Analysis of Start-up Finance with Crowdinvesting

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1. Introduction

1.1 Motivation and Relevance

Since the first German crowdinvesting platform launched in fall 2011, the concept has expanded rapidly. Moreover, current empirical analyses reporting a worldwide increasing volume of capital collected by start-ups through crowdinvesting platforms.[1] Crowdinvesting is rooted to the concept of crowdfunding. It defines a financing method which allows start-ups to collect money from a large audience of typically small investors through an open call on a Web-based platform.

During the recent few decades, lots of new technological advances and persistent innovations have conquered the market. One of the most important is the Internet, which provides new possibilities for people to interact with each other and conduct business, for example through new communication channels. The underlying concept of crowdfunding is not new. In 1885, the base of the Statue of Liberty in America was funded by a large audience, who provided small amounts. Nevertheless, regularly offering small amounts to a large audience was impossible due to high transaction costs. But through the development of the Internet and Web 2.0, it became possible to significantly reduce these costs and to raise the concept professionally.[2]

Capital is a fundamental precondition for ventures to translate promising innovative ideas into real businesses.[3] According to a survey of EY (2014), more than 90% of the German start-ups emphasized that their greatest concern is to attract external financing.[4] Moreover, the capital decision of a venture in the early stages of the entrepreneurial lifecycle has a significant effect on the operation of the business, the firm's performance, the risk of failure as well as the potential to further expand.[5] Young and innovative ventures are a key source for the growth of an economy as well as job creation within a society.

For a long time, investments in start-ups were only accessible for a small group of financially strong investors, such as business angels, venture capitalists, and private equity firms. But at least since the global financial crisis in 2008, which brought increased regulations, receiving funding of such sources and especially bank loans has become even more difficult for start-ups. Due to a lack of track-record as well as uncertainty about future cash flows, investments

[1] Cf. Belleflamme et al. (2014), p. 585; Ebben and Johnson (2006), pp. 851; Davila et al. (2003), pp. 689;
[2] Cf. Hornuf and Schwienbacher (2014a), pp. 2.
[3] Cf. Winsborg and Landström (2000), p. 236.
[4] Cf. EY (2014), p. 13.
[5] Cf. Hornuf and Schwienbacher (2014a), pp. 2; Cassar (2004), pp. 261.

in early-stage ventures are very risky. Due to these constraints, start-ups face a funding gap and have to explore alternative forms of financing. Roughly during the same time, the concept of crowdfunding and crowdinvesting has become more and more popular. [6] This results in the question whether crowdinvesting is an appropriate method for providing early stage finance and how this market will further develop.[7]

1.2 Research Objective and Design

The aim of this section is to give an overview of selected research literature as well as main data points. The selection of academic literature for this thesis focuses on crowdinvesting, but research about other types of crowdfunding and further sources of start-up finance were also considered in order to answer the research question. The following research streams have been identified.

Crowdfunding and crowdinvesting are relatively new phenomena, so the related literature is not yet extensive.[8] In general, it is subdivided into donation-based, reward-based, and equity-based crowdfunding (so called crowdinvesting).[9] Generally, most studies examine reward- and donation-based crowdfunding, but research about crowdinvesting is also gradually growing.[10] In order to generate a description and definition of the phenomenon, the authors often use case studies or expert interviews.[11] Cassar (2004) indicated a funding gap of business start-ups and analysed the influence of asset structure, start-up size, and growth orientation on the financing of start-ups. Furthermore, there are a lot of different analyses on other financing sources, for example venture capital or business angels[12], and also on small investors.[13] Agrawal et al. (2011 and 2013) examined the geographical influence on crowdfunding, further analysed crowdfuning in the USA and tried to find parallels to crowdinvesting.[14] They show that both methods overcome geographic barriers, which is a weakness for investments by traditional investors. This also agrees with Mollick (2014), who analyses the dynamics of success and failure of crowdfunded ventures.[15] He came to the

[6] Cf. Belleflamme et al. (2014), p. 585; Ahlers (2015), p. 958.
[7] Cf. Winsborg and Landström (2000), p. 236.
[8] Cf. Belleflamme et al. (2014), p. 590.
[9] Cf. Beck (2014), pp. 19; Belleflamme and Lambert (2014b), pp. 2; Agrawal et al. (2015), pp. 253.
[10] Cf. Cholakova and Clarysse (2015), p. 148; Mollick (2014), pp. 1; Agrawal et al. (2013), pp. 1.
[11] Cf. Hemer (2011), pp. 1; Schwienbacher and Larralde (2010), pp. 1.
[12] Cf. Davila et al. (2003), pp. 689; Chemmanur et al. (2014), pp. 2434; Brettel (2003), pp. 251; Politis (2007), pp. 127
[13] Cf. Malmendier and Shanthikumar (2007), pp. 457.
[14] Cf. Agrawal et al. (2011), pp. 1; Agrawal et al. (2013), pp. 1.
[15] Cf. Mollick (2014), pp. 1.

conclusion that crowdfunding has the potential for a disruptive change in the way start-ups had been funded before.[16] Belleflamme et al. (2014) published a study about the economic factors influencing the entrepreneur's choice of a form of crowdfunding. They compare pre-ordering and profit sharing as the two main forms of crowdfunding and address the founders' choice for one method in a theoretical model.[17] Moreover, Belleflamme and Lambert (2014) evaluate the behaviour of Belgian crowdfunding platforms as intermediate between entrepreneurs and funders.[18]

Schwienbacher and Larralde (2010) and Belleflamme et al. (2010) can be mentioned as one of the first studies focusing on equity-based crowdfunding as venture financing.[19] With respect to the founder engagement, crowdinvesting is presented as more serious concept than crowdfunding. The most studies concentrate on a broad introduction to the topic as well as legal aspects.[20] Hemer (2011) provides an overview over the range of characteristics and players in the crowdinvesting market.[21] The investigation from Belleflamme et al. (2014) examined the differences between crowdinvesting and traditional sources of early-stage capital. They came to the conclusion, that the main difference is the funding process itself as well as the funding amount, which are generally smaller for crowdinvesting. Moreover, Ahlers et al. (2015) published the first study about effects of signals in the crowdinvesting context.[22] In the same year, Cholakova and Clarysse (2015) used a regression analysis to examine what the individuals' motivations for crowdfunding and crowdinvesting are and whether crowdinvesting might replace crowdfunding.[23] Furthermore, Hornuf and Schwienbacher (2014a and 2014b) analysed the difference between successful and unsuccessful campaigns of various platforms in Europe by using a multivariate regression analysis and examined whether crowdinvesting turns the crowd into small business angels.[24]

According to Bradford (2012), the crowdinvesting markets are strongly influenced by the legislative environment of the home country.[25] With the introduction of Kleinanlegerschutzgesetz in July 2015, the regulation for crowdinvesting in Germany changed a lot. None of the previous studies had a focus on Germany at all, which constitutes a huge research gap.

[16] Cf. Mollick (2014), p. 14.
[17] Cf. Belleflamme et al. (2014), pp. 585.
[18] Cf. Belleflamme and Lambert (2014b), pp. 2.
[19] Cf. Schwienbacher and Larralde (2010), pp. 1; Belleflamme et al. (2010), pp. 1.
[20] Cf. Agrawal et al. (2013), pp. 1; Hemer (2011), pp. 1.; Hornuf and Schwienbacher (2014b), pp. 1.
[21] Cf. Hemer (2011), pp. