sustainability and capture increased sustainable value through a service or product (Bergset & Fitcher, 2015).

The necessity of capital to develop environmentally sustainable technologies are essential in order to address environmental issues and to further facilitate the transition into a low carbon economy (Wei et al., 2015; Dean & McMullen, 2007; Demirel et al., 2017 ; Dhayal et al., 2023). Here, the role of Venture Capital (VC) in the ongoing shift towards sustainability in the capital markets has shown an increased presence, with VC regarded as one of the most effective ways of financing innovation and disruptive technologies (Bürer and wüstenhagen, 2008 ; Bocken, 2015; Dhayal et al., 2023).

While literature regarding sustainability, venture capital and entrepreneurial finance theory are well established, research on the relationship between venture capital and green startups still

have room for further exploration (Bocken, 2015). Research regarding the level of green startup attractiveness as VC investments, followed by the uncertainty of their receptiveness to funding in contrast to traditional startups have shown presence in recent times (Hegeman & Sørheim, 2021 ; Haase, 2022; Wei et al., 2015 ; Dhayal et al., 2023). Furthermore, several points of departure have been studied in regards to the role of different policy implementation (Bürer & Wüstenhagen, 2008), determinants for financing (Cumming et al., 2016), green venture signals towards investors (Mrkajic et al., 2017), and the development of sustainable VC fund's role in investing (Lin, 2022). Followed by new sets of regulations (Regulation EU 2020/852 ; Regulation EU 2019/2088) and market transformation towards cleantech and the renewable energy sector, the topic is interesting to both revisit and further examine.

The thesis contributes to the existing body of knowledge on sustainable investments by investigating the perspectives of venture capitalists in Norway. Through the use of a qualitative approach, the findings in the study may be of interest to policymakers, entrepreneurs, venture capitalists, and other stakeholders seeking to promote sustainable development and drive the transition towards a net-zero community. Furthermore, the research seeks to bridge the gap between academia and practice by providing practical insights into how venture capitalists play a critical role in supporting the growth and development of green startups, aiming to facilitate the achievement of net-zero targets and further contribute towards a greener economy.

1.2 Problem statement

The thesis seek to investigate the following problem statement:

How do Norwegian VC funds perceive green startups as investment opportunities?

With the following research question :

What are the barriers/ enablers for investing in green startups?

2.0 Literature review

2.1 Sustainable market transformation

Through elevation of markets to a higher rate of sustainability, sustainable market transformation manifests through “*Changes in structural, functional and cognitive aspects of socio - technical - ecological systems that lead to new patterns of interactions and outcomes, (and) places and explicit focus on the process of change in human society involved in moving towards more sustainable and equitable futures*” (Patterson et al. 2017, P.2).

According to Simons (2017), sustainable market transformation consists of four sequential phases. Initiated by *inception*, where innovations and pilot projects take place, followed by *first movers*, where market actors compete with new sustainable solutions. Further added by *critical mass*, where non competitive advantages are developed in cooperation between actors and lastly, the *institutionalisation phase* where regulations achieve stabilisation (Simons, 2017). One reason for why these transformations take place is the new challenges faced by certain industries or the possibility to exploit a market based on new ways of doing business (Patterson et al., 2017 ; Simons 2017). A concept that might act as a reason for change in this regard and as such has the ability to spur sustainable market transformations is the concept of “*licence to play*” (Gunningham et.al, 2004). Manifested as a set of common perceived norms that a company must follow in order to gain credibility and trust in the market in which they operate might be enacted by government regulation, but is also subject to societal norms and expectations (Gunningham et.al 2004).

By highlighting how societal structures change over time through interactions between different autonomous trends within globalisation, patterns of collective thinking and new ways of organising, transformational changes have different ways to impact society on different levels. However, typical transformations related to stimulating systemic change tend to take root at the micro - meso interface (Holtslag et at, 2021), and with a continuing emergence of new green ventures and sustainability oriented startups, an increase in both interest and receptiveness to new market opportunities in the green sector fuel the discussion as to whether or not the emergence of green startups could have a greater impact on the wide world economy than first expected (Mkrajic et al. 2017).

2.2 Venture capital & Impact investment

In order for sustainable market transformation to progress, great amounts of capital is necessary (Nijhof et al., 2014). Green startups are highly important in order to succeed to the next level (Bocken et al., 2015), but their role as radical innovators are disproportionate in relation to their resource scarcity (Cummings et al., 2016). As drivers of innovation, VC funds play a pivotal role in propelling sustainable businesses by setting new sustainable market standards (Bocken, 2015; Collewaert & Sapienza, 2016; Mrkajic et al., 2019), serving as “*technological gatekeepers, accelerating the process of technological change*” (Florida & Kenney, 1988, p. 119). With the world wide VC funding valued at over US\$ 50 billion, more than one quarter went to climate technology investments assumed to have the biggest potential to cut emission and reach climate goals in 2022 (PWC, 2022). At the same time, the Scandinavian market has seen increased growth in this sector, with 35% of the total US\$ 4,3 billion VC investments going to impact oriented green startups (The state of nordic startups, 2022). VC Impact investors assume traditional venture capital roles in addition to identifying and investing in ventures that generate positive social, environmental, and financial impacts. They aim to nurture and grow their portfolio of ventures by providing support (Agrawal, 2018; Milligan & Schöning, 2011; Randjelovic et al., 2003), adopting venture capitalist roles while concentrating on equity or equity-linked investments.

2.3 Green startup Finance

Even though green technologies and its product/services have been under development for decades, the sector has previously been viewed as nascent and unreliable in regards to commercialization and market acceptance (Petkova et al., 2014). Some researchers theorise that startups with the identity of being “born green” do not necessarily increase the likelihood of attracting investment (Hegeman & Sørheim, 2021). Others argue green startups struggle more than traditional ones in the process of acquiring funding, that contributions to reduced environmental degradation do not necessarily translate into direct financial returns (Wöhler & Haase, 2022). Indeed, green startups can differ from the traditional startup in regards to its capital intensive nature, following greater technology risks associated with the functioning of the technology, scalability and its exit requirements (Cummings et al., 2016).

