

# Success in Equity Crowdfunding

A Quantitative Study of What Drives Equity Crowdfunding  
Campaign Success in Norway

HØISEN, BERIT &  
ALVSAKER, SJUR

SUPERVISOR  
SHNEOR, ROTEM

**University of Agder, 2022**  
School of Business & Law  
Department of Management

Master

# Abstract

This Master's thesis studies what drives success in Norwegian equity crowdfunding campaigns. Norway is an interesting context for studying equity-based crowdfunding because of limited access to venture capital for start-ups additionally to heavy reliance on state support. The recent boom in equity crowdfunding in Norway makes this study relevant. A linear regression analysis is based on 192 observations collected from the two existing equity crowdfunding platforms in Norway; Folkeinvest and Dealflow. The thesis highlights variables supplemented by the relevant literature within success factors in crowdfunding and presents 14 hypotheses. The most prominent results of the study is that a longer campaign duration has a significant negative influence, and a sustainability-oriented project has a significant positive influence on campaign success. Number of images, videos and the team size are positively associated with campaign success in relation to attracting investors. Including images of high quality significantly influences campaign success. There is no difference between the sexes in access to capital, and equity-based crowdfunding has the effect of decentralizing start-up capital by distributing money to both cities and districts. The results suggest that Norwegian equity crowdfunding investors are less triggered by financial arguments than traditional investors. This is the first study to research success factors in Norwegian equity crowdfunding campaigns and it will provide a foundation of valuable insights for future studies and discussions.

# Acknowledgement

We look back on two great years at the Shift Entrepreneurship and Innovation Master's program. We are grateful to the School of Business and Law at the University of Agder for offering such a forward-thinking master program focusing on sustainability and educating students with skills in problem solving.

Our largest gratitude goes out to our supervisor Professor Rotem Shneor for his thorough and valuable guidance, executed with a contagious engagement. We first became acquainted with Professor Shneor when we took one of his classes "Crowdfunding Lab", in the fall of 2021. His passion and in-depth knowledge of the crowdfunding field awakened an interest in us to learn more.

During the time at Shift Entrepreneurship and Innovation the authors together have started a business which is the perfect case for a future equity crowdfunding campaign. Writing this Master's thesis was a perfect way of learning more about it, as well as preparing us for creating our own future crowdfunding campaign.

We would likewise acknowledge both the equity crowdfunding platforms, Folkeinvest and Dealflow. Folkeinvest for the help with accessing their oldest campaigns, and allowing us to use them in our study and Dealflow for being available and able to answer some technical questions regarding their platform.

Lastly, we would like to thank our friends and family for their support and feedback in these busy last 6 months.

<b>Abstract</b>	<b>1</b>
<b>Acknowledgement</b>	<b>2</b>
<b>1 Introduction</b>	<b>1</b>
<b>2 Literature Review</b>	<b>3</b>
2.1 Equity crowdfunding	3
2.2 Paper selection	5
2.3 Literature review table	6
2.3 Cross-paper analysis	12
2.3.1 Success factors	12
2.3.1.1 Amount raised	13
2.3.1.2 Number of investors	13
2.3.1.3 Funding rate	13
2.3.2 Independent variables	14
2.3.2.1 Funding goal	15
2.3.2.2 Campaign duration	16
2.3.2.3 Experienced campaigner	17
2.3.2.4 Images and videos	17
2.3.2.5 Updates	18
2.3.2.6 Team	19
2.3.2.7 Sustainability project	20
2.3.2.8 Exit/IPO plan	21
2.3.2.9 Equity offered Financial factors	21
2.3.2.10 Minimum investment	22
2.3.2.11 Price of share	22
2.3.2.12 Valuation	23
2.3.2.13 Patent	23
2.4 Control variables	24
2.4.1 Platform	24
2.4.2 Urban vs. Rural	24
2.4.3 Sex	25
2.4.4 Image quality	25
2.5 Conceptual Model	26
<b>3 Methodology</b>	<b>27</b>
3.1 Research Design and Approach	27
3.2 Context	28
3.3 Sample	29
3.4 Method of analysis	29
3.4.1 Validity and Reliability	29
3.4.2 Regression model	31

<b>4 Data collection</b>	<b>31</b>
4.1 Variables	32
4.1.1 Dependent variables	33
4.1.1.1 Amount	34
4.1.1.2 Number of investors	34
4.1.1.3 Funding rate	34
4.1.2 Independent variables	35
4.1.2.1 Funding goal	35
4.1.2.2 Campaign duration	35
4.1.2.3 Experienced campaigner	35
4.1.2.4 Images and videos	35
4.1.2.5 Updates	35
4.1.2.6 Team	36
4.1.2.7 Sustainability project	36
4.1.2.8 Exit & IPO plan	36
4.1.2.9 Equity offered, Minimum Investment, Price of Share	37
4.1.2.10 Valuation	37
4.1.2.11 Patent	37
4.1.3 Control variables	37
4.1.3.1 Platform	37
4.1.3.2 Urban vs. rural	38
4.1.3.3 Sex	38
4.1.3.4 Image quality	38
<b>5 Results &amp; Analysis</b>	<b>39</b>
5.2 Results	40
5.2.1 Funding Goal	41
5.2.2 Campaign duration	41
5.2.3 Experienced campaigner	42
5.2.4 Images and videos	42
5.2.5 Updates	42
5.2.6 Team	43
5.2.7 Sustainability project	43
5.2.8 Exit	43
5.2.14 Financial factors	43
5.2.13 Patent	44
5.2.14 Control variables	45
5.2.14.1 Platform	45
5.2.14.2 Urban vs. Rural	45
5.2.14.3 Sex	45
5.2.14.4 Image quality	45
<b>6 Discussion</b>	<b>46</b>
6.1 Company level factors	46
6.2 Campaign characteristics	48

6.3 Financial factors	49
6.4 Control variables	52
<b>7 Limitations and further research</b>	<b>53</b>
7.1 Limitations	53
7.2 Further research	54
<b>8 Conclusion</b>	<b>54</b>
<b>References</b>	<b>56</b>

# List of tables and figures

<i>Table 1: Literature Review Table</i>	6
<i>Table 2: Variable analysis summary</i>	14
<i>Table 3: Correlation Matrix</i>	30
<i>Table 4: Operationalization of the Variables</i>	33
<i>Table 5. Descriptive statistics</i>	39
<i>Table 6: Results of regression analysis</i>	40
<i>Table 7: Results of hypotheses.</i>	44
<i>Figure 1: Conceptual Model</i>	26

# 1 Introduction

In recent years crowdfunding has boomed as a new financing model for startups (Lukkarinen et al., 2016). Crowdfunding is an emerging field of research, and an entrepreneurial phenomenon on the rise (Troise, 2019). The expansion of crowdfunding started after the global financial crisis in 2008. This led to a breach of trust towards the finance and banking industry, with small businesses and entrepreneurs hit especially hard and left without funding, no bank loans and no access to credit lines (De Bruysere et al., 2012). Crowdfunding emerged as a democratic tool, letting the crowd take more responsibility in the finance world. Going from being a relatively new phenomenon in entrepreneurial finance, crowdfunding has now become an established funding method.

Crowdfunding is the financing method where money is raised from a large audience, and each individual contributes a small amount in contrast to collecting large sums from a small group of strong investors (Belleflamme et al., 2014). The basics of crowdfunding is that it allows founders to fund their efforts by drawing on relatively small contributions from a larger number of individuals by using the internet, without standard financial intermediaries (Mollick, 2014). There is a gap in access to early stage finance for start-ups, and crowdfunding is a way to bridge that gap (Estrin et al., 2018).

Crowdfunding can be considered as an umbrella term as it comes in several forms (Lukkarinen et al., 2016). The most common crowdfunding methods are donation-based crowdfunding, which is used to raise charitable funds to support projects or causes. Furthermore, there is reward-based crowdfunding where the financiers receive non-monetary rewards in exchange for their contributions. Debt-based crowdfunding is also an option where the offer is a credit contract, with this model used to raise capital from several investors. Equity based crowdfunding is used to raise fundings by offering an equity stake in the target company (Lukkarinen, 2016). This thesis will focus on equity-based crowdfunding (ECF).

The advantage of conducting a crowdfunding campaign in comparison to early-stage investors is the crowd involvement, with active participation and increased awareness around the company (Di Pietro et al., 2018). The crowd investors play a unique role acting as a



marketing channel, supporting the campaign by influencing their personal networks through social media, events and news sharing. This in turn assists the star-tups to reach potential investors and customers (Di Pietro et al. 2018). To facilitate a successful ECF campaign it is essential to identify factors that positively affect the performance, and to signal quality and credibility to potential backers (Mochkabadi & Volkmann, 2020).

This study takes place in the context of Norway. Despite it being a relatively small domestic market, it is growing larger each year (Wenzlaff et al., 2020, p. 376). Compared to Europe, Norway mainly focuses on reward-based or donation-based crowdfunding, together with Iceland, Malta, Greece and Luxemburg (Wenzlaff et al., 2020, p. 377), and therefore there is less research on ECF. The reason Norway is an interesting location to study is that there is limited access to venture capital. Moreover, there is a heavy reliance on state support for startups in Norway. There has been a recent boom in ECF, and we want to contribute to the literature on crowdfunding in Norway.

In this thesis we aim to dive deeper into several aspects of ECF campaigns and their impact on ECF success in Norway, while accounting for the theoretical foundation of our investigations. This study identifies the most success related factors and analyzes the results through a multi-theory approach, in the context of Norway. There is a rapid growth in crowdfunding as a funding method and researchers are simultaneously working on identifying causes and effects. This thesis will be a contribution to the crowdfunding world, providing a foundation of valuable insights for future studies and discussions.

This thesis outlines the current state of relevant crowdfunding literature, mainly focusing on success measures in an ECF campaign. Based on key findings in the previous literature the authors have developed 14 hypotheses to investigate the variables linked to successful campaigns. This is a quantitative study of 192 Norwegian ECF campaign's, whereas the data collection is obtained from the two platforms, Folkeinvest & Dealflow. Prior to the linear regression conducted in IBM SPSS Statistics, 25 factors were extracted from each of the campaign's which laid the foundation of the data collection. The results retrieved from the analysis is later discussed and a conclusion is presented. Lastly, the authors make suggestions for further research and the limitations of the thesis.

## 2 Literature Review

Our research question is as follows:

*What drives success of equity crowdfunding campaigns in Norway?*

### 2.1 Equity crowdfunding

Equity crowdfunding is defined by Ahlers et al. (2015) as a method of financing, whereby an entrepreneur sells a specified amount of equity or bond-like shares in a company to a group of (small) investors through an open call for funding on Internet-based platforms (Ahlers et al., 2015). Equity-based crowdfunding was by many considered a new and innovative method of raising external capital for new ventures (Ahlers et al., 2015). In 2012 when the United States (US) president Barack Obama signed the *Jumpstart Our Business Startups (JOBS) Act* to legalize equity crowdfunding, he stated "for start-ups and small businesses, this bill is a potential game changer" (Mollick, 2014). With the increased growth of ECF since this time, it can be argued that it became a game changer.

The mechanisms in equity crowdfunding can be explained in the way that the backers of the crowdfunding campaign are compensated with financial returns such as equity, equity-like shares, or dividends (Bretschneider, Knaub & Wieck, 2014 cited in Brown et al., 2017). Equity based models accounted for \$4 billion in 2019 and \$4.4 billion in 2020 of alternative finance volumes globally. ECF is the second largest model in this category and grew from 27% (\$1.09 billion) to 35% (\$1.52 billion) in 2020. These numbers cover the entire world market (Ziegler et al., 2021).

To clarify the scope and use within the equity based market volume, the ECF accounted for 100% of the Middle East/North Africa (MENA region) with \$12.5 million, 84% of the United Kingdom (UK) with \$549 million and 45% of Asia-Pacific (APAC) with \$333 million (Ziegler et al., 2021). ECF is still a research topic that needs more attention, especially of success factors beyond financial indicators (Shenor & Vik, 2020).

The authors are of the opinion that there is a strong need for this research and it will be of interest to several groups belonging to the Crowdfunding segment. With regard to academic

researchers, this study may be a door opener for further research and arouse interest in pursuing and investigating this specific field further. As Norwegian equity crowdfunding is under-researched, there is potential for the academic researchers to present groundbreaking results that will be recognized.

In regard to platform managers, the results this thesis provides will be of interest in several ways. It is doubtful that the two platforms have conducted analysis in the way this thesis does. Overall, they will derive more benefit from a campaign being successful than if it fails, so if results from this thesis provide minor advantages then it would be of interest for the platforms. The results of this thesis will give the platforms a status on the performance of the platforms that will be valuable going forward.

In relation to the fundraisers it would be interesting in the way that this thesis contributes more information about equity crowdfunding in Norway. Increased insight into the success factors for a campaign could attract additional investors who are fence-sitting because of lack of knowledge. In order to develop Equity Crowdfunding in Norway further and secure its growth there is a need to attract more investors. The investors can not only consist of those who are in the entrepreneur's network, simply put; friends and family. Being able to increase the supply of information to ordinary people will therefore help to attract more potential investors who will thus benefit this purpose, especially if the investors gain more insight into what factors contribute to successful campaigns.

Finally, it is worth mentioning that this thesis will be relevant to the policy makers as crowdfunding obviously has a positive impact on Norwegian start-ups by making it accessible for startups to raise funds. There is an intention among Norwegian policy makers aimed at promoting Norwegian industry and there is a desire to help Norwegian companies to be successful. The Norwegian government wants to pursue a policy that likewise facilitates entrepreneurship and innovation in the rural areas in Norway. The government highlights that it is important to maintain the settlement pattern and for the districts to maintain their attractiveness (Kommunal- og distriktsdepartementet, 2021). This thesis can provide increased competence and highlight the positive impact ECF has on fundraising for Norwegian start-ups.

## 2.2 Paper selection

The first phase in the literature review was to search for relevant academic articles. In order to acquire relevant academic articles we conducted searches including keywords from the problem statement, or keywords that are relevant to the problem statement.

We searched for articles on crowdfunding and especially equity crowdfunding and what kind of success factors play a significant role in achieving a successful ECF campaign. We applied keywords such as “crowdfunding”, “equity crowdfunding”, “performance”, “success”, “success factors”, “investors” and “signaling”. The searches contained the keywords mostly in combination (i.e “equity crowdfunding” + “success”). The searches were conducted on the databases Oria, Scopus and Google Scholar. In the process of searching for literature, we used the digital tool "Connected Papers", which helped us find or discover relevant articles based on the papers we had already found in the other databases. In addition we received 5 articles or reports from our supervisor to start off with. Through “snowballing” we additionally found 35 articles, discovered through reference lists and citations from articles and papers we read.

After reading approximately 150 abstracts of potential research papers and studies, our filtration left us with 71 articles and reports of interest to our thesis. In the next phase we read the studies more in-depth to decide if the articles were relevant to the thesis. The most frequent reasons for filtering out a study was irrelevant content, a weak data basis, little or no recognition or outdated content. At the end of the filtering process, a total of 43 articles and reports were selected, which serve as the basis for our literature review.

## 2.3 Literature review table

Paper	Context	Unit of analysis	Sample	Research design	Analytical method	Crowdfunding type	Main findings
Some Simple Economics of Crowdfunding (Agrawal et al., 2014)	Group	Individuals: campaigns	Campaigns on Kickstarter	Conceptual	Theoretical discussion	Equity and non equity	They highlight the extent to which economic theory, in particular transaction costs, reputation, and market design, can explain the rise of non-equity crowdfunding and offer a framework for speculating on how equity- based crowdfunding may unfold.
Crowdfunding: Geography, Social Networks, and the Timing of Investment Decisions (Agrawal et al., 2015)	Group: artists	Individuals: campaigns	34 campaigns of artists. who raise the required \$50,000 on Sellaband platform	Conceptual	Theoretical discussion	Equity	First, they document that funders' propensity to invest in a given artist increases as that artist visibly accumulates capital on the platform. Second, they show that local funders deviate from this pattern; they are more likely to fund earlier in the fundraising cycle. Third, they show that the difference between local and distant funders is largely explained by the group of funders they label as F&F.
Signaling in Equity Crowdfunding (Ahlers et al., 2015)	Country: Australia	Individuals: campaigns	104 offerings of ASSOBS (Australia)	Quantitative	Regression analysis	Equity	The study shows that retaining equity and providing more detailed information about risks can be interpreted as effective signals and can therefore strongly impact the probability of funding success. Social capital and intellectual capital, by contrast, have little or no impact on funding success.
Start-up Funding via Equity Crowdfunding in Germany: A Qualitative Analysis of Success Factors (Angerer et al., 2017)	Country: Germany	Individuals: Startups and Platforms	9 interviews with start-ups and platforms	Qualitative	Content analysis	Equity	German start-ups select crowdinvesting because (1) it is a funding opportunity and (2) it has an expected marketing effect. The key finding is that an attractive business model, an appropriate preparation in the pre-campaign period, ongoing activities during the campaign, and corresponding advertising activities have a positive impact on a German start-up's crowdinvesting campaign's chances of success.
Crowdfunding: Tapping the Right Crowd (Belleflamme et al., 2014)	Industry	Individuals	9 Example cases (Reward based or equity/profit sharing)	Conceptual	Theoretical discussion	Equity and Reward	The authors show that the entrepreneur prefers pre-ordering if the initial capital requirement is relatively small compared with market size and prefers profit sharing otherwise. The article offers insights into how quality uncertainty and information asymmetry affect this tradeoff.
Which Updates During an Equity Crowdfunding Campaign Increase Crowd Participation? (Block et al., 2018)	Country: Germany	Individuals: campaigns	71 campaign from Seedmatch and Companisto	Mixed-Method; qualitative coding; regression analysis	Regression analysis	Equity	The study finds that posting an update has a significant positive effect on the number of investments made by the crowd and the investment amount collected by the start-up. This effect does not occur immediately in its entirety; rather, it lags the update by a few days. Furthermore, the effect of updates loses statistical significance with the number of updates posted during a campaign.
Seeking Funding in Order to Sell: Crowdfunding as a Marketing Tool (Brown et al., 2017)	Industry	Individuals: campaigns	6 campaigns	Conceptual	Structural modeling	Equity and Reward	The authors propose a "decision tree" to guide managers to the right crowdfunding type. If the company has a physical product that is fully developed, it can create a reward-based crowdfunding campaign, offering the product as a reward to backers once it is ready. If the company offers a physical product that is appealing to the crowdfunding community but does not yet have its product ready, the company can undertake a two-step crowdsourcing and funding approach; here, the firm first engages with the community to generate ideas and then uses the interest generated to attract financial backers and to sell products. If the

							company does not have a physical product but wants to raise capital through a crowdfunding website, it may organize an equity-based crowd- funding campaign.
Directing the wisdom of the crowd: the importance of social interaction among founders and the crowd during crowdfunding campaigns (Claus et al., 2018)	Country: Germany	Individuals	Visionbakery: 430 projects	Quantitative	Regression analysis	Non-equity models	The overall results show six relevant success factors for crowdfunding campaigns, which can be divided into social and framework factors. (1) Keep the crowd informed with updates- (2) Generate resonance and reply on comments to attract the crowd (3) Ensure that the conversation comes to a positive conclusion. (4) Team up! Launch a campaign as a group. Not as a single person. (5) Highlight social benefits. (6) Setting small funding goals: Aim low and do not get greedy. (7) Setting up short project duration: Short projects indicate self-confidence.
Claus, T., Niemand, T., Karus, S., Schnetzer, P., Brem, A. (2020)	Projects from Wemakeit	Individuals: campaigns	230 projects, Wemakeit platform	Quantitative	Regression analysis	Reward	Social media reach via the number of social media accounts of the project initiator as well as of the project itself is positively related to crowdfunding success. The utilization of social media channels yields positive effects on the result of crowdfunding campaigns.
Internal Social Capital and the Attraction of Early Contributions in Crowdfunding (Colombo et al., 2015)	Country: US	Individuals	Kickstarter: 669 projects	Quantitative	Probit model	Reward	The findings suggest that internal social capital is more helpful than external social capital. Our findings suggest that platforms should be regarded not only as intermediaries of funding, but also as intermediaries of social capital both outside and within the platforms themselves. The success of fundraising campaigns depends on proponents' social contacts within generalist social networks such as LinkedIn and Facebook, whereas relationships between proponents and backers are likely to develop into social contacts that trigger specific and generalized reciprocity.
Crowdfunding Models: Keep-It-All vs. All-Or-Nothing (Cumming et al., 2020)	Projects from Indiegogo	Individuals	22 850 samples from Indiegogo	Quantitative	Regression analysis	Reward	AON (all or nothing) models offer a guarantee to the crowd that the entrepreneur does not start a project with unrealistically low funding. Overall, AON fundraising campaigns involve substantially larger capital goals and are much more likely to be successful at achieving their goals. Furthermore, they find that AON fundraisers disclose more information than KIA (keep it all) fundraisers, and that this information is more easily understandable for a broader audience.
Unpacking the Antecedents of Crowdfunding Campaign's Success: The Effects of Social Media and Innovation Orientation (Datta et al., 2018)	Country: USA	Individuals with successful campaigns	320 firms conducted a crowdfunding campaign, Kickstarter	Quantitative	Structural modeling	Non-equity models	The authors found that IO (innovation orientation) alone does not fully account for CFS (crowdfunding campaign success), but rather its effect is based on a firm's ability to SSM (strategic use of social media).
A Framework for European Crowdfunding (De Buysere et al., 2012)	Group: Europe	Undefined	Undefined	Quantitative	Undefined	Donation, Reward, Lending and Equity	A framework consisting of three pillars. First, regulation to assist in fraud prevention and detection and will signal credibility to individual funders. Second, education for crowdfunding to flourish. Third, research, to drive competition and innovation within the industry.
Crowd Equity Investors: An Underutilized Asset for Open Innovation in Startups (Di Pietro et al., 2017)	Europe	Individuals	60 European startups from 6 platforms	Qualitative	Content analysis	Equity	Startups exploiting crowd networks are more likely to be successful two years later compared with startups that do not exploit the crowd, or acquire from the crowd product, strategy, or market knowledge.
The Evolution and Adoption of Equity Crowdfunding:	Country : UK	Individuals	64-semi structured interviews. (Entrepreneurs +	Qualitative (inductive)	Semi-structured interviews, Gioia Methodology	Equity	This study shows that financial innovations can emerge in periods where traditional institutions create voids. Their research indicates that for the most part, investors appear to understand and appropriately evaluate the risks that they are bearing; ECF investments are

Entrepreneur and Investor Entry Into a New Market (Estrin et al., 2018)			new and experienced investors)				perceived as a high risk, high return component within individuals' portfolios. Investors also use their communication with peers and entrepreneurs via the ECF platform as a learning tool.
Segmenting "Digital Investors": Evidence from the Italian Equity Crowdfunding Market (Feola et al., 2019)	Country: Italia	Individuals	Italian Equity Investors (19 different platforms)	Quantitative	Cluster Analysis	Equity	The study has segmented the types of investors in the Italian ECF market. The results suggest that entrepreneurs and crowdfunding platform managers should adopt a marketing perspective in raising capital for their ventures. This means segmenting potential customers (investors) on the basis of relevant variables and adopting specific marketing strategies aimed to promote investment opportunities to match the diverse investor segments.
Crowdfunding: Motivations and deterrents for participation (Gerber & Hui, 2013)	Country: USA	Individuals	83 semi-structured interviews	Qualitative	Content analysis	All Crowdfunding	The authors uncover creator motivations, which include the desire to raise funds, expand awareness of work, connect with others, gain approval, maintain control, and learn; and supporter motivations, which include the desire to collect rewards, help others, support causes, and be part of a community. They also explore deterrents to crowdfunding participation, including, among creators, fear of failure, and, for supporters, lack of trust.
Product and Pricing Decisions in Crowdfunding (Hu, et al., 2015)	Industry	Individuals, groups	None. Equations	Conceptual	Structural modeling/ textual modeling	Equity and Reward	This paper studies the optimal product and pricing decisions in an all or nothing model. When the buyers are sufficiently heterogeneous in their product valuations, the creator should offer a line of products with different levels of product quality. Compared to the traditional situation where orders are placed and fulfilled individually, with the crowdfunding mechanism, a product line is more likely than a single product to be optimal and the quality gap between products is smaller.
The Recipe of Successful Crowdfunding Campaigns (Koch & Siering, 2019)	Country: USA	Individuals: campaigns	40 833 projects from Kickstarter	Quantitative	Regression analysis	Reward	They propose a research model to explain crowdfunding success considering success factors and their interrelations. The findings reveal that not only the factors themselves but also their interrelations are important to explain funding success.
What Determines the Success and Failure of Environmental Crowdfunding? (Kubo et al., 2021)	Country: mainly Japan (+Asia and other places) or social group - environment	Individuals: campaigns	473 campaigns, Readyfor platform	Quantitative	Regression analysis	Reward	The study found that fundraising performance varied by topics, with campaigns on pet animal management outperforming those focused on landscape management and sustainable use. It also found that marketing strategies associated with online findability and increased reach through social networks, increased fundraising success.
Woohoo TinkerBots! The Marketing Effect of Crowdfunding (Kunz et al., 2016)	Industry	Interview with Kinematics about their successful crowdfunding campaign "TinkerBots"	1 successful CF company, Indiegogo	Qualitative	Theoretical discussion	Reward	Crowdfunding campaigns can be used as a way to get in touch with potential buyers, to get direct feedback, and to introduce the brand to the public.
Crowdfunding Creative Ideas: The Dynamics of Project Backers (Kuppuswamy & Bayus, 2018)	USA	Individuals: campaigns	14,704 projects on Kickstarter (2010-2011)	Quantitative and theoretical	Regression analysis, econometric analysis	Reward	This study highlights potential backers are more likely to pledge in the first and last week as compared to the middle period of the funding cycle and presents a U-shaped pattern of project support that is persistent across crowdfunding projects. Potential backers are less likely to contribute once a project reaches its goal. Family members tend to support in the first week and just before the project ends. Most of the contributors at any point in the funding cycle are one-time backers that likely come from the creator's own social circle. Potential backers are influenced by how much of the goal has already been pledged. Project

							support is positively related to updates and updates are more likely to be posted during the first week and last three days as compared to the middle period of the funding cycle. Project creators tend to post updates as their project nears its goal.
Exploring the Multi-sided Nature of Crowdfunding Campaign Success (Lagazio & Querci, 2018)	Country: Italy	Individuals: campaigns	1507 campaigns by Italians of Indiegogo (Jan 2014 - Dec 2015)	Quantitative	Regression analysis	Reward	Crowdfunding to support social impact projects does not perform well. Fixed campaigns, small-sized projects, and prolonged campaigns are more likely to be funded, in line with goal-setting theory. The resource-based view of firms clarifies the importance of having large entrepreneurial teams.
Equity Crowdfunding - A Finnish Case Study (Lasrado & Lugmayr, 2014)	Country: Finland	Individuals: campaigns	Data collected from existing ECF-platforms in Finland in 2014	Quantitative	Case Study	Equity	Equity and Reward crowdfunding has seen an incremental rise in Finland over the last two years, with establishment of Invesdor, Fundedbyme and Mesenaatti actively operating currently in Finland. This study finds that Invesdor is dominating the crowdfunding market in Finland, with 80% of the overall funds raised.
Exploring the Impact of Initial Herd on Overfunding in Equity Crowdfunding (Li et al., 2020)	Country: UK	Individuals	250 campaigns, leading platform in UK (2011-2015)	Quantitative	Structural model (SmartPLS 3.0)	Equity	Herding behavior is considered inevitable on crowdfunding platforms, but their findings alluded to the possibility of taming the herd and mitigating its adverse consequence (i.e., overfunding). Specifically, postponing the formation of the initial herd is not only effective in constraining its intensity, but it also reduces the likelihood of overfunding. Highlighting the importance of early momentum has been documented in past studies.
Success Drivers of Online Equity Crowdfunding Campaigns (Lukkarinen et al., 2016)	Country: Finland	Individuals: campaigns	60 campaigns, Invesdor platform	Quantitative	Regression analysis	Equity	This study suggests that the investment decision criteria traditionally used by VCs or business angels are not of prime importance for success in equity crowdfunding. Instead, success is related to pre-selected crowdfunding campaign characteristics and the utilization of private and public networks.
Equity Crowdfunding: A Systematic Review of the Literature (Mochkabadi & Volkmann, 2018)	Industry	Individuals: research papers	Systematic literature review of 113 journal contributions	Conceptual	Theoretical discussion	Equity	The results of the author's systematic review and thematic analysis of 113 publications illustrate that equity crowdfunding research can be categorized into five research perspectives (capital market, entrepreneur, institutional, investor, and platform).
Effect of Social Media on Crowdfunding Project Results (Moissejev, 2013)	Industry	Individuals: campaigns	100 crowdfunding campaigns on Kickstarter	Quantitative	Regression analysis	Reward	This study established a strong relationship between social media seals of approval and crowdfunding activities. The research shows that 'likes' are hard currency in crowdfunding as they affect all the fundraising results: the delivery of funding ratio, the fundraising total, and the number of backers. The established connection between fundraising total and 'likes' shows that, without sufficient 'likes,' the project target will probably not be delivered.
Crowdfunding: A Short Past and Long Future (Moleskisl & Alegre, 2018)	Industry	Individuals: research papers	140 papers up to year 2017	Conceptual	Theoretical discussion	Equity, Reward and Lending	The author's main contribution lies in integrating research from several silos to offer a holistic understanding of crowdfunding, and to highlight the key theoretical perspectives through which the crowdfunding process can be understood, while accentuating the complementarity of these lenses in fully comprehending this process.
The Dynamics of Crowdfunding: An Exploratory Study (Mollick, 2014)	Country: USA	Individuals: campaigns	48,526 funding efforts on Kickstarter	Quantitative	Regression analysis	Reward	The paper suggests that crowdfunding projects mostly succeed by narrow margins, or else fail by large amounts. Crowdfunding success appears to be linked to project quality, in that projects that signal a higher quality level are more likely to be funded, while a large numbers of friends on online social networks are similarly associated with success. Further, there is a strong geographic component to the nature of projects, with founders proposing projects that reflect the underlying cultural products of their geographic area. Finally, founders of projects make efforts to fulfill their obligations to funders, though many projects are delayed. Delays are predicted by the size of the project, with overfunded projects being particularly vulnerable to delay.



