The crowdfunding investor (CFI) - a new species in an existing eco-system

Thesis for MAS MTEC, David Stokar

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Summary

1 Author

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2 Abstract

Prior to crowdfunding raising financial resources from natural persons for an entrepreneur of a small or medium size company (SME) was limited to the family and friends investors (FFI), and to wealthy strangers - accredited investors (ACI). The rest of the population was not an option, due to a combination of consumer-self-protection laws not allowing private equity and a lack of intermediaries. This eco-system consisted of only two types of investors: The FFI and ACI. Recently, the consumer-self-protection-laws (i.e. JOBS act, loopholes) are weakening, and new intermediaries are emerging, the crowdfunding platforms.

Today the entrepreneurs may choose to raise financial resources from crowdfunding investors (CFI) as well. However, whether the CFI is a new type of investor with distinctly different characteristics than the FFI or ACI is unclear. Assuming so, the problem is that most crowdfunding platforms do not distinguish among the different types of investors while all may use them, and interact with each other. This may hinder crowdfunding in three ways: 1) entrepreneurs cannot make separate offers to each type of investors. 2) Platforms don't address specific needs of the different types of investors, and therefor may perform suboptimal fund-raisings. 3) Platforms don't disclose the investors' types as signals to other investors, i.e. attracting a friend to invest is not the same as an ACI.

In the original ecosystem before crowdfunding, the FFIs and the ACIs showed distinctly different characteristics in evaluating, and considering SME investments. Logical reasoning implies that the same may hold for the CFI, and the FFI - if they differ. Lee et al. (2012) state that 1) FFIs tend to invest to support a family member relying more on trust. The ACI relies more on a sophisticated valuation of the investments, and professional experience. 2) The FFI and ACI have in general different needs of information to decide on an investment. 3) It is considered a different signal to other investors, if an ACI or an FFI provides financial resources (Conti et al., 2011).

The method chosen adopts the stockownership study (Birchler et al., 2010) towards crowdfunding. It includes a four-step investment process consisting of 1) information gathering, 2) decision taking, 3) transaction, and 4) success measurement. To our knowledge a similar study has not been performed for crowdfunding. We assumed similar factors as relevant to recognize the specific characteristics of CFIs versus FFIs.

The results are that CFIs have distinct different characteristics than FFIs. Such as the CFIs tend to have less work experience, look more for signals from other investors, and expect a secondary-market Internet-service to sell the crowdfunding-assets again. For the whole population of the samples, we find that 75% consider becoming an FFI, 20% are stockowners, and only 14% consider acting as a CFI. Thus, it suggests to the crowdfunding operators to exploit the different characteristics of CFIs and FFIs in combination with a self-declaration of the user's type. This may include: 1) Enabling entrepreneurs to make specific offers for CFIs, FFIs and ACIs. 2) Signalling the types of investors to allow a more holistic interpretation of the funding situation: i.e. a company having fund-raised from FFIs only could be perceived as more risky investment target for CFIs than one with FFIs, ACI and other CFIs. 3) Providing investor type specific Internet-services like a secondary-market for CFIs.

3 Introduction

"Right now, [entrepreneurs of SME] can only turn to a limited group of investors — including banks, and wealthy individuals — to get funding. Laws that are nearly eight decades old make it impossible for others to invest. But a lot has changed in 80 years, and it's time our laws did as well. Because of this bill, start-ups, and small business will now have access to a big, new pool of potential investors — namely, the American people. For the first time, ordinary Americans will be able to go online, and invest in entrepreneurs that they believe in." Barack Obama, Remarks at JOBS Act Bill Signing (Apr. 5, 2012)

"[Crowdfunding] will, to some extent, break down this barrier between accredited, and retail investors. It will allow ordinary non-accredited investors to take a chance, and invest in the unregistered assets of a stranger's start-up … [providing new opportunities for retail Investors], and a [low-cost source of capital for entrepreneurs]" Andrew Schwartz, University of Colorado Law School, (2013)

"[Crowdfunding is] an open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward, and/or voting rights in order to support initiatives for specific purposes" Lambert et al. (2010) extended definition of Klemann et al. (2008).

The entrepreneur of a small or medium size company (SME) could prior to crowdfunding raise financial resources either from legal persons such as banks or from a limited group of the natural persons. Access to the natural persons was limited to family and friends investors (FFIs), and to wealthy strangers - accredited investors (ACI). The rest of the population was excluded by law or by means to reach them. 1) The consumer-self-protection laws did not allow offering and selling private equity to the rest of the population such as retail investors. 2) The lack of intermediaries turned the efficient and economic reach of the rest of the population expensive. Accordingly, this earlier eco-system consisted of two types of investors being natural persons: The FFI and ACI. Recently, new intermediaries are emerging, the crowdfunding platforms. At the same time the eighty years old consumer-self-protection-laws (i.e. JOBS act, Crowdfunding Act) are weakened towards crowdfunding or exploited through legal loopholes by the platforms. A new type of an investor being a natural person arises from the so far excluded population: The crowdfunding investor (CFI).

Do the new CFIs change the availability of financial resources for entrepreneurs? How does this potentially new and low-cost source of capital fit together with intermediary Internet-services, commonly referred to as crowdfunding? Since the appearance of the JOBS Act Bill Signing (2012) in the US, and the jump-start of European Crowdfunding Network ECN[1] (2013), experts across several business disciplines—law, finance, and entrepreneurship—have taken up both positive stands (i.e. new opportunity for retail investors, low-cost source of capital), and negative stands (i.e. reduction, and evaporation of consumer protection for retail investor) towards crowdfunding.

The depth of research is significant. For example, the ECN reviews almost all countries of the European Union to describe, and quantify the current crowdfunding markets, existing Internet-platforms, and regulations. ECN further monitors the current state, and ongoing regulative changes in each country. Likewise, Feldmann et al. (2013) describe two types of crowdfunding setups. The classical crowdfunding type is addressed from platforms such as Kickstarter, Startnext or mySherpas (see Footnote [2]) that compensate a financial contribution with a non-monetary giveback such as a T-shirt. The second type is equity or loan-based crowdfunding, where a financial contribution is compensated with monetary giveback. Examples of platforms with this setup are Seedmatch, Mashup Finance, and Bergfürst. Equity-based crowdfunding is then segmented along the following types of assets: shares of silent partnerships, participation rights ("Genussrechte" see Footnote 3, a special German, Swiss, and Austrian legal vehicle), shareholder loans, and classical shares (i.e. "private equity"). The overall orientation in literature has been to argue, and show that crowdfunding is an umbrella term. It consists of two things mostly: 1) Nationally inhomogeneous but potentially dedicated legal regulation enabling crowdfunding, 2) intermediary Internet-services to allow reaching, offering, and selling crowdfunding-assets to retail investors [without listing].

Our work begins with the general question "how is the affinity towards crowdfunding-assets in comparison to the well-established asset class of public-stocks". It moves on to more informative questions "who wants to act as a CFI or FFI, and use Internet-services provided by crowdfunding platforms?" The characteristics towards public stocks of retail investors and thus the same peer group of Switzerland are provided (Birchler et al., 2010). Comparing the percentage of the population who considers becoming a CFI or an FFI allows insights on whether crowdfunding assets are perceived as similar popular as public stocks. We investigate, if the potential CFI shows different characteristics in looking for, deciding on and transacting crowdfunding assets in comparison to

[1] http://www.europecrowdfunding.org/
[2] mySherpa.de has stopped operation.
3 Prokon Scandal: Prokon provided retail investors the opportunity to invest in Wind-Power in Germany through „Genussrechte“ , and entered a default.

public listed stocks, and in comparison to a potential FFI. The third type of investor providing finance, the ACI, is not analysed. The ACIs are assumed to act similarly as angel investors, venture capitalists, and other financial intermediaries investing professionally, and potentially leveraged. Our research specifically focuses on the current Internet-native generation of potential investors currently thinking of supporting others owning an enterprise by takeover, buy-out or start-up of SME. This group has according to Bauer et al. (2006) a higher affinity to Internet-banking services, and shows early adopter behaviour. Thus, this thesis investigates a different aspect of crowdfunding; namely, that it may represent not only a new alternative source from CFIs but from FFIs as well.

Within the crowdfunding empirical research literature, a few empirical studies employed constructs, and variables closely related to SME, Internet-based services or to understand the difference of the CFI, and FFI perspective, e.g. (Agarwal et al., 2011; Ley et al., 2011; Lambert et al., 2010; Kappel, 2008). Belleflamme et al. (2013) provide a thorough review, and thoughtful commentary on much of this literature. While these studies have contributed to our growing understanding of when, and how crowdfunding is accepted for financing, they invite further research that would address three significant and related limitations. 1) Several of the studies lack a theoretical explanation outside a specific crowdfunding segment. E.g. Agarwal et al. (2011) focus on a single music crowdfunding platform to argue that a CFI does not require being geographically near to the fund-raiser. Since the geographically near transactions may be from FFIs only. 2) Other offer underspecified, broad theoretical rationales or do not differentiate between CFIs, FFIs and ACIs to explain precise responses, e.g. Ley et al. (2011) findings are based on interviews with 14 venture capitalists reflecting over crowdfunding. This may challenge the aspect of that CFIs may tend not to be professional investors such as ACIs but young retail investors. 3) What intermediary Internet-services are expected, remains unspecified. For example, Belleflamme et al. (2013) call them only [Internet based] additional utilities but do not provide a more detailed specification. We analyse the characteristics of the two crowdfunding platforms: 1) Bergfürst for classical equity shares in Germany, and 2) solar greenings for equity shares of silent partnerships in Switzerland. The framework for analysing crowdfunding eco-systems suggested by Hemer et al. (2011) is used. The investors are, as proposed by Hemer et al. (2011) firstly, not further decomposed into CFIs, FFIs and ACIs. They are shown as crowdfunding investors (thus including CFIs, FFIs and ACIs), and capital seeking ventures interacting through the crowdfunding platform acting as intermediary. This is legally working for Bergfürst from Germany as their platform is allowed to offer equity in the same way to the CFI, FFI and ACI. Likewise, no investor type specific Internet-services were identified. Due to stronger consumer-self-protection laws from Switzerland, to understand the characteristics of investiere.ch or solar greenings requires a finer decomposition of the crowdfunding investors into the different types of investors such as CFI, FFI and ACI. The relations among the investors are shown as flows of information, the distribution of rewards, and financials to pay the crowdfunding assets. Out of these findings, we argue that certain types of intermediary Internet-services generate value propositions perceived differently by the types of investors such as CFIs, FFIs and ACIs. Not separating the type of the investor, may oversimplify the complex eco-system many crowdfunding platforms operate in. For characteristics towards public stockownership, the demographical factor of age is relevant. I.e. the percentage of capital invested in stocks is the smallest for the analysed age group (Birchler et al., 2010). For crowdfunding the mean age of users is around 25 years (Schwienbacher et al., 2010). Thus demographic characteristics of the potential CFI and potential FFI are looked at. It may be the case that certain family-specific characteristics are in favour of being a potential CFI. For example, growing up in an entrepreneurial family may provide deeper insights, and understanding of SME entrepreneurships, and an affinity to do, and hold such investments. Affinity towards family and friends investments may be higher for those having work experience in a highly entrepreneurial industry such as gastronomy. In such industries, it may be a more common event, that a close friend may ask for supporting financial-funds to open her own restaurant.

The emergence of crowdfunding has so far led to a many platforms offering crowdfunding services. Table 1 at the end of the chapter provides an excerpt of some. Table 2 at the end of the chapter provides a summary of the crowdfunding platforms in Switzerland according to Dietrich et al., (2014). For Switzerland equity-based platforms are currently according to Dietrich et al., (2014) C-Crowd, Investiere.ch and 7crowd.ch. We describe here another platform with solar greenings. C-Crowd has a FINMA ruling to operate as website but not as an intermediary, thus neither a due diligence nor any other intermediary services are provided. Furthermore, it's the fund-raising's companies risk to be legally fined for offering to non-accredited investors. C-crowd may therefore be understood as a "document-server" service only as described in chapter 4.2. Investiere.ch has no FINMA ruling. Legally, it seems to use the principle of a club (as explained in chapter 4.2) to claim all investors to know each other, and be allowed to offer equity to retail investors. solar greenings has no FINMA ruling. solar greenings has discussed the model with FINMA in detail for the specific application of investments into real infrastructure project such as solar plants.

The current thesis addresses the important call for research to better understand in the crowdfunding ecosystem the potential differences in the characteristics of FFIs and the CFIs. CFIs are understood as acting as strangers responding to an "open call". The thesis proceeds with the following four sections: 1) The first section describes the theoretical model, and contains the hypothesis for empirical testing. 2) The second section outlines the empirical method used to investigate the hypotheses. 3) The third section presents the results of the empirical analysis to separate potential FFIs from potential CFIs. 4) The fourth and concluding section discusses the limitations, and interesting implications of the findings.

Table 1 – Crowdfunding platforms referred to in the literature of chapter 8

Platform	**Current Research**
ASSOB AUS, (Australian Small Scale Offerings Board) "ASSOB is one of the world's largest unlisted securities platforms for showcasing investment opportunities in high-growth unlisted companies." Assob.com	Ahlers et al., 2012 empirically analysed 104 offerings between 2006 and 2011 in order to identify more relevant signals towards crowdfunding investors. They observe that the number of board member, entrepreneurs with MBAs and better social networks are predictors for successful fund-raising. However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.
Bergfürst, DE: "is the first regulated Crowd Investing platform on which private investors can participate in the growth phase and in real estate property with equity of new companies. You acquire fungible investments that you can trade on our electronic 2nd market trading platform in terms of supply and demand." Bergfürst.de	Feldmann et al., (2013) have assessed Bergfürst as one platform providing equity-based crowdfunding. They compared crowdfunding in general to approaches for company internal idea assessment such as prediction markets. They observe, that crowdfunding platforms provide additional services such as collaboration tools to leave messages and react. However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.
FoundedByMe, SWE: "FoundedByMe was created to address the need for a user-friendly crowdfunding solution for European entrepreneurs and everyday investors. FoundedByMe is one of the first crowdfunding platforms in the world to offer both reward-based and equity crowdfunding." foundedByMe.com	Berglin et al. (2013) refer to FoundedByMe as an example for successful crowdfunding. The hamburger restaurant Flippin' Burgers got hundreds of pre-sold meals to help finance the enterprise. However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.
GoFundMe, USA: "GoFundMe is a crowdfunding platform that allows people to raise money for events ranging from life events such as celebrations and graduations to challenging circumstances like accidents and illnesses. The company is based in San Diego, California, and is one of the largest crowdfunding websites currently operating."	Belleflamme et al., (2013) refer to GoFundMe as a platform dedicated to the crowd-asset type "donation" (See chapter 5.4.3). They argue that crowdfunding investors do donate not altruistically but in order to be able to buy the product later. However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.

Wikipedia.org

Kickstarter, USA: "Kickstarter is the world's largest funding platform for creative projects. A home for film, music, art, theatre, games, comics, design, photography, and more." Kickstarter.com	Belleflamme et al., (2013) refer to Kickstarter as platform most successfully for the crowd-asset type "pre-selling" (See chapter 5.4.3). They argue that crowdfunding investors do pre-buy a product to finance a company. The crowdfunding investors assume a benefit in a reduced price of the product. However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI. Berglin et al. (2013) refer to Kickstarter as an example of how successful crowdfunding can be. They point out the Pebble E-Watch raising $ 10 Mio. In 1.5 months through pre-selling. Feldmann et al., (2013) have assessed Kickstarter as one platform providing "classic" crowdfunding. See Startnext for further explanations. However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.
Mashup-Finance, DE "Mashup Finance sees itself as a specialist provider of financial solutions through a swarm financing approach for start-ups and SMEs." Mashup-finance.de	Feldmann et al., (2013) classified crowdfunding platforms into "classical crowdfunding" and "equity based crowdfunding". They compare the two approaches to prediction markets for idea assessment inside corporations. Mash-Up is classified as "equity-based crowdfunding". Mashup-Finance operates with the disputed participation rights (see footnote 3). However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.
Pozible.com, AUS "Pozible provides the platform for project creators to present their ideas to a connected audience, worldwide. If people love what you're creating, they can support it by pledging money." Pozible offers currently pre-selling only. Pozible.com	Berglin et al., (2013) contacted crowdfunding investors on the platform to do a survey, collected 614 responses and had a response rate of 19%. See Sellaband for a short description of the work.
Seedmatch, DE: "Seedmatch is the largest crowdfunding platform for start-ups in Germany. With Seedmatch you have the chance, to invest online from 250 euros to in preselected	Belleflamme et al., (2013) refer to Seedmatch as a platform dedicated to the crowd-asset type "profit-sharing" or equity (See chapter 5.4.3). Seedmatch allows investing in a special legal proxy vehicle that then buys shares of the fund-raising company. However, neither the research nor the platform does

start-ups and thus to participate in the economic success. Investors become business angels." Seedmatch.de	distinguish among the types of investors such as CFI, FFI or ACI. Feldmann et al., (2013) have assessed Seedmatch as one platform providing equity-based crowdfunding. See Bergfürst for a short description of their analysis.
Sellaband, NL: "is an Amsterdam-based crowdfunding platform that enables unsigned musicians to raise financing to produce an album. Launched on August 15, 2006, it was one of the first mainstream websites of its kind and has been referred to as the "granddaddy" of crowdfunding" Agarwal et al., (2010)	Agarwal et al., (2010) use data of the platform Sellaband to a framework to distinguish family, friends and fans (FFF) from Non-FFF. They observe that FFFs are disproportionally local and early investors while Non-FFFs are late investors independent of being local or distant. Lee et al., (2012) refer to Sellaband and Agarwal et al., (2010) observations. They argue that crowdfunding platforms may simplify friends and family investments in general. Berglin et al., (2013) contacted crowdfunding investors on the platform and two others (Pozible and Sponsume) to do a survey, collected 17 responses and had a response rate of less than 2%. They observed as most relevant factors to do crowdfunding to "help a project" and "have a personal connection to the project / project founders". However, they do not distinguish among FFI and CFI. Kappel et al., (2008) refer to Sellaband as an example of ex ante crowdfunding based on an investment model. The other alternative mentioned is gambling (See SliceThePie). The platform is used as a motivating example legally not possible in the US. It shows how musicians, anyway assumed to "scratch, bite, and kick their way into music industry", can do so based on "ex ante" popularity of their investors. However, the platform does somehow distinguish among the types of investors such as CFI, FFI or ACI.
SliceThePie, UK "is a licensed bookmaker under U.K. Gambling laws. SliceThePie utilizes crowdfunding in two ways: First, it utilizes crowdfunding through a "Showcase" process in which artists compete to secure financing through a more traditional pure patronage model. A fan who invests five pounds sterling or more is entitled to receive a copy of the album upon completion and a few other perks. Second, SliceThePie utilizes crowdfunding through a unique betting "Exchange" system, in which fans can buy, sell, or trade	SliceThePie is described in Kappel et al. (2008) as an example of Ex ante crowdfunding models based on betting. The investors can buy a crowd-asset called "contract" for profit-sharing of a funded musician's album. For every 10'000 records sold, the investor receives a financial compensation for each "contract". "Contract" can be exchanged and sold among the investors (or betters). Thus, SliceThePie provides a kind of a secondary market. However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.

what are known as "Contracts." Kappel et al., (2008)	
Sponsume.com, UK "Sponsume is an independent venture based in London." It offers pre-selling crowdfunding. Sponsume.com	Berglin et al., (2013) contacted crowdfunding investors on the platform to do a survey, collected 134 responses and had a response rate of 8%. See Sellaband for a short description of the work. However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.
Startnext.de, DE "Startnext is the largest crowdfunding community for creative projects in Germany. Filmmakers, musicians, journalists, designers, artists, inventors, founders and other creative present their ideas on Startnext Next and fund it with the direct support of many people." Startnext.de	Feldmann et al., (2013) classified crowdfunding platforms into "classical crowdfunding" and "equity based crowdfunding". They compare the two approaches to prediction markets for idea assessment inside corporations. Startnext is classified as "classical crowdfunding". However, neither the research nor the platform does distinguish among the types of investors such as CFI, FFI or ACI.