By identifying such barriers for green startup ventures in the process of seeking investments and growth, researchers are arguing that long estimated development periods accompanied with capital intensive commercialization costs in contrast to “traditional” tech counterparts, could potentially lead to VC’s shying away from these types of investments (Hegeman & Sørheim, 2021).

Some even claim that VC is the wrong tool for impact and clean energy investments, this in part because of considerable capital requirements and long development times (Gaddy, 2016). These barriers are of such significance that they limit the impact VC investments can have in this field and as such lowering the attractiveness and available capital in said market (Gaddy, 2016). Several newer articles do however put into question this view on green startups and challenge the view that they are undesirable investment opportunities (Wen, 2015; Michelfelder, 2022; Dhayal, 2023). Both Dhayal (2023) and Wei (2015) find positive correlation between a company being sustainable and the investments they are able to attract.

Michelfelder et.al (2022) takes it a step further and identifies 27 different factors that might affect a VC’s decision to invest into an impact company. Michelfelder et.al (2022) find both positive and negative factors, but the amount of factors deemed to have a positive effect on the investment decision greatly outweighs the potential negative factors. These newer articles portray a completely different view on the incentives and mechanisms to Invest in impact companies. Given the conflicting views, reasons behind the noticeable shift in the global VC market towards green startup ventures is still unclear. Different factors have however been pointed out in regards to the investment decision towards new market opportunities (Beise & Rennings, 2005 ; Cummings et.al., 2016 ; Hegeman 2021; Lin, 2022). One of the factors being pointed out as relating to marketchange is new legislation and policy reforms (Cummings et. Al., 2016 ; Hegeman, 2021).

2.4 Legislation and policy implementation

Since the publication of Brundtland's report in 1987, the implementation of the 17 sustainable development goals of the UN accompanied by the Paris Agreement (UNFCCC, 2015), the goal towards “net zero” has for a long time been a part of the political agenda. Furthermore, as a continuum of EUs new green deal, the ongoing implementation of the Sustainable finance disclosure regulation (SFDR) (Regulation EU 2019/2088) / EU taxonomy (Regulation EU

2020/852) brings further urgency to the subject. By delivering pressure and expectations to corporations as an inevitable obligation in the years to come regarding triple bottom line reporting on environmental, social and governance (ESG) responsibilities in their investments. These regulations set clear expectations and demands both directly and indirectly affecting the VC industry (Schütze & Stede, 2021, 2022). The newness of this regulation together with the academic literature regarding the subject is fairly sparse and it can be argued to some degree, premature. Some academics do however indicate a positive correlation between mutual fund's ESG ranking and the availability of capital to said funds (Alda, 2019 ; Hübel & Scholz, 2019). Even though there are contrasts between VC's and mutual funds structure, this might be viewed as a change in the incentives in the financial market in the European financial area (Becker et al., 2021), which can in turn be identified as an opportunity for the VC funds that aim to capitalise through increased ESG focus and impact investing (Lin, 2022).

On the other hand, this might present drawbacks for funds that don't join the “bandwagon” as they might be left out, as attracting new fresh capital could become increasingly more challenging (Hegeman, 2021; Lin, 2022). While the UN sustainability goals and ESG has been around for quite some time, the new EU taxonomy and regulations related to this such as SFDR seem to have further increased the urgency in conforming to the new rules. This is further spurred on by the implementation of SFDR classifications of newly established VC funds in Europe as of 2021 and Norway as of January 2023. These new rules regarding classification lets the fund choose which classification they want themselves, either 6 (neutral), 8 (light green) or 9 (dark green). The different classifications even though self proclaimed demands a different set of reporting criteria related to sustainability, environmental impact and societal hygiene factors (EU 2019/2088). These reporting criteria are fairly new in Norway and as such the effect is not fully clear. There are however some articles regarding the situation in Europe which have had these classification in approximately two years at the time of writing this thesis.

Research shows an increase in article 8 and 9 funds in the EU as compared to similar funds in the United States of America, which might indicate a perceived benefit of being in line with the new regulation (Becker, 2021). One such benefit might be the access to capital from investment funds and government funds with earmarked capital for sustainable investment. Being an article 9 and arguably an article 8 fund might have the function as a quality stamp (Becker, 2021) and show that the fund in question takes sustainable investing seriously and as such is eligible for earmarked funding.

3.0 Methodology

The study reflects its findings through an exploratory nature and qualitative approach. Qualitative methods allow for greater flexibility and freedom of exploration, enabling the researcher to gain a more in - depth understanding of the phenomenon, and is well suited to explore complex social phenomena and uncover new insights and perspectives (Denzin and Lincoln, 1995). As the focus of qualitative studies is based around the interpretation of qualitative data (words and texts), it enables the researchers to gain a detailed and extensive understanding of the given situation that is being observed (Bloomberg et al., 2014.) The research approach used in this thesis should therefore be reflected upon as a field of a social study rather than natural science, embedded through the concept of interpretivism, a philosophy of research that argues that human beings and social phenomena cannot be studied with the same approach used in the study of natural sciences (Saunders et al., 2016 p. 140). Since the aim of the interpretivist research is to create a new and deeper understanding of social worlds and contexts, we are therefore under the opinion that the following approach fits our study.

3.1 Research design

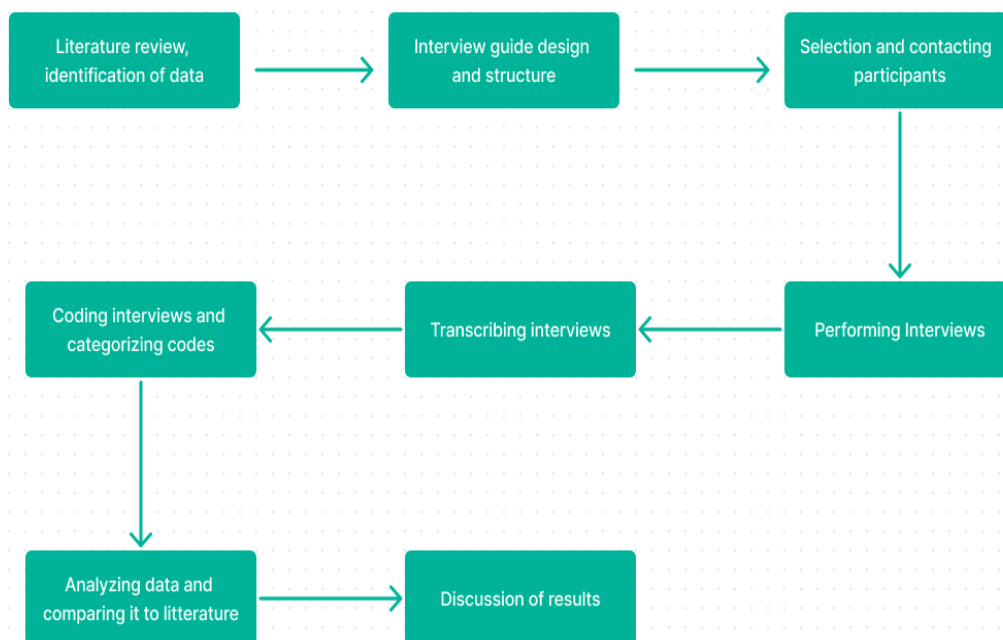


Table 1: Research design

3.2 Respondent selection strategy

Through the use of a purposive sampling strategy, 15 participants were selected to join the study, all currently employed by VC funds in Norway. Firstly, the Norwegian and Scandinavian VC market has shown increased growth the last couple of years which makes it a viable geographical description to observe. Secondly, it allows a narrowed focus on VC investors in a relatively homogeneous society and legal framework, opening up for more credible causal relationships to be identified (Holtslag et al., 2021). In addition, expert interviews are a valuable source of data for qualitative research as they allow for the exploration of the perspectives and experiences of individuals with extensive knowledge in the chosen field (Wengraf, 2001). The researchers identified experts within the field through various sources, such as attendance in industry events, professional and personal networks and online databases through internet research methods. 15 participants were accumulated through sampling methods (Saunders et al., 2019) based on a theoretical and convenience standpoint. Furthermore, the snowball method was utilised in order to gain contact with other related experts. Initially, the researchers contacted 35 potential participants. Through email invitation to partake in the study, 10 participants were eliminated due to concerns regarding relevance after they answered the invitation. Out of the remaining 25 respondents, 15 VC investors were interviewed. The last 10 were not interviewed due to lack of response or conflicting time schedules.

3.3 Table of participants

Participants	Position
Participant 1	ESG & Sustainability manager
Participant 2	Principal
Participant 3	Partner
Participant 4	Investment manager
Participant 5	Head of sustainability, investment manager
Participant 6	Investment manager
Participant 7	Impact director
Participant 8	Partner
Participant 9	Founder, chairman
Participant 10	Investment manager
Participant 11	Partner, technology & sustainability
Participant 12	Investment analyst
Participant 13	Investment manager
Participant 14	Director, head of investment
Participant 15	Managing partner

Table 2: Participants.

3.4 Data collection

The primary data was collected through semi structured interviews to generate insight regarding the VC firms' perception and investor willingness towards green startups. Due to the variety of geographical location and availability of the respondents, the interviews were conducted as a mix of in-person interviews, digitally hosted interviews and phone interviews. Six (6) of the fifteen (15) interviews were done in person, seven (7) were done via digital meeting platforms and two (2) were done by phone. All fifteen interviews were conducted in Norwegian due to preference of the interviewees. All of the interviews were audio recorded and later transcribed. On average, the interviews lasted forty (40) minutes, and the amount of raw data consisted of over ten (10) hours of audio recordings and hundred and thirty (130) pages of transcription. The interview guide reflects the literature review and is a result from key topics that the researchers aimed to investigate. The interview guide is attached in appendix 1.

3.5 Data analysis

After transcribing the interviews, the data was analysed through qualitative coding (Richards and Morse, 2007). Here, unique codes were created and assigned both for common and unique themes. The common themes consisted of quotes and ideas from the participants that across the interview pool contained common thematic approaches, problems or views that more than 50% of the interviewees shared. These were paired together in order to gain in depth understanding of relevant themes and issues the participants faced to see if there was a common conception related to themes and subject fields brought up throughout the interviews. Unique themes were chosen based on views or data presented by a clear minority of the interviewees. These codes are of interest because they showcase potential outliers or unique approaches to a subject theme or problem (Golafshani, 2003). The analysis was divided into three phases, the first phases consisting of a division of data based on common and unique themes, as well as exclusion of data based on repetition. If specific views or ideas repeated themselves more than five (5) times across different interviews, they were not included in the coding process, but as supportive statements. Codes such as "difficulties with regulation" ended up having 11 out of 15 supporting views.

In the second phase, an increased emphasis was put on the unique codes to analyse why they appeared. After determining this the unique codes that correlated to a different perspective that did not arise from misconceptions or a specific low probability event, were included in the final analysis.

The final phase consisted of analysing the common and unique themes against each other to find if there was any overlap. The final part of the analysis also consisted of dividing the different themes into sub categories and related categories. Out of 130 pages of raw transcription, the researchers ended up with approximately 40 pages of assigned codes.

3.6 Validity & reliability

Bias have the ability to negatively affect a piece of research (Bloomberg, 2014). However, steps can be taken to reduce the possibility of affecting the outcome (Golafshani, 2003). Here, the method of triangulation has been utilised through comparison and evaluation of the data set. Triangulation was achieved by alternating between which of the researchers conducted the interview, as well as analysing transcribed data independently before discussion took place (Golafshani, 2003 ; Bloomberg, 2014). Comparison of datasets were done during both transcription and the analysis phase.

Although the participants in this study were identified as homogeneous in regards to educational level, sector and geographical locations, the researchers managed to achieve some degree of diversification in sampling. With an even gender distribution among the participants, seven (7) interviewees were men and eight (8) were women. Further diversification was made in regards to the various fields of specialisation and knowledge within sectors, interviewing employees from different types of VC's focusing on different phases of financing and different market areas. Demand characteristics is another barrier to overcome, seeing as the interview objects are human and might be affected by the way the interviewer poses the questions (Golafshani, 2003). A semi-structured interview guide was deployed, combined with open ended questions in order to try and minimise the risk of demand characteristics affecting the data collection.