Cognition, Emotion and Perceived Values in Crowdfunding Decision Making (Moysidou & Spaeth, 2016)	Group: People who knew about crowdfunding	Individuals	Survey with 309 CF backers	Quantitative	Factorial Survey (experimental design)	Equity, presale, lending	This study finds that in equity crowdfunding financial and informational (completeness) are the most important values. In the case of presales, the informational value remained significant while financial benefit was not found to have an impact on crowdfunders' decision making. Affective processes are also observed in presales crowdfunding, as emotional value and the feelings provoked by a project will impact decision making. Finally, loan crowdfunding seems to share characteristics with both presales and equity crowdfunding, covering some form of middle ground.
Social Media and Entrepreneurship Research: A Literature Review (Olanrewaju et al., 2020)	Industry	Individuals	160 papers (year 2002-2018)	Quantitative	Literature review	All crowdfunding	The use of social media by entrepreneurs had transcended marketing and it is now used in business networking, information search and crowdfunding for their business. This has led to significant impact with improved firm performance and innovation enhancement being the essential outcomes.
Start-ups, Entrepreneurial Networks and Equity Crowdfunding: A Processual Perspective (Brown et al., 2019)	Country: UK	Companies	63 interviews with startups who obtained ECF	Qualitative	Large scale interview based study	Equity	This study's findings demonstrate the important role that different types of networks – interpersonal and inter-organisational networks, strong and weak, close and far – play in mediating the equity crowdfunding process for start-ups. Further, this paper extends entrepreneurial network theories by adopting a dynamic processual perspective combining both social network and business network perspectives.
Greening Crowdfunding Campaigns: An Investigation of Message Framing and Effective Communication Strategies for Funding Success (Rossolini et al., 2021)	Industry	Groups	Indiegogo: 86 environmental/community campaigns (year 2015-2020)	Quantitative	Content analysis	Reward	Communication strategies (message framing, green emphasis and quantitative goals) affect funding success. However, project category moderates the impact of message framing and green emphasis on campaign success. While positive framing increases agri-food campaign success, negative framing is more effective for clean energy and climate preservation projects.
Crowdfunding as a Marketing Tool (Sayedi & Baghaie, 2017)	Not specified	Groups	A single producer and one unit mass of consumers. 3 scenarios	Conceptual	Textual coding, Explorative	Reward	The authors show that setting a low campaign goal and a high pre-order price are credible tools for producers to signal their competence. They found that consumers' lack of knowledge about the producer's competence always leads to the production of a higher-quality product. In other words, consumers benefit from not knowing the producer's level of competence.
Crowdfunding Success: A systematic Literature Review 2010–2017 (Shneor & Vik, 2020)	Crowdfunding literature 2010-2017	Individuals: previous research papers	88 academic papers published between 2010 and 2017	Conceptual	Theoretical discussion	All crowdfunding	The study found that most research involves quantitative analyses of public data collected from reward-CF platforms. More research is required in equity, lending, donation and other CF contexts. Existing studies are mostly anchored in theories of signaling, social capital and elaboration likelihood.
Marketing Strategies in Equity Crowdfunding: A Comparative Study of Italian Platforms (Troise, 2019)	Country: Italy	Individuals (platforms and campaign)	6 Italian platforms. 3 small and 3 large. 123 campaigns, 103 on large platforms, 20 on small.	Quantitative, explorative	Comparative empirical study (univariate)	Equity	Projects posted on large platforms are more likely to get higher campaigns' outcomes. Platforms that present vibrant and evolving marketing activities are more likely to satisfy the parties involved and to help entrepreneurs to obtain higher campaigns' outcomes
Exploring Entrepreneurial Characteristics, Motivations and Behaviors in Equity	Country: Italy	Individuals	97 companies from 12 ECF portals	Quantitative	Structural modeling	Equity	This research warns entrepreneurs to be aware of their decision-making processes and to evaluate and monitor them over time. Further, it highlights that policymakers and platform managers should try to engage more sophisticated investors since entrepreneurs still do not consider ECF platforms as a viable source of valuable relationships. The data highlight that both the motivation to get feedback from the crowd and the one to leverage the crowd as

Crowdfunding: Some Evidence from Italy (Troise & Tani, 2020)							ambassadors for the company increase ECF performance.
Equity Retention and Social Network Theory in Equity Crowdfunding (Vismara, 2016)	Country: UK	Individuals: campaigns	271 project from Crowdcube and Seedrs	Quantitative	Regression analysis	Equity	They find that campaigns launched by entrepreneurs (1) who sold smaller fraction of their companies at listing and (2) had more social capital had higher probabilities of success.
Information Cascades Among Investors in Equity Crowdfunding (Vismara, 2018)	Country: UK	Individuals (equity offerings)	132 equity offerings on Crowdcube	Quantitative	Regression analysis	Equity	They demonstrate that (1) contributions in the early days of offering are fundamental in attracting other investors and, thus, increase the probability of success of the campaigns, and (2) public profile investors play a crucial role in attracting other investors in the initial days of the campaign.
Equity Crowdfunding: A new Phenomena (Vulkan et al., 2016)	Country: UK	Individuals: campaigns	636 equity crowdfunding campaigns on SEEDRS (2012-2015)	Quantitative	Regression analysis	Equity	Their data show that ECF will likely pose great challenges to VC and business angel financiers in the near future. ECF differs from the typical rewards-based crowdfunding in important aspects such as a much higher average amount pledged and the campaign goals tends to be much higher.
Understanding the Importance of interaction Between Creators and Backers in Crowdfunding Success (Wang et al., 2018)	Country: China	Individuals: campaigns	959 projects from the platform Dreamore	Quantitative	Sentiment analysis	Reward	The study indicate that comment quantity, comment score, reply length, and reply speed are positively associated with the fundraising success. In addition, comment sentiment positively moderates the effect of comment quantity on crowdfunding success.
Ziegler et al (2020)	Group: European platforms	Individuals	Data collected from the EU crowdfunding platforms	Quantitative	Cluster analysis	All Crowdfunding	The report include results on crowdfunding platforms and campaigns and contain; industries and niches, business model, type of funding, timing of funding, impact of covid-19 crisis, and the tech behind crowdfunding platforms.

*Table 1: Literature Review Table*

## 2.3 Cross-paper analysis

A spreadsheet system was adopted to record descriptive statistics and results from 43 studies. The data extraction included details of authors, journal, publication year, dependent variables, independent variables, study context, reported effects (type, significance, and direction), context, unit of analysis, sample, research design, analytical method, theory and key conclusions from the papers.

Most of the papers analyzed have been studied in the context of a country or an industry. Mainly with a crowdfunding platform's selection of crowdfunding campaigns as the data set. The top countries studied in the selection are the UK, Italy, Finland, the US and Germany. This is supported by the results of Mochkabadi & Volkmann's (2020) literature review of 113 journal contributions, finding that Europe has produced the biggest amount of research on crowdfunding, with Germany and the UK at top, and USA as the second biggest. The theoretical foundation of the studies were based on previously conducted crowdfunding research, in the areas of entrepreneurship, law, business management and finance. Within each field, several of the same authors were cited as sources. The distribution of research design in these studies were: quantitative (60%), qualitative (14%) and conceptual (19%). The remaining papers applied an explorative or mixed-methods approach (7%).

Within the crowdfunding research field, the studies are not equally distributed on the different methods. The most studied type of crowdfunding is reward-based crowdfunding, with 47 out of 88 studies between the years of 2010 and 2017, while Equity crowdfunding had 8 studies (Shenor & Vik, 2020). In the data collection used in the literature on crowdfunding the platforms have varied. 25% of the selected studies did not specify which platforms they obtained data from and 22% used multiple platforms. The following equity-based platforms are represented in the literature: Seedrs, Crowdcube, Seedmatch, Companisto and Invesdor. The remaining platforms were reward-based, placed in size from biggest to smallest: Kickstarter, Indiegogo, Readyfor, Visionbakery, Wemakeit and Dreamore.

### 2.3.1 Success factors

Success in relation to equity crowdfunding has been measured in various ways in previous studies. Troise (2019) refers to the three most used variables in the literature relating to outcomes of ECF campaigns: Funding collected (in percent), funding amount (in Euros) and

number of investors (Ahlers et al., 2015; Ralcheva & Roosenboom, 2016; Lukkarinen et al., 2016; Vismara, 2016, 2018; Block et al., 2018; Troise, 2019). It is emphasized that these mentioned parameters are proxies for success and explain ECF performance. Measuring the amount of capital raised at the end of a campaign is a common proxy of ECF success (Troise & Tani, 2020).

#### 2.3.1.1 Amount raised

Amount raised indicates whether a project has received funding for the ECF campaign. The higher the amount, the more capital to the project. This is different to when the campaigners receive all the money invested in the campaign regardless of whether the goal was reached (keep-it-all), ECF campaigns have a minimum limit. In this “all-or-nothing” model in ECF, the campaigner set a fundraising goal below which the campaigner does not keep any of the pledged funds and the investors receive their funds back (Cumming et al., 2020). Recognized researchers in the crowdfunding field chose the amount raised as a dependent variable when measuring success in ECF campaigns (Lukkarinen et al., 2016; Ahlers et al., 2015).

#### 2.3.1.2 Number of investors

The number of investors counts the number of individual investors that have invested in the ECF campaign. It is interesting to look at this as an own dependent variable, because it can tell us many things regardless of whether a campaign ends up being successful or not (Lukkarinen et al., 2016). Even in the campaigns that did succeed, the number of investors indicates a number of how many are willing to support the idea, regardless of the capital being transferred back to the investors. Since the aim of crowdfunders is to gather a large number of backers, the number of investors measured at the end of each campaign is an important measure of success (Vismara, 2016). Ahlers et al. (2015) focused on the number of investors when measuring the campaign success. Similarly, Clauss et al. (2020) defined success with the number of investors and investments.

#### 2.3.1.3 Funding rate

The funding rate is the amount of funding raised divided by the minimum goal of the campaign. It tells us how successful the ECF campaign is in relation to the campaign's minimum goal, which means that they will be receiving the funds collected in the campaign. It also indicates popularity, when funds raised exceed the minimum goal. Using funding rate as a success measure is also supported and conducted by other researchers (Kubo et al., 2021;

Vismara 2016.; Colombo et al., 2016.). In line with Kubo et al (2016), we defined it as a success when the funding rate exceeds the value of 1, regarding to the minimum target for the campaign has been reached and the campaigner is allowed to keep the money.

### 2.3.2 Independent variables

Based on the literature review analysis, the authors conducted an independent variable analysis of all the quantitative studies in the literature review. Identifying all independent variables used in the studies and which effect they had on the dependent variable (type, direction and significance). The following independent variables stood out as either the most researched variable, a variable with contradicting results, or as a variable in need of more research.

Variable	Number of studies	Authors
Funding goal, target goal	12	Koch & Siering (2019), Lukkarinen et al. (2016), Clauss et al. (2020), Clauss et al. (2018), Vismara (2018), Wang et al. (2018), Colombo et al. (2015), Cumming et al. (2020), Ahlers et al. (2015), Vismara (2016), Mollick (2014), Rossolini et al. (2021)
Campaign duration, funding period	9	Koch & Siering (2019), Lukkarinen et al. (2016), Clauss et al.(2020), Wang et al. (2018), Colombo et al. (2015), Lagazio & Querci (2018), Cumming et al. (2020), Vismara (2016), Mollick (2014)
Experienced campaigners, experience as creator	4	Koch & Siering (2019), Kubo et al. (2021), Wang et al. (2018), Moysidou & Spaeth (2016)
Pictures/images	5	Kubo et al. (2021), Clauss et al.(2020), Wang et al. (2018), Cumming et al. (2020) Colombo et al. (2015)
Videos	5	Kubo et al. (2021), Clauss et al.(2020), Wang et al. (2018), Lagazio & Querci (2018), Cumming et al. (2020)
Updates	5	Clauss et al.(2020), Wang et al. (2018), Lagazio & Querci (2018), Kuppuswamy & Bayus (2018), Mollick (2014)
Team	5	Vismara (2018), Lagazio & Querci (2018), Cumming et al. (2020), Ahlers et al. (2015), Vismara (2016)
Exit/IPO	3	Vismara (2018), Vismara (2016), Ahlers et al. (2015)
Equity offering	2	Ahlers et al. (2015), Vismara (2016), Vismara (2018), Troise (2019)
Patent	3	Vismara (2018), Ahlers et al. (2015), Block et al. (2018)
Minimum investment	1	Lukkarinen et al. (2016)
Share price	1	Ahlers et al. (2015)
Sustainability	2	Rossolini et al. (2021), Kubo et al. (2021)
Valuation	1	Vulkan et al. (2016)

*Table 2: Variable analysis summary*

### 2.3.2.1 Funding goal

The most frequently cited variable is the funding goal or the funding target. This is the amount of funding the campaigners wish to raise, and is important when signaling the campaign's goals and plans. This is the goal below which the campaigner does not keep any of the pledged funds and the investors receive their funds back (Cumming et al., 2020).

Companies that placed a high and ambitious funding goal had a negative influence on funding success (Kock & Siering, 2019). The percentage of success is higher for smaller funding projects than for projects with a high target limit (Clauss et al., 2020). Based on the results by Wang et al. (2018), the pledge goal had a significant positive association with crowdfunding success. Colombo et al. (2015) found that the probability of success is negatively related to the target capital. Vismara (2016) found that the target capital amount does not affect the campaign's relative capacity to raise funds, but it is related to the number of investors as a size effect. Rossolini et al. (2021) found that goal amount had no significant influence on campaign success. Mollick (2014) found that increasing the goal size is negatively associated with success. Lukkarinen et al. (2016) found no significant connection between funding target and campaign success, neither did Ahlers et al. (2015).

The authors have noted that there are variations in the funding goal in the campaigns although the target amount is close to each other. A high minimum amount may be a result of over-optimism by the founders or that the founders have overestimated the willingness among backers to invest. The same goes for the opposite, if they have set a very low minimum amount it can send some desperate signals to backers that they will accept everything they can get.

The authors suspect that there is a crossing point between self-confidence, reality and arrogance. Therefore, it is of interest to look more closely at whether the research will provide any significant answers as to whether this is important for a successful campaign. Based on this, the following hypothesis was created. This hypothesis is to reconfirm earlier insights in the new context of Norway.

*H1: The funding goal negatively influences the campaign success.*

### 2.3.2.2 Campaign duration

The variable campaign duration or funding period was applied in nine quantitative studies. This variable tells us how and if the length of a campaign matters to the success of the campaign, and what the speed of the investments signals. Koch and Siering (2019) found that the length of the funding period had a negative influence on funding success. Similarly, Clauss et al. (2020) found that shorter funding projects are more successful than projects with long-lasting funding periods. Lagazio and Querci (2018) found that the duration of the campaign shows significant relevance with regard to the project's funding chances, and campaigns that last over 30 days are more likely to collect the requested funds, increasing the probability of success by 4% compared to shorter campaigns. Cumming and Schwienbacher (2020) discovered that duration is negatively and significantly associated with success. Vismara (2016) found that a longer pitch duration is associated with reduced probability of success. Mollick (2014) discovered that duration decreases the chances of success and explained the possible reason could be related to the fact that longer durations are a sign of lack of confidence, though not significant. Lukkarinen et al. (2016) found no significant effect on crowdfunding success in relation to the duration, nor did Wang et al. (2018), nor Colombo et al. (2015). Despite the small dissimilarity, the majority of the studies found that the campaign duration has a negative effect on campaign success.

A possible explanation of the negative association with campaigns that take a longer time could be that they signal a struggle to recruit backers which influences new prospective backers negatively. This is because they see that for a long time others did not buy into the idea, and hence question it themselves. The following hypothesis is to reconfirm earlier insights in the new context of Norway.

*H2: A longer campaign duration will negatively influence campaign success.*

### 2.3.2.3 Experienced campaigner

The variable experienced campaigners were studied in four papers. Koch and Siering (2019) found that previous project experience had a positive influence on the success of funding.