Table 2 – Swiss Crowdfunding platforms referred by Dietrich et al., (2014).

Platform	**Description by Dietrich et al., (2014)**
100-days "100 DAYS is the only crowdfunding platform which provides the user with a fully automated agency. 100 DAYS offers the most payment channels (including SMS), a social media cockpit, Expert Support (by phone and via e-mail), templates, tools and publicity in the Ron Orp community." 100-days.net	100-days supports the crowd-asset type donation. The intermediary deducts a fee as percentage of the raised capital. However, they do not distinguish among the types of donators such as CFI, FFI or ACI.
7crowd "7Crowd builds bridges and leads investors to start-ups easily and transparently. Our focus is on young, innovative companies that are able to present their ideas and concepts for free on our platform." 7crowd.ch	7crowd supports the crowd-asset types equity and debt. It provides no secondary market for the assets bought. The intermediary negotiates the compensation individually with each potential fund-raising entrepreneur, such as a fee as percentage of the raised capital. However, they do not distinguish among the types of investors such as CFI, FFI or ACI.
c-crowd "c-crowd brings as a leading Swiss Crowd Investing platform innovative start-ups together with investors. For the first time c-crowd offers the possibility to become already with small investment a co-owner of a start-up. c-crowd opens the exclusive circle of people who have access to professionally prepared projects and allows an alternative investment." www.c-crowd.ch	c-crowd supports the crowd-asset type equity. It provides no secondary market for the assets bought. The intermediary deducts a fee as percentage of the raised capital. However, they do not distinguish among the types of investors such as CFI, FFI or ACI.
Ibeliveinyou "Ibeliveinyou is the first crowdfunding platform which specializes entirely on the financing of Swiss sports projects. Ibeliveinyou is open to all. Individual athletes, teams, recreational, amateur or elite athletes, clubs or organizers can make and fund their projects known about the new platform." IBeliveInYou.ch	Ibeliveinyou supports the crowd-asset type donation. The intermediary deducts a fee as percentage of the raised capital. In return to a donation the supported athlete may return a gift such as a dedicated photo. However, some fund-raising projects allow a "donation certificate" and thus to deduct the amount from the income-taxes. However, they do not distinguish among the types of donators such as CFI, FFI or ACI.
Indiegogo "Indiegogo is the world's most established crowdfunding platform. Crowdfunding is the process of	Indiegogo supports the crowd-asset type donation. The intermediary

pooling money from many different people to make an idea happen. Indiegogo is a way to discover projects that people are passionate about all over the world; where you can take action to help create more of what you love." Indiegogo.com	deducts a fee as percentage of the raised capital. The donated money may be tax-deductible depending for charitable supported projects. However, they do not distinguish among the types of donators such as CFI, FFI or ACI.
Investiere "Your direct access to start-up investments. Let us guide you through the process of investing in the most promising Swiss start-up companies." Investiere.ch	Investiere supports the crowd-asset types equity and convertible loan. It provides no secondary market for the assets bought. To invest you have to hand in a dossier, be selected and pay a fee for a "business angel club". Only after being member of the business angel club one can invest. The equity is then not sold to the investor directly but to the club. The intermediary deducts a fee as percentage of the raised capital from the entrepreneur. Furthermore, 4.5% of the sold equity is given to the intermediary as compensation. However, they do not distinguish among the types of investors such as CFI, FFI or ACI.
Moboo "Moboo is Swiss finance platform for innovative and creative projects. Micro-entrepreneurship is our motto ... you have an idea or you have money ... you started and keep full control of your mind and do not need to go to your local bank to beg for money. The principle is simple; support each other whatever you do!" mooboo.ch	Moboo supports the crowd-asset type of pre-selling and donation. The intermediary deducts a fee as percentage of the raised capital. The donated money may be tax-deductible depending for charitable supported projects. However, they do not distinguish among the types of donators such as CFI, FFI or ACI.
ProjektStarter "Fans finance your project (Crowdfunding); Projects rich in idea, with charm, heart and soul find enthusiastic fan-funding." Projektstarter.ch	ProjektStarter supports the crowd-asset type of donation. The intermediary deducts a fee as percentage of the raised capital. The donated money may be tax-deductible. However, they do not distinguish among the types of donators such as CFI, FFI or ACI.
Wemakeit "wemakeit is Switzerland's largest crowdfunding platform for creative projects. Support projects that you like	Wemakeit supports the crowd-asset type of donation. The fund-raiser my

and get it from the artists individual rewards - invitations, signed books, limited editions of images and photographs and other exclusive rewards that the artists have designed for you." Wemakeit.ch

provide rewards in return. The intermediary deducts a fee as percentage of the raised capital. The donated money may be tax-deductible.

However, they do not distinguish among the types of investors such as CFI, FFI or ACI.

4 Model of the crowdfunding eco-system

We begin this section by describing the theoretical basis of the thesis. It is decomposed into different theoretical aspects suggesting differences in the characteristics of the CFI, and the FFI in the new eco-system of crowdfunding. Firstly, two crowdfunding platforms are theorized into specific characteristics suggesting distinct behaviour of the CFI, and the FFI. Secondly, a theoretical basis is provided by extending the investment process outlined for private stockownership towards crowdfunding based on logical reasoning, and literature review.

Hypothesis: Potential crowdfunding investors (CFI) characteristics in a crowdfunding setting differ from potential FFI. Thus, it is required to look at them as two distinct types of investors in the same eco-system.

4.1 Types of investors

While most crowdfunding platforms such as those outlined in table 1 and 2 do not distinguish among CFI, FFI and ACI in the crowdfunding eco-system, we suggest doing so. We base this on the assumption, that in the original ecosystem before crowdfunding, for example the FFIs, and the ACI investors, showed distinctly different characteristics in evaluating, and considering SME investments (Lee et al., 2012). We decompose the whole population of young Swiss into three disjoint classes: 1) the first class consists of those, who cannot consider investing neither as a CFI nor as FFI. These Non-Investors do not plan to invest in crowdfunding assets of an unlisted SME at all. 2) The second class consists of those, who consider investing as FFI but not as CFI. FFI do consider investing in crowdfunding assets of an unlisted SME, only when the entrepreneur belongs to the family or the close friends. In many empirical studies FFIs are counted as CFI as well, as long as the transaction is executed over a crowdfunding platform (Hemer et al., 2011; Ley et al., 2011), empirical exceptions proposing not to do so are Agarwal et al. (2011). 3) The third class consists of those, who consider investing as a CFI. The CFIs imagine investing in crowdfunding assets of an unlisted SME, where the entrepreneur does not belong to the family or close friends - at the time of the open call on the Internet.

4.1.1 Crowdfunding investor (CFI) may be a new species

Based on the preceding logic, it is reasonable to propose to investigate the new investor type, the crowdfunding investor (CFI), and its relation with the existing types of the more formal professional "venture capitalist", the accredited investor (ACI), and the informal investor (FFI). However, is there already evidence for a new species CFI in the eco-system? Logical reasoning below describes that entrepreneurs may perceive CFIs as something different than FFIs or ACIs, and that some platforms implicitly do the same by offering investor type specific services.

The crowdfunding platforms enable entrepreneurs to make open calls addressing all users. The share of users being CFIs, FFIs or ACIs may be unknown. However, the entrepreneur may reach the FFIs and ACIs through other channels as well. For example, professional "venture capitalists" usually have an identifiable office address and react on proposals. Thus, a platform is not required to get in touch or raise financial resources from ACIs. An entrepreneur choosing to raise financial resources over a crowdfunding platform may want to do so specifically to reach CFIs and neither FFIs nor ACIs. She might have evaluated, and accepted offers from FFIs or ACIs through other channels already. For this, it would be best to limit the open call to CFIs only excluding FFIs and ACIs. Thus logical reasoning may support to assume that entrepreneurs do by deciding on the channel for fund-raising distinguish a specific CFI from FFIs and ACIs. However, this argumentation does not deny that a crowdfunding platform may potentially be helpful to mobilize FFIs or ACIs, such as a family member being far away geographically, or an ACI not being reachable through dedicated ACI platforms like businessangels.ch or angellist.com.

On a first look, today's crowdfunding platforms lack to offer CFI-specific services. That could be interpreted, that the CFI is not perceived as something different than an FFI or an ACI by the platforms. Generally all services offered to the CFI are offered to the FFIs and ACIs being logged in as CFIs as well. However, when the vice-versa does not hold, i.e. access to all ACI-specific services is not provided for the CFI as for solar greenings, it implies the existence of the CFI as new species (see description of solar greenings in chapter 4.2).

4.1.2 Family and friends investor (FFI) may imply informality

Lee et al. (2012) define crowdfunding as not being from the FFIs. They argue that raised capital from FFIs is a good source of trust capital but not of risk capital. The "shadow costs" of not paying the financial resources back may imply financial damage plus additional drawbacks to the family. It could make a non-repayment more painful to the FFIs than to a stranger of the close social network of the entrepreneur. However, they leave out the impact of the size of the FFI network. The larger, and more "business-like" this FFI network is, the stronger are the entrepreneurs, and the FFIs abilities to diversify "informal capital", and to reduce "shadow costs". Thus the FFI of the extended eco-system of crowdfunding may be rendered more "business-like" by the crowdfunding platforms as in the "offline" eco-system. Since every FFI has more options in the larger eco-system providing access to more "business-like" information. For example, every FFI may choose 1) to answer to the open call on the crowdfunding platform, 2) to respond to a private offline-call by the entrepreneur or 3) compare the both, and chose. As an FFI, one may be too shy to ask for a larger set of business documents, but the crowdfunding platform, and the other investors on it, may do so. On the one hand, to choose the first option implies for the FFI today to get the comfort of the crowdfunding platform. On the other hand, it requires accepting the same terms and conditions for the investment as offered to the CFI and ACI investor on the platform. In the second option, the FFI has to accept the lack of an intermediary as a crowdfunding platform, but may be able to directly negotiate different individual terms and conditions offline with the entrepreneur. That is in the third an FFI follows both paths to gather information, and to choose the option most suitable to execute the transaction. The two new options 2) and 3) may be relevant. The willingness to give "informal finance" overall by the "new" FFI is anticipated to become larger through the usage of crowdfunding platforms (Lee et al., 2012). Agarwal et al. (2011) showed in an empirical study that early contributions on crowdfunding platforms to an "open call" often come from the FFIs – as informal finance. Cost-wise, as many platforms take a premium as compensation of the financial resources raised, this might not make sense. However, the benefits for an FFI are in the comfort of the services provided by the crowdfunding platform, and the value of the signal on the crowdfunding platform to other potential investors. The cost-benefit of this combination may outweigh the cost-benefit of an offline individual transaction. The value of the signal may today be artificially heightened, as no distinguishing between CFI, FFI or ACI is done. While other FFIs may know from offline sources, that the capital raised is from another FFI, the potential CFIs or ACIs may interpret it as someone of their own. The signal of having received first investments on a crowdfunding platform is attractive and critical. Conti et al. (2011) thus argue that the quality of the capability to produce such camouflaged investments perceived as CFIs but effectively executed by FFIs may be critical. Only those having a high quality in these capabilities, dependent on the individuals FFIs situation, have a good chance to fund-raise from others such as CFIs or ACIs. However, entrepreneurs with a weak capability to raise financial resources from FFIs may have weak early fund-raising signals on the platforms. This may limit the success to attract CFIs or ACIs. The "equal access for all" for entrepreneurs using the same crowdfunding platform may not hold. "Communications technologies enable artists and other entrepreneurs from anywhere to access capital globally, but in reality only those with a sufficient base of offline support may be able to do so."

4.2 Intermediary Internet-services derived from two platforms

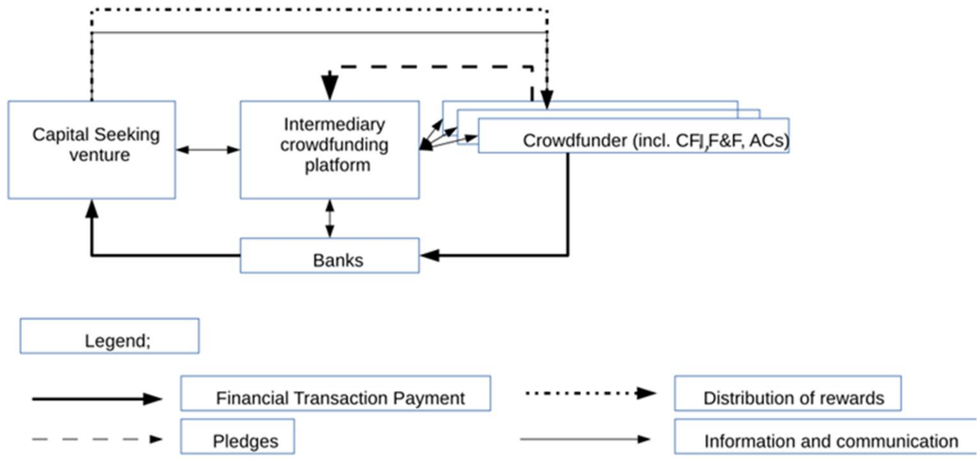

Figure 1: The crowdfunding eco-system of Bergfürst involves the capital seeking venture, the crowdfunding platform Bergfürst as intermediary and the crowdfunding investor (Hemer et al., 2011). The different types of investors as CFIs, FFIs and ACIs are all encapsulated under the same type of investor - the crowdfunding investor.

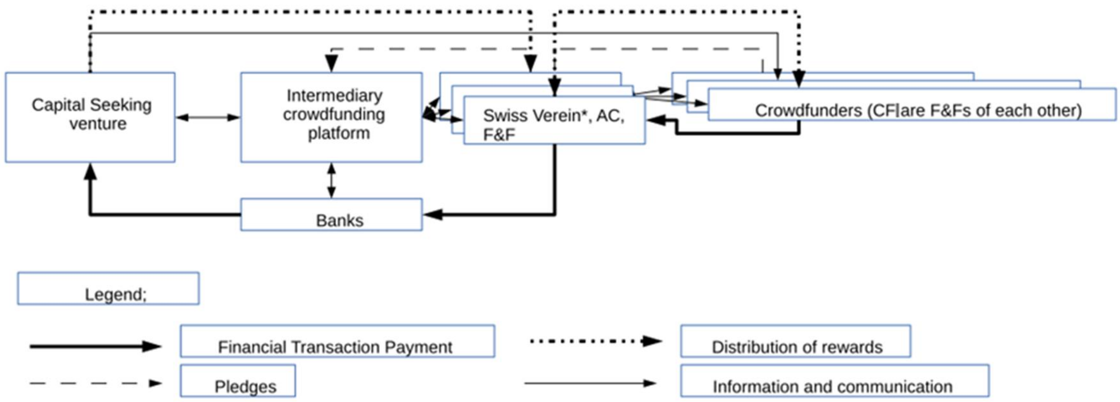

*Figure 2: The crowdfunding eco-system of solar greenings involves the capital seeking venture, the crowdfunding platform solar greenings as intermediary and the crowdfunding investor (Hemer et al., 2011). While FFIs and ACIs of the capital seeking venture directly buy equity, the CFI has to join an investment club (marked with *, the Swiss Verein). The investment club then buys equity freely tradable among the members of the club assumed to be friends of each other.*

The eco-systems of the two crowdfunding platforms solar greenings and Bergfürst are shown in figures 1, and 2. The eco-systems look different due to legal aspects of the consumer-self-protection law being different in Germany from Switzerland. The description follows the characteristics as outlined in Hemmer et al. (2011). However, we extend the model to differentiate among CFI, FFI and ACI. The financial transaction payment in the case of Bergfürst has to be managed for large number of crowdfunding investors. It is enabled through micro-payment transactions to be managed by the platform directly. For solar greenings the financial transaction payment is between the platform, and few investment clubs. solar greenings provides the corporate structure of the clubs. It consists of a legal entity in the form Swiss "Verein", and is used as an aggregator or proxy between the platform and the CFIs. The additional legal person in between the platform and the CFI is needed. Offering and selling non-listed equity is prohibited to CFIs, and only allowed for FFI, ACI, and to legal persons fulfilling certain criteria. Thus FFI and ACI may get offers from solar greenings directly without the need to join an investment club. As solar greenings is allowed to assume, that all members of the investment clubs are friends of each other, they offer, and sell the equity among them. Both platforms understand that many entrepreneurs are either inexperienced or not interested in managing the crowdfunding process themselves, and thus offer this service as an intermediary.