3.7 Implications & ethical consideration

A couple of implications has to be mentioned from the study. 6 out of 15 (40%) interviews were conducted using a video conference software and 2 of 15 (13%) were conducted by phone. The remaining 7 interviews (47%) were conducted face to face at the respective firms offices. The difference in interview method might affect the answers from the respondents as there is a difference between in person and online/phone interviews in regards to the flow of the interview as well as social cues (Opdenakker, 2006). The following obstacles are aspects that must be taken into consideration, but have been deemed necessary in some research due to time and financial constraints (Opdenakker, 2006). Lastly, factors such as GDPR, storage of data and ethical considerations such as undue intrusion (Diener & Crandall, 1978 ; Casell, 1982) have been managed through the development and guidance of a research plan delivered to the organ responsible for ethical considerations and information safety in higher education in Norway (Sikt).

4.0 Findings

4.1 A shift in the VC community

Early on in the interview process, we wanted to gain insight into the current climate and changes within the VC industry, with an emphasis on how the sector has developed in regards to the green transition. Here, one of the participants reflected a noticeable change both in securing funding towards, but also the exposure to green startups.: *“ I would say It has changed dramatically. We see that many people have adapted to secure funding from various actors, so I would say that it (sustainability) is an important premise for many when raising funds. “ - VC 9*

Shifting the conversation towards the funds orientation towards sustainability through their investments in green startups, the link between venture capital and sustainable investing seems intuitive: *“We are building the businesses of tomorrow, and to me, the businesses of tomorrow are sustainable.” - VC 1*

This further resonates with many of the VC's having defined their companies' vision regarding more than just financial returns, targeting to track and record their overall impact on the triple bottom line: *"We have a somewhat airy vision. We want everyone to have a better life, and it sounds a bit airy, but we are impact investors. So when we invest, we don't just want financial returns, we want it to give positive returns for the world as well. People, planet, profit, that's kind of the credo you often hear us impact investors use."* - VC 7

In addition to change within the VC sector emphasising an increase of impact oriented investors, there also seems to be a positive trend within impact oriented founders. As one of the participants describes, it seems as many Nordic founders have a strong relation towards wanting to solve challenges in regards to the climate : *"In my experience, in the Nordics, 95% of the founders come with problems or solutions that are impact-driven, undoubtedly more than in other regions. A preponderance of the founders here want to build socially, "planet positive" companies , typically climate technology and sort of "purpose driven" ventures within education and health technology".* - VC 3

Together with a predominant amount of Nordic founders having an impact focus, the importance of the VC's showcasing quality due diligence towards their investors on ESG measures seem to be increasingly important. *" We are open to the fact that we must be aware of it, and make it visible to our investors that we think about ESG and sustainability in what we do. At the same time, we believe that the best founders have that focus, and our focus is to invest in the best founders, so in that sense it coincides a bit together. "* - VC 9.

4.2 Trust in the transition

During the interviews, most of the participating VC funds see great investment potential in the green space. Following a strong belief of high growth opportunities in the renewable technology sector, the potential financial upside of these investments seem considerable: *"The transition that we're doing now towards renewables, I think it's accelerated the last 5 - 10 years. If we're on par with fossil fuels today, it's exploding going forward being a huge area of opportunity. It's going to be the investment opportunity of a lifetime. "* - VC 15.

When compared to traditional technology startups, there seemed to be a low amount of uncertainty in regard to the potential of the green counterparts. One of the participants explained their viewpoint in regard to financial returns: *"We are investing in the net-zero transformation with the hypothesis that it is the greatest opportunity ever, and that companies that aim for net zero solutions generate better returns than other companies"* - VC 14.

In many instances, the approach as to how the VC's attack the ongoing development towards sustainability seems somewhat unified, with a consensus regarding investment and return opportunities in the green space. A view as to why they are attractive manifest in different ways: *"Impact companies are the winners and there are various reasons for this. One of them is because the ecosystem embraces it. If you look at Norwegian and Nordic VCs, it is predominantly impact focused ones. Moreover, they are the ones who recruit the best talent. Gen Z/X no longer want to work in Equinor, but in companies that really make a difference in the world, with the environment in mind. Lastly, that's where capital and customers want to be, so we consistently see that those are the most successful."* - VC 3

Supported by this, the VC's see the importance of having key focus points in regards to tracking of overall emissions, and at the same time reap financial gains:

"In order to move the world, it's important that we have a focus on greenhouse gas emission, so one thing that we have to stick to is legislation, reporting and so on. But the easiest way to scale and grow a product is that you deliver and hit the bottom line of your customers in some sensible way. Either by cutting costs, reducing investments or increasing your income, we try to find the cases that will really "move the needle", with a focus on greenhouse gas emissions, but which we can also make a "buck" on to put it that way"- VC 15.

4.3 Financial

Although many of the interviewed VC's have investment mandates with earmarked capital towards the renewables sector, their first priority is clear: *"At the end of the day, our main responsibility is to deliver positive financial returns to our investors, by delivering more money to our owners than they would get elsewhere". With that being said, we must also make responsible investments that contribute positively to society.* - VC 12

Given varieties in the participants answers, a wide majority of the participating funds mentioned given sectors that they shy away from investing in, sectors such as oil & gas, weapons manufacturing, tobacco, gambling or pornography, together with other chemical and pollution hazardous products. When asked about the reason behind it, one of the VC's mentioned: *"It is probably more a point of view on what type of investor we should be. We don't think it is compatible with possibly investing in oil and wanting to be an impact investor. So it's probably more about our values and our brand. Even if you can contribute to slightly lower gas emissions, there will always be an industry where there are huge emissions."* - VC 13

During the data collection, it became apparent that LP's had an effect on the mandates that some of the funds operated under. When asked if there had been a change in impact focus in the Norwegian VC market the last years one participant answered this: *"I would say it is an increasingly important premise when you start a new fund. You have to make a decision regarding where you want to position yourself in order to attract the amount of capital you need. It has become a theme that a lot of LP's care about."* - VC 9

4.4 Evaluation of impact

On a general basis, the majority of the participants had a positive attitude in regards to the current development of integrating ESG and sustainability evaluations in their day to day activities, especially in regards to their evaluation process of potential startups in which they seek to invest. During the interviews, a noticeable difference in how people in the VC sector perceive sustainability, furthermore integrating it in their evaluation process seems widespread and less unified *"There hasn't really been one framework that everyone unites around, so I would still say it is an issue that the different concepts are defined differently. If you are in a boardroom you can use the same words, but understand that the way they are used and the implied meaning is different"* -VC 4

To get a sense of how a potential evaluation process could look like, one of the participating funds explained the use of certain frameworks in the process: *"When we do the evaluation, we make a concrete assessment based on a number of criteria to see how it is doing, and see if they score positively. From the start, we need to be confident that they are positive in regards to ESG and check the boxes within UN' sustainability goals."* - VC 9.

To further elaborate, some of the bigger VC firms have in later times implemented software systems with the goal of increase efficiency, and reduce complication when it comes to reporting on ESG initiatives and sustainability oriented KPI's: *On the tool side, we have used softwares such as [Software company 1], a [nationality] company that helps define KPIs and makes it easier for companies to report on ESG. Furthermore we use [Nationality][Software company 2] in most of the portfolio companies. We try to find software that makes reporting easier, and then reduces the burden on those companies". - VC 15*

An interesting finding in regards to VC investment and their evaluation of green startups showcase an early emphasis on reduction of environmental degradation in combination of traditional VC alignments: *"We consider exactly the same if we were a traditional VC investor, but we focus early, and then I mean in the first conversation with the company and in the first meeting that we emphasise the contribution to reduced greenhouse gas emissions, we also map out some keywords within main risk for the environment, social conditions and corporate governance."* - VC 5.

4.6 Access to funding

When shifting the conversation towards the process of developing and scaling their portfolio companies for growth, there were some conflicting views in regards to the challenges that green startups face. One of the respondents pointed out that scalability issues arise in all forms of venture building, independently of sector, and challenges are more individual than the sole identification of being a born green start up : *I think the challenges are much more individual, that the challenges that arise from the company's uniqueness are much greater than the challenges created by whether they are sustainable or not".* However, there seems to be some advantages in being green, following the trail of easier attracting funding from impact oriented VCs : *" But I see that you get benefits from having sustainability focus, through easier access to financing than otherwise. "* - VC 8.

4.7 Challenges in green startup investment

Although startup challenges vary and have different ways of manifesting itself during the lifetime of a venture, challenges in regards to the development of green ventures and development within the clean technology sector were indeed indicated from one of the participating VC's " *Changing Co2 prices and taxes, to greater reporting requirements and subsidy packages, can make manoeuvring an extra challenge. You are going to need to choose a market to scale in among all the countries of the world, and if some assumptions have changed after 3 months because it has changed politically then it can affect the scaling potential. Potentially the biggest challenge between traditional and climate technology is that climate is an area that is heavily regulated, and many regulations are still on the way.*" - VC 5

Many of the interviewed VC's have raised impact focused funds. Classified as article 8 or 9, it opens up for sustainable earmarked capital. The following capital has a clear investment mandate of solely going into green startups and clean technology sectors. However, there is fierce competition in the sector. : " *Many funds have been started in the impact investment sector, and there are few cases out there. Especially with a good team, so when one or the other impact case with a good team first appears, it is fierce competition in regards to get a seat at the table*" - VC 13

Given a lack of cases, and the massive amounts of capital going into this space, the price for getting a seat at the table can be costly: *Penny for penny income wise, you often pay more for a company that has a clear sustainability profile, then the ones that do not*" - VC 4.

One of the participants summed it up quite well: "*There is a greater need to invest in cleantech for many, so what we see is greater competition on cleantech companies than there has ever been, because raising capital for such concepts is more attractive.*" - VC 9.

4.8 Regulation and ESG reporting

An identified barrier which came up several times during the interviews is the potential reporting burden which could be placed on the start ups , and how this disproportionately affects their operations compared to larger companies with more resources : *“It is a bit difficult for us who invest in companies that in essence are two people and a coffee machine, and then we have to demand a lot of information and reporting from them. This all seems very encompassing”* - VC 12

Other participants voiced the same concerns regarding new regulations both from the National government in Norway and more importantly from the EU. Regulations that might have been intended for bigger corporations now potentially trickle down to smaller start-ups: *“There are several impact funds that set demands when it comes to sustainability and reporting, which means that the companies they invest in have to allocate resources for this specific purpose. This might be challenging in an early phase where resources are limited”* - VC8

Another participant supported this view by commenting:

“The taxonomy is an enormous project. Which seems to have a positive impact but it also has consequences that we haven't seen the full extent of yet. These are primarily my general views but regulation favours the incumbent. When new regulation is introduced it tends to be influenced by the industry that receives it.”- VC7

This potentially leads to problems in planning, slowing down strategic decisions and over all making the process of running and scaling a start-up harder than it has to be. Given the fact that the VC’s want to facilitate for their startups success, the uncertainty in regards to the reporting constraints on their daily operation could be a limiting factor, said by another participant: *“The question is whether this regime will be too heavy for these small companies, i.e. when this regime is intended for large massive institutions, the same guidelines and requirements may be imposed on these small companies, which will not be very easy.”* - VC 8

One of the participants sums this up fairly well with the uncertainty of the startups, and the potential backlash in having the wrong classification *“There is an insane amount of reporting required and secondly, we invest so early that many of the companies will pivot.*

If the company changes its industry or solution which is no longer in line with the article you defined as, you have a problem. So the uncertainty is a big reason for why we don't do it [identify as article 9].” - VC 3

Following, multiple participants mentioned an instance of an investment case that did not get further in the process due to lack of impact definition in their solution: *“We have said no to cases that have had great potential, where we have loved the team, but the impact has not been identified well enough. One of the companies that we turned down was within the [Redacted] sector which is perceived to have a negative sustainability orientation . There was no doubt that they were going to affect the industry, but there were too many uncertainties in regards to sustainability in the value chains of the industry as a whole ”* - VC 15.

This view was shared by several of the interviews putting into question how flexible the new regulations are in regards to the VC model. A final point when it comes to regulation is how it might help reduce greenwashing and potentially create accountability, one of the participants summed it up like this: *“As it stands now i feel like the industry is somewhere between greenwashing, where some does it and doesn't care at all, while the majority cares and tries to not greenwash. It will be interesting to see how this develops with the new regulations”* - VC 12

4.9 Licence to play

Based on multiple supporting viewpoints from the participants , it seems as if there is an established consensus of what direction the Norwegian VC community is headed. With goals to be on par with sustainability initiatives and drive green startup innovation forward, it is not only the “licences to play” that forces the companies to change, a lot of pressure comes from within, starting with the investors and LP’s : *“ I think that together with what is happening in the regulatory field on top of that a lot of capital goes towards the climate that we will see even more of it in the future. Larger funds like us mean that you will not get capital if you are not on that wave, there is a "licence to play", so if you do not have the same values and way of thinking as we do, then you will be forced to, period.”* - VC 15

When asked what the end goal would look like, one of the participants summarised it fairly well: *“If you are going to invest in a company with a horizon of 10+ years it makes sense to invest in something that is on the same side as the planet. You will more than likely be forced to do it in the long run anyways ” - VC 6”*

4.10 The role of VC’s

Some of the VC’s have a clear understanding of their role to play in regards to continue to develop the companies to be on par towards sustainability: *Our job as an investor in addition to providing capital, is to play the companies well, where we have to take into account the types of reporting and ESG measures that have to be done. From there the company must sign our shared value statement and be willing to share best practices with other portfolio companies, and together find good KPIs going forward. But we tailor in most cases in relation to what resources the company has, and a little which company and challenges they face going forward.” - VC 15.*

Furthermore, another participant followed up with the importance of VC as early investors in small startups as it's typically here radical innovations take place: *“It is still the case that radical innovative solutions do not scale well out of large companies, so you are completely dependent on someone who is willing to invest in small companies in the very early phase, someone who dares to take risks, this is where VC plays an important part” - VC 8*

In the closing statement one of the participants summarises the majority of the VC’s attitude towards sustainability driven startups and their role in their development: *We have a great opportunity to help influence which companies see the light of day. By putting capital where you estimate it will do the most good possible, and it is both great and important that many choose to have impact and sustainability cases as their main investment decision. There is absolutely something you can do to ensure that the world through either efficiency improvements, reduced greenhouse gas emissions or other ways, solve planet and climate planet degradation - VC 4*

4.11 Presentation of findings

Challenges	Enablers
<p>The market is still nascent</p> <ul style="list-style-type: none"> • <i>Long development times and complex technology demands has led to a scarcity of available companies.</i> 	<p>Increased access to capital</p> <ul style="list-style-type: none"> • <i>Earmarked capital and investment mandates going towards “green investment opportunities” in startups.</i> • <i>Increased LP pressure and focus towards “green companies”.</i>
<p>Market uncertainty</p> <ul style="list-style-type: none"> • <i>Regulation favours the incumbent.</i> • <i>New classification of funds leading to uncertainty in investment decisions.</i> • <i>Different definitions regarding sustainability makes communication more difficult.</i> 	<p>New Market opportunities</p> <ul style="list-style-type: none"> • <i>Green start-ups have great growth opportunities and the potential for massive ROI.</i> • <i>Foster entrepreneurship and drive innovation.</i>
<p>Regulation</p> <ul style="list-style-type: none"> • <i>Might hinder the fast development of new, agile and growing start-ups.</i> • <i>Uncertainty in the investment mandate and decision due to, among other things, classifications in accordance with SFDR.</i> 	<p>Regulation</p> <ul style="list-style-type: none"> • <i>Reducing greenwashing through more accountability for companies. Potentially benefiting impact funds.</i> • <i>Creating a common framework making reporting easier and more understandable.</i>

Table 3: Summary of key findings.

5.0 Discussion

Through the findings, the Norwegian VC's reflect a high degree of investor willingness and receptiveness towards green startups. Through the testimony from various VC investors further identifies both perceived advantages and roles the VC's have as drivers for innovation, and more importantly green startup development and growth. Taking on the role as advisors and capital providers, they bring valuable resources to their startup investments, with a willingness to pursue high risk with long term commitments. Through their role as institutional investors, they also facilitate change in their portfolio companies by supplying board presence and ownership pressure. Participants such as 7, 8,9 and 15 showcase an increased focus on people, planet and profit proving increased willingness to foster ESD and market transformation through enabling green startup's *inception*, taking on the role as first movers in new market opportunities for green technologies to scale and further develop (Simons, 2017, Holtslag et al., 2021), supporting the evidence of increased green VC investments.

5.1 VC's role

Although their main responsibility as institutional investors is to bring financial returns to their LP's, the findings showcase that the VC's share a common role of facilitating sustainable market transformation through the vision of societal and environmental impact, developing and scaling climate technologies, as previously established literature indicate (Bocken, 2015; Collewaert & Sapienza, 2016; Mrkajic et al., 2019). When it comes to operational adjustments, business model innovation and process changes through traditional venture capital methodology and tools are used to affect the startup's trajectory for success. A broad consensus was established surrounding the notion of a greater impact on the green transition through smaller greener entrepreneurial counterparts to established firms, as Bergset & Fincher (2015) implied. As such, radical innovation through development of sustainable technologies is paramount in order for humanity to reach the desired outcomes. Through the emergence of venture capital funds specialising within the impact field having clear investment mandates with green earmarked capital, the VC space clearly is an important driver for evolving sustainable innovation, strengthening their partaking in the development of sustainable market transformation (Holtslag et al., 2021).

We would argue that the findings in the thesis further insinuate development in VC's role serving as change agents within the field of impact investing and green startup growth. Through regulatory pressure accompanied with the new market opportunities, many of the VC's have been incentivized to add calculations of greenhouse gas emissions and overall impact valuations in their startup evaluation process, indicating further development within the VC sector in regards to sustainability proactiveness and adaptability. With the emergence of ESG frameworks, reporting systems and software tools, an increased sustainability oriented focus in their investments and day to day operations seems to be eminent. This in turn, brings signals to their investors and LPs that they are compliant with investment mandates and strategic roadmaps, further fueling the attraction of great amounts of earmarked capital.

5.2 Effects of regulation

Together with the EU, Scandinavian governments seem to be at the forefront of climate policy and the green transition. As all participating VC's except two primarily do business in Scandinavia and more importantly in Norway, the adaptation of the new EU regulation showcases a high degree of willingness to use regulation and public funding in order to influence the development of the financial systems in the given markets, towards increased sustainability focus. This increased governmental push has led to several private VC funds being forced to incorporate impact investment in their investment thesis to increase their chance of obtaining funding from government owned entities. It is therefore reasonable to argue that the use of government funds and structures to invest in private industry that backs the governmental climate goals is one predominant strategy of fostering sustainable innovation on a broader scale. As such, several of the Norwegian government funds including pension funds and VC/PE funds which act as LP's for the private VC market, have put an increased emphasis on sustainability demands and reporting standards on impact from the private VC funds in which they invest.

5.3 LP pressure

With increased sustainability focus functioning as a “licence to play”, the increase of LP’s pressure towards the VC’s to conduct financially viable, but sustainable and socially responsible investments is apparent. This strengthens the evidence of a potential shift in the market, supporting increased focus on triple bottom line activities, not only for the VC’s themselves but also for their portfolio companies and potential investments. This is a trend that can be seen in newer research where it contradicts previous research in regards to the importance of sustainability focus. (Wei, 2015; Michelfelder, 2022; Dhayal, 2023). All participants mentioned concrete sectors in which they no longer seek to explore as investment opportunities, with regards to their LP’s investment orientation and strategy. Together with their overall brand awareness, a couple even claimed that part of their investment strategy included impact restrictions and criteria primarily because their LP’s preferred it.

5.4 Green = LEAN

While established theories argue that green startups do not have an increased likelihood of obtaining VC funding, furthermore hinting towards a possible decrease in their chance of attaining funding based on their born - to be green identity (Hegeman & Sørheim, 2021), the findings in this thesis implicate conflicting viewpoints. Supporting newer research presented earlier (Bocken, 2015; Demirel et.al, 2017; Michelfelder, 2022; Dhayal, 2023), the vast majority of the interviewed VC’s identify green startup investments as areas of opportunity, with an investment strategy based on the thesis of greater financial returns from green startup ventures in contradiction to traditional ones. With an increased possibility of attracting earmarked capital to their impact oriented funds, this shift can in turn be pointed to the argument of the fear of “missing out” on LP investments and the “next big thing” if the VC funds do not adhere and adjust in accordance with article 8 or 9 of SFDR as well as the new Eu taxonomy. Furthermore, with new regulatory presence and the emergence of increased sustainability orientation at the feet of the VC’s ,LP’s and co - investors, they shy away from investments opportunities not inline with their investment mandates in the fear of negative repercussions on their brand reputation and capital access. This demonstrates the power that the LP’s hold, hence changing the tide when it comes to which sectors the VC's actively invest in.

Some previous research also claims that new green companies have a lower chance of growing into successful companies (Hegeman & Sørheim, 2021). Here, the findings present challenging views. The majority of the VC's have the impression that impact and green startups have a directly higher possibility of acquiring VC funding, solely by capturing value through increased sustainability focus in their business model and solving a problem in the eye of sustainability. By identifying as a born green venture, it opens up possibilities for early stage VC funding with earmarked capital and strict investment mandates solely going towards green startup solutions. Due to the markets relative infancy and the underdeveloped nature of the market, many VC's and LP's want to get in on the action at an early stage and as such some participants claim that there are few strong cases based on the available capital. The competition for the strong impact and sustainability cases then increases leading to a massive investment boom (The state of nordic start-ups, 2022) for this category of start-ups, with unprecedented potential.

5.5 Uncertainty in Identity

As mentioned by a majority of the participants, the ongoing shift in both regulation and the corporate responsibility aspect of business processes, changing tax rates on CO2 levels, subsidies, new regulations and demands on increased governance all have a way of shifting the landscape in markets that the startups aim to penetrate. A nascent market leaves room for new actors to get in at an early stage and as such there are no natural incumbents using their domain and size advantage in the specific market. That is not to say that established companies do not penetrate new markets with their considerable resources, but a new market often has more room for small new players to grow based on innovation and inventions (Hockerts, 2010 ; Bergset, 2015.) Following the steps of simons (2017), serving as *first* movers by investing in these types of early stage ventures bring uncertainty in how the changing aspects may affect their investments both long and short term. Furthermore, the findings have led us to believe that there is an implication of uncertainty in the industry that results in a form of definition fear amongst the VC's. This relates both to the uncertainty, reduction of flexibility and reporting burden potentially being placed on the actors, and subsequently their portfolio companies in the early phase, based on new regulations.

5.6 Regulation – a double edged sword

A majority of the interviewees are led to believe that the EU 2020/852 regulation will instate accountability and a common point of reference, serving as a joint framework for companies and investors across all sectors eligible under the taxonomy, to be on par on sustainability activities and ESG parameters. The data suggest potential benefits from the regulation, one of which is the possibility of serving as a catalyst for reducing greenwashing. Several of the impact funds viewed the regulation as a positive contribution towards the reduction of greenwashing in the industry, because it forces funds and companies to directly take more accountability in their overall operations. It is also mentioned in previous literature highlighting greenwashing as a potential problem for the start-up and VC industries as a whole (Bocken, 2015). Potentially reducing this greenwashing would therefore positively affect the market both from a regulatory viewpoint, but also from a market viewpoint. New regulation shapes the sectors of VC and impact start-ups and allows for new markets to evolve, further allowing the *first mover* concept (Simons, 2017). Another positive impact of these new regulations is the shift in capital allocation resulting in new market opportunities. Both the concepts of changes in capital allocation and new business opportunities are prevalent in the data and have a close correlation because they are mutual catalysts.

However, the new set of regulations is in this context viewed as a double edged sword, manifesting itself as a challenge from various viewpoints. First, it opens up to challenges for both start-ups and VC's by placing increased legal pressure, which in the early stages of its implementation can create an amount of uncertainty. While not directly affecting startups, they tend to have an indirect effect through the need of actionable data and reporting that the VC's need in order to uphold their part of the regulation, together with other commitments. This can in turn be identified as a challenge for start-ups, given that resources are often limited in regards to time and resources needed to conduct the every day business operations.

In addition, uncertainty in new regulations are tied closely with the challenge of market uncertainty in the sense that regulators tend to play catchup with new technology and markets. The rules regulating a market might therefore be drastically different when the market is in its infancy contra when it's in its growth phase. This makes planning and forecasting much more difficult and as such might be a problem for VC's trying to properly

analyse the potential of a start-up in a nascent market. Lastly, another critique of the new regulations according to the data collected was that several of the VC's felt a high grade of complexity, further leading to uncertainty in the investment process. Several of them pointed out that it seemed needlessly complicated and even them as investment professionals were having trouble navigating through the regulation. Even though a majority of the interview objects expressed a positive sentiment towards the new regulations, they see potential unintended difficulties.

In order to solve the challenges we face, a great amount of capital is needed to go into sustainable innovation. Being highly complex, these technologies tend to have long development times, viewed as a potential barrier as most VC funds have a 10+ year horizon on their investment from initial investment (pre seed/seed) until they conduct their exit. With a main priority to deliver financial returns to their investors, long development time of the market might be a hindrance to some investment opportunities. Some start-ups might not lack funding because their case is not viable, they might lack funding because the technology solution is too early in its infancy. However, VC's are not reluctant to uncertainty given their business model of investing in early stage startups, even further in the willingness to invest in early stage startups aiming to solve the wicked problems of the world, believed to be potential investment opportunities of a lifetime.

6.0 Conclusion

The goal with this paper has been to highlight Norwegian VC's involvement in the green transition and explore the enablers and potential barriers that this industry faces. A great deal of innovation, moreover capital is needed to solve the problems that society face. Even though VC's represent a fraction of the entire financial ecosystem, they play a disproportionate role as gatekeepers of capital for small innovative start-ups that aim to solve the challenges at hand. Serving as drivers of sustainable innovation, VC funds play a pivotal role in propelling sustainable businesses and setting new market standards. As such, impact VC investors are expected to have a significant role in sustainable market transformation going forward.

Through an active approach of identifying key activities in order to reduce their impact on the planet, and at the same time fostering new startups solutions trying to solve them, it opens up new market opportunities within the space of early stage VC activities and investment possibilities. Furthermore, regulation has been discussed at length in this thesis as the new EU taxonomy and SFDR plays a great part in the transition to a green economy on the European continent. While there is no singular answer to whether the new regulations positively affect or hinder innovation in and creation of new green start-ups there is little doubt that it has a great effect on the type of companies that are created within the EU economic area and more importantly for this thesis within Norway. With this in mind the regulation will therefore most likely be an important agent of change for how the industry and markets develop in the future.

6.1 Implications, limitations & further research

The findings in this thesis are not inline with some of the previous research done on the subject. There are two primary factors that might explain this. The first one being time. Several of these articles were written more than five years ago and while the articles by Hegeman & Sørheim were published in 2021, the data is over ten years old. The views and data represented in the articles might have been valid at the time. Impact start-ups and the VC industry is however a rapidly developing field being influenced by many factors, one being society's view on sustainability which has drastically changed in recent years. Another being new regulation which was not in place at the time of the data collection of the previous articles, which might contribute to the data and articles simply being outdated.

One potential limitation of this research is the homogeneous and small nature of the market that has been subject for this research. Norway specifically and Scandinavia in general are relatively small and homogeneous markets, this is especially true for Norway. The geographical, cultural and economical situation of the Norwegian market will therefore undoubtedly affect the results from the study. The data found in this thesis, while accurate for the Norwegian market, might therefore not be transferable to other more heterogeneous markets such as the Western European market or the US market.

Difference in social constructs and incentive in the countries in which the studies were conducted might also be an explaining factor to the difference in outcome. Scandinavia has for the last decades been a fairly progressive part of the world focusing heavily on decarbonization and trying to lead as an example in the drive towards net zero. As such the data collected in this thesis, while representative for the Norwegian and in part for the Scandinavian market, might not be transferable to other markets with different regulations, incentive schemes and societal expectation when it comes to the Green New Deal. Example of such markets being The United States of America. There might therefore be a dissonance between the findings in this thesis and previous articles due to these differences. This study has shown a gap in available research on Norwegian VC funds perception of impact start-ups, however there are several other areas of impact investing that would be interesting to further explore.

6.2 Further Research

One area of departure regarding whether the increased resource allocation into “impact driven activities” accurately benefits the fund in the long term or not is of interest, with some existing research claims that it might (Lin, 2022 ; Hegeman, 2021). These studies have primarily focused on other financial set-ups than VC funds, but they might give an indication as to ESG and impact function as factors of change towards the financial market as a whole in Europe. Although more research on the field is recommended, the researcher opens the floor to more specific studies regarding this phenomenon in a context of VC’s.

Furthemore, a longitudinal comparative study on impact VC firms and their investor willingness towards green start-ups is of interest, comparing the Scandinavian and American market and or Western/Central European markets. Furthermore, mapping whether or not the changes in investor willingness can represent a bigger and more diverse sample size, through a quantitative study.

Lastly, the researchers hope that a study is conducted after the EU taxonomy and SFDR took effect in the EU, going over several years tracking the change in newly started impact companies, the survival rate of said companies and the amount of funding they receive as a

total of available funding for start-ups in the chosen market in EU. This to track the actual effects of the Eu taxonomy on the impact start-up market While some research has been conducted on this theme in the EU, the research on this phenomenon in the Norwegian context can be said to be lacking. A study spanning several years to see the effect on these regulations on the amount of innovation conducted or on the effect on the impact start-up scene in Norway would be of great interest to literature to gain a deeper understanding of how these types of regulation affect small homogenous markets.

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