Wang et al. (2018) similarly found a significant direct effect of experience on crowdfunding success. Kubo et al. (2021) discovered that experienced campaigners were positively related to crowdfunding success, but not significant. Moysidou and Spaeth (2016) found that an individual that has already supported at least one crowdfunding project is 12 times more likely to be willing to support the project. Internal social capital has a positive effect on campaign success, mediated by the capital and supporters raised in the early days of the campaign (Colombo et al. 2015). The positive association with experience could also be connected to the aspect of human capital where campaigners go through a learning experience in past rounds and improve the campaigning skills in follow up campaigns. Furthermore, an experienced campaigner could signal security and valuable knowledge in that the company earlier has been through a crowdfunding process before, with success. This could give the investor greater faith that it will succeed again, although that the campaigner knows what works in achieving a successful crowdfunding campaign. Based on this, a hypothesis is created to reconfirm earlier results in the new context.

*H3: Previous experience as a campaigner has a positive influence on campaign success.*

#### 2.3.2.4 Images and videos

Empirical studies have found that the use of videos and pictures is associated with crowdfunding success (Mollick, 2014). There appear to be different results regarding the use of pictures. Kubo et al. (2021) found that more pictures are negatively related to project success. In contrast, Cumming and Schwienbacher (2020) found a significant positive relation between gallery items and crowdfunding success. Wang et al. (2019) found that pictures are negatively associated with crowdfunding success, but not significantly. Clauss et al. (2018) found no significant link between pictures and crowdfunding success. Colombo et al (2015) found a significant positive relation between more visuals in project description and attracting early contributions to the campaign (Colombo et al. 2015). The results of the usage of pictures apparently varies and the reason for a positive association of using images may be connected to helping make promises more concrete and clear than abstract descriptions. Moreover, make the campaign visually engaging and leave the investor with an impression of the startup's personality. Images require lower cognitive effort in information processing versus text. It is important to appeal to the investor who is looking at the campaign and by only using text could therefore make it more difficult for the investor to understand or keep up with the entrepreneur's visions. Use of images may signal greater efforts on behalf of the



fundraising entrepreneur, which appeals to prospective backers. With the varying results regarding the usage of pictures we are interested to see what our study will conclude.

*H4: The number of images will positively influence campaign success.*

The image count is a total of the numbers of pictures and the numbers of graphical images used in the campaign. Team photos were excluded due to the large variation of team members and board/advisory board, and the risk of measuring the same as the team variable.

Videos and images take time and effort to prepare and can indicate the creator's preparedness, which can be seen as a signal of quality for potential backers (Chen et al., 2019; cited in Wang et al. 2018). Wang et al. (2018) discovered that a video in the campaign description was significantly associated with crowdfunding success. Kubo et al. (2021) found a positive relation between video usage and project success, but not significant. This was also the result in the study conducted by Clauss et al.(2018). Lagazio and Querci (2018) on the other hand discovered that having a video to introduce projects reduces funding chances by 5%. Cumming et al. (2020) stated that having a video was statistically significant and more likely to create campaign success. The following hypothesis will determine the effects of videos that have had inconclusive results in earlier research.

*H5: Videos will positively influence campaign success.*

#### 2.3.2.5 Updates

Clauss et al. (2020) found a significant positive association between updates and campaign success. The results indicated that the project owner is able to increase the probability of success if she/he keeps the project web page updated and the crowds informed (Clauss et al., 2020). The study by Wang et al. (2018) discovered a positive, but insignificant relation between updates and crowdfunding success. Similarly, Lagazio & Querci (2018) found that having an updated campaign page makes the projects more appealing, increasing the probability of success by 5%. Further, Kuppuswamy & Bayus (2018) discovered that higher levels of project support are positively related to updates. They also discovered that updates tend to occur during the early and late stage of a project and that it is difficult to maintain the initial excitement that comes right after project launch. This especially seemed to be the case for successfully funded projects (Kuppuswamy & Bayus, 2018). Interestingly, Mollick (2014)

found that updates are linked to the quality of the products and its signals can predict a successful campaign, indicating it has a positive effect, howbeit it was not a significant result.

The reasons for why updates could give a positive effect may be connected to the fact that it is a way of the entrepreneur maintaining the momentum of the campaign. It also gives signals of seriousness and commitment from the entrepreneur through responsiveness.

A campaign where there are updates with new information could also boost the interest of potential investors, in contrast to a campaign that is completely inactive. To reconfirm previous studies in the context of Norway, the following hypothesis has been created.

*H6: Updates will positively influence campaign success.*

#### 2.3.2.6 Team

Vismara (2018) found that team size is positively related to the outcome of the campaigns; this suggests that the size of the team is perceived by outside investors as a signal of the firm's ability to cope with the uncertainty of the market. Lagazio & Querci (2018) discovered that having teammates positively influenced the success of the campaigns. Projects supported by teams including at least five members showed an increase in their chance to achieve their goal by 9%. This evidence could depend on the fact that projects supported by larger teams attract a higher number of backers (Lagazio & Querci, 2018). Cumming et al. (2020) found a significant positive effect between team size and crowdfunding success. Vismara (2016) on the other hand found no statistically significant result on the team variable, but showed positive signals to investors of the firm's ability to cope with market uncertainty. Ahlers et al. (2015) came to similar results the previous year, but additionally that a higher number of board members are of positive significance in relation to funding success for both higher expected number of investors and a higher amount funded (Ahlers et al. 2015).

The reason why team size previously had a positive effect could be related to the fact that it means less risk by avoiding dependence on one individual. With a broader team size it will probably ensure availability of different necessary skill sets that are needed. Multiple team members will also access a larger network of professionals and business contacts. Several team members involved in the company could signal that there are more people believing in the business idea in contrast to cases where there is only one entrepreneur who is alone with

the idea. The following hypothesis is to reconfirm earlier insights in the new context of Norway.

*H7: Team size positively influences campaign success.*

The total team count is a merger between the operating team members and the board and advisory board of the team. Founders who are present in both the team and the board have only been counted once.

#### 2.3.2.7 Sustainability project

Rossolini et al. (2021) found that a significant number of environmental claims in a campaign text positively affects the likelihood of the campaign's success and the possibility that it will achieve overfunding. It also appears that the backers' evaluations of environmental claims are not focused on the project's title, but on the content (Rossolini et al. 2021). Kubo et al. (2021) concluded that the demand for funding and the interest in business and marketing applications in the conservation context increase. The study also highlights that crowdfunding is likely to become more widely used and thus play a growing role in sustaining environmental conservation efforts globally. They also stated that research in this field is nascent and needs further investigation (Kubo et al. 2021).

Sustainability in the business model is highly relevant. Sustainable companies or companies that purposefully work with sustainable projects are clearly present on the platforms.

Although few studies have examined sustainability in crowdfunding campaigns, the authors would like to investigate it further because of timely public interest, policy initiatives, and the importance of the subject in Norwegian public debate. To reconfirm earlier insights in the new context of Norway we propose the following hypothesis.

*H8: Sustainability-oriented projects are positively associated with campaign success.*

#### 2.3.2.8 Exit/IPO plan

IPO exit channels attracted more investors than trade sale exit channels in the research of Ahlers et al (2015). It is likewise reported that proposed exit channels and shorter time horizons until planned exit are statistically different for fully and non-fully funded projects.

While founders can state the number of planned years to exit, there was no evidence that this signal either influences the number of investors or the absolute funding amount. Ahlers et al. 2015 believes investors may regard this information as “cheap talk”.

Vismara (2018) found that projects with declared exit intentions after more than 5 years attract fewer investors, but are equally likely to raise funds. Vismara (2018) found that different types of preplanned exit does not affect the results. Although fewer studies have examined this issue, we would like to investigate it further because of its relevance to investors' profitability estimations, thus proposing the following hypothesis.

*H9: An exit/IPO plan is positively associated with campaign success.*

#### 2.3.2.9 Equity offered Financial factors

Vismara (2016) found that a larger percentage of equity offered is associated with a smaller number of investors and a smaller amount of capital raised. Vismara then highlights that entrepreneurs who retained high proportions of equity conveyed positive signals of commitment to investors (Vismara, 2016). Ahlers et al (2015) reported that a one-percentage-point increase in equity offered is associated with a decrease in the expected number of investors. Additionally highlighting that a higher percentages offered by companies results in later expected completions of the first financing round. An extra percentage of equity offered is associated with a reduction in the expected speed of capital allocation by about 15% (Ahlers et al 2015). Less equity offered means more equity stays with the entrepreneur, signaling the entrepreneurs have greater faith in their venture and want to keep as much ownership as possible based on the expectations of greater returns in the future. It is possible that selling too much too early signals viability and may reveal entrepreneur pessimism in giving up ownership early. To discover whether the earlier insights can be confirmed to the Norwegian context, we propose the following hypothesis.

*H10: Equity offered is negatively associated with campaign success.*

#### 2.3.2.10 Minimum investment

Few studies link minimum investment to campaign success (Lukkarinen et al. 2016), however it is an interesting variable which needs further investigation. The study conducted by Lukkarinen et al (2016) reported a correlation between the minimum investment and understandability is significant and negative. Consumer-oriented companies may indeed wish

to attract investments especially from their consumers, who arguably are willing to make smaller investments than more experienced or professional investors.

Interestingly the minimum investment has a strong negative relationship with the number of investors and with the amount raised. Lukkarinen et al. (2016) reports further that large minimum investments may increase investors' threshold for making an investment decision. Investors may be discouraged both because of the higher requirement for liquid funds available and because of the relatively high risk of losing money (Lukkarinen et al. 2016).

One of the analyses carried out by Lasrado & Lugamayr (2014) revealed that the minimum investment below 1000 euros was widely accepted among investors where the majority of investors traded more than 3 shares. They also reported a small correlation between the minimum investment to be made and the attractiveness of the campaign, however the author emphasizes that it is still too early to say for sure as crowdfunding at this time was a completely new phenomenon in Finland (Lasrado & Lugmayr, 2014). The following hypothesis will determine the association to campaign success, which have had inconclusive results in earlier research.

*H11: Minimum investment is negatively associated with campaign success.*

#### 2.3.2.11 Price of share

In the past little has been reported on the price of shares in equity crowdfunding. Although several researchers have expressed it as an interesting variable. Ahlers et al. (2015) reported founders who choose to engage in only one financing round may be forgoing two advantages. First, the benefit of the announcement that they have successfully completed their first round which is positively viewed by investors. Secondly, in most cases higher share price in further rounds can develop to create a dynamic group for interested investors which increases the likelihood of investing (Ahlers et. al. 2015). Vismara was not able to involve share prices because it was not visible on the crowdfunding platforms they investigated (Vismara, 2016; Vismara, 2018). There is a perception that the price of shares is more of a signal of a threshold required to participate. The more expensive it is and the higher the minimum required, the fewer prospective investors that may qualify and be interested. Based on this, a hypothesis is created to reconfirm earlier results in the new context.

*H12: Price of share is negatively associated campaign success.*

#### 2.3.2.12 Valuation

There have been few results regarding the valuation of the company in the literature review. Nonetheless a study reported that a higher business valuation comes with a higher risk of firm failure in the UK (Hornuf & Schmit, 2017; cited in Mochabadi & Volkmann, 2018). Vulkan et al. (2016) included the variable company valuation while investigating which factors are associated with probability of a campaign's success. They did not find any significant relations to pre-money valuations, but highlighted that exists a difference in valuation between successful and successful campaigns. It was not possible to explain the cause to this because of a lack of data. The authors find this variable very interesting as it says a lot about a startup. At the same time, the valuation of the company is complex and there are differences in how the various companies have chosen to justify their valuations.

Valuation of the company is in any case elementary considering that it has a connection with what the company envisages as future earnings and what has previously been done in the company. To determine the association between valuation and campaign success, the following hypothesis is proposed.

*H13: Valuation is negatively associated campaign success.*

#### 2.3.2.13 Patent

Several studies have looked at intellectual capital like a patent as a success factor in crowdfunding. Ahlers et al. (2015) found that intellectual capital, measured by patents and social (alliance) capital had little or no significant impact on funding success. Block et al. (2018) reported that external certification, in contrast, has a negative effect on the amount invested, which might arise because updates on external certificates provide a dubious signal to the crowd: these start-ups are unable to obtain funding other than equity crowdfunding even though they have obtained an external certificate such as a patent (Block et al. 2018). The following hypothesis will determine a patent's association to campaign success, which have had inconclusive results in earlier research.

*H14: Having a patent is positively associated with campaign success.*

## 2.4 Control variables

### 2.4.1 Platform

Successful campaigns is a critical aspect for ECF platforms operating with the all-or-nothing model. Conversely, it is important for start-ups to find the platforms with a high success rate. Due to the all-or-nothing model, campaigners set a funding goal in which they do not keep any of the pledged funds if they fail to reach or exceed this limit (Troise 2019; Cumming et al., 2014). Both Folkeinvest and Dealflow pursue the all-or-nothing model. Since there are only two Norwegian platforms that offer ECF, we find it interesting to look more closely at whether our research will provide any differences between them. We have not found any previous research that has studied Dealflow or Folkeinvest to this extent before. Folkeinvest is the platform that was established first out of the two and became the start of ECF in Norway. The authors find it interesting to examine whether Folkeinvest has gained any advantages to be the first platform, or if Dealflow has benefited to arise in the shadows of Folkeinvest.

### 2.4.2 Urban vs. Rural

The location of the startup is an interesting factor. Lasrado and Lugmayr found that over 50% of startups opting for ECF campaigns in Finland were from the capital Helsinki (2014). This study will determine whether this result is applicable to the Norwegian context.

Through the Ministry of Local Government and Modernization, the Norwegian Government has presented a report stating that the Government's goal is to maintain the settlement pattern in Norway. Strong districts are an important prerequisite for making it attractive to live and work across the country (Kommunal- og distriktsdepartementet, 2021). To achieve this goal the government wants the small towns and the larger settlements to have an important role as an innovation arena and location for skilled jobs and entrepreneurship in the region. The government wants to pursue a business policy that provides a positive framework for all entrepreneurs and start-up companies so it becomes easier and safer to create new jobs. Entrepreneurship and innovation can provide new export companies and more opportunities for employment and in the small-town regions it can also contribute to an increased supply of offers and services for both locals and visitors, and thus make the small-town region more attractive for moving and settling. There are issues of democratization of finance and there is

a reason why the Government wants to highlight that they aim to improve in this area (Kommunal- og distriktsdepartementet, 2021).

Access to entrepreneurial financial capital in rural areas may be improved due to crowdfunding as companies are highlighted on the crowdfunding platforms without any demands or criteria for a particular district location of the company. Eventually, it will be interesting if location has an effect on the results.

### 2.4.3 Sex

Within start-up financing we notice a gap between male and female founders. Teams with at least one woman in the team are less likely to receive funding by 5-10%, if these startups do receive funding, they receive an amount lower by a third compared to male led startups (Lassébie, J., et al. 2019). Research on female founders and crowdfunding campaigns suggest that crowdfunding is a more equal method for funding, but needs more research attention (Serwaah & Shenor, 2021).

Vismara (2016) reported that female founders do not differ in terms of ability to attract investors, but female founders raised less money than male founders (Vismara, 2016). These results contradict Colombo et al., who reported that on average, individual project proponents who are male are less likely to receive support in terms of backers and capital than females (Colombo et al., 2015). Moysidou & Spaeth (2016) found no significant result between the sexes when researching willingness to support an ECF campaign.

### 2.4.4 Image quality

There is a huge visual difference between the crowdfunding campaigns in relation to the images included are of quality contrary to non-quality. The authors want to investigate whether the quality of the images belonging to the campaign has a negative influence. The opinion of the authors is that low quality of the images gives a bad impression of the campaign and can have a degree of influence on the outcome. This is justified by the fact that low image quality indicates low effort and commitment by the entrepreneur. To deliver great quality images is not necessarily a skill everyone possesses, but there are many opportunities to solve it if there is a desire to do so. Hiring professionals or an open call in the entrepreneur's own network is an opportunity. If a company want to raise funds of a serious



amount of money, in multiple thousands or millions, but does not even bother to maintain a certain quality of the images that appear in the campaign, it may give negative signals about the campaigner. As a result, high image quality signals professionalism.

## 2.5 Conceptual Model

Based on the literature review, a conceptual model has been created to visualize the variables' effect on ECF campaign success. The independent variables are to the left, with hypothesis in parentheses, the dependent variables are to the right.

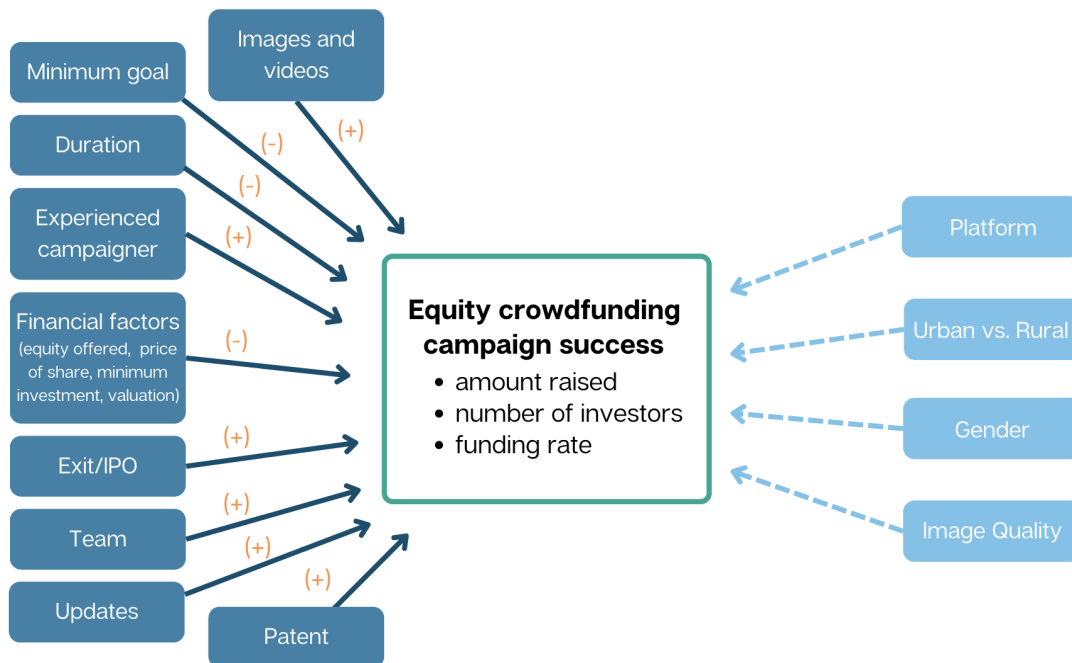


Figure 1: Conceptual Model

## 3 Methodology

### 3.1 Research Design and Approach

The purpose of this thesis is to identify the key success factors of an ECF campaign in Norway. To be able to generalize our results it is important to collect as much available data from as many ECF campaigns as possible. By obtaining information from a large amount of

data the results can be generalizable to the larger whole. Carr points out that the advantage of quantitative results is that they are likely to be generalized to an entire population or a subpopulation seeing as it involves larger samples (Carr, 1994). Quantitative methods are understood by Payne & Payne (2004) as research focused on the aspects of social behavior which can be quantified and patterned, rather than just identifying and interpreting their meanings the people bring to their own action (Payne & Payne, 2004). Becker et al. (2012) define quantitative research as a strategy that emphasizes quantification in the collection and analysis of data. Another advantage of a quantitative analysis is mentioned by Connolly (2007), where it is stated that data analysis is less time consuming as it uses statistical software such as IBM SPSS Statistics (Connolly, 2007).

This thesis aims to capture the factors that are important for an ECF campaign to be successful. To be able to measure this, the quantitative approach therefore becomes very natural rather than a more in-depth qualitative study. As shown in the literature review where similar studies exploring success criteria in Crowdfunding and ECF were discussed, the most frequently used research method has been the quantitative approach. Previous research on factors that have led to crowdfunding success builds a foundation for the variables chosen in this research.

With previous studies as a background, we were able to define hypotheses for this study. The hypotheses presented in the thesis indicate correlations between three dependent variables measuring success, and 6 independent variables. These frame the conceptual model on which the analysis will be based.

After a thorough literature review where the purpose was to obtain the most relevant information about success factors in ECF campaigns, the process was further structured to fill in key factors from existing theory of successful campaigns. As previously mentioned, there is limited literature regarding ECF in Norway, yet this study is based on a literature review based on crowdfunding research from around the world.

## 3.2 Context

The reason for this study is to examine the question in a context where it has not been studied before; Equity crowdfunding in Norway. There are several reasons for this:

- Norway does not have a developed venture capital market.
- Unlike elsewhere, early stage funding in Norway is heavily influenced by state grants and welfare security reduces risks for entrepreneurial venturing.
- Norway is a relatively late adopter of equity crowdfunding in Western Europe, and is able to learn from lessons of earlier experiences elsewhere.

Although Equity Crowdfunding has not been studied to the extent that this study does, there have been major developments in recent years in the prevalence of ECF campaigns in the Norwegian segment (Zhao, 2021). As a result of the rising trend of ECF, two companies have emerged that are mainly based on being an ECF platform in Norway. These independent companies are Folkeinvest and Dealflow. Folkeinvest was established in Trondheim in 2015, but the earliest completed ECF campaign is dated back to early 2018 (Folkeinvest, 2022). Dealflow was established in Bergen in 2017, also with the earliest campaign dating back to late 2018 (Dealflow, 2022). Through our data collection in Norway, a total value of shares worth more than \$100M USD dollars have been invested through the two mentioned platforms over the past 5 years. The trend is also increasing and this makes the context of the thesis and research even more relevant and valuable.

## 3.3 Sample

The dataset includes 233 observations of completed ECF campaigns on Norwegian platforms. The observations have been made on the two Norwegian platforms; Folkeinvest and Dealflow. Through Folkeinvest, we extracted a total of 122 campaigns, From Dealflow, we extracted a total of 104 campaigns. Dealflow's earliest completed campaign is dated back to november of 2018. In total, 41 of the observations were removed from the analysis due insufficient data in the campaigns. Six Norwegian campaigns were also launched on the Finnish platform Invesdor, and one campaign from Seeders, but it was not possible to collect

complete data from the campaigns so these were excluded in the analysis.

As a result of deficiencies in some of the campaign data, some had to be removed and the final and complete data for the analysis is based on 192 observations with complete data. The time period for the campaigns the data analysis is based on ranges from autumn of 2018 to 28 April 2022.

## 3.4 Method of analysis

### 3.4.1 Validity and Reliability

The data analysis is run through IBM SPSS Statistics to investigate whether the variable is to be assumed as normally distributed. Unless the sample size is very large, which is not the case for this research, this is an important decision as most of the parametric statistical tests depend on an assumption that the variable is normally distributed.

In order for most parametric tests to be reliable, it is a prerequisite that the data is approximately normally distributed. A normal distribution peaks in the middle and is symmetrical about the mean, but data does not have to be perfectly normally distributed for the tests to be considered reliable. To get an answer as to whether the underlying distribution is normal, the authors have used the Kolmogorov-Smirnov test (K-S test). The K-S test is sensitive to outliers and is affected by the sample size. It should ideally have a symmetrical shape around the mean of the distribution (Ghasemi & Zahediasl, 2012). Unfortunately, it did not result with a symmetrical shape around the mean. In our case, the distribution was skewed to the left, i.e. negatively skewed. Accordingly, we have transformed values using the log transformation, to minimize skewness and bring the distribution closer to normality.

An important consideration for models with more than one predictor is multicollinearity. It appears when there is a strong correlation between two or more predictors. It is difficult to assess the individual importance of a predictor if there is multicollinearity between them and it will be impossible to know which of the two variables is important if the predictors are highly correlated and each accounts for similar variance in the outcome (Field, 2018).

IBM SPSS Statistics makes it possible for the authors to compute the Variance Inflation Factor (VIF). VIF indicates whether a predictor has a strong linear relationship with the other predictors. There will be of high interest to measure the amount of multicollinearity in a set of multiple regression variable. VIF is considered in mathematics as a regression model variable equal to the ratio between the total model variant and the variance of a model that includes only the individual independent variable. The ratio is calculated for each of the independent variables, with a high VIF number indicating that the independent variable is strongly collinear with the other variables (Li & Potters, 2021). The results from VIF show that there are no problems in this case due to two factors;

- There are no intercorrelations between variables above 0.7.
- None of the VIF values exceeds 4.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Duration	1.000															
(2) Images	-.166	1.000														
(3) Videos	-.014*	-.030	1.000													
(4) Image quality	-.032*	-.013*	.123	1.000												
(5) Min. goal	-.199	-.013*	.056†	.097	1.000											
(6) Equity offered	.033*	-.015*	-.091	-.080	.314	1.000										
(7) Valuation	-.039*	-.124	.165	.151	.481	-.465	1.000									
(8) Share price	.120	-.008**	.095	-.044*	-.046*	-.128	.053	1.000								
(9) Min. investment	.355	-.172	-.060	-.038*	.122	-.029*	.259	.106	1.000							
(10) Exit plans	-.198	.131	.115	-.031*	.234	.098	.043*	-.026	-.164	1.000						
(11) Patent	-.023*	.046*	.016*	-.010**	.045*	.049*	.099	.133	-.049*	.114	1.000					
(12) Sustainability project	-.011*	.123	-.079	-.019*	-.015*	.059	-.084	-.004**	-.073	.013*	.000***	1.000				
(13) Total Team	-.181	.013*	.370	.177	.360	-.089*	.435	-.028*	-.067	.154	-.056	-.162	1.000			
(14) Dealflow	.542	-.128	-.084	.047*	-.202	-.153	.111	.104	.681	-.388	-.173	-.066	-.037*	1.000		
(15) Rural	.097	.157	.370	-.071	-.157	.066	-.191	.201	-.098	.017*	-.029	.269	-.135	.050*	1.000	
(16) Female	-.033*	.106	-.121	.106	-.091	-.151	-.031*	.103	-.088	.051	-.022*	.227	.021*	.007**	.078	1.000

Table 3: Correlation Matrix

### 3.4.2 Regression model

To determine what drives success in an ECF campaign, we are trying to explain the past. A linear model fitted to the data we have collected will help us explain past success of campaigns. With a linear regression model with multiple predictors it is possible to discover the relationship between the variables (Field, 2018, p. 370).

To assess how good of a fit the data has with the dependent variables, and to find the portion of the data explained by the model, we will look at the  $R^2$ . The square root of this value will tell us the Pearson's correlation coefficient. The F-test will tell us the amount of systematic variance divided by the amount of unsystematic variance (Field, 2018, p. 379).

## 4 Data collection

In the following section, the contents of the data collection will be presented and explained in more detail. The data on which the analyses are based is obtained from the two Norwegian ECF platforms Dealflow and Folkeinvest. Only completed campaigns have been collected as the variables would continuously change during an ongoing campaign. The data collection was carried out manually with each campaign having to be examined individually. Attached at the end of this chapter, Table 4 summarize each variable and how it was measured

Prior to data collection, the following 25 factors were extracted from each individual campaign; Project name, Funding Goal (Max), Minimum Goal, Duration (number of days), Experienced campaigner (yes/no), Pictures (number), Graphical pictures (number), Picture quality (yes/no), Videos (number) , Video quality (yes/no), Updates entrepreneur (number), Comments audience (number), Team (number), Board/advisors (number), Total team, Facebook shares (number), Share of equity offered (percentage), Price of shares (amount), Valuation of company before campaign (amount), Minimum investment (amount), Exit/IPO plan (yes/no), Sex of lead entrepreneur (male/female), Amount raised (amount), Investors (number), Average investment (amount) and Funding rate (rate).

This data was plotted into a spreadsheet framework. There was a variation in the campaign data available, several contained incomplete information. The reason for this may be related to the campaigns being old and that any changes to the platforms in retrospect have meant that these campaigns did not fit the updated format. It may also be related to the expiration of the campaigns, lack of maintenance or other technical reasons. This issue mainly affected the older campaigns when it occurred. They were still registered in the spreadsheet system, but removed later in advance of the analysis process due to missing data before being analyzed in SPSS.

## 4.1 Variables

The data collected are categorized into four types of data: (1) company level factors, (2) campaign characteristics, (3) financial factors, and (4) control variables. Company level factors include exit/IPO plan, patent, whether it involved a sustainability-oriented project, and the team size. Campaign characteristics include the number of images, number of videos, crowdfunding platform, and campaign duration in days. Financial factors are share of equity offered, pre-campaign valuation, share price, minimum investment required, and the minimum goal set for the fundraising effort. The control variables are platform, urban vs. rural location, image quality, and the sex of the lead entrepreneur.

The following table shows how each variable is operationalized and measured in the study.

Type	Category	Variable	Operationalization
Dependent	Success	Amount raised	Number of total pledge in campaign.
		Number of investors	Number of individual investors in campaign.
		Funding rate	Amount of funding raised divided by (/) the minimum goal.
Independent	Company level factors	EXIT/IPO Plans	No = 0, Yes = 1.
		Patent	No = 0, Yes = 1.
		Sustainability project	No = 0, Yes = 1.
		Total team size	Number of total team members.
	Campaign characteristics	Images	Number of total images in campaign, excluding team images.
		Videos	Number of total videos in campaign.
		Duration	Length of funding period.
	Financial factors	Equity offered	Percentage number of equity offered.
		Share price	Number of price of share in NOK.
		Valuation	Number of startup's valuation in NOK.
		Minimum investment	Number of minimum NOK to invest in campaign.
		Minimum goal	Number of campaign's minimum goal in NOK.
	Controls	Dealflow (platform)	Folkeinvest = 0, Dealflow = 1.
		Folkeinvest (platform)	Dealflow = 0, Folkeinvest = 1.
		Rural	Urban = 0, Rural = 1.
		Female	Male = 0, Female = 1.
		Image quality	Bad image quality = 0, Good image quality = 1.

*Table 4: Operationalization of the Variables*

#### 4.1.1 Dependent variables

The dependent variables indicating crowdfunding success are aggregated into three main variables; amount raised, number of investors, and average funding rate. The main goal of an ECF campaign is typically raising the target amount of funding. However, there are other benefits to conducting an ECF campaign, including marketing and promotion, market testing, and receiving feedback from potential customers (Lukkarinen et al., 2016). Therefore we look at both the amount raised and the number of investors when studying what makes a successful ECF campaign, as well as the funding rate.



#### 4.1.1.1 Amount

The amount raised is obviously easy to extract as it defines the entire status or result of the campaign and for that reason it is clearly highlighted on both platforms. In the Folkeinvest platform, amount raised are shown in a graph from the current status of the collection amount and the remaining length towards the target goal. Dealflow does not show the remaining length until the target goal, with their graph turning green when it reaches the minimum goal.

Seeing as the amount can be measured continuously, we have collected the data only from finished and ended ECF campaigns, as a discrete variable. The higher the amount raised, the higher the probability of the campaign being successful.

#### 4.1.1.2 Number of investors

The number of investors is clearly highlighted on the campaign page. It is logged under "number of backers" of the campaign in Folkeinvest and "number of investors" in Dealflow platforms. The authors could easily extract this number from each individual campaign and enter it in the collection spreadsheet system.

#### 4.1.1.3 Funding rate

The funding rate is measured as the percentage of target capital collected, with the variable of funding rate being a fine-tuned measure of a campaign's success as it indicates how much capital has been raised or how close the campaign was in reaching the target (Vismara, 2016). In our study the funding rate was calculated by the authors by adding an equation in the spreadsheet in an individual column. The equation divided "amount raised" by "minimum goal". Results of the funding rate of the different campaigns emerged along the way when the amount raised and the minimum goal had been obtained and placed in the spreadsheet system.

## 4.1.2 Independent variables

### 4.1.2.1 Funding goal

The funding goal is displayed at the top of all the ECF campaign profiles and is straightforward to retrieve. The funding goal is the basis of the dependent variable funding rate. In the analysis we named this variable “minimum goal” to avoid confusion with the dependent variable amount raised.

### 4.1.2.2 Campaign duration

The campaign start and end dates are available on the platform page for each campaign on both Folkeinvest and Dealflow. To identify the duration of the campaign the authors counted days from the start of the campaign until the end-date. This was calculated for each individual campaign.

### 4.1.2.3 Experienced campaigner

To retrieve information regarding whether the campaigner had previously conducted crowdfunding campaigns, the authors searched for keywords in the campaign text such as "experience" and "previous campaign". It was also discovered through the data collection sample, as every campaign was logged along the way, so it became visible if a company name showed up several times.

### 4.1.2.4 Images and videos

Images and videos were measured by looking at each campaign individually. Images were also divided into two categories, photographs and graphic images and then counted.

Team images were not included because they are equivalent to counting team members which is a separately included variable. Hence we avoid multicollinearity by measuring the same thing twice.

### 4.1.2.5 Updates

To detect the campaign updates in Folkeinvest, this was done by counting the log section. Included in this were all the updates from the "contributor of the campaign" in addition the lead entrepreneur's (campaigner) updates. These comments were marked on the page and easy to count. On Dealflow, the log sections included only comments from the crowd and the

answers from the campaigners. It was therefore not possible to find proper updates and the variable was thus excluded.

#### 4.1.2.6 Team

The measurement of the team was contrived through a merger between the operating team members, board members and the advisory board. If the founder was represented on both the board and the team, it was counted only once. The information about the team was visible and available on both the platforms Folkeinvest and Dealflow, so they were able to be counted individually.

#### 4.1.2.7 Sustainability project

In order to determine whether the campaign was a sustainability project, it was decided in advance that there had to be a connection between the concept and sustainable benefits.

Searches were conducted through each campaign text for keywords such as "sustainable", "green" and "environment" and if there was a match it was investigated further to determine whether it was a central part of the company project and mission, or not. Simultaneously, it became clear when reading the campaign that the company was developed through a sustainability mission. In other words, it was not enough to just mention a UN Sustainable Development Goal or words about environmental friendliness in the campaign text.

#### 4.1.2.8 Exit & IPO plan

Regarding retrieving information about Exit and IPO, there were some differences between the platforms. In its setup, Folkeinvest has included exit as a question that can be answered, but it was not obligatory to fill in. Dealflow has no Exit or IPO sections, so it is up to each individual campaigner to mention this. Exit and IPO information could in several cases be traced in the comments and the responses from the campaigner if it was not mentioned in the campaign text. To quickly find this information in the campaign text, the authors searched for keywords related to the subject. The search contained words such as "Exit", "Sale", "IPO" and "Going public".

#### 4.1.2.9 Equity offered, Minimum Investment, Price of Share

Equity offered, Minimum investment and Price of share were clearly presented on both Folkeinvest and Dealflow with a mandatory information table included in each individual campaign. It was straightforward to extract it directly from each individual campaign.

#### 4.1.2.10 Valuation

The valuation was clearly presented on both Folkeinvest and Dealflow with a mandatory information table included in each individual campaign. The number was extracted directly from each individual campaign. Interestingly, it was not obligatory to inform about the valuation method or how it was calculated, which was a frequently asked question from the spectators in the comment section.

#### 4.1.2.11 Patent

The Folkeinvest campaigns had to present patent information in a mandatory field. This was not the case at Dealflow and it became the campaigners' responsibility to disclose information about patents in the campaign text. To retrieve information about patents in the campaign text the authors searched with keywords related to patents, such as "Patent", "protection" and "trademark".

### 4.1.3 Control variables

#### 4.1.3.1 Platform

This study look into the two Norwegian platforms Dealflow and Folkeinvest. It is interesting to see if there is any difference between the two platforms in terms of successful and failed campaigns, and whether the choice of platform is significant in relation to the campaign's success. Since Folkeinvest is the older platform, it is easy to assume that it has longer experience influencing their mode of operations, as well as having a steeper learning curve as the first local platform in the market. The platforms were tracked in a column each.

#### 4.1.3.2 Urban vs. rural

The limit for urban areas has been set at 45,000 inhabitants to adapt into Norwegian proportions. This variable will stipulate whether the address of the company is a determinant for the campaign's success. The company location is integrated and mandatory in Folkeinvest and therefore it was unproblematic to retrieve this variable from campaigns on this platform. Dealflow campaigns do not have company location integrated and extracting this variable was a more comprehensive process. In order to find the company locations from the Dealflow campaigns, each individual company had to be searched for on the website "Proff.no". Proff.no is a useful service for the Norwegian business community as the platform offers updated and in-depth information about Norwegian companies.

#### 4.1.3.3 Sex

The information about sex of lead entrepreneur was retrieved from the "Team pages" that are integrated in both platforms. The team pages state which role the different team members have as well as name and picture to help clarify sex of the lead entrepreneur. In the projects with an equal duo of a male and a female founder, we looked at who has the biggest share of equity in the startup. If this was equal we looked at who is the most prominent in the ECF campaign.

#### 4.1.3.4 Image quality

All the images in each individual campaign helped to provide an overall assessment of the campaign's image quality. Fixed criteria were agreed on by the authors in advance, which became the framework for whether it was good quality or not. The criterion was that if the image or video did not reflect professionalism to the extent that a person without special prior knowledge could manage to produce the same, it was measured as poor quality. Concurrently, the image quality was scored based on the ability to detect if the pictures and videos were captured with a good camera or not, and the graphical elements were created with a sense of design or not.

## 5 Results & Analysis

The authors explore the factors related to successful Norwegian ECF campaigns in this thesis. Table 5 shows the descriptive statistics retrieved from the data analysis. Followed by the results of the regression analysis, and an explanation of the results of each variable.

	Min.	Max.	Mean	Std. Deviation
Amount	.00	34182525.0	6.2725	.70945
Num_investors	.00	2066.00	1.9842	.49574
Funding rate	.00	7.59	.3845	.16931
Duration	2.00	70.00	1.2789	.26791
Images	.00	31.00	.4295	.33577
Videos	.00	7.00	.3748	.14646
Image quality	.00	1.00	.8854	.31935
Min. goal	.00	21999960.0	6.3095	.39456
Equity offered	.031	.951	.0779	.03991
Valuation	1030000.00	451823580	.9244	.02031
Share price	.10	5927.87	1.7119	.80772
Min. investment	20.00	49920.00	3.3780	.36418
Exit/IPO plan	.00	1.00	.3229	.46881
Patent	.00	1.00	.0833	.27711
Sustainability project	.00	1.00	.2500	.43414
Total team	.00	28.00	.8946	.19140
Dealflow	.00	1.00	.4740	.50063
Rural	.00	1.00	.3594	.48107
Female	.00	1.00	.1510	.35903

*Table 5. Descriptive statistics*

## 5.2 Results

The regression analysis presented below shows the standardized coefficient beta number, and pearson's r significance. The results will be highlighted below model 6.

<b>Variables</b>	<b>Amount raised</b>	<b>Number of investors</b>	<b>Funding rate</b>
Duration	-.245***	-.208**	-.409***
Images	.029	.120*	.049
Videos	-.004	-.127*	-.028
Image Quality	.256***	.184***	.286***
Minimum Goal	.460***	.360***	-.310**
Equity Offered	0.34	-.026	.057
Valuation	.075	.103	.277*
Share Price	-.126*	-.083	-.065
Minimum Investment	-.157 †	-.172*	.018
Exit/IPO Plans	-.050	-.011	-.020
Patent	.057	.046	.053
Sustainability Project	.105 †	.134*	.135*
Total Team	.115	.158*	.058
Dealflow/Folkeinvest	.270**	-.062	.220 †
Rural/Urban	-.026	-.026	-.065
Female/Sex	-.013	.016	-.054
<b>Adjusted R<sup>2</sup></b>	.459	.492	.254

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05. † symbolizes a weak significance.

*Table 6: Results of regression analysis*

The regression model with the raised amount as the dependent variable suggests that  $R^2 = 0.504$  explains 50.4% of the variance of the amount, with a significant model  $F(16, 175) = 11.126$ ,  $p < .000$ . The model indicates that the variables play a significant role in raising a high amount for the campaign.

The next model was the regression model with the number of investors as the dependent variable. The chosen variables significantly predicted the number of investors,  $F(16, 175) =$

12.655,  $p < .000$ , which indicated that these variables can play a significant role in shaping the number of investors. These results clearly direct the positive affect of the number of investors. Moreover, the  $R^2 = .536$  depicts that the model explains 53.6% of the variance in the number of investors.

The regression model with the funding rate as the dependent variable suggests that  $R^2 = 0.563$  explains 56.3% of the variance on funding rate, and that the impact of the chosen variables is the impacting funding rate in a campaign  $F(16, 126) = 5.068$ ,  $p < .000$ . The model shows that the variables significantly affect the funding rate.

### 5.2.1 Funding Goal

*H1: The funding goal negatively influences the campaign success.*

A higher minimum goal had a significant influence on ECF campaign success within all three measures. For the amount raised ( $\beta = .460$ ,  $p = .000$ ), and to the number of investors ( $\beta = .360$ ,  $p = .000$ ), the minimum goal showed a highly significant positive influence on success. In regards to the funding rate ( $\beta = -.310$ ,  $p = .006$ ), the analysis showed a significant negative influence, meaning that a lower minimum goal increases the chance of becoming funded. The hypothesis is therefore supported.

### 5.2.2 Campaign duration

*H2: A longer campaign duration will negatively influence campaign success.*

A longer campaign duration has a significant negative influence on campaign success in all of the three dependent variables ( $p < .01$ ). First, the analysis showed that the amount raised was significantly negatively influenced by the duration of the campaign ( $\beta = -.245$ ,  $p = .000$ ). Second, the analysis showed that the campaign duration negatively influenced the number of investors ( $\beta = -.208$ ,  $p = .002$ ). Finally, it showed that the funding rate was negatively influenced by the duration ( $\beta = -.409$ ,  $p = .000$ ). Consequently, the hypothesis is supported.



### 5.2.3 Experienced campaigner

*H3: Previous experience as a campaigner has a positive influence on campaign success.*

The data showed that .08 percent of the campaigns had a campaigner with previous ECF experience, therefore it was excluded from the final analysis. Accordingly, there was insufficient data to properly test this hypothesis. This can be explained by the fact that ECF is still relatively new in Norway, and most of the startups have not yet been able to run more than one campaign. Lastly, the data collected for this variable was not satisfactory for the analysis, and was therefore excluded.

### 5.2.4 Images and videos

*H4: The number of images will positively influence campaign success.*

The number of images has a statistically significant negative influence on the number of investors ( $\beta = -.127, p = .031$ ), but not on the amount raised or funding rate variables. The hypothesis stating that the number of images influences campaign success positively is therefore only partially supported.

*H5: Videos will positively influence campaign success.*

Similarly, the number of videos negatively influences the number of investors ( $\beta = -.127, p = .031$ ), but does not influence the other two success variables. The hypothesis stating that the number of videos influences campaign success positively is therefore just partially supported.

### 5.2.5 Updates

*H6: Updates will positively influence campaign success.*

Unfortunately, not all ECF campaigns had updates and several campaigns had deleted this information from the campaign. Therefore, the amount of data on this variable was not satisfactory to be able to conduct any analysis. The updates variable was therefore excluded from the analysis.

## 5.2.6 Team

*H7: Team size positively influences campaign success.*

The team size has a significant positive effect on the number of investors ( $\beta = .158$ ,  $p = .021$ ), but not on the other two success factors. Therefore the hypothesis is only partially supported.

## 5.2.7 Sustainability project

*H8: Sustainability-oriented projects are positively associated with campaign success.*

The campaigns with a sustainability mission significantly positively influenced two out of three success measures in the analysis. In regards to the number of investors, the influence was significant ( $\beta = .134$ ,  $p = .018$ ). Furthermore, the funding rate was significantly positively influenced by the campaign being a sustainability project ( $\beta = .135$ ,  $p = .049$ ). For the dependent variable amount raised, the data showed a weak significant positive influence ( $\beta = .105$ ,  $p = 0.71$ ). As a result, the hypothesis is supported.

## 5.2.8 Exit

*H9: An exit/IPO plan is positively associated with campaign success.*

Having an exit or IPO plan did not have a significant result on any of the success measures. The authors were surprised by this result, since the assumptions were that this would be relevant to the investors' decision making. Consequently, the hypothesis is not supported.

## 5.2.14 Financial factors

*H10: Equity offered is negatively associated with campaign success.*

*H11: Minimum investment is negatively associated with campaign success.*

*H12: Price of share is negatively associated with campaign success.*

*H13: Valuation is negatively associated with campaign success.*

The variable equity offered revealed no significant influence on the success of an ECF campaign, resulting in an unsupported hypothesis.

Similarly, the valuation variable had no significant influence for two out of three success measures. On the contrary, it showed a significant positive effect on the funding rate to have a higher valuation ( $\beta = .277$ ,  $p = 0.24$ ). The hypothesis is therefore partially supported.

Share price had a significant negative influence on the amount raised ( $\beta = -.126$ ,  $-2.258$ ,  $p = .025$ ). There was no significant result in regards to the number of investors and the funding rate. Therefore, the hypothesis is partially supported.

Minimum investment showed a significant negative influence on the number of investors ( $\beta = -.172$ ,  $p = .037$ ), and a significantly weak negative influence on the amount raised. The funding rate had no significant association with minimum investment and the hypothesis is only partially supported.

### 5.2.13 Patent

*H14: Having a patent is positively associated with campaign success.*

Whether or not the startup had a patent did not have any significant influence on the success of the ECF campaign. The proposed hypothesis is thus not supported.

H1	The funding goal negatively influences the campaign success.	1/3 supported
H2	A longer campaign duration will negatively influence campaign success.	Supported
H3	Previous experience as a campaigner has a positive influence on campaign success.	Discarded
H4	The number of images will positively influence campaign success.	1/3 supported
H5	Videos will positively influence campaign success.	1/3 supported
H6	Updates will positively influence campaign success.	Discarded
H7	Team size positively influences campaign success.	1/3 supported
H8	Sustainability-oriented projects are positively associated with campaign success.	Supported
H9	An exit/IPO plan is positively associated with campaign success.	Not supported
H10	Equity offered is negatively associated with campaign success.	Not supported
H11	Minimum investment is negatively associated with campaign success.	2/3 supported
H12	Price of share is negatively associated with campaign success.	1/3 supported

H13	Valuation is negatively associated with campaign success.	1/3 supported
H14	Having a patent is positively associated with campaign success.	Not supported

Table 7: Results of hypotheses.