In both cases the services are provided on the Internet; therefore acting as an online intermediary to enable an open call to crowdfunding investors. In both cases the platforms are operated as neutral intermediary; however, as both business models are based on a percent of the raised capital from the investors, full neutrality can be disputed. Solar greenings platform does not do more than offer a physical (Internet) platform to present the projects. Most of the transactional procedures are manual. The financial pledges are collected and administered either by Email or by mail. Bergfürst makes a greater effort, and gives real-time information on the latest traded peer-to-peer transaction among crowdfunding investors exchanging shares on their secondary market. Both offer other value-added services beyond the facilitation of funding such as due diligence, consulting, etc. Unlike most of the other CFI platforms, solar greenings project initiators are likely to go through multiple crowdfunding processes, as they launch not only one solar plant project but many. Likewise, solar greenings focuses on being a facilitator for "clubs of investors", and not for CFIs directly. Thus the corporate structure of an investment club is likely to invest multiple times, accumulates experience, and becomes more, and more successful in raising fresh financial resources. Similar may be true for Bergfürst. Bergfürst crowdfunding platform provides a uniquely sophisticated secondary market. Companies once listed may go on, and emit more of their assets over time to the crowd for example through capital increases. With this a longer-lasting relationship similar to solar greenings is established. The investors know, that the entrepreneurs will most likely return, and that the platform has carefully been chosen as the intermediary. However, for solar greenings it is possible for an investment club to leave the platform, due to their strong corporate structure. It is unclear, how a delisting from Bergfürst shall happen. Thus exit costs for enterprises and for investors may be high. Crowdfunding platforms business models are suggested to be classified according to Hemer et al. (2011). Bergfürst operates a "threshold pledge model", i.e. it takes a percentage of the raised capital. Solar greenings earns by providing consulting, and due diligence before placing the project on their platform, and advertising it to existing investors club. Furthermore solar greenings receives a combination of equity, and cash of the investment targets as compensation. Solar greenings uses the legal advantages of the investor clubs to enable a secondary market between the clubs, and inside the clubs between the club members, thus creating liquidity opportunities to exit long-term investments once per year. Bergfürst enables liquidity opportunities all the time, similar to a small-chip stock exchange. Major differences between Bergfürst and solar greenings' platform are summarized in the table 3.

We theorize the following Internet-Services for our model: A document-server service providing a single point to up-, and download all business specific documents relevant to the investors. I.e. on solar greenings the investment club has a secured document sharing folder, where not only the real infrastructure businesses but all investors share information with each other.

A secondary market Internet-Service supports buying, and selling the assets to other potentially unknown parties - to strangers. Similar to an exchange for listed assets this secondary market provides a source of liquidity, and spot prices. Understanding how the secondary market works and assuming liquidity, implies an exit from a crowd-asset before an IPO. Thus, as an investor one does not have to hold the crowd-equity until a potentially never happening IPO. Further, the secondary market makes sure that transactions are facilitated and all legal aspects are fulfilled.

Payment services support financial transaction directly on the platform. Thus, instead of receiving an invoice a real payment service is integrated.

The behavioural information Internet-service on a platform is for example to provide a look into the "order-book" of the other users. When an investor is interested into buying an asset of a specific investment target, this is disclosed to others.

Table 3 –Differences of the Platforms solar greenings and Bergfürst

	Solar greenings, CH	Bergfürst, DE
Investor types differentiated	CFI, FFI, ACI, legal person	None, all the same
Payment Service	No	Yes
Secondary Market	Yes - once a year, all the time inside the clubs	Yes, online exchange
Document Server	Yes, shared folder per investment target	Yes, online upload platform
Aligned interests - Neutral Intermediary	Disputable, paid as percentage of raised financial resources plus equity	Disputable, paid as percentage of raised financial resources
Approach for long Customer-Lifetime	Investors -Investment clubs become repeated customer	Entrepreneurs - become repeated customers through capital increases emitted on the secondary market
Value-Added services	Corporate Structure of the legal person "Verein" as protection, consulting and due diligence of documents	Consulting
Business Model according to Hemer et al., 2011	Threshold pledge model	Threshold pledge model

4.3 Crowdfunding investment process adapted from stocks study

Birchler et al. (2010) model acquiring and selling public stocks as a private person. The first part describes a) the demographics, b) wealth portfolio and c) stockowner and stock-assets types. The second part models a five stage investment process: 1) research or information gathering, 2) taking the decision to acquire or sell assets, 3) executing the transactions, 4) performance assessment to understand the success or failure of achieving the investment goals, and 5) the stage of active involvement in the control of the stock company, i.e. participating in the general assembly. We reason that in theory, the process for getting in, and out for a potential CFI or FFI into SME-investments may look similar. Generally for a SME-investment, the investor may respond to similar factors such as a) demographics (chapter 5.2.1), 2), b) individual's wealth portfolio (chapter 5.2.2), and c) specifics of the different crowdfunding assets (chapter 5.2.3). She may follow similar stages of the investment process as outlined for stocks above. However, an exception may be 5) the fifth stage corporate governance. Although improving control for crowdfunding in general and for CFIs in specific seems important, today it is hardly existent as outlined in chapter 4.3.1. Thus, we do not adapt this part of the investment process for crowdfunding.

The CFI, and the FFI have 1) firstly to search for information about potential investments, i.e. through print media or Internet research (chapter 5.2.4). 2) Second, the SME-investor has to compare, and decide among different potential investments in terms of the investment goals, and factors influencing the decision, such as ethical aspects or the geographic proximity (chapter 5.2.5). 3) The third stage of the investment process is similar to the private stockownership: The order to transact has to be executed, i.e. directly through an Internet-based service or by visiting the bank-desk (chapter 5.2.6). 4) Next, CFIs have to decide, whether the achieved performance means to them a success or not. Factors that may be relevant to understand the success is for example the expected performance. While for the asset class of public stocks reference indexes exist (i.e. SMI or S&P 500), a third party figure like an index to compare crowdfunding investments against is to our knowledge not existing. Most platforms try to provide a type of a reference by supporting comparisons among investments of a specific platforms topic. For example, the platform provides the average lending rate (Hildebrand et al., 2013) or average return for all solar projects of solar greenings (chapter 5.2.7).

4.3.1 Missing equivalent to corporate governance for stocks

Corporate governance is a measure to provide the investor with some control over the financial resources invested. Control is there for private equity, and stocks. Control in private equity is provided by the corporate structure including the legal form, corporate governance, and anti-dilution rules, and is part of the investments negotiation. It may include the right to become a passive member of the board when providing a significant amount. To control investments into public stocks the stockowners elect board members as their representatives controlling the management. The control of a crowdfunding investment is unclear. For CFIs similar measures are mostly missing but under research (Gelfond et al., 2012). In comparison to stocks or private equity less control on the corporate structure, and strategy combined with weaker corporate governance by logical reasoning implies a larger risk for investors such as fraud. Further, it may be easier for a fraudulent entrepreneur to withhold or fake relevant information to the CFI than to the FFI and ACI. An ACI may have negotiated more control such as a seat in the board. The FFI has "offline insider information", and a closer emotional link. In order to improve control as a CFI Schwienbacher et al. (2010) suggest to distinguishing between active, and passive crowdfunding. An active crowdfunding investment is regarded as a combination between buying an asset, and doing additional volunteer work for the initiative, such as to provide feedback on business plans, and to suggest improvements of the product. They logically reason that with volunteer work the CFI may get a certain level of control on the strategy of the initiative not there for passive crowdfunding.

4.3.2 CFIs percentage of the population may depend on age

While one could look at all age-groups, the recent empirical studies based on crowdfunding platforms suggest the largest part of their users to be in the age-group of 18-29 years with a median and average age of 25, and 26.2 years respectively (Schwienbacher et al., 2010). This age-group is active as stockowners too. 20% of the Swiss-German of this age-group own public stocks either directly or through stocks-funds. For the whole population of Switzerland it is lower at 11% of the age-group. According to Stemler (2013) they would have a benefit to differentiate a part of their stocks into crowdfunding. To our knowledge, there is no study to investigate the relation between variables describing the private investors holding stocks, and the same variables for crowdfunding investments as an alternative asset class.

One goal of the stock ownership study is to estimate the percentage of private stock owners in the whole Swiss population. The Swiss population is currently at around 6 Mio Swiss citizens. The stock ownership questionnaire study consists of a sample of 2'000 citizen. For the age-group of 18-29 years the estimated percentage of stock owners is 10% of the population of whole Switzerland and 20% of the population of the German-Speaking part. According to the stock ownership questionnaire study, the percentage of stock owner doubles in the age-group of 30-39 years old. It then remains on similar levels for all elder age-groups. It implies for the asset-class public stock, that private ownership starts for 50% of the stockowners between 18-29 years and for the other 50% with 30-39 years. Assuming a similar behaviour for the CFI, it would imply that the estimated percentage of potential CFIs in the age-group of 18-29 years old would be doubled for the 30-39 years old. However, as outlined in the preceding paragraph, todays this may not yet be the case for crowdfunding assets.

4.3.3 CFIs & FFIs may have a similar wealth portfolio

To our knowledge the percentage of the population holding crowdfunding assets with respect to the whole wealth portfolio has not been surveyed or researched. We thus theorize no difference to be expected for FFIs or CFIs.

We assume the most similar assets to be private-equity or debt, and public stocks or debt. The holding of other more classical asset-classes by the population is surveyed as a side result of Birchler et al. (2010). Assuming a certain similarity to private-equity, it would be interesting to compare characteristics towards crowdfunding with characteristics towards classical private-equity. In Swiss-practice direct private-equity is limited through consumer-self-protection to accredited investors only. Thus a CFI not being an ACI does not own such assets. A CFI not being an ACI may only participate indirectly through an actively managed private-equity funds. Thus CFIs do not emerge from the same population as ACIs. For the other assumed similar asset class of private public stock ownership, the wealth portfolios are known as a result of Birchler et al. (2010).

4.3.4 CFIs may perform more sound valuation

No difference in the educational background of CFIs and FFIs is theorized. Both types of investors are assumed to be retail investors. The retail investor aspects, such as being a less sophisticated investor with less time to do the investment analysis, may influence the approach to deal with the inherent information asymmetries with the entrepreneurs offering investment opportunities in the form of crowdfunding assets. Thus a different information exchange would be needed to reduce it to an acceptable level than for more sophisticated venture capitalists. Ahlers et al. (2012) argue similarly that the potential lack of experience of the CFIs in valuating businesses makes this even more difficult. However, CFIs may generally be more interested of investing. Thus, while we assume a similar educational level of the CFI and FFI, CFI may rely on a more sound valuation than FFIs. FFIs may rely on "family trust" or offline insider-information to compensate for a less sophisticated valuation.

4.3.5 CFIs may diversify more

Similar to our definition of CFIs as not being venture capitalist, Ahlers et al. (2012) show that CFIs are attracted by another set of signals than VCs. VCs daily business is to evaluate companies, and to invest amounts to make a living from the returns. Often these amounts are leveraged by bank credits, and collected in form of a hedge-fund from other investors (i.e. pension funds in Switzerland). On the other hand, CFIs tend to invest small amounts generating yearly returns of maybe a single day's salary. I.e. for an investment of CHF 25'000 with interest 5% the premium is CHF 1'250 or 21% of the Swiss median monthly income of CHF

5'979. Thus the economic meaningful time, to be spent on research and decision of potential investments, should in theory be less for a CFI than for a VC. However, the same holds for private retail investors in stocks versus the professional portfolio managers. We theorize thus that the potentially nearest thing empirically observed to cherry picking crowd investments is cherry picking a small portfolio of stocks through retail investor. We are interested whether the factors found in the stock study about cherry-picking a few stock titles of public companies are relevant for crowdfunding too.

Markowitz' Portfolio-Selection-Theory suggests to diversify the allocation of assets over the different asset-classes, and inside an asset-class in order to maximize returns w.r.t. risk. Yet in the real world, this does not hold for private Swiss stock owners in terms of their stock portfolio. 46% of the Swiss stock holders invest only in a single or two stocks titles. Only one out of ten diversifies to ten different stock titles. However, diversification happens over different types of assets of different risk classes such as cash, pension funds and real estate. Crowdfunding assets may be perceived as a new asset-class. A study to assess whether the crowdfunding asset-class may provide diversification benefits, as empirically shown for private equity Franzoni et al. (2011) to our knowledge has not been performed. By logical reasoning portfolio differentiation benefits are anticipated as a key-motivation to buy crowdfunding assets by Stemler (2013). Empirically little is known about the diversification degree inside the crowdfunding assets classes. Again by logical reasoning Stemler (2013) suggests offering pooling of similar crowdfunding requests by crowdfunding sites as a support for diversification. We adopted the approach to evaluate the underlying reasons found in Birchler et al. (2010) to crowdfunding investments.

4.3.6 CFIs may need more information

The need for different information channels for crowdfunding than for stocks is theorized from a weaker coverage in the classical investment information channels such as print and from a weaker control over the crowdfunding investments. To provide this different information channels may come with a cost for the fund-raising entrepreneur as outlined in the second paragraph below.

For the young Swiss the information mostly comes from three sources to make a decision for purchasing a stock: 50% of the stockowners read the business reports, 35% of them read research reports from banks, and only 18% of them read the reports of the banks. In theory the need for alternative sources for a CFI may be larger. Since this classical channels of investment information may be weaker in covering potential crowdfunding investment targets being SMEs, and not the largest publicly listed companies. Thus the role of the Internet as a classic channel may even be more dominant than for public stocks. A lack or weaker corporate structure and corporate governance to control invested financials in crowdfunding assets was outlined in chapter 4.3. It was further logically reasoned that the CFI may be more impacted than the FFI or ACI. We theorize that into a larger information asymmetry between the entrepreneur, and the prospective CFI investors. A CFI may need to consult more alternative information sources to get the same amount of trustable information as for public stocks. It is theorized to be important to know the most relevant alternative sources of information expected by the different types of investors for the entrepreneur to raise capital, and for the crowdfunding platforms to act as intermediary. Enabling the right alternatives may serve the CFIs most, and thus increase the likelihood for their investments.

However, to satisfy this potential, larger need for information of the CFIs may imply additional costs for the entrepreneur. 1) First, to get a third party to write a report for investors may be costly for the entrepreneur. 2) Second, every relevant business document to be disclosed on the platform to "strangers" must be assumed to be disclosed to the competition as well. While in venture capital this disclosure is defined in a NDA, and limited for example to a specific VC company, an "open call" is open to everyone. Once a business plan is uploaded to a crowdfunding platform most of the time all registered users see those document. Platforms may help entrepreneurs to reduce the information asymmetry a bit by offering added-services. Platforms such as C-crowd and solar greenings do an assessment or in case of solar greenings write their own investment memorandum over the investment target for the investors before the start of the fund-raising. It may be cheaper for the entrepreneur to satisfy the information need of FFIs, even on crowdfunding platforms, than for CFIs. Agarwal et al. (2011) observes empirically that a smaller amount of online information may be required prior to taking the decision for FFIs than for CFIs as measured in the number of emails sent to the entrepreneur.

4.3.7 CFIs & FFIs may not follow investment recommendation

A larger risk exposure for crowdfunding is assumed than for stocks. Giving financial resources to a third party for a personal venture is a delicate situation. In the best case the entrepreneur is honest, and discloses the rightful amount of information to his best knowledge. In the worst case a fraud is already planned by wishful forecasts, mere speculation or story-telling of the ventures potential successful future in the provided documents. This is one risk that has to be lowered to a level acceptable for the investor to reach agreement on an investment. However, in case of a default the investors may lose the principal or needs to pay lawyers for entering a fierce fight among the investors for the valuable assets of the SME. Little is known about the risk exposure of crowdfunding assets in relation to public stocks.

Due to the above logically reasoned larger risk exposure, we assume a larger need for 3rd party investment advisory for CFIs and FFIs than for public stocks. The role of the bank as investment advisor may be more relevant for CFIs than for stock owners. For stockowners it is distinguished among two characteristics, 1) whether to search for an investment advisory at all, 2) and whether the recommendation of the investment advisory is a relevant decision factor. For crowdfunding similar characteristics are assumed. Thus, option 1) may be similarly or even more popular for CFIs or FFIs than for stockowners. Likewise, 2) may be assumed to be the least relevant investment factor considered. Furthermore, FFI and CFIs are expected to consider the opinions of their friends more relevant than the recommendation of a bank investment advisor or another 3rd party advisor.

4.3.8 FFIs may be attracted by other Internet-services

Crowdfunding platforms offer different Internet-services (see chapter 4.2). We theorize based on the logical reasoning of the paragraph below that the usage of Internet-services is acceptable for most of the FFI. However, the attractiveness of specific services may be investor type specific, and thus larger or less than for CFIs.

The need for a larger amount of investment information provided as a service may differ. An ACI may have more expertise than an FFI to look for the right documents to collect a reasonable amount of information from an entrepreneur. Thus, an FFI may be attracted more than an ACI to profit from the pre-set list of documents required to be provided by an entrepreneur offered by a crowdfunding platform. An ACI may be used to expect a more established set of documents from private equity. She might expect entrepreneurs to hand in a business plan, CVs, and other testimonials to signal attractiveness to potential investors. For the other type of investor, the FFIs, such a comfortable set of documents for the investment decision may be less known. We theorize that FFIs may favour a similar potentially larger and sounder set of documents for their investment decision. Accordingly, Internet-services addressing investor type specific needs, may be perceived as an attractive value-proposition. Thus, crowdfunding platforms may be in a good position to target FFIs as a separate type of users with specific needs and to differentiate existing into more investor type specific services. This logical reasoning may imply a larger attractiveness of certain services than others for FFI. For example a service enlarging the set of documents, and with that the amount of information, may be comfortable for FFI. A less attractive service may be more directed to the specific characteristics of the CFI. For example, a secondary market service may not be attractive for an FFI, since to sell or buy assets from, and to strangers not being part of the FFI may not be an option considered. But services like a document server extending the number of documents or payment services providing more comfort may be attractive.

4.3.9 FFIs may expect smaller returns

In private equity most investors expect a premium of 15 to 20% (Axelson et al. 2009). In stocks most investors expect (in Switzerland) a premium of 7% (Birchler et al., 2010). In crowdfunding the required premiums are not so clear. One could theorize that selling equity with the help of an intermediary being a crowdfunding platform to an accredited investor is a private equity deal. Thus premiums should be similar to other channels to buy private equity for the ACI. However, the intermediary being a crowdfunding platform enables CFIs to buy crowd-equity as well. The CFIs expected premiums could be theorized to be similar to an ACI. For the FFIs the expected premiums may be smaller, due to a type of family-sponsoring effect described in Lee et al. (2012). In comparison to publicly listed assets, the expected premiums of the crowd-asset equivalent not being listed should be higher due to a higher liquidity and information asymmetry risk for the CFI. Furthermore in order to have the differentiation effect into the crowd-asset class as expected by Stemler (2013), more than a handful crowd-investment would be suggested to be done. However, as the median Swiss stock holders only hold five different titles of stocks, we theorize that the potential CFI is not willing to have more than five different investments at the same time. Thus we likewise theorize that for FFIs the same is true, a portfolio smaller than for stocks is expected, and the will to have similar premiums as for private equity or stocks is reduced due to "family service" being more important than returns.

5 Data sources - empirical model

In order to analyse characteristics towards crowd financing, we use data from a new questionnaire survey and an existing stock ownership survey (Birchler et al., 2010).

A database was created with observations from the period of the year 2010 of the stock ownership survey (Birchler et al., 2010), and the corresponding answers of our crowdfunding questionnaire study of 2014 for the age group of 18-29 years old male Swiss citizen.

The stock ownership survey (Birchler et al., 2010) was explored to identify similarities and differences in the aspects of percentage of potential ownership, information, transaction and performance-evaluation towards the asset class "public stock" and "crowdfunding". Since most empirical studies are based on transactional information of a specific crowdfunding platform or a questionnaire survey on a specific platform, their population is limited to the users or visitors of the corresponding platforms population. The population sampled by the stock ownership questionnaire survey (Birchler et al., 2010) are all Swiss citizens.

The new questionnaire data was used to collect the characteristics of a sample of the whole age-group of 18-29 years old Swiss German-speaking male citizen towards becoming an FFI or CFI. This data on characteristics collected is assumed to be supplementary to data based on digital traces left by users on crowdfunding platforms. While the new questionnaire data enables for example to estimate the percentage of potential CFIs in the whole age-group, the transactional data of crowdfunding platforms supports deducting the average transaction sizes executed. To put it in other words, the data on characteristics may be used to deduct the self-assessed "why or why not" towards potential crowdfunding-assets investments. The transactional data may support to understand the "when and how much" of a crowdfunding transaction. The survey was communicated to the respondents in a repetition course of an army conscription course. For this reason, the sample might not be entirely representative: 1) First, only potential CFIs where made aware of it. Thus, it is not transactional data of real transaction. There might be a difference between todays self-assessed attitude towards crowdfunding and later real transactions. 2) Second, the participants were not forced to fill in the survey. It was voluntarily. This might cause the sample of the population to be to a certain degree self-selected. However, the data provides a look into the minds of potential CFIs and FFI in relation to the rest of the population and to stockowners.

5.1 Newly surveyed sample

5.1.1 Classes

The newly collected questionnaire data was categorized in three mutual sets: 1) potential Non-Investors, 2) potential family and friends' investors only (FFI) and 3) potential crowdfunding investors (CFI). The classes are used to deduct the characteristics of two potential types of investors, such as the CFI in comparison with the FFI. For some aspects of the surveyed characteristics the data for stock owner retail investors is available as well, which enables comparing the characteristics among the different classes.

The first class consists of persons potentially not willing to invest neither through a crowdfunding scheme nor as informal capital into an enterprise of a friend or member of a family.

The second class, the potential FFI, consider investing in a SME of a friend or a family member; however they will not invest into an enterprise of an entrepreneur not part of his existing social network of family, friends and colleagues.

The third class, the potential CFIs, consider giving financial support towards a first unknown stranger making a call for support through a crowdfunding scheme.

A potentially overlapping fourth class are the stock owners. This is the class of the Swiss stockowners from Birchler et al. (2010) that are assumed most similar to the newly collected survey data. A stock owner may be at the same time a potential non-investor, FFI or a CFI. For stockowners data is partly available from the stockownership study. Results drawn in the tables from all age groups are marked with a *, and for the same age-group are marked with a **.

5.1.2 Structure, population and cluster

The newly surveyed data is structured analogue to the stages from the Swiss Stock ownership survey (Birchler et al., 2010) available for 2000, 2002, 2004, 2006, 2008 and 2010. It enables comparing the characteristics of potential CFIs and FFIs with the characteristics towards public stocks.

The structure of the study is adapted from the stock ownership study. The adapted parts are: a) demographics (see chapter 5.2.1), b) portfolio (see chapter 5.2.2), c) crowdfunding investors and crowdfunding-assets (see chapter 5.2.3), 1) investment process - information stage (see chapter 5.2.4), 2) investment process - investment decision (see chapter 5.2.5), 3) investment process - transaction stage (see chapter 5.2.6), and 4) investment process - performance & success (see chapter 5.2.7).

The population sampled by the new questionnaire survey towards potential CFI and FFIs is a subset. The population for the new survey data consists of the Swiss-German speaking part, being male and belonging to the age-group 18-29 years old. The rational of limiting the study to the 18-29 years old was that this age-group has a similar average and median age as observed on crowdfunding platforms (Schwienbacher et al., 2010). The rational of limiting the study to males is that for crowdfunding different characteristics for male and female are expected, and are currently further investigated (Berglin et al., 2013). Further, a different behaviour due to gender is shown empirically for private equity investors being still mostly men (Greene et al., 2001). No information was publicly available on the Swiss population's ownership or characteristics towards crowdfunding or ownership of corresponding assets. Access to the online questionnaire in German was provided in March 2014 to 142 Swiss-German male citizens of a geographically narrow and short-time existing cluster in the form of a Swiss militia army repetition course. The whole population of Swiss-German citizens is roughly 270'000 (i.e. Swiss citizen, Male, resident of a Swiss-German part and in the age between 19 and 29 years).

While all 142 of the cluster were addressed to participate, the participation was still voluntarily and not forced. Among the voluntary participants a prize was raffled. This implies that the sample may be biased through unconsciously approaching some and avoiding others, only participating through force. Returns were obtained from 59 respondents of the 142 of the cluster with a response rate of 41%. The sample size is calculated for a confidence-level of 95% a confidence interval of 10 and a population of 270'000. The percentage of the population assumed to pick to be a CFI was 20% (See footnote [4]).

5.1.3 Cluster and sample representativeness

The representativeness of the cluster for the whole Swiss-German male population of this age group may be biased. Generally due to the militia system of the Swiss army, the population of militia soldiers in total is assumed representative to the population of all male Swiss-citizen. It consists of roughly 60% of the population, while the other 40% are not considered physically suitable for the army service. This militia soldiers are then distributed over different units according to their capabilities. Logical reasoning implies that the fewer different types of units are present in a repetition course, the larger the bias through the different capabilities of present militia is and vice-versa. The used cluster consisted of militia soldiers from multiple different units such as infantry, specialists, mechanics, drivers, cooks and administration. The representativeness of the used cluster may be limited by biases introduced by non-conform ratios among the headcount of the different units present.

Mann Whitney "U" tests confirmed no statistically significant response bias between respondents and non-respondents regarding age, education and job situation (See footnote 5). Reasons for no participation through members of the cluster have not been surveyed. However, oral feedback indicated a potential lack in the will to disclose even anonymously the personal financial situation and attitudes to a stranger. The participants of the survey had to show a screenshot of the final page of the survey to proof their participation. Only after this they could put their name - separate to the survey - into tombola. This allowed selecting 10 other militia soldiers not having participated to get data for non-respondents.

The questionnaire was tested in a pilot not included in the later sample. The used version was revised based on feedbacks from this pilot. It was tried to reduce the common method bias. It was assumed that many of the surveyed have not self-

[4] Confidence Level: 95%, Population 270'000, Percentage of CFs: 20%, Confidence Interval: 10.21 based on a sample size of 59 (www.surveysystem.com/sscalc.htm)
[5] The approximate Z-Values with alpha 5% implies the acceptance interval between the 2.5% and 97.5% quintile of the Std. Normal Distribution N(0,1) with [-1.96;1.96]. The z-values are for age 0.0, for education -0.35 and for education -0.09.

assessed their characteristics towards being a potential CFI or FFI in the depth required by the questionnaire. The common-method bias was assumed in two ways: 1) First, the reflection in the self-assessment in the first part may influence answering the later parts. 2) Second, feedback from the pilot was received. To answer the questions was perceived as significant disclosure of the usually private attitudes towards the individual's wealth situation. Thus, it was assumed people may become biased and increasingly reluctant to disclose even more perceived private information, while working through the questionnaire. Thus, the questionnaire was kept completely anonymous, followed the outlined stages of Birchler et al. (2010), and reduced the number of wealth questions perceived private. Various variables were collected from other data sources mostly from the private-stockownership study. Responses from the new collected survey were validated with responses from the stockownership study, i.e. the percentage of stockowners matches.

5.2 Characteristics predictors variables

All participants were surveyed for the same characteristics towards investments into SME relevant for crowdfunding, regarding the following categories: a) demographics, b) current wealth portfolio, c) CFI and crowdfunding assets, 1) investment process – information stage, 2) investment process – decision support, 3) investment process – transaction stage, 4) and investment process – performance and investment success.

5.2.1 Demographics

Demographics describe the education background, size of the employing company, work experience, stock ownership, knowledge of terms such as "crowdfunding" and names of crowdfunding platforms. The education levels are decomposed into Swiss apprenticeship, Technical / Vocational School, University / University of Applied Sciences and MBA / doctorate. The work-experience is decomposed into 0-2 years, 2-5 years, 5-10 years and "more than 10 years". For stockownership a '1' was allocated and '0' otherwise.

Practical entrepreneurial understanding differs regarding the current entrepreneurial exposure in the current individual curricular vitae. Influencing factors surveyed are the distance in the daily work towards an entrepreneur / CEO, having grown up in a family with entrepreneurial parents or already being self-employed. This may influence an investor's practical ability to read signals about potential meaningful SME investments. However, this practical entrepreneurial understanding was not coded in other publications about crowdfunding so far to our knowledge, but is assumed advantageous for informal finance among friends and families (Lee et al., 2012). Whether for entrepreneurs growing up in an entrepreneurial family may be beneficial is an active research topic and disputed (Kim et al., 2006). To our knowledge, a similar study has not been performed for crowdfunding. The entrepreneurial exposure is coded as '1', when the potential investor was or is self-employed. Otherwise, a '0' was allocated. For a potential investor working daily with the entrepreneur or CEO of a company a '1' was logged and otherwise a '0'. This is often the case in SMEs. If the potential investor has entrepreneurial parents this is coded as '1', and a '0' is allocated otherwise.

Table 4 – (a) Demographics: Educational Background

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Swiss apprenticeship	62	71	70	37
Technical / Vocational School	0	15	5	13
University / University of Applied Sciences	23	14	23	37
MBA / Doctorate	15	0	2	13

Values in percentage of the class

Table 5 – (a) Demographics: Size of the employing company in full time equivalents (FTE)

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
0-9 FTE (SE)	31	14	25	13
10-49 FTE (SE)	8	14	19	25
50-249 FTE (SME)	15	29	24	12
250+ FTE (Large Enterprise)	46	43	32	50

Values in percentage of the class

Table 6 – (a) Demographics: Work experience

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
0-2 Years	8	42	9	38
2-5 Years	62	57	41	50
5-10 Years	30	0	48	12
More than 10 Years	0	0	2	0

Values in percentage of the class

Table 7 – (a) Demographics: Stock Ownership

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Yes	100	14	23	25
No	0	86	77	75

Values in percentage of the class

Table 8 – (a) Demographics: Practical Entrepreneurial Understanding

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Self-Employed	31	29	11	13
Works on a daily basis with the CEO / Entrepreneur	54	57	45	38
Parents with an entrepreneurial background	70	57	61	50

Values in percentage of the class

5.2.2 Portfolio

The current wealth portfolio may influence readiness towards investments into crowdfunding. An investor, generally looking for a higher diversification among the different asset classes, may be more motivated to enter the new assets of crowdfunding to gain further diversification benefits. From the stockownership study one learns that asset-classes vary in popularity over time. For example, the stockownership varied from 30% to 17% in the years 2000 to 2010. Stocks remained during the same period as the seventh popular asset class in the Swiss wealth portfolios. On the other hand, the popularity of the different asset classes relative to each other remained stable over the last decade. Only the asset class of investment-funds changed the position with the asset class life-insurance, and the class derivate swapped positions with the class employee stocks. The surveyed asset classes are bank account or postal financial account, cash, private pension plan (Swiss 3rd pillar), real estate ownership, life insurance, investment funds, stocks, bonds or money market, noble metal, structured products or derivatives and employee stocks plan.

The asset class of crowdfunding is further decomposed into different types: Whether an investor prefers 1) crowd-equity or 2) crowd-debt, 3) crowd-donation or 4) another type may depend on the degree of formality of the capital. Alicia et al. (2012) show that in the original eco-system without crowdfunding equity is less popular for FFIs than debt. However, it is still more popular than equity owned by a stranger. They further argue that debt is a smaller risk for the family than equity for a financial total loss. Thus, it is assumed for an eco-system with a new CFI, that it may be more difficult to find investors ready to finance crowd-equity than crowd-debt. The different crowd-asset are decomposed for the survey into donation without repayment, reward / pre-selling finance, debt without interest, debt with interest, and equity.

For many categories of smaller assets, a portfolio approach is expected. While not many are to be expected to own more than one unit of real estate, a higher degree of diversification for public share ownership would be expected. Shareholders invest around 20% of their assets in public stocks distributed on average into five different titles. For crowdfunding a more diverse portfolio is expected. For example, the potential CFI may instead of once investing CHF 25'000, diversify into five smaller CHF 5'000 investments of different SMEs. The decomposition is into 1 single investment (no differentiation), 2, 3-5 and More than 5.

Table 9 – (b) Portfolio: assets classes in the wealth portfolio

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Bank account / postal financial account	100	100	98	100
Cash	100	85	75	100
Private Pension Plan (Swiss 3rd pillar)	62	57	48	50
Real Estate	15	14	11	0
Life Insurance	8	0	9	38
Investment Funds	61	0	18	13
Stocks	46	14	11	13
Bonds / Money Market	8	0	3	0
Noble Metals	8	0	9	0
Structured Products / Derivatives	0	0	0	0
Employee Stocks	0	0	0	0

Values in percentage of the class, multiple selections possible

Table 10 – (b) Portfolio: assets preference for SME investments

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Donation			9	25
Pre-Selling / Reward			11	25
Debt without interest			59	25
Debt with interest			48	75
Equity i.e. stocks			34	75

Values in percentage of the class, multiple selections possible

Table 11 – (b) Portfolio: degree of differentiation into different SME investments

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
1 investment only (no differentiation)			77	25
2 investments into SMEs	46 a)		16	63
3-5 investments into SMEs	54 a)		7	12
More than 5 investments into SMEs			0	0

a) 46% have one or two different titles of stocks, rest more than 3. Only 10% have ten or more titles, Values in percentage of the class

5.2.3 CFI and crowdfunding assets

To identify the class membership in the new data collected, a mutually exclusive definition of a potential CFI and potential FFI was given. The rational of this decomposition follows from the following surveyed variables addressing formality, investment horizon, understanding of valuations, risk-appetite and crowd-asset preferences.

The minimum degree of formality of capital of the investment is often described as the distance between the pre-existing close social networks of the investor to close social network of the entrepreneur. Thus, it is less formal to attract a brother as an investor, as the distance between the two social networks is small independent of the geographic location in between, as a work-colleague one might see daily. Likewise, it is more formal to attract a stranger located in a different country and currency room, than someone in the same currency room but another country. Formality of capital is empirically linked with the so called missing middle in low-income countries (Lee et al., 2012). In low income countries mostly small companies exist and a few large ones. One explanation is that no shades of grey of informal capital are present to grow small companies into SMEs. While in high income countries such as Switzerland, all shades of grey are present between informal capital and formal capital such as listed capital. This may explain that a larger part of the companies are SMEs, and are not smaller "micro" enterprises. CFIs are, according to the classification criterion given, people willing to invest into a stranger's enterprise following an open call. CFIs are not acting as an accredited investor. However, we surveyed the characteristics depending on spatial and formal distance further for potential CFIs such as readiness to follow an open call without prior physical meeting with the entrepreneur or not.

The investment horizon preferences of potential CFIs have not been surveyed for crowdfunding to our knowledge. Generally, we know that for entrepreneurial equity for start-ups and non-listed companies the investment horizon is long. It can be around 10 years or even more. Likewise, it may not be short-able due to illiquidity - or a missing secondary market. Entering private equity requires thus a sophisticated form of valuation, addressing the time horizon and the liquidity predictions (Moskowitz et al., 2002). Further, an accredited investor may have access to a credit-line to leverage such investments. Thus in order to be able to sell such an investment, the buyer may need a bank willing to provide a credit-line. Availability of credit-lines for private equity is a predictor for the liquidity of private equity deals (Franzoni et al., 2011). However, availability of bank-credits is not assumed to be a good indicator for the liquidity of crowdfunding assets. To our knowledge, no study exists having observed leveraging crowd-funding investments. Thus, whether a proxy exists to predict liquidity of crowdfunding assets is to our knowledge unknown. Stockowners in Switzerland are not oriented towards short-term, and invest for a multi-year time horizon. Further on, this time horizon has not changed much over the last decade. This could indicate that for crowdfunding-assets a preferred time horizon, not fluctuating much over the coming years, could exist. A study on the time horizons of crowdfunding assets has not been performed to our knowledge. The time-horizon of the SME investments has been decomposed in accordance with the stockownership study into 0-1 year, 1-3 years, 3-8 years and more than 8 years.

Theoretical understanding of valuation of investments was collected as the understanding of more advanced financial terms, private equity and basic financial terms. The understanding of more advanced financial terms is coded in accordance with the stock ownership survey (Birchler et al., 2010). It was asked for the following terms: derivatives, debt / stock ratios, stock performance and P/E ratio. An understanding was coded with '1' else a '0' was assigned. As investing in crowdfunding equity may be similar to private equity investments the understanding of the "private equity" was coded with '1' for yes and '0' else. The basic financial terms consist of more applied economic terms such as turnover, earnings, expenditures, annual profit, debt and interest payments, labour costs and dividends. The differentiation between more advanced and basic terms seems justified. As Ahlers et al. (2012) show those small-investors, having less financing experience than venture capitalists, use different signals to assess their small investments including a less sophisticated, and shorter financial valuation approach.

For stockownership the risk appetite differs among the owners. While half self-asses to "risk-neutral or normal risk" the others are "less risk-taking" or "more risk-taking". Ownership of assets from non-listed companies is perceived by sophisticated investors as riskier than from the public. However, the perceived risk or the self-assed risk of a crowdfunding asset or a family and friend investment into an SME may be different from stock ownership of listed companies. The respondents were surveyed, whether they perceive the amount they are willing to invest as "normal risk", "smaller than normal" or "higher than normal" risk.

The amount invested into a company self-assessed as bearable is not surveyed in the stockownership study. However, the percentage decomposition implies that stockowners invest roughly 20% of their investable wealth in this asset class. Given that someone owns CHF 0 to 100'000, this implies CHF 20'000 and for CHF 101'000 to 500'000 this implies CHF 20'000 to 100'000. For the newly surveyed data the bearable amount was finer decomposed into CHF 0 to 5'000, CHF 5'000 to 25'000, CHF 25'000 – 100'000, CHF 100'000 to 1 Mio. and more than CHF 1 Mio.

Table 12 – (c) CFI & crowdfunding-assets: Distance of the pre-existing social networks of the investor to the entrepreneur

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Belongs to my family or close friends	85	0	100	75
Belongs to my colleagues	23	0	16	75
Stranger – an open call, and a few dedicated physical meetings	15	0	0	63
Stranger – an open call, and no physical meetings	0	0	0	37

Values in percentage of the class, multiple selections possible

Table 13 – (c) CFI & crowdfunding-assets: Investment time horizon

	Classes			
	Stock Owners (SO)**	Potential Non Investors	Potential FFI	Potential CFI
0 to 1 year	17		9	0
1 to 3 years	18		45	50
3 to 8 years	46		41	38
More than 8 years	19		5	12

****Values from Birchler et al., (2010) for same age-group, Values in percentage of the class**

Table 14 – (c) CFI & crowdfunding-assets: Understanding of more sophisticated terms for valuation

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Understand figures or terms like "P/E Ratios"	15	0	9	38
"Derivative Instruments"	30	0	14	25
'stocks Performance"	70	15	32	63
"Debt / Equity Ratios"	61	14	39	50

Values in percentage of the class, multiple selections possible

Table 15 – (c) CFI & crowdfunding-assets: Understanding of term "private equity"

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Understand figures or terms like "private equity"	38	0	14	63

Values in percentage of the class

Table 16 – (c) CFI & crowdfunding-assets: Understanding of less sophisticated terms or figures for valuation

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Understand figures or terms like "Turnover"	92	29	82	88
"Earnings"	85	15	77	75
"Expenditures"	85	29	77	87
"Annual profits"	85	29	79	87
"Debt, and Interest Payments"	85	14	68	75
"Labour Costs"	77	14	61	88
"Dividends"	75	14	41	75

Values in percentage of the class, multiple selections possible

Table 17 – (c) CFI & crowdfunding-assets: Self-assessment of risk-taking willingness

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Willing to bear only smaller than normal risk	29		16	43
Willing to bear a normal risk	48		54	43
Willing to bear a larger than normal risk	23		30	14

Values in percentage of the class

Table 18 – (c) CFI & crowdfunding-assets: Self-assessment of amount investable as normal risk

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
CHF 0 - 5'000			36	50
CHF 5'000 - 25'000			44	50
CHF 25'000 - 100'000			14	0
CHF 100'000 – 1 Mio.			6	0
More than CHF 1 Mio.			0	0

Values in percentage of the class

5.2.4 Investment process – information stage

The investment process is decomposed into four stages: Information, investment decision, Transaction and Success Evaluation. For the information stage, characteristics with respect to the preferred information channels and preferred alternative sources of information were surveyed.

For potential CFIs and FFIs the preferred information channel is the Internet rather than print media dedicated to investments. The channels are decomposed into print media, TV and Internet. The preferred information channel, the medium of choice for the Swiss private stockowner, only a few years ago was dominated by different print media. A landscape of dedicated financial newspaper existed, and still exists. Today, while the importance of the newspaper is still prevalent, it is less dominant. Over the last years the Internet emerged to one of the most important information channels. While in the year 2004 still 72% of all stock investors informed themselves through print media, the percentage went down to 64% today.

The alternative sources for the acquisition of information may be relevant for potential CFIs and FFI as well, such as to search a consulting from an investment advisor. The stock survey suggests that the larger the overall wealth of an investor, the more often the investment advisor is taken to consider stock-investments. On one hand, for crowdfunding smaller amounts could be assumed, and accordingly investment advisory to be of less importance. On the other hand, the decision taking may be more complex than that of the public stocks, and thus more 3rd party advisory could be expected. Another type of an alternative source is "discussions with friends". It is the most important alternative source for the 18-29 years old age-group for stockownership, and has further increased in importance ever since the year 2008. Likewise, it is assumed as a potentially important source for CFIs. Another source is the study of the letters to shareholders and quarterly reports. For crowdfunding, we changed this factor into the study of business plans and business cases of the investment target. Another source of information independent of the entrepreneur is the reading of research reports about investment targets of banks or other third parties. From ACIs and venture capitalists the concept of investment club is known. The analogue is observable for crowdfunding with the establishments of a club, such as crowdfunding "lunch meetings".

Table 19 – (1) Information stage: relevance of media channels

	Classes			
	Stock Owners (SO)**	Potential Non Investors	Potential FFI	Potential CFI
Print media like NZZ, Cash, FuW	75		43	38
TV like daily news, Cash TV, NTV	40		30	25
Internet like online news, personal research	89		93	100

****Values from Birchler et al., (2010) for same age-group, Values in percentage of the class, multiple selections possible**

Table 20 – (1) Information stage: other sources of information

	Classes			
	Stock Owners (SO)**	Potential Non Investors	Potential FFI	Potential CFI
Discuss with family and friends	71		66	87
Discuss with investment advisor	38		57	50
Join an investors club			7	25
Demand, and read letters to shareholder, business plans or business cases	51		41	75
Demand, and read research reports from third parties independent of the enterprise	18		30	63

Values from Birchler et al., (2010) for same age-group, Values in percentage of the class, multiple selections possible

5.2.5 Investment process – investment decision

The investment process is decomposed into four stages: Information, investment decision, Transaction and Success Evaluation. For the second stage, the investment decision, characteristics with respect to investment goals, decision factors, used sophistication level of valuation and the responsiveness to the behaviours of peer-investors were surveyed.

The investment goals are decomposed into the primary investment goals (multiple could be selected) according to (Birchler et al. (2010)). They consist of growing assets without a specific savings target, with a specific savings target, provision for old age, friendship / family service, participation in economy, playful charm of SME investments and interest in this particular company or entrepreneur. The stock owner survey describes as most important goal the investment without a specific savings target. In the age group of 18-29 years old the second and third most relevant goals are to participate in the economy and "fun i.e. from trading". While a similar relevance of the goal "fun" may be expected for the potential CFIs, research on informal finance suggests that for potential FFI a primary goal may be "family service".

The importance of factors for the selection decision is surveyed analogue to the stockownership study. For stockowner the safety of the investment is the most important factor. For the newly surveyed data, we adopted this factor to the expectation to get the principal back. Further factors surveyed are information policy of the company, industry outlook, earnings of the company, personal knowledge of the company and the industry, whether the company does ethically 'something good", geographic place and currency, earnings forecast, and investment recommendation of the bank. We further added factors on social proximity such as "knowing the entrepreneur personally" and "the entrepreneur is part of my family or friends".

The used sophistication level of valuation may depend on the capability and the need. While the capability was survey as level of understanding of financial terms the need may vary with the degree of formality of the transaction. We decomposed the valuation approach into the usage of the same terms as surveyed in chapter 5.4.3.

The responsiveness to the behaviours of peer-investors was surveyed. Buying, holding or selling because others do so, may cause self-enforcing processes, if followed by a large number of investors. This so called herding may be one cause for bubbles (Malevergne et al., 2013). However, behavioural information in what investments other peer-investors invest is a service provided on many crowdfunding platforms and similar venture capitalist platforms. Whether behavioural information has a value for the investor has not been surveyed in the private stockownership study of Birchler et al., (2010). We surveyed the following scenario and potential responses to it: In the decision stage the potential investors receives the information that other peer investors are willing to invest into the same target. The potential responses are decomposed into whether this information may influence the personal investment decision or not. If it influences it, we further asked in what direction.

Table 21 – (2) Investment decision: investment goals for SME investments

	Classes			
	Stock Owners (SO)**	Potential Non Investors	Potential FFI	Potential CFI
Grow assets without savings goal	65	-	32	50
Grow assets with a savings goal	16	-	27	25
Provision for old age	22	-	23	25
Friendship / Family Service	-	-	48	25
Gain Experience / Participate in Economy	34	-	32	50
"Fun" i.e. Playful charm of investing	31	-	11	37
Specific interest in this enterprise or entrepreneur	29	-	39	50

**Values from Birchler et al., (2010) for same age-group, Values in percentage of the class, multiple selections possible

Table 22 – (2) Investment decision: importance of factors for investment decision (Highest rank implies most relevant factor)

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Asset / Getting the principal back	1	-	2 (1)	1
Knowing the entrepreneur personally	-	-	1	2
Information policy of the enterprise	6	-	7 (5)	3 (2)
Industry Outlook	8	-	9	4 (3)
Performance / Previous earnings	2	-	4 (2)	5 (4)
Personal Knowledge of the enterprise, and industry	4	-	5 (3)	6 (5)
Entrepreneur is part of my family or friends		-	3	7
Ethical Aspect / Company does something "good"	5		8 (6)	8 (6)
Geographic place, and currency	3		6 (4)	9 (7)
Forecast of dividends / earnings	7		10 (8)	10 (8)
Invest recommendation of bank advisor	9		11 (9)	11 (9)

In brackets are the rankings without the factors specific to crowdfunding, Ranks of importance for the class

Table 23 – (2) Investment decision: usage of more sophisticated terms for valuation

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Usage of figures or terms like "P/E Ratios"			9	25
"Derivative Instruments"			11	13
'stocks Performance"			25	63
"Debt / Equity Ratios"			14	25

Values in percentage of the class, multiple selections possible

Table 24 – (2) Investment decision: usage of less sophisticated terms or figures for valuation

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Usage of figures or terms like "Turnover"			80	100
"Earnings"			70	100
"Expenditures"			68	75
"Annual profits"			77	100
"Debt, and Interest Payments"			68	62
"Labour Costs"			59	75
"Dividends"			39	63

Values in percentage of the class, multiple selections possible

Table 25 – (2) Investment decision: behaviour of others influence on decision

	Classes			
	Stock Owners (SO)**	Potential Non Investors	Potential FFI	Potential CFI
I want to know it, when others are willing to invest		-	91	100
I want to know it, but will not influence my decision		-	31	25
I want to know it, and it will influence my decision		-	60	75
This information has no value to me		-	9	0

****Values from Birchler et al., (2010) for same age-group, Values in percentage of the class, multiple selections possible**

5.2.6 Investment process – transaction stage

The investment process is decomposed into four stages: 1) Information, 2) investment decision, 3) Transaction, and 4) Success Evaluation. For the third stage, the investment transactions, characteristics with respect to Internet-services expected on the platforms, preferred channels for transactions and the amount per transaction were surveyed.

What are the expected Internet-services on the platforms for a potential CFI or an FFI? Are potential CFIs the strongest Internet aficionados? We surveyed the likes, know about and appreciation of Internet in the investment process. What are the Internet-services expected on a platform, and what are the expected channels to execute the financial transaction. The platforms are decomposed in three Internet-services: 1) single document storage service, such as to download the business plans and other relevant documents, 2) a secondary market, such as to buy and sell the assets to other investors, payment services for the financial capital, 3) a service to disclose who else is investing as well. Further coded is, whether an Internet-service support is actually needed at all.

The preferred channels for transactions are assumed to be similar to stockowners of the same age-group. However, Schwienbacher et al. (2010) argue that many CFIs might have a background in IT themselves and thus they may prefer even more Internet based channels. To order the investment transactions the potential use of the same channels are coded as in the stock ownership survey (Birchler et al., 2010). The channel option Internet is coded as '1' if expected or else as '0'. The other channels potentially expected to order the transactions: E-Mail, postal service, phone call, by app, bank-desk or by fax.

The amount per transaction varies among the age groups for private Swiss shareholders. In the age group most prevalent for crowdfunding rather small amounts are invested into crowdfunding-assets per assets transaction (Birchler et al., 2010). More than 90% of the public stock transactions were less than CHF 25'000. According to the stock ownership survey (Birchler et al., 2010) the transaction sizes are decomposed into CHF 0 to 5'000, and CHF 5'000 to 25'000. In order to better understand the small investment amounts, we make a finer decomposition for the range of CHF 25'000 to 1 Mio in the stock study into CHF 25'000 to 100'000 and more than CHF 100'000.

Table 26 – (3) Transaction stage: intermediary Internet-services expected on a platform or not needed at all

	Classes			
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
Document Storage Service	-	-	39	75
Secondary Market service to buy, and sell assets	-	-	11	75
Payment service for investment capital	-	-	32	63
Behavioural Information on who else is investing	-	-	16	63
No Internet-service needed at all	-	-	36	13

Values in percentage of the class, multiple selections possible

Table 27 – (3) Transaction stage: channels preferred for transaction

	Classes			
	Stock Owners** (SO)	Potential Non Investors	Potential FFI	Potential CFI
Internet	63	-	66	100
E-Mail	14	-	20	38
Postal Payment Service	0	-	16	25
Phone	10	-	14	25
App	-	-	5	13
Desk service of local bank branch	24	-	39	13
Fax	0	-	0	0

****Values from Birchler et al., (2010) for same age-group, Values in percentage of the class, multiple selections possible**

Table 28 – (3) Transaction stage: investment amount per transaction

	Classes		Check	
	Stock Owners (SO)**	Potential Non Investors	Potential FFI	Potential CFI
CHF 0 to 5'000	79		16	37
CHF 5'000 to 25'000	16		52	38
CHF 25'000 to 100'000	5 a)		23	25
More than CHF 100'000	5 a)		9	0

****Values from Birchler et al., (2010) for same age-group, a) Only a figure for CHF 25'000 to 1 Mio. given. Values in percentage of the class**

5.2.7 Investment process – performance & success

The investment process is decomposed into four stages: 1) Information, 2) investment decision, 3) Transaction and 4) Success Evaluation. For the final stage, the investment performance and success evaluation, characteristics with respect to expected returns were surveyed.

The expected annual returns are surveyed only absolute and not relative to something like a performance-index. This is due to the case that a reference index to compare crowdfunding-assets against is to our knowledge not existent. For the absolute returns of a potential CFI, it could be expected to be more than the percentage for public stocks. However, for the FFI a lesser return may be acceptable due to a 'sponsoring" approach. For public stocks the expected returns are to beat the overall stock listing by the individual cherry-picking of a small set of titles. The absolute expected return is on average 7.2% (Birchler et al., (2010). For private equity returns of more than 15% are normal (Axelson et al., (2009). In accordance with the stockownership study we surveyed the expected returns per CHF 1'000 invested into a company decomposed in annual returns not including repayment of CHF 0, CHF 0 – 10, CHF 11 – 40, CHF 41 – 60, CHF 61 – 80, CHF 81 – 100, CHF 100 – 150, and CHF 150 – 200. The equivalent to the public stock returns of 7.2% is annual returns in the range of CHF 61 – 80 per CHF 1'000. An annual return of CHF 0 means no "loss" is expected. The arithmetic middle of all return expectations of the FFI is 4.6% and for the CFI 4.3%. Thus, the expected returns are smaller than for public listed stocks.

Table 29 – (4) Performance & success: expected annual returns per CHF 1'000 invested into a company

	Classes		Check	check
	Stock Owners (SO)	Potential Non Investors	Potential FFI	Potential CFI
"No Loss" but CHF 0 return		-	33	25
CHF 0 – 10 / 0% - 1%		-	5	12
CHF 11 – 40 / 1%-4%		-	16	13
CHF 41 – 60 / 4%-6%		-	9	25
CHF 61 – 80 / 6%-8%	7.2 a)		11	0
CHF 81 – 100 / 8%-10%			14	12
CHF 101 – 150 / 10%-15%			5	13
CHF 151 – 200 / 15%-20%			7	0

a) 7.2% is the arithmetic middle of all stock owners measuring performance (Birchler et al., 2010), Values in percentage of the class

6 Results

Hypothesis: Potential crowdfunding investors (CFI) characteristics in a crowdfunding setting differ from potential family and friends investors (FFI). Thus, it is required to look at them as two distinct types of investors in the same eco-system.

The hypothesis expects to find different characteristics for potential CFIs and FFIs in the surveyed variables of the empirical model (see chapter 5). The characteristics predictor variables were tested with logistic regression with a single and multiple predictors. Statistically significant single and multiple predictors to differentiate between the behaviour of potential FFIs and CFIs were identified. Which means that the hypothesis is accepted.

6.1 Interpretation

Statistically significant differences among the characteristics of potential CFIs and FFIs were observed over all stages of the investment process except for the performance & success evaluation. This section revisits and interprets the findings from the logistic regression statistics of chapter 6.2. It follows the flow of the investment process starting with demographics and ending with the transaction stage.

The demographics matter. The demographical relevant variable to differentiate is work experience. The odds-ratio is 0.26. As it is smaller than one, people with less work experience were observed to be more open towards crowdfunding than towards informal capital in an FFI setting.

The wealth portfolio differs between potential FFIs and CFI. Not explainable in the theoretical model of chapter 4 is that potential CFIs were observed owning a life-insurance as part of their portfolio. More formality of the CFIs capital was expected. The observed larger preference for equity and more differentiation into multiple investments may be an outcome of this.

The CFI and crowdfunding-assets aspects help distinguish between a potential CFI and FFI. As no statistical differences in terms of investment time horizon and risk-taking willingness were observed, similar investments may attract both. Potential CFIs were observed to understand more basic terms than FFI, specific advanced terms like "P/E ratios" and concepts like "Private Equity". However, the observed level of competence in more sophisticated terms is relatively small. Thus, it may still be less advanced than a valuation of an ACI. The potential FFIs and CFIs are observed to be willing to take more risk than private stockowners.

Attitudes in the information stage were observed to be different for the two types of potential investors. Potential CFIs tend to consult more additional sources of information than potential FFI. One such source may be joining an investment club. In the theoretical model, we found no clear steps outlined, on how information for crowdfunding is gathered. For example, in private equity a clear modus vivendi exists, such as "memorandums of investment" exchanged and a due diligence performed by an independent third party. For stockownership the owner receives the daily print with stock charts, the quarterly reports verified by an independent accountant, and the stock-exchange volumes, prices and reports. The relevance of the similar channels is smaller observed for potential CFIs and FFI. For example, print media is used by 75% of stockowners as relevant information channel, but is valued as relevant only by 43% of the potential FFIs and 38% potential CFI. Thus other sources of information are more relevant to them. Table 20 presents that 75% of the potential CFIs demand and read business plans or business cases, while only 51% of the stockowners do so, and only 41% of the potential FFI.

The decision support stage of the investment process was surveyed to understand the investment goals, factors for investment decision, the terms used for valuations, and the influence of the behaviour of others on the potential CFI and FFI. At this stage statistically significant differences among the two types of potential investors were observed. A potential CFI was observed to give a relatively larger relevance to the decision factors "Information policy of the enterprise" and "Industry Outlook" than a potential FFI. Furthermore, the potential CFI would apply more the more sophisticated concept of "stocks Performance" for valuation of an investment target. While the need for behavioural information is observed larger for potential CFIs, the reaction to it is similarly strong as the potential FFI. This is further interesting, because this variable has so far not been studied for private stockownership in Switzerland. However, 91% of the potential FFIs and 100% of the potential CFIs want to know, when others are willing to invest into a company. This behavioural information provided by many crowdfunding platforms may be of value for stockownership platforms as well. The high potential for herding is observed for 60% of the potential FFI and 75% of the potential CFIs. They consider the investment decision to be influenced either to buy or sell by such behavioural information. No differences in the investment goals (tab. 21) of CFIs and FFI were observed. The importance of factors towards investment decision made observable that for potential FFIs and CFIs to know someone inside the enterprise, such as the entrepreneur is important. However, this personal link into the enterprise has not been further assessed for private stockownership in Switzerland. For stocks the related factor "personal knowledge of the enterprise and industry" is ranked similarly as for the potential FFI (ranked 3) and CFIs (rank 5). It would thus be interesting to know, how many of the public stockowners know someone from the board or executive level of the invested public stock personally. If so, this could be again a factor higher ranked than "knowing the enterprise". Ethical aspects are ranked similarly for potential FFI, CFIs and stockowners. The reliance on the investment recommendation of the bank advisor is ranked as the least important factor for all three types of investors. That's another dangerous finding for bank advisors.

Different characteristics of the potential FFI and CFI were observed in the transaction stage of the investment process. The largest difference could be found for the services expected on the platforms (tab. 26). Generally, potential CFIs tend to need more Internet-services on a platform for transactions. However, the largest odds-ratio to differentiate among the two groups is the need for a secondary market. 75% of the CFIs would expect a service to be able to sell and buy the assets from or to others. This enabled observing that a service providing liquidity to the asset holder is important for crowdfunding. However, such a service today is provided only by a few of the many crowdfunding platforms i.e. Bergfürst and solar greenings, potentially due to legal aspects or the technical and operative complexity. Another difference is, similar to the decision support stage, the need for behavioural information. For potential CFIs we observed that to see on a platform a type of register of investors for a specific crowd-asset (an "order-book") is more relevant. The preferred channels for transactions (tab. 27) are shifted towards Internet and E-Mail even stronger, than for stockowners of the same population and age-group. 39% of the potential FFIs may go to the local bank desk to order the execution of the transaction. Thus, this is observed to be the second most preferred transaction channel of potential FFIs. The percentage is larger than for stockowners (24%) and for potential CFIs (13%). Having an FFI at the bank-desk ordering a transaction may imply an opportunity to cross-sell additional bank-services for informal finance, such as establishing an own FFI platform as new customer channel. The amount willing to invest per transaction (tab. 28) was observed similar. However, both were observed to be willing to invest more per transaction than for stocks. Only 5% of the stockowners show the will to invest amounts between CHF 25'000 to 100'000 in a single transaction. This is less than the 23% of the potential FFIs and 25% of the potential CFIs. However, as the wealth is assumed to increase with the age, and the samples are from 18-29 years old, larger transaction sizes may be assumed for the wealthier older population.

The final stage of the information process is the performance and success self-assessment of the investments. Here we surveyed the expected return for CHF 1'000 invested into an SME. No significant difference could be found among FFIs and CFI. However, the comparison with stockownership is interesting. 64% of the potential FFIs and 73% of the potential CFIs expect returns of 0% - 6%, and thus less than for public stockownership with 7.2%. A small group, only 12% of the potential FFIs and only 13% of the potential CFIs, expect returns above 10%. It implies that the potential FFI and CFIs were observed to have the will to be a "cheaper" source of capital than professional investors in private equity are. Furthermore a part was observed to provide a source of capital less expensive than equity of public listed companies.

6.2 Statistical method: logistic regression

Logistic regression is similar to ordinary regression. It is useful when the observed outcome is restricted to two values. In this thesis the two values are the potential CFI or potential FFI. The logistic regression enables producing a prediction function to distinguish among "FFI" versus "CFI" characteristics based on the probability of occurrence. This is achieved, in that the logistic regression transforms the linear regression with the following function (1). The calculated p-values are in the range from 0 (for y approaching minus infinity) to 1 (as y approaches plus infinity):

1. p = exp(y) / (1+exp(y)). p member of [0,1]

Logistic regression calculates for the predictor variables the odds-ratio. Odds are defined as a relative ratio of two probabilities. It is the probability of the outcome occurring divided by the outcome not occurring. Odds larger than 1.0 tell a relative amount. It is by how much the probability for the outcome increases or decreases for less than 1.0.

6.2.1 Single predictor variables

The following table outlines the statistically significant single predictor variables to differentiate between the potential FFI and the potential CFI. It may serve as a summary. While the two types of investors are overall similar, still in three of the four-step investment process statistically significant predictor variables are provided. It indicates specific characteristics of the potential FFI and CFIs over the whole investment process - and not only in the mostly empirically researched transaction stage. The final step the performance and success evaluation is the exception. An investor type characteristic of what is considered a successful performance could not be found. Thus, the no predictors were observed to distinguish potential CFIs from potential FFIs in terms of success evaluation of investments. Further details are provided in the corresponding following paragraph.

Table 30 – Summary, relevant single predicators to differentiate characteristics of the potential FFI and CFIs

Predictor	Odds-Ratio	p-Value	Confidence Interval includes "Null"	Statistically Significant (p-value & null)
- **a) Demographics (chap. 5.2.1)**				
- Work Experience	0.26	0.024	No	Yes
- **b) Wealth Portfolio (chap. 5.2.2)**				
Owning Life-Insurance	6	0.046	No	Yes
Searching for Equity	5.80	0.045	No	Yes
Plans to differentiate investments	3.38	0.028	No	Yes
- c) CFI and crowdfunding-assets (chap. 5.2.3)				
Understands more sophisticated terms for valuation: P/E Ratios	6.000	0.047	No	Yes
Understands terms like "private equity"	10.556	0.006	No	Yes
Understands more of the less sophisticated terms for valuation	2.070	0.012	No	Yes
- 1) Investment process - information stage (chap. 5.2.4)				
Uses more other sources of information	2.58	0.011	No	Yes
- 2) Investment process - investment decision (chap. 5.2.5)				
Relative larger relevance of the decision factor "Information policy of	0.72	0.041	No	Yes

the enterprise"				
Relative larger relevance of the decision factor "Industry Outlook"	0.81	0.046	No	Yes
Applies more the more sophisticated concept of "stocks Performance" for valuation	5.00	0.047	No	Yes
- 3) Investment process - transaction stage (chap. 5.4.6)				
Internet-services expected	4.30	0.001	No	Yes
Secondary Market service to buy, and sell assets	23.40	0.001	No	Yes
Behavioural Information on who else is investing	15.85	0.003	No	Yes

*** for stage 4) performance & success no statically significant difference was observed**

6.2.1.1 Demographics

The logistic regression describes that work experience acts as predictor to differentiate between the CFI and the FFI. Potential CFIs tend to have significantly less work experience (see odds-ratio). No statistically significant differences among the two types of investors are found for educational background, size of the employing company, entrepreneurial background and stockownership.

The interpretation for work experience is that for an increase in the work-experience (i.e. from 0-2 years to 2-5 years), the odds of being a potential CFI is reduced by a factor of 0.25 (or by about 25%).

Table 31 – (a) Demographics logistic regression with single predicator

Predictor	Odds-Ratio	p-Value	Confidence Interval includes "Null"	Statistically Significant
- (T-4) Educational Background	1.7	0.143	Yes	No
- (T-5) Size of Employing Company	1.5	0.298	Yes	No
- (T-6) Work Experience	**0.26**	0.024	No	Yes
- (T-7) Stockownership	1.13	0.888	Yes	No
- (T-8) Entrep.: Self-Employed	1.12	0.926	Yes	No
- (T-8) Entrep.: Works with owner / CEO	0.72	0.678	No	No
- (T-8) Entrep.: Entrep.-Parents	0.627	0.549	Yes	No

6.2.1.2 Portfolio

The logistic regression describes that owning a life-insurance, looking for equity-investments and the will to differentiate through multiple investments acts as predictors to differentiate between the CFI and the FFI. No statistically significant differences among the two types of investors are found for the rest of the wealth portfolio structure and assets preferences. Typical crowd-asset classes such as donation or pre-selling thus are observed to similarly attractive for potential FFI.

The interpretation for owning a life-insurance is that for someone owning one, the odds of being a potential CFI, and not a FFI is increased by a factor 6 (or by about 600%). The preference for crowd-equity is interpreted such, that the odds of being a potential CFI and not an FFI is increased by a factor of 5.8 (or by about 580%) by searching for equity. Increasing the differentiation i.e. from 1 to 2 investments implies increasing the odds of being a potential CFI and not an FFI by factor 3.38 or by about 338%.

Table 32 – (b) Wealth portfolio regression with single predicator

Predictor	Odds-Ratio	p-Value	Confidence Interval includes "Null"	Statistically Significant (p-value & null)
- (T-9) Portfolio Decomposition: Number of assets	1.18	0.542	Yes	No
Owning Life-Insurance	**6**	**0.046**	**No**	**Yes**
- (T-10) Assets Preference				
Donation	3.33	0.214	Yes	No
Pre-Selling / Reward	2.60	0.312	Yes	No
Debt without interest	0.23	0.093	Yes	No
Debt with interest	3.28	0.171	Yes	No
Equity	**5.80**	**0.045**	**No**	**Yes**
- (T-11) Degree of Differentiation	**3.38**	**0.028**	**No**	**Yes**

6.2.1.3 CFI and crowdfunding assets

The logistic regression describes that the understanding of a larger number of the less sophisticated terms for valuation (see chapter 5.4.3), a specific term of the more sophisticated as "P/E ratio", and knowing the concept of private equity acts as predictors to differentiate between the CFI and the FFI. No statistically significant differences among the two types of investors were found for the rest of the advanced valuation terms, time horizon of investments, risk taking willingness or the amount ready to invest.

The interpretation for the less sophisticated terms of valuation is that for someone knowing a term more, the odds of being a potential CFI, and not a FFI is increased by a factor 2.07 (or by about 207%). While the number of more sophisticated terms for valuation is not relevant, understanding the specific term "P/E ratio" has an odds-ratio of 6 of being a potential CFI, and not an FFI.

Understanding the term "private equity" investments implies increasing the odds of being a potential CFI, and not an FFI by factor 10.5.

Table 33 – (c) CFI and crowdfunding-assets regression with single predicator

Predictor	Odds-Ratio	p-Value	Confidence Interval includes "Null"	Statistically Significant (p-value & null)
- (T-12) Distance of pre-existing social network	Used as response for classification i.e. into CFI, and FFI.			
- (T-13) Investment Time Horizon	1.180	0.750	Yes	No
- (T-14) Understanding more sophisticated terms for valuation				
P/E Ratios	**6.000**	**0.047**	**No**	**Yes**
Derivative Instruments	2.111	0.420	Yes	No
Stocks Performance	3.571	0.111	Yes	No
Debt / Equity Ratios	1.588	0.549	Yes	No
- (T-15) Understanding terms like "private equity"	**10.556**	**0.006**	**No**	**Yes**
- (T-16) Understanding less sophisticated terms for valuation	**2.070**	**0.012**	**No**	**Yes**
- (T-17) Risk-Taking Willingness	0.316	0.066	Yes	No
- (T-18) Size of amount ready to invest as "normal" risk	0.687	0.461	Yes	No

6.2.1.4 Investment process - information stage

The logistic regression describes that the total number of other sources of information such as discussions with family and friends acts as predictor to differentiate between the CFI and the FFI. No statistically significant differences among the two types of investors were found for the relevance of the different media channels (i.e. print media) or for specific types of other sources.

The interpretation for "the number of other sources consulted" is as follows. If someone consults a source more, the odds of being a potential CFI and not an FFI increases by a factor 2.58.

Table 34 – (1) Information stage regression with single predicator

Predictor	Odds-Ratio	p-Value	Confidence Interval includes "Null"	Statistically Significant (p-value & null)
- (T-19) Relevance of media channels	0.95	0.915	Yes	No
- (T-20) Other sources of information	**2.58**	**0.011**	**No**	**Yes**
Discuss with family and friends	3.62	0.249	Yes	No
Discuss with investment advisor	0.76	0.722	Yes	No
Join an investors club	4.55	0.134	Yes	No
Demand, and read letters to shareholder, business plans or business cases	4.33	0.093	Yes	No
Demand, and read research reports from third parties independent of the enterprise	3.97	0.085	Yes	No

6.2.1.5 Investment process - investment decision

The logistic regression describes that relevance of specific investment decision factors such as the information policy of the enterprise, the industry outlook and the usage of specific more sophisticated concepts for valuation (i.e. stocks performance) act as predictors to differentiate between the potential CFI and the FFI. No statistically significant differences among the two types of investors were found for the rest of the investment decision factors, rest of more sophisticated terms and the number of less sophisticated terms and reactions towards behavioural signals.

The interpretation for the relevance of the decision factor "information policy of the enterprise" is: The odds of being a potential CFI and not an FFI is decreased by a factor of 0.72 by someone ranking the factor one position less relevant relative to the others. The odds of being a potential CFI rather than an FFI is decreased by a factor 0.81 by someone ranking "industry outlook" as less important. Applying the concept of 'stocks performance' for the valuation has an odds-ratio of 5.0 towards being a potential CFI rather than an FFI.

Table 35 – (2) Investment decision regression with single predicator

Predictor	Odds-Ratio	p-Value	Confidence Interval includes "Null"	Statistically Significant (p-value & null)
- (T-21) Investment Goals				
Grow assets without savings goal	2.14	0.327	Yes	No
Grow assets with a savings goal	0.88	0.894	Yes	No
Provision for old age	1.13	0.888	Yes	No
Friendship / Family Service	0.37	0.247	Yes	No
Gain Experience / Participate in Economy	2.14	0.327	Yes	No
"Fun" i.e. Playful charm of investing	4.68	0.077	Yes	No
Specific interest in this enterprise or entrepreneur	1.58	0.549	Yes	No
- (T-22) Importance of factors				
Asset / Getting the principal back	0.79	0.356	Yes	No
Knowing the entrepreneur personally	1.39	0.056	Yes	No
Information policy of the enterprise	**0.72**	**0.041**	**No**	**Yes**
Industry Outlook	**0.81**	**0.046**	**No**	**Yes**
Performance / Previous earnings	1.12	0.559	Yes	No
Personal Knowledge of the enterprise, and industry	1.19	0.354	Yes	No
Entrepreneur is part of my family or	**1.58**	**0.006**	**No**	**Yes**

friends				
Ethical Aspect / Company does something "good"	1.22	0.284	Yes	No
Geographic place, and currency	1.34	0.083	Yes	No
Forecast of dividends / earnings	0.98	0.929	Yes	No
Invest recommendation of bank advisor	0.89	0.365	Yes	No
- (T-23) Usage of more sophisticated terms for valuation				
Usage of figures or terms like "P/E Ratios"	3.33	0.215	Yes	No
"Derivative Instruments"	1.11	0.926	Yes	No
'stocks Performance"	**5.00**	**0.047**	**No**	**Yes**
"Debt / Equity Ratios"	2.11	0.420	Yes	No
- (T-24) Usage of less sophisticated terms for valuation	1.37	0.180	Yes	No
- (T-25) Behaviour of others influence on decision				
I want to know it, when others are willing to invest	27290	0.998	-	No
I want to know it, but will not influence my decision	0.71	0.702	Yes	No
I want to know it, and it will influence my decision	2.07	0.402	Yes	No

6.2.1.6 Investment process - transaction stage

The logistic regression describes that the total number of Internet-Services expected, the need for a secondary market service and behavioural information of others act as predictors to differentiate between the CFI and the FFI. No statistically significant differences among the two types of investors were found for the relevance of a document or payment Internet-service, the need for a platform at all, and in the preferred transactional channels or amounts.

The interpretation for "the number of Internet-services expected" is as follows: if someone expects a service more, the odds of being a potential CFI and not an FFI increases by a factor of 4.30. Someone expecting a secondary market has odds of 23.4 to be a potential CFI rather than an FFI. The need for behavioural information ("signals") of other investors has an odds-ratio of 15.85 towards being a potential CFI rather than an FFI.

Table 36 – (3) Transaction stage regression with single predicator

Predictor	Odds-Ratio	p-Value	Confidence Interval includes "Null"	Statistically Significant (p-value & null)
- (T-26) Internet-services expected	**4.30**	**0.001**	**No**	**Yes**
Document Storage Service	4.76	0.074	Yes	No
Secondary Market service to buy, and sell assets	**23.40**	**0.001**	**No**	**Yes**
Payment service for investment capital	3.57	0.111	Yes	No
Behavioural Information on who else is investing	**15.85**	**0.003**	**No**	**Yes**

6.2.1.7 Investment process - performance & success

The logistic regression describes no statistically significant differences among the two types of investors. The expected returns are similar and decomposed in "no loss", "less than for stocks", "similar as stocks" or "more than stocks".

Table 37 – (4) performance & success stage regression with single predicator

Predictor	Odds-Ratio	p-Value	Confidence Interval includes "Null"	Statistically Significant (p-value & null)
- (T-29) Expected returns	0.98	0.960	Yes	No
"No Loss" but Principal returned	0.65	0.616	Yes	No
Less than stocks (0-6%)	2.38	0.266	Yes	No
Similar as stocks (6-8%)	0.90	0.931	Yes	No
More than stocks (8-20%)	1.00	1.000	Yes	No

6.2.2 Multiple predictor variables

6.2.2.1 Model construction

The statistically significant single predictors are used to construct a logistic linear regression model. The goal is to find a prediction formula (1), the standard errors of the estimate, the significance levels and logistic odds ratios with 95% confidence intervals.

1. Y = b0 + b1*X1 + b2* X2 + … + b_n * Xn
2. Deviance D = -2 ln (likelihood of the fitted model / likelihood of the saturated model)

The starting point is to begin with the statistically significant single predictors from chapter 6.1 et seq. The feature selection removes always the predictor variable with the largest odds-ratio. By doing this the less correlated features are kept. This holds until the model cannot predict the sample data correctly. After this stage, the heuristic suggested and followed is to remove the feature introducing the smallest D.

Table 38 – Model construction with multiple predictor logistic regression and the removal of predictors based on Deviance

Predictors	Max. Odds-Ratio	Max p-Value	Confidence Interval includes "Null"	Statistically Significant (p-value & null)
- All predicators of 6.1ff	>1000	1.0	Yes	No
- Removed variable #8	> 1000	1.0	Yes	No
- Removed variable #5	> 1000	1.0	Yes	No
- Removed variable #4	> 1000	1.0	Yes	No
- Removed variable #7	> 1000	1.0	Yes	No
- Removed variable #10 Perfect Classification	5.9	0.998	Yes	No
- Removed variable #3 Equity D = -2 Log Likelihood = 2.772	9.5	0.998	Yes	No
- Removed variable #9 - Aficionado D = -2 Log Likelihood = 9.772	> 1000	0.998	Yes	No
- Removed variable #6 - Private Equity **D = -2 Log Likelihood = 22.414**	**57.17**	**0.042**	**No**	**Yes**

6.2.2.2 Prediction formula

The application of the heuristics of 6.3.1 lead to the following model with the capability to classify all samples correctly. The regression coefficients B0 to B11 are given as follows.

3. Six-Factor Predictor formula:
   Y = **b0** + **b1***X1 + **b2*** X2 + **b3***X3 + **b6***X6 +**b9***X9 + **b11***X11
   - **b0**: (Intercept) 188.07
   - **b1**: -188.33 for predictor "less work experience"
   - **b2**: 229.73 for predictor "owning life insurance"
   - **b3**: - 41.12 for predictor "searching equity"
   - Predictor 4 to 5 are not used, thus B4 .. B5 are not used
   - **b6**: 230.50 for predictor "understanding private equity"
   - Predictor 7 to 8 are not used in model
   - **b9**: - 63.12 for predictor "being Internet aficionado"
   - Predictor 10 is not used in the model, thus B10 is not used in model
   - **b11**: 315.57 for predictor "need for behavioural information"

In the figures 3, 4 and 5 below the column A consists of the Logits of the sample data. In figure 3 the 6-factor predictor formula (3) is capable to classify all sample data correctly into negative x-values corresponding to potential FFIs (Y=0 and x<0), and into positive x-values corresponding to potential CFIs (Y=1; x>0).

In the figures 4 and 5 the predictor formula is based on the smaller five-factor model derived by following the feature selection outlined. The prediction formula is not anymore capable to classify all sample data correctly into negative and positive x-values. It introduces classification errors visualized in figure 5. The figure shows the misclassifications.

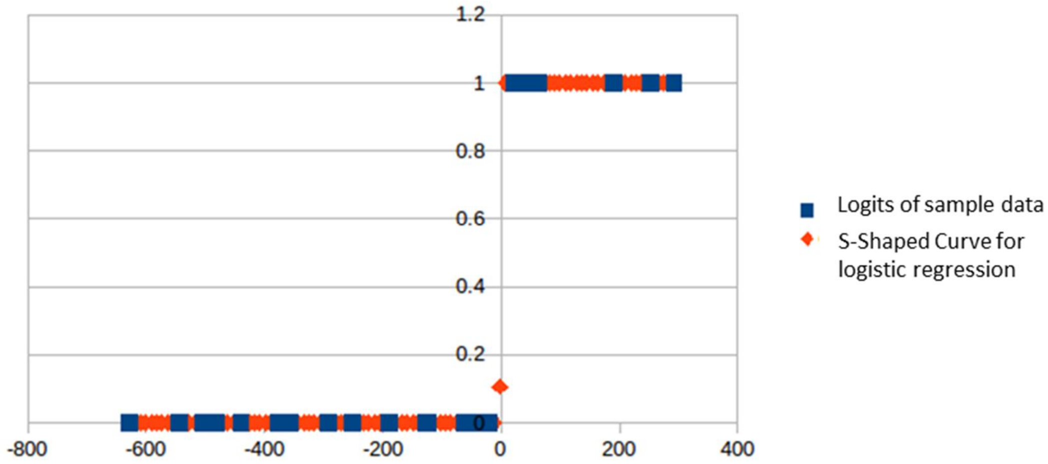

Figure 3 - Classification of the sample date without error into potential CFIs (Y=1), and FFIs (Y=0) based on prediction formula (3) consisting of "less work experience", "owning life insurance", 'searching equity", "understanding private equity", "being Internet aficionado", and "need for behavioural information".

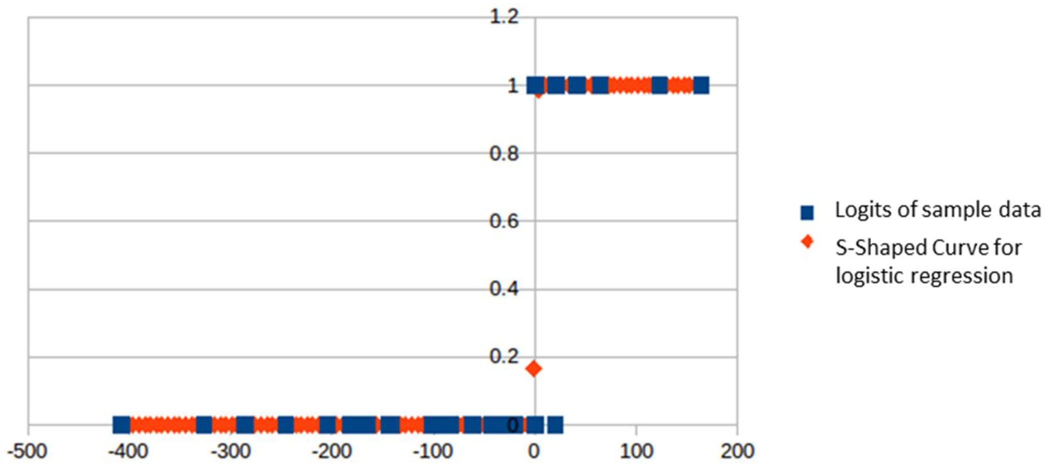

Figure 4 - Classification of the sample data into potential CFIs (Y=1, x>0), and FFIs (Y=0, x<0) based on the prediction formula consisting of five-factors "less work experience", "owning life insurance", "understanding private equity", "being Internet aficionado" and "need for behavioural information". The removal of the predictor "searching equity" introduces the smallest D, and leads to misclassification i.e. (Y=1, x<=0).

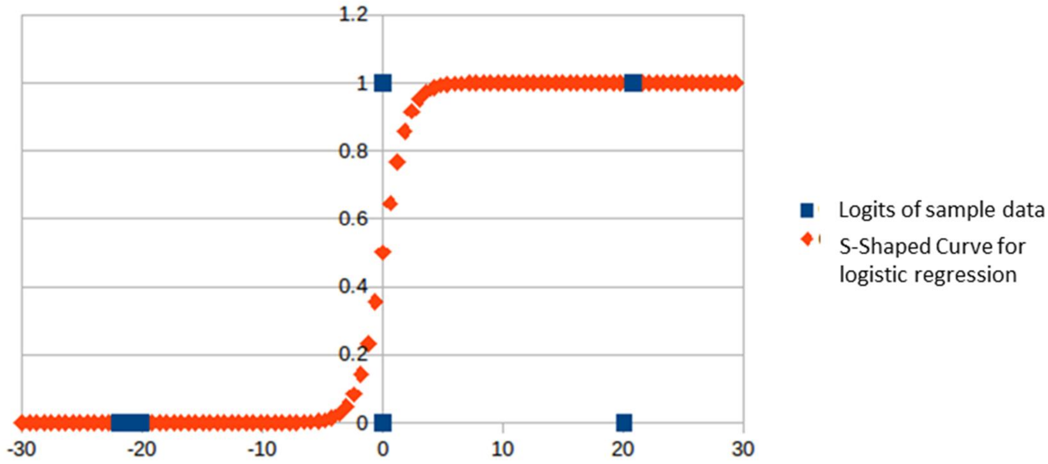

Figure 5 - Zoom into the critical range of the classification of the sample data for x-value Logits near +/- zero. The removal of the predictor "searching equity" leads to misclassifications i.e. Y=1 but X = 0, Y=0 but Logit of 20 > zero.

7 Conclusions and limitations

The thesis assessed whether potential crowdfunding investor (CFI) show different characteristics than potential family and friends investors (FFI). As this is the case, entrepreneurs may want and need to choose to raise financial resources for certain terms and conditions from the CFIs and for others from FFI. As today's crowdfunding platforms attract both, the potential CFI and FFI, the thesis suggests them to start providing investor type specific services.

Not addressing the found differences would raise concerns. For example, potential CFIs have the need to consult more information sources before deciding to invest than FFI. An investor type specific service could be creating additional sources explicitly for CFIs on the platform, like a crowdfunding investment club. Another investor type specific characteristic observed is that potential CFIs show a stronger request for and reaction on behavioural signals of other investors. Thus, the questionable practice of not disclosing the type of other investors of an enterprise seems less relevant for the potential FFIs but most relevant for the potential CFIs. The observed different behaviour of potential FFIs and CFIs suggests that the transactional data of crowdfunding platforms should be analysed accordingly. It seems important to better understand empirically, how the different types of investors interact with each other over the same platforms. Furthermore, by making the types of users on a platform transparent, the CFIs may become aware of FFIs, ACIs and vice-versa. This may alter the attitudes towards and actions on behavioural signals received (Conti et al., 2011). If the platforms continue to not distinguish among CFI, FFI or ACI, their potentially different actions due to different characteristics remain not tracked and fully understood.

The limitations of the method chosen are that it is based on a sampling from a cluster of the male Swiss population. However, it is unclear how representative this cluster may be. Further, the survey is based on potential characteristics as no real transactions happened. Likewise, the surveyed data thus supports concluding on characteristics of the potential CFIs and potential FFI, as it is not based on crowdfunding transactional data from a platform.

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Umfrage - Spielt das Internet eine Rolle, wenn ich einen Betrieb

A - Demografische Daten

1. Wie alt sind Sie?

- ○ Unter 18
- ○ 18-29
- ○ 30-39
- ○ 40-49
- ○ 50-59
- ○ Über 60

2. Wie sind Sie ausgebildet?

- ○ Lehre
- ○ Technische Schule oder ähnliches
- ○ Fachhoschschule / Hochschule
- ○ Doktorat / MBA / etc.

3. Was ist Ihr aktueller Job / Funktion?

- ○ Selbständig / Unternehmer
- ○ Arbeitnehmer mit Untergebenen und Kundenkontakt
- ○ Arbeitnehmer ohne Untergebenen und Kundenkontakt
- ○ Arbeitnehmer mit Untergebenen ohne Kundenkontakt
- ○ Arbeitnehmer ohne Untergebenen ohne Kundenkontakt

4. Wo wohnen Sie?

- 11 -Genf
- 12 -Vaud
- 13 -Neuchatel
- 14 -Jura
- 15 –Fribourg
- 16 – Bas Valais
- 21 – Luzern
- 22 Berner Oberland
- 23 Oberwallis
- 24 Zug
- 25 Uri / Schwyz
- 26 St. Gallen / AI / AR
- 27 Glarus / Obersee
- 28 Bündner Unterland
- 29 Bündner Oberland
- 31 Basel
- 32 Solothurn
- 33 Berner Seenland
- 34 Berner Mittelland
- 41 Aargau
- 42 Schaffhausen
- 43 Zürich
- 44 Thurgau
- 51 Ticino
- 61 Liechtenstein

5. Sind Sie Aktionär (z.B. durch Aktienbesitz oder Fonds)?

- Ja
- Nein

6. Ich kenne die folgenden Begriffe und Platformen oder habe davon schon einmal gehört

- ☐ Crowdfunding
- ☐ Kickstarter
- ☐ We-make-it.ch
- ☐ C-Crowd.ch
- ☐ Bergfürst.de
- ☐ Private Equity
- ☐ Solargreenings.com

Aktuelle Situation (Vermögen)

7. Was haben Sie?

- ☐ Bankkonti / Postkonti
- ☐ Bargeld / Cash
- ☐ Dritte Säule
- ☐ Immobilien
- ☐ Lebensversicherung
- ☐ Anlagefonds
- ☐ Aktien
- ☐ Geldmarkt / Obligationen
- ☐ Edelmetalle
- ☐ Strukturierte Produkte & Derivate
- ☐ Mitarbeiteraktien

8. Wie ist die prozentuale Aufteilung Ihres Vermögens?

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Bankkonti (z.B. 50%)	○	○	○	○	○	○	○	○	○	○	○
Anlagefonds (z.B. 25%)	○	○	○	○	○	○	○	○	○	○	○
Geldmarkt / Obligationen (z.B. 20%)	○	○	○	○	○	○	○	○	○	○	○
Aktien (z.B. 20%)	○	○	○	○	○	○	○	○	○	○	○
Derivate (z.B. 10%)	○	○	○	○	○	○	○	○	○	○	○

Umfrage - Spielt das Internet eine Rolle, wenn ich einen Betrieb

9. Ich plane eine Privatimmobilie in den nächsten 10 Jahren besitzen

- durch Kauf
- durch Heirat
- durch Erbe
- bleibe Mieter

10. Wenn ich im Kasino diesen Betrag verlieren würde, würde ich auf meinen Urlaub in diesem Jahr verzichten

- 0-1‘000 SFr.
- 1‘000 – 2‘000 SFr.
- 2000-5000 SFr.
- 5000-10‘000 SFr.
- Mehr als 10‘000 SFr.

Branche - Betriebsübernahmen

11. In welcher Branche sind Sie tätig?

- Landwirtschaft
- Restaurant, Bar
- Direkt Verkauf: Tupperware, etc.
- Tankstelle
- Lebensmittel / Getränke Geschäft
- Anderer Verkauf / Handel
- Recht, Medizin, Architektur, Buchhaltung
- Unternehmensführung / Beratung
- Fabrikation, Drucken, Industrie
- Bau Dienstleistung, Malen, Sanitär, Schreiner, Zimmermann usw.
- Transport: Transport und Lagern, Lagerhaus
- Schönheitssalon, Coiffeure
- Personal Dienstleistung: Hotel, Wäscherei, Beerdigung, Hauswartung
- Unterhaltung: Tanzen, Theater, usw.
- Kommunikation: TV, Radio
- Auto Werkstatt, Auto Reinigung
- Reparaturen von Anlagen, TV, Möbel, Schuhe
- Immobilien Handel, Versicherung
- Unterschiedliches – Werbung, Vermietung von Dingen, Programmierung von Computern
- Bank und Zwischenhändler von Hypotheken, etc.
- Anderes

12. Ich bin in der aktuellen Branche tätig seit

- 0-2 Jahre
- 2-5 Jahre
- 5-10 Jahre
- Mehr als 10 Jahre

13. Mein aktueller Betrieb hat

- 0-9 Beschäftigte
- 10-49 Beschäftigte
- 50-249 Beschäftigte
- Mehr als 250 Beschäftigte

14. Einmal einen eigenen Betrieb zu führen in meiner Branche ist für mich

- zunehmend schwierig
- schwierig
- machbar
- erfolgsversprechend
- zunehmend erfolgsversprechend

15. Ich bin / war selbständig oder beteiligt an einem Unternehmen

- Ja
- Nein

16. Ich arbeite direkt mit dem Unternehmer / Besitzer zusammen

- Ja
- Nein

17. Wenn der Besitzer meines Betriebs aufhören will, wird er / sie das Unternehmen

- [ ] weiss nicht
- [ ] möglicherweise schliessen
- [ ] möglicherweise an einen Mitarbeiter verkaufen
- [ ] möglicherweise an einen Konkurrenten verkaufen
- [ ] möglicherweise vererben

18. Mindestens ein Elternteil ist / war selbständig oder an einem Unternehmen beteiligt

- Ja
- Nein

19. Ich kann mir vorstellen in den nächsten 10 Jahren mich selbständig zu machen oder mich an einem Unternehmen zu beteiligen oder zu gründen

- Nein, das möchte ich nicht
- Ja, das kann ich mir vorstellen
- Ja, das ist ein Ziel

20. Um einen Betrieb in meiner Branche zu übernehmen, der für mich in Frage kommen würde, bräuchte ich ca. soviel Kapital

- 0 SFr., kein, da Teil des Alleinerbes
- 0-100'000 Sfr.
- 100'000-249‘000 CHF
- 250'000 – 1 Mio. CHF
- 1 Mio. – 5 Mio. CHF
- Mehr als 5 Mio. CHF

21. Ich glaube, dass der Wert von bestehenden Betrieben in meiner Branche und damit der Kaufpreis in den nächsten Jahren eher

- gleichbleiben
- leicht sinken
- stark sinken
- leicht steigen
- stark steigen
- keine Ahnung

Kapital für Betriebsübernahmen geben - Informationsphase

Wenn jemand z.B. in Ihrer Branche ein Unternehmen übernimmt oder gründen möchte, dann wird dieser oftmals Geld brauchen. Diese Geld kann er z.B. von der Bank, von Freunden und der Familie oder via Aufruf im Internet (Crowdfinance) von Dritten erhalten.

22. Ich kann mir vorstellen jemanden finanziell für die Betriebsübernahme zu unterstützen sofern er / sie

- [ ] Zu meiner Familie oder engen Freunden gehört
- [ ] Zu meinem Arbeitskollegen gehört
- [ ] Ich einen Aufruf im Internet sehe
- [ ] Ich einen Aufruf im Internet sehe und die Personen mehrmals persönlich treffen kann
- [ ] Kann ich mir gar nicht vorstellen

23. Ich kann mir eine finanzielle Unterstützung für eine Betriebsübernahme vorstellen als

- ☐ Spende - das heisst ohne Rückzahlung
- ☐ Belohnung z.B. ich erhalte jedes Jahr Gratis-Mahlzeiten im unterstützden Restaurant
- ☐ Darlehen mit Rückzahlung ohne Zins
- ☐ Darlehen mit Rückzahlung und Zins
- ☐ Beteiligung z.B. Aktien, Stammanteile, usw.

24. Um mich für für eine Unterstützung einer Betriebsübernehme in meiner Branche zu informieren, würde ich

- ☐ Zeitungen z.B. Printmedien lesen
- ☐ TV-Sendungen schauen z.B. Cash-TV
- ☐ Internet verwenden z.B. Google

25. Um mich für eine Unterstützung einer Betriebsübernahme in meiner Branche zu informieren, würde ich

- ☐ Mit Freunden und der Familie mich besprechen
- ☐ Mit einem Anlageberater mich besprechen
- ☐ Mich einem Anlageverein anschliessen
- ☐ Geschäftsberichte und Geschäftspläne verlangen und lesen
- ☐ Geschäftsberichte von Dritten über diese Unternehmung verlangen und lesen

Kapital für Betriebsübernahmen geben - Entscheidungsphase

26. Wenn ich jemanden mit Kapital unterstütze für eine Betriebsübernahme in meiner Branche, dann tue ich das

- ☐ Mein Vermögen aufzubauen ohne ein bestimmtes Sparziel
- ☐ Vorsorge für das Alter
- ☐ Mich an der Wirtschaft zu beteiligen / Erfahrung zu sammeln
- ☐ Spielerischer Reiz am Handeln
- ☐ Freundschafts Dienst / Familien Dienst
- ☐ Interesse an dieser bestimmten Unternehmung oder Unternehmer
- ☐ Vermögen aufzubauen für ein bestimmtes Sparziel

27. Wenn ich jemanden mit Kapital unterstütze für eine Betriebsübernahme in meiner Branche, dann entscheide ich das

- Alleine
- Erst im Gespräch mit Freunden, Verwandten oder Bekannten
- Zusammen mit einem Bankberater
- Zusammen mit einem anderen Berater
- Nur mit dem Bankberater

28. Wenn ich jemanden mit Kapital unterstütze für eine Betriebsübernahme in meiner Branche, dann ist mir am Wichtigsten (Rangfolge, 1. Rang = Wichtigstes)

	Die Sicherheit, dass ich mein Geld zurück erhalte
	Das ich den Unternehmer persönlich kenne
	Das der Unternehmer Teil meiner Familie oder engsten Freunden ist
	Die bisherigen Gewinne der Unternehmung (Performance)
	Das Land und der Ort der Unternehmung
	Das ich die Branche und das Unternehmen persönlich gut kenne
	Das das Unternehmen „etwas gutes tut“
	Das ich gut informiert werde über das Unternehmen
	Die geplanten Gewinne in den nächsten Jahren
	Die Branche eine gute Zukunft hat
	Die Anlageempfehlung meiner Bank

29. Wenn ich jemanden unterstütze für eine Betriebsübernahme und dafür eine Beteiligung erhalte, dann möchte ich diese Beteiligung verkaufen können innerhalb

- Innerhalb eines Monates
- Innerhalb eines Jahres
- Innerhalb von drei Jahren
- Mehr als drei Jahren

30. Wenn ich jemanden unterstütze für eine Betriebsübernahme, ist es für mich wichtig

- ☐ eine Internetseite verwenden zu können, wo alle Dokumente hinterlegt sind
- ☐ eine Internetseite verwenden zu können, wo ich mein Kapital ein- und auszahlen kann
- ☐ eine Internetseite verwenden zu können, wo ich meine Beteiligung kaufen und an Dritte verkaufen kann
- ☐ eine Internetseite verwenden kann, wo ich sehe, wer sonst noch Kapital für die Betriebsübernahme gibt
- ☐ Ich brauche keine Internetseite für das

31. Wenn ich jemanden mit Kapital unterstütze für eine Betriebsübernahme in meiner Branche, dann verstehe ich Geschäftszahlen wie

- ☐ Umsatz
- ☐ Einnahmen
- ☐ Ausgaben
- ☐ Jahresgewinn
- ☐ Schulden und Zinszahlungen
- ☐ Lohnkosten
- ☐ Dividenden
- ☐ Derivative Instrumente
- ☐ Unterschied Obligation / Aktie
- ☐ Aktien-Performance
- ☐ P/E Ratio

32. Wenn ich jemanden mit Kapital unterstütze für eine Betriebsübernahme in meiner Branche, dann schaue ich mir Geschäftszahlen an wie

- ☐ Umsatz
- ☐ Einnahmen
- ☐ Ausgaben
- ☐ Jahresgewinn
- ☐ Schulden und Zinszahlungen
- ☐ Lohnkosten
- ☐ Dividenden
- ☐ Derivative Instrumente
- ☐ Unterschied Obligation / Aktie
- ☐ Aktien-Performance
- ☐ P/E Ratio

33. Ich möchte die Unterstützung z.B. das Zahlen des Geldes abwickeln via (Mehrfachnennung)

- ☐ Internet
- ☐ Schalterauftrag bei meine Haus-Bank
- ☐ Via Telefonanruf
- ☐ Via App
- ☐ Schriftlich via E-Mail
- ☐ Schriftlich via Post
- ☐ Schriftlich via Fax

34. Ich kann mir vorstellen mit Kapital eine Betriebsübernahme in meiner Branche zu leisten im Umfang von

- ◯ 5‘000 SFr.
- ◯ 5000-25‘000 SFr.
- ◯ 25‘000 – 100‘000 SFr.
- ◯ 100‘000 – 1 Mio. SFr.
- ◯ Mehr als 1 Mio. SFr.

35. Ich kann mir vorstellen mich gleichzeitig an verschiedenen Betriebsübernahmen in meiner Branche mit Kapital zu beteiligten

- ◯ 1 (z.B. eigenes)
- ◯ 2
- ◯ 3-5
- ◯ Mehr als 5

Kapital für Betriebsübernahmen geben - Erfolgsmessung

36. Mir ist es wichtig, mit dem Kapital zur Unterstützung einer Betriebsübernahme in meiner Branche vorwärts zu machen („Anlageerfolg zu erzielen“).

- ◯ Ja
- ◯ Nein

37. Wenn ich 1000 SFr. Kapital für eine Betriebsübernahme in meiner Branche gebe, dann möchte ich pro Jahr mindestens um diesen Betrag vorwärts machen („Anlageerfolg erzielen“)

- Kein Verlust
- 0-10 SFr.
- 11-40 SFr.
- 41-60 SFr.
- 61-80 SFr.
- 81-100 SFr.
- 101-150 SFr.
- 151-200 SFr.

38. Wenn ich 1000 SFr. Kapital für eine Betriebsübernahme in meiner Branche gebe, dann möchte ich Aussteigen nach

- 0-1 Jahr
- 1-3 Jahre
- 3-8 Jahre
- Über 8 Jahre

39. Wenn ich Kapital für eine Betriebsübernahme in meiner Branche gebe, dann finde ich das

- Ein für mich kleines Risiko
- Ein für mich normales Risiko
- Ein für mich hohes Risiko

40. Wenn ich soviel Kapital einsetze für eine Betriebsübernahme in meiner Branche, dann ist das für mich ein tragbares Risiko

- 5‘000 SFr.
- 5000-25‘000 SFr.
- 25‘000 – 100‘000 SFr.
- 100‘000 – 1 Mio. SFr.
- Mehr als 1 Mio. SFr.

41. Wenn ich weiss, dass fünf Kollegen von mir ebenso Kapital für die gleiche Betriebsübernahme in meiner Branche geben, dann bin ich

- ○ Dann möchte ich das Wissen und bin auch eher bereit Kapital zu geben
- ○ Dann möchte ich das Wissen und bin eher nicht bereit Kapital zu geben
- ○ Dann möchte ich das Wissen und es hat keinen Einfluss auf meine Entscheidung
- ○ Dann ist es mir egal, ob ich das weiss

Kapital für Betriebsübernahmen suchen - Informationsphase

42. Ich kann mir vorstellen von jemanden Geld für die Betriebsübernahme zu erhalten sofern er / sie

- ☐ Zu meiner Familie oder engen Freunden gehört
- ☐ Zu meinem Arbeitskollegen gehört
- ☐ Er / Sie sich auf meinen Aufruf im Internet reagiert
- ☐ Er / Sie auf meinen Aufruf im Internet reagiert und ich die Personen mehrmals persönlich treffen kann
- ☐ Kann ich mir gar nicht vorstellen

43. Ich kann mir eine finanzielle Unterstützung für mich für meine Betriebsübernahme vorstellen als

- ☐ Spende - das heisst ich bezahle nichts zurück
- ☐ Belohnung z.B. ich gebe dem Geldgeber jedes Jahr z.B. Gratis-Mahlzeiten in meinem Restaurant
- ☐ Darlehen mit Rückzahlung ohne Zins
- ☐ Darlehen mit Rückzahlung und Zins
- ☐ Beteiligung z.B. Aktien, Stammanteile, usw.

44. Um mich für über einen möglichen Betriebe zur Übernahme zu informieren, würde ich

- ☐ Zeitungen z.B. Printmedien lesen
- ☐ TV-Sendungen schauen z.B. Cash-TV
- ☐ Internet verwenden z.B. Google

45. Um mich für Geldgeber zur Finanzierung meiner Betriebsübernahme sichtbar zu machen, würde ich

- ☐ Mit Freunden und der Familie darüber besprechen und nach Kontakten fragen
- ☐ Mit einem Anlageberater einer Bank mich besprechen
- ☐ Mit einem Anlageverein sprechen
- ☐ Mein Anligen im Internet ausschreiben
- ☐ Die Geschäftsberichte und meine Geschäftspläne zur Verfügung stellen
- ☐ Die Geschäftsberichte und meine Pläne von Dritten bewerten lassen und zur Verfügung stellen

Kapital für Betriebsübernahmen suchen - Entscheidungsphase

46. Ob ich von jemanden Geld annehme für meine Betriebsübernahme in meiner Branche, dann entscheide ich das

- ○ Alleine
- ○ Erst im Gespräch mit Freunden, Verwandten oder Bekannten
- ○ Zusammen mit einem Bankberater
- ○ Zusammen mit einem anderen Berater

47. Wenn ich von jemanden mit Kapital unterstützt werde für meine Betriebsübernahme in meiner Branche, dann ist mir am Wichtigsten (Rangfolge, 1. Rang = Wichtigstes)

▾	Die Sicherheit, dass ich das Geld zurück bezahlen kann
▾	Das ich den Geldgeber persönlich kenne
▾	Das der Geldgeber Teil meiner Familie oder engsten Freunden ist
▾	Das der Geldgeber die bisherigen Gewinne der Unternehmung kennt (Performance)
▾	Das der Geldgeber die das Land und der Ort der Unternehmung kennt
▾	Das der Geldgeber die Branche und das Unternehmen persönlich gut kennt
▾	Das der Geldgeber glaubt, dass das Unternehmen „etwas gutes tut“
▾	Das der Geldgeber verlangt, gut über das Unternehmen informiert zu werden
▾	Das der Geldgeber meine geplanten Gewinne in den nächsten Jahren kennt
▾	Das der Geldgeber glaubt, das die Branche eine gute Zukunft hat
▾	Das der Geldgeber einer Anlageempfehlung seiner Bank folgt

48. Wenn ich meinem Geldgeber für meine Betriebsübernahme eine Beteiligung gebe, dann darf er diese weiterverkaufen an jemanden anders

- Innerhalb eines Monates
- Innerhalb eines Jahres
- Innerhalb von drei Jahren
- Erst nach mehr als drei Jahren

49. Für die Geldgeber für meine Betriebsübernahme, kann ich mir vorstellen

- eine Internetseite zu verwenden, wo ich alle Geschäfts-Dokumente hinterlege
- eine Internetseite zu verwenden, wo ich die Geldgeber Kapital ein- und auszahlen können
- eine Internetseite zu verwenden, wo meine Geldgeber die Beteiligung kaufen und an Dritte verkaufen können
- eine Internetseite zu verwenden, wo die Geldgeber sehen, welche anderen Geldgeber sonst noch Kapital für die Betriebsübernahme gaben
- Ich brauche keine Internetseite für das

50. Ich verstehe Geschäftszahlen wie

- Umsatz
- Einnahmen
- Ausgaben
- Jahresgewinn
- Schulden und Zinszahlungen
- Lohnkosten
- Dividenden
- Derivative Instrumente
- Unterschied Obligation / Aktie
- Aktien-Performance
- P/E Ratio

51. Wenn ich jemanden um Kapital für eine Betriebsübernahme in meiner Branche anfrage, dann erhält er von mir Geschäftszahlen wie

- ☐ Umsatz
- ☐ Einnahmen
- ☐ Ausgaben
- ☐ Jahresgewinn
- ☐ Schulden und Zinszahlungen
- ☐ Lohnkosten
- ☐ Dividenden
- ☐ Derivative Instrumente
- ☐ Unterschied Obligation / Aktie
- ☐ Aktien-Performance
- ☐ P/E Ratio

Kapital für Betriebsübernahmen suchen - Handelsphase

52. Ich möchte für das Geld sammeln für die Betriebsübernahme Unterstützung z.B. das Zahlen des Geldes abwickeln via (Mehrfachnennung)

- ☐ Internet
- ☐ Schalterauftrag bei meine Haus-Bank
- ☐ Via Telefonanruf
- ☐ Via App
- ☐ Schriftlich via E-Mail
- ☐ Schriftlich via Post
- ☐ Schriftlich via Fax

53. Ich kann mir vorstellen soviel Geld pro Geldgeber für meine Betriebsübernahme in meiner Branche anzunehmen

- ○ 5'000 SFr.
- ○ 5000-25'000 SFr.
- ○ 25'000 – 100'000 SFr.
- ○ 100'000 – 1 Mio. SFr.
- ○ Mehr als 1 Mio. SFr.

54. Ich kann mir vorstellen Geld von sovielen unterschiedlichen Geldgebern für meine Betriebsübernahme anzunehmen

- 1
- 2
- 3-5
- 6-10
- 11-20
- 21-50
- mehr als 50

55. Ich kann mir vorstellen meine Betriebsübernahme in meiner Branche mit Kollgen zusammen durchzuführen (Geschäftspartner)

- Kein Partner
- 1 Partner
- 2 Partner
- 3-5 Partner
- Mehr als 5 Partner

Kapital für Betriebsübernahmen suchen - Erfolgsmessung

56. Mir ist es wichtig, das meine Geldgeber für meine Betriebsübernahme in meiner Branche vorwärts zu machen („Anlageerfolg zu erzielen").

- Ja
- Nein

57. Für 1000 SFr. Geld für meine Betriebsübernahme in meiner Branche, währe ich bereit pro Jahr höchstens diesen Zins / Dividende zu zahlen („Anlageerfolg erzielen")

- Keine Rückzahlung / Nur Spende
- 0-10 SFr.
- 11-40 SFr.
- 41-60 SFr.
- 61-80 SFr.
- 81-100 SFr.
- 101-150 SFr.
- 151-200 SFr.

58. Wenn ich Geld für meine Betriebsübernahme in meiner Branche annehme, dann möchte ich dieses Zurückbezahlt haben nach

- 0-1 Jahr
- 1-3 Jahre
- 3-8 Jahre
- Über 8 Jahre

59. Wenn ich Geld für meine Betriebsübernahme in meiner Branche annehme, dann finde ich das

- Ein für mich kleines Risiko
- Ein für mich normales Risiko
- Ein für mich hohes Risiko

60. Wenn ich soviel Geld Annehme für meine Betriebsübernahme in meiner Branche, dann ist das für mich ein tragbares Risiko

- 5'000 SFr.
- 5000-25'000 SFr.
- 25'000 – 100'000 SFr.
- 100'000 – 1 Mio. SFr.
- Mehr als 1 Mio. SFr.

61. Wenn ich weiss, dass meine Geldgeber für meine Betriebsübernahme in meiner Branche auch einem Konkurrenten oder einem anderen Unternehmer Geld geben, dann

- Dann möchte ich das Wissen und bin auch eher bereit Kapital zu geben
- Dann möchte ich das Wissen und bin eher nicht bereit Kapital zu geben
- Dann möchte ich das Wissen und es hat keinen Einfluss auf meine Entscheidung
- Dann ist es mir egal, ob ich das weiss