## 5.2.14 Control variables

### 5.2.14.1 Platform

Interestingly, the variable measuring the platforms showed a significant result, with Dealflow determined as the platform with the highest success rate with the variable amount raised ( $\beta = .270$ ,  $p = .006$ ). There was a statistically weak significant positive association with the funding rate ( $\beta = .220$ ,  $p = .056$ ). There was no significant effect on the number of investors.

### 5.2.14.2 Urban vs. Rural

The variable of rural versus urban location of the startup shows negative and nonsignificant results within all success measures. This means that the urban areas do not have an advantage in comparison to the rural ones.

### 5.2.14.3 Sex

When analysing the variable regarding sex, the results are nonsignificant in all three success measures. This tells us that there is no advantage to being a male, which is a positive result in regards to equal distribution of capital.

### 5.2.14.4 Image quality

The variable relating to the quality of the images in the campaign had a surprisingly positive influence on the success of the campaign. The analysis with amount raised showed ( $\beta = .256$ ,  $p = .000$ ), the relation to the number of investors showed ( $\beta = .184$ ,  $p = .001$ ), and finally the relation to the funding rate showed ( $\beta = .286$ ,  $p = .000$ ). This results in a clear indication of the importance of image quality.

## 6 Discussion

ECF is a growing phenomenon in Norway and the two Norwegian platforms that facilitate ECF campaigns do not struggle to acquire startup projects nor investors. The scope is increasing, the campaign portfolios are increasing, and it is without a doubt an interesting study object.

It is very interesting to see which factors play a role when conducting an ECF campaign. Despite the fact that the studies in the literature review did not cover the Norwegian market, it was fascinating to see if there were any differences from what has been studied previously and this study.

After a thorough literature review, 18 variables were identified by the authors that should have a form of influence on the success of a crowdfunding campaign. These variables were; Duration, Experienced campaigners, Images, Videos, Number of updates, Team size, Sustainability project, Exit/IPO plan, Patent, Minimum goal, Equity offered, Valuation, Share price, Minimum investment, Platform, Urban vs. Rural, Sex of entrepreneur, and Image quality. The analysis discarded two variables due to unsatisfactory data: Experienced campaigner and Updates.

### 6.1 Company level factors

Sustainability turned out to be a focus point for several of the ECF campaigns. The campaigns focusing on sustainability had a significant positive impact on both attracting investors as well as the funding rate. Further, there was a weak significance associated with the amount raised. There has not been much relevant literature regarding sustainability in ECF as it is a topic that needs more research and its impact on success, however our results support the findings of Rossolini et al. (2021). Based on their results, environmentally friendly claims in a campaign text positively affect the likelihood of a successful and fully funded campaign will be successful and fully funded (Rossolini et al. 2021). The results can be related to the timeliness of sustainability concerns as reflected in public debate, policy initiatives, and educational efforts at a national level. In Norway, there is highly focus on

sustainability and from the results we see that this also leads to the backers' willingness to invest in the campaigns.

The team size were expected to influence campaign success positively, as the hypothesis stated. This was true for the measure “number of investors”, but not the funding rate of the amount raised. Several studies found a positive influence of a sizable team (Cumming et al.,2020;Lagazio & Querci.,2018;Vismara.,2016; Ahlers.,2015). Team size increases the ability to cope with market uncertainty, and that a higher team number means a greater network of potential investors. With this consensus in previous studies, the insignificant results of this analysis was surprising. The result suggests that team size affects the ability to recruit small scale hobby investors from a wider network, but does not translate into reaching professional investors, convincing them to invest greater sums.

The literature on Exit and IPO plans indicated that IPO exit channels attracted more investors (Ahlers et al. 2015). In the investor's perspective, it is of great interest to have the information on the entrepreneur's visions or plans of a future exit, because it has a direct effect on shareholders in the company. andThe results of this study showed no significant effect on success measures, and the hypothesis is therefore not supported. A possible explanation could be that Norwegian crowdfunding investors are non-sophisticated and less professional, and hence care less about IPO and exit prospects. Arguably, such plans usually involve long periods of time, which are viewed with skepticism in startup finance plans.

Having a patent is a variable believed to have an impact on the backers willingness to invest, and influence the success of a campaign positively. As explained by having a patent reduces risks for the investors, and gives the startup a competitive advantage in privileged rights for use of a specific technology. It also represents a valuable asset in itself and can be sold if the startup fails. The analysis proved the hypothesis wrong, as a patent had no significant association to campaign success. Previous research showed inconsistent results in their studies. This analysis found no significant results of having a patent, similar to the results of Ahlers et al. (2015). Block et al. (2018) interestingly discovered that a patent was not necessarily positive in attracting backers in ECF. It was justified by the fact that these companies struggle to attract funding other than ECF despite having obtained an external certificate such as a patent (Block et al. 2018). A possible explanation could be that the companies that conduct ECF campaigns in Norway are not all technology-oriented, and

involve low-tech and service companies, whereas an IPR is less relevant. This finding also substantiates the theory of Norwegian investors being amateur investors and not considerate of financial parameters in their investment decisions.

## 6.2 Campaign characteristics

As predicted by the literature review and the hypothesis, the funding goal had a significant negative effect on campaign success, in the measure funding rate. Still, for the two other success measures, there was a positive significant influence on campaign success. An explanation for the amount raised is that a higher goal naturally will lead to a higher amount of funding being raised in the campaign. Furthermore, the number of investors would increase as the funding goal was set higher, needing more to reach the goal. On the other hand, it could decrease the willingness to invest, leading to hesistance due to the high funding level, but this study shows the opposite. A possible explanation for the negative association to funding rate is that a higher funding goal signals a project of greater size and complexity. This may cause a concern of the project's difficulty and execution for the investors, and thus lead to hesitation when deciding whether to invest (Koch & Siering, 2019). The higher the minimum funding goal, the more hesitant the investors are, which lowers the likelihood of campaign success.

In the literature review, we experienced varying and inconclusive results regarding the effect of images to achieve success in a ECF campaign. The analysis was not able to support the hypothesis, yet revealed a significant positive influence on the number of investors. Similar to the study of Cumming & Schwienbacher (2020) who found a significant positive effect on ECF success. The data collection revealed that most of the campaigns exploited the use of images in their campaigns, and very few campaigns stood out in either positive or a negative direction. Overall the campaigns were exploiting images in their campaigns advantageously, making it difficult to stand out and using this as a competitive advantage in achieving ECF campaign success.

Videos were predicted to positively influence ECF campaign success, as concluded by multiple studies (Kubo et al., 2018; Clauss et al. 2018; Cumming et al., 2020). This paper did not support these assumptions, and even found a significant negative influence on success, in

one of the three success measures. Videos had a significant negative influence on the number of investors, which is similar to the results retrieved from Lagazio & Querci (2018), who found that a video reduced the chance of funding. A possible explanation is that almost every campaign in the analysis had a video, and the decisive difference between one or multiple videos in the campaign is limited.

The duration of a campaign was expected to have a negative effect on campaign success, as several studies stated (Koch & Siering, 2019; Clauss et al., 2020; Cumming & Schwienbacher, 2020; Vismara, 2016). The analysis supports previous results; a longer campaign duration is significantly negatively associated with campaign success in all three success measures. An explanation could be that longer durations of campaigns is a sign of lack of confidence, and consequently decreases the chance of campaign success (Mollick, 2014). A longer campaign duration signals failure to late coming prospective backers, who may question why the campaign has failed to raise a significant share of the capital needed in a long period, then again making them doubt their own interest in participating. Staying out of campaigns others do not contribute to can be a form of negative herding.

According to literature on rational herding and information cascades, results indicate that positive herding based on the number of previous contributors signals that a project is of high quality (Kuppuswamy & Bayus, 2018).

As explained by Li et al. (2020), herding is described as a discernible collective in a group of individuals and is defined as the alignment of the thoughts or behaviors of individuals in a group through local interaction and without centralized coordination. There is a need for additional studies to more completely understand the possible herding behavior of investors in ECF communities.

### 6.3 Financial factors

The financial factors were predicted to have a high value and importance to the investors (Moysidou & Spaeth, 2016). Previous studies have found that a higher percentage of equity offered is associated with fewer investors (Vismara, 2016). Moreover, it may seem desperate for a company to offer very high equity. For each percentage increase of equity offered, it is associated with a decrease in expected numbers of investors (Ahlers et al., 2015). There seem to be different approaches to determining the equity the startups want to sell in this new way



of obtaining funding. For this reason it would be interesting to know the argument behind the different approaches. This should be researched more in the future.

Although there had been few findings on the influence of the price of shares in previous studies, the authors obtained results indicating a negatively significant connection between price of shares and amount raised. Arguably, a high share price can be a deterrent to an investor, especially when most companies that have conducted ECF are considered relatively young. On that note, investors may expect the share price to increase in the future.

The minimum investment has a significant negative influence on the amount raised and the number of investors. This means that the lower the minimum investment, the higher the amount raised and the more investors for the startup. Accordingly, Lukkarinen et al. (2016), stated that a higher minimum investment has a negative impact on the number of investors. A higher minimum investment means that the investor needs a greater amount of funding to invest, thus the risk of losing a higher amount increases (Lukkarinen et al., 2016). The minimum investment in the campaigns varies, but it is usually around 4000 NOK (approx. 400 USD). Arguably, 4000 NOK is not a very high amount while investing and is possibly an affordable investing amount for people with a close bond to the entrepreneur. The Norwegian market is therefore interesting because Norwegians, compared to many other countries, have strong personal finances. People will be more careful with the financial parameters if they have more to lose on the investment, therefore the investor becomes more careful (Lukkarinen et al. 2016).

The threshold for investing affective motivations over rational factors could be explained by the fact that the investors of ECF campaigns mainly are not professionals, and invest lower amount of funding which result in an overall lower risk. It can be an investment where the aim is to support and help the entrepreneur and if it can be a financial gain to make then this is considered to be a bonus. ECF is still at the early stages in Norway compared to other countries where it is more established. Therefore, it is not an established form of making an investment compared to the traditional ones. The current investors consist mainly of people who are close to or in the network of the entrepreneur, such as friends, family or locals who want to show their support. The ECF platforms in Norway require a pre-funding of 30% of the funding goal among the startup's own network before launching the campaign to the public. This lowers the number of objective and non-familiar investors of a campaign.

The analysis showed that the minimum goal had a significant influence on the ECF campaign success within all three measures. In relation to funding rate the association was negative, indicating that a higher funding goal results in less probability of being funded. This is not surprising as a lower funding goal also increases the probability of reaching the goal, less amount of funding is needed to reach the campaign goal. This is supported by multiple studies such as Koch & Siering, (2019), who found that ambitious funding goals had a negative influence on funding success. (Koch & Siering, 2019). Small funding projects have a higher success rate than projects with a high target limit (Clauss et al., 2020), and the pledge goal is significantly associated with crowdfunding success (Wang et al., 2018).

The valuation had no significant effect on success in ECF, on the contrary valuation showed a significant positive effect on the funding rate. Surprisingly, higher valuation predicts higher funding rate and it is unexpected as the valuation of the startup that has been measured varies greatly in terms of calculating and determining the economic value of the start-up. Higher valuation of a company could indicate that the company has had success, or there is a great potential in the company and therefore it has been attractive to invest in. It is contradictory to previous studies stating higher business valuation comes with a higher risk of firm failure in the UK (Hornuf & Schmitt, 2017, cited in Mochabadi & Volkmann, 2018). At the same time, we have little literature in this field and it requires future investigation as ECF is considered new in Norway.

The results can be built on the idea that less sophisticated investors may interpret high valuations as indication of success and following herding logic, they want to be part of a success. More sophisticated investors may evaluate a startup's valuations more critically, as businesses where significant returns on investment may be more difficult to obtain. The results may be explained by the level of industry maturation in the country. In this respect, a study by Lukkarinen et al. (2022) shows that with time investors become more sophisticated and financially oriented, while in early days of the industry, a larger share of investors represent less sophisticated investors aiming to support their social contacts rather than to make savvy investment decisions per se. Generally, the financial considerations are not impactful and could have a connection related to the fact that the equity industry in Norway is in early stages. The backers appear to act like amateur investors, and base their investment

decisions on a desire of backing the entrepreneurs instead of financial indicators.

## 6.4 Control variables

One of the explorative factors this study looked at was platform, to see if there was any difference in success rate on the two Norwegian ECF platforms, Dealflow and Folkeinvest. As Folkeinvest was founded earlier of the two, the authors assumed that the extra time in the market would give them an advantage, resulting in a higher success rate. The analysis proved the contrary, and Dealflow showed a significantly better performance in the amount raised success measure. Nevertheless we can not fully conclude with this result, since there were no significant results in the number of investors nor the funding rate. This can illustrate that being a first mover, Folkeinvest had to face greater challenges in establishing and developing a market for ECF in Norway, and as such faced steeper learning curves and dealt with more adversity than Dealflow, which joined later and were less likely to suffer from first mover disadvantages.

There were no significant results regarding whether the location of the company was urban or rural. However, this means that urban areas have no advantages which is actually good. This means that ECF helps to distribute money out of the big cities in Norway, and decentralize the capital. This result contradicts previous research, this is evidenced by Lasrado & Lugmayr (2014). Based on their results in the study of the Finnish Crowdfunding market, questioning which national regions in crowdfunding were best suited for leading campaigns (rural vs city areas). Their results indicated that the Finnish capital Helsinki dominated strongly with over 50% of the companies opting for ECF, it was justified by the fact that Helsinki was the business capital of Finland.

Another positive interpretation of an insignificant result, is the sex of lead entrepreneur variable. There is no advantage of being a male entrepreneur. The entrepreneurs are equally successful, which is positive considering that there in principle should be no beneficial difference between being a male or a female founder. This is supported based on the results of Vismara (2016) regarding female founders do not differ in terms of ability to attract investors. Contrary to the results of Colombo et al. (2015) which pointed out that individual projects by men attracted fewer backers and less amount of money raised than females.

Image quality is one of the control variables that we were curious to see if it made a difference to the campaign's success. Our assumption was that it would matter, as the aesthetics of a campaign signals professionalism. This turned out to be more than accurate. The analysis revealed that image quality had a highly significant positive influence on all three success measures, being one of the strongest significant results of this study. The authors suggest that although images and videos are a standard practice in the ECF campaigns, there is an opportunity to stand out through thorough work with visual elements, sending a strong signal of the startup's professionalism to investors. This would be an interesting subject to further study in-depth, showing that quality rather than quantity counts.

## **7 Limitations and further research**

### **7.1 Limitations**

A key limitation in this study is the novelty of the research field, especially in the Norwegian context. Due to lack of existing research on ECF campaigns in Norway, this study looks at other geographical areas for building a literature foundation. Whether the transferability is satisfying is arguable.

The literature review in this study is based on different methods of crowdfunding, and since the number of studies on ECF are limited, research from reward-based crowdfunding studies are included. And since funding logic in both may not be equivalent, one can expect that certain variables will be more influential in non-investment crowdfunding such as rewards, and others more influential in investment crowdfunding such as equity.

Moreover, the results contradict previous research on ECF. Although the context of Norway is new, it is important to conduct more studies to be able to generalize any results in different industries and national contexts.

## 7.2 Further research

This master thesis addresses a new field of research, ECF in Norway which should be further investigated. The authors hope that this master thesis can motivate further research on success factors and signaling in ECF campaigns and in the Norwegian market. Specifically, when comparing our own results from the early days of the industry with later results, once it has matured and developed for a few years.

It would also be natural to conduct a qualitative study to retrieve some more in-depth insights and valuable information concerning the associations we identify quantitatively. We experienced that the basis of the data collection for the thesis complied with the minimum requirement and compared with research done in other countries where the ECF is more established. Therefore, deeper interviews with investors, entrepreneurs and platforms would be of great interest in this field of future research. There have been major developments during the short time ECF has been active in Norway and it's reasonable to think that this will continue to develop in the future.

In future research it would be beneficial to look into where the funding is coming from by diving into the funding raised from your own network. The Norwegian platforms require you to pre-raise 30% of your total goal from your own network before publishing the campaign publicly. It would be interesting to look into the length of this period, whether startups fail or succeed with this pre-campaign fase, and which factors help succeed with this mission.

## 8 Conclusion

The purpose of this study was to find the key success drivers in Norwegian equity crowdfunding campaigns. The literature proposed that previous experience, a higher number of images and videos, updates and team size would positively influence ECF success. It also proposed that duration and the funding goal would have a negative impact on ECF success.

The analysis resulted in only two of the hypotheses being supported within all three success measures; a longer campaign duration has a significant negative influence, and a sustainability-oriented project has a significant positive influence on campaign success. Further we found that the minimum goal had a negative influence on the funding goal, but a positive influence on the amount raised and the number of investors.

Additionally, several factors were significant in one of the success measures. First, the minimum investment proved to have a negative effect on the number of investors. Further, number of images, videos and the team size were positively associated with campaign success in relation to the number of investors. Moreover, the price of share was negatively associated with the amount raised. And lastly, the valuation had a negative influence on campaign success in relation to the funding rate. Exit and IPO plans and patents did not have any effect on the ECF success, nor did the equity offered, or whether the startup had a patent or not.

There were several interesting results from the control variables. First, the results showed that there were no significant differences between being situated in a rural or urban location. Second, there were no differences between female and male entrepreneurs in the access of ECF capital. Third, the ECF platform Dealflow stood out as the platform with the highest success rate in relation to the amount raised. Finally, image quality of a campaign has a significant positive influence on all three success measures of the ECF campaign, thus being something to prioritize when creating the campaign. In this respect, we add a nuance to previous studies suggesting that it is image quality rather than quantity that positively affects success.

Finally, this thesis proposes that Norwegian ECF investors appear to base their investment decisions on affective factors over financial indicators, which is contrary to previous studies

(Moysidou & Spaeth, 2016). It is therefore plausible to suggest that Norwegian ECF backers are less sophisticated investors, triggered by the motivation to help social contacts over potential financial rewards.

# References

- Agrawal, A., Catalini, C., & Goldfarb, A. (2014). Some simple economics of crowdfunding. *Innovation policy and the economy*, 14(1), 63-97. <https://doi.org/10.1086/674021>
- Agrawal, A., Catalini, C., & Goldfarb, A. (2015). Crowdfunding: Geography, social networks, and the timing of investment decisions. *Journal of Economics & Management Strategy*, 24(2), 253-274. <https://doi.org/10.1111/jems.12093>
- Ahlers, G. K., Cumming, D., Günther, C., & Schweizer, D. (2015). Signaling in equity crowdfunding. *Entrepreneurship theory and practice*, 39(4), 955-980. <https://doi.org/10.1111/etap.12157>
- Angerer, M., Brem, A., Kraus, S., & Peter, A. (2017). Start-up funding via equity crowdfunding in Germany: A qualitative analysis of success factors. *The Journal of Entrepreneurial Finance (JEF)*, 19(1), 1-34.
- Belleflamme, P., Lambert, T., & Schwienbacher, A. (2014). Crowdfunding: Tapping the right crowd. *Journal Of Business Venturing*, 29(5), 585-609. <https://doi.org/10.1016/j.jbusvent.2013.07.003>
- Block, J., Hornuf, L., & Moritz, A. (2017). Which updates during an equity crowdfunding campaign increase crowd participation?. *Small Business Economics*, 50(1), 3-27. <https://doi.org/10.1007/s11187-017-9876-4>
- Brown, T., Boon, E., & Pitt, L. (2017). Seeking funding in order to sell: Crowdfunding as a marketing tool. *Business Horizons*, 60(2), 189-195. <https://doi.org/10.1016/j.bushor.2016.11.004>
- Brown, R., Mawson, S., & Rowe, A. (2019). Start-ups, entrepreneurial networks and equity crowdfunding: A processual perspective. *Industrial Marketing Management*, 80, 115-125. <https://doi.org/10.1016/j.indmarman.2018.02.003>
- Becker, S., Bryman, A., & Ferguson, H. (Eds.). (2012). Understanding research for social policy and social work (2E): themes, methods and approaches. *Policy press*.
- Carr, L. T. (1994). The strengths and weaknesses of quantitative and qualitative research: What method for nursing? *Journal of Advanced Nursing*, 20(4), 716-721.
- Clauss, T., Breitenecker, R., Kraus, S., Brem, A., & Richter, C. (2018). Directing the wisdom of the crowd: the importance of social interaction among founders and the crowd during crowdfunding campaigns. *Economics Of Innovation And New Technology*, 27(8), 709-729. <https://doi.org/10.1080/10438599.2018.1396660>
- Clauss, T., Niemand, T., Kraus, S., Schnetzer, P., & Brem, A. (2020). Increasing Crowdfunding Success through social media: The importance of reach and utilisation in reward-based crowdfunding. *International Journal Of Innovation Management*, 24(03), 2050026. <https://doi.org/10.1142/s1363919620500267>



- Colombo, M., Franzoni, C., & Rossi-Lamastra, C. (2015). Internal Social Capital and the Attraction of Early Contributions in Crowdfunding. *Entrepreneurship Theory And Practice*, 39(1), 75-100. <https://doi.org/10.1111/etap.12118>
- Connolly, P. (2007). Quantitative data analysis in education: A critical introduction using SPSS. London & New York, NY: Routledge.
- Cumming, D., Leboeuf, G., & Schwiendbacher, A. (2020). Crowdfunding models: Keep It All vs. All Or Nothing. *Financial Management*, 49(2), 331-360. <https://doi.org/10.1111/fima.12262>
- Datta, A., Sahaym, A., & Brooks, S. (2018). Unpacking the Antecedents of Crowdfunding Campaign's Success: The Effects of Social Media and Innovation Orientation. *Journal Of Small Business Management*, 57(sup2), 462-488. <https://doi.org/10.1111/jsbm.12498>
- De Buysere, K., Gajda, O., Kleverlaan, R., Marom, D., & Klaes, M. (2012). A framework for European crowdfunding.
- Dealflow (2022) *Fullførte*  
Retrieved from  
<https://dealflow.no/testimonials>
- Di Pietro, F., Prencipe, A., & Majchrzak, A. (2017). Crowd equity investors: An underutilized asset for open innovation in startups. *California Management Review*, 60(2), 43-70.
- Estrin, S., Gozman, D., & Khavul, S. (2018). The evolution and adoption of equity crowdfunding: entrepreneur and investor entry into a new market. *Small Business Economics*, 51(2), 425-439. <https://doi.org/10.1007/s11187-018-0009-5>
- Feola, R., Vesci, M., Marinato, E., & Parente, R. (2019). Segmenting “digital investors”: evidence from the Italian equity crowdfunding market. *Small Business Economics*, 56(3), 1235-1250. <https://doi.org/10.1007/s11187-019-00265-3>
- Field, A. P. (2018). Discovering statistics using IBM SPSS statistics. (5th ed.) SAGE
- Folkeinvest (2022) *Avsluttede kampanjer*  
Retrieved from  
<https://folkeinvest.no/avsluttede-kampanjer>
- Gerber, E. M., & Hui, J. (2013). Crowdfunding: Motivations and deterrents for participation. ACM Transactions on Computer-Human Interaction. *TOCHI*, 20(6), 1-32. <https://doi.org/10.1145/2530540>
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: a guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, 10(2), 486-489. <https://doi.org/10.5812/ijem.3505>
- Hu, M., Li, X., & Shi, M. (2015). Product and pricing decisions in crowdfunding. *Marketing Science*, 34(3), 331-345. <https://doi.org/10.1287/mksc.2014.0900>
- Koch, J. A., & Siering, M. (2019). The recipe of successful crowdfunding campaigns. *Electronic Markets*, 29(4), 661-679. <https://doi.org/10.1007/s12525-019-00357-8>

- Kommunal- og distriktsdepartementet (2021) Strategi for småbyer og større tettsteder som regionale kraftsentre. Regjeringen  
<https://www.regjeringen.no/contentassets/e381f14df70942d085ee2c40d0cf05b1/no/pdfs/strategi-for-smabyer.pdf>
- Kubo, T., Veríssimo, D., Uryu, S., Mieno, T., & MacMillan, D. (2021). What determines the success and failure of environmental crowdfunding?. *Ambio*, 50(9), 1659-1669.  
 10.1007/s13280-021-01522-0
- Kunz, M. M., Bretschneider, U., & Leimeister, J. M. (2016, December). Woohoo TinkerBots! The Marketing Effect of Crowdfunding. *Association for Information Systems*.
- Kuppuswamy, V., & Bayus, B. L. (2018). Crowdfunding creative ideas: The dynamics of project backers. In *The economics of crowdfunding* (pp. 151-182). *Palgrave Macmillan, Cham*.  
[https://doi.org/10.1007/978-3-319-66119-3\\_8](https://doi.org/10.1007/978-3-319-66119-3_8)
- Lagazio, C., & Querci, F. (2018). Exploring the multi-sided nature of crowdfunding campaign success. *Journal of Business Research*, 90, 318-324.  
<https://doi.org/10.1016/j.jbusres.2018.05.031>
- Lasrado, L. A., & Lugmayr, A. (2014, July). Equity crowdfunding-A finnish case study.(2014) *International Conference on Multimedia and Expo Workshops* (pp. 1-6). IEEE.  
<https://doi.org/10.1109/ICMEW.2014.6890687>
- Lassébie, J., Sakha, S., Kozluk, T., Menon, C., Breschi S., & Johnstone, N. (2019). "Leveling the playing field: Dissecting the gender gap in the funding of start-ups", *OECD Science, Technology and Industry Policy Papers*, No. 73, OECD Publishing, Paris,  
<https://doi.org/10.1787/7ddddd07-en>
- Li, Y., Liu, F., Fan, W., Lim, E. T., & Liu, Y. (2020). Exploring the impact of initial herd on overfunding in equity crowdfunding. *Information & Management*, 103269.  
<https://doi.org/10.1016/j.im.2020.103269>
- Lukkarinen, A., Teich, J. E., Wallenius, H., & Wallenius, J. (2016). Success drivers of online equity crowdfunding campaigns. *Decision Support Systems*, 87, 26-38.  
<https://doi.org/10.1016/j.dss.2016.04.006>
- Mochkabadi, K., & Volkmann, C. K. (2020). Equity crowdfunding: a systematic review of the literature. *Small Business Economics*, 54(1), 75-118.  
<https://doi.org/10.1007/s11187-018-0081-x>
- Moiseyev, A. (2013). *Effect of social media on crowdfunding project results*. [Master's thesis, University of Nebraska.] Digital Commons.  
<https://digitalcommons.unl.edu/businessdiss/39/>
- Moleskis, M., & Alegre, I. (2018). Crowdfunding: A short past and long future. *SSRN*.  
<http://dx.doi.org/10.2139/ssrn.3163006>

- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of business venturing*, 29(1), 1-16. <https://doi.org/10.1016/j.jbusvent.2013.06.005>
- Moysidou, K., & Spaeth, S. (2016, August). Cognition, emotion and perceived values in crowdfunding decision making. *In Open and User Innovation Conference*, Boston, USA.
- Olanrewaju, A. S. T., Hossain, M. A., Whiteside, N., & Mercieca, P. (2020). Social media and entrepreneurship research: A literature review. *International Journal of Information Management*, 50, 90-110. <https://doi.org/10.1016/j.ijinfomgt.2019.05.011>
- Payne, G., & Payne, J. (2004). Key concepts in social research. *SAGE*
- Priscilla Serwaah & Rotem Shneor (2021): Women and entrepreneurial finance: a systematic review, *Venture Capital*, <https://doi.org/10.1080/13691066.2021.2010507>
- Rossolini, M., Pedrazzoli, A., & Ronconi, A. (2021). Greening crowdfunding campaigns: an investigation of message framing and effective communication strategies for funding success. *International Journal of Bank Marketing*. <https://doi.org/10.1108/IJBM-01-2021-0039>
- Sayed, A., & Baghaie, M. (2017). Crowdfunding as a marketing tool. *SSRN*, <http://dx.doi.org/10.2139/ssrn.2938183>
- Shneor, R., & Vik, A. A. (2020). Crowdfunding success: a systematic literature review 2010–2017. *Baltic Journal of Management* <https://doi.org/10.1108/BJM-04-2019-0148>
- Serwaah, P., & Shneor, R. (2021). Women and entrepreneurial finance: a systematic review. *Venture Capital*, 23(4), 291-319. <https://doi.org/10.1080/13691066.2021.2010507>
- Vismara, S. (2018). Information cascades among investors in equity crowdfunding. *Entrepreneurship Theory and Practice*, 42(3), 467-497. <https://doi.org/10.1111/etap.12261>
- Vulkan, N., Åstebro, T., & Sierra, M. F. (2016). Equity crowdfunding: A new phenomena. *Journal of Business Venturing Insights*, 5, 37-49. <https://doi.org/10.1016/j.jbvi.2016.02.001>
- Troise, C. (2019). Marketing strategies in equity crowdfunding: a comparative study of Italian platforms. *International Journal of Marketing Studies*, 11(4), 16-29.
- Troise, C., & Tani, M. (2020). Exploring entrepreneurial characteristics, motivations and behaviors in equity crowdfunding: some evidence from Italy. *Management Decision*. <https://doi.org/10.1108/MD-10-2019-1431>
- Vismara, S. (2016). Equity retention and social network theory in equity crowdfunding. *Small Business Economics*, 46(4), 579-590. <https://doi.org/10.1007/s11187-016-9710-4>
- Wang, N., Li, Q., Liang, H., Ye, T., & Ge, S. (2018). Understanding the importance of interaction between creators and backers in crowdfunding success. *Electronic Commerce Research and Applications*, 27, 106-117. <https://doi.org/10.1016/j.elerap.2017.12.004>
- Zhao, Y. (2021, September 11). Norway: Current State of Crowdfunding 2021. *CrowdfundingHub*. <https://www.crowdfundinghub.eu/norway-current-state-of-crowdfunding-2021/>

- Ziegler, Tania & Shneor, Rotem & Zhang, Bryan. (2020). The Global Status of the Crowdfunding Industry. *Palegrave Macmillan, Cham*  
[https://doi.org/10.1007/978-3-030-46309-0\\_3](https://doi.org/10.1007/978-3-030-46309-0_3).
- Wenzlaff, K., Odorović, A., Ziegler, T., & Shneor, R. (2020). Crowdfunding in Europe: between fragmentation and harmonization. In *Advances in crowdfunding* (pp. 373-390). *Palgrave Macmillan, Cham*. [https://doi.org/10.1007/978-3-030-46309-0\\_16](https://doi.org/10.1007/978-3-030-46309-0_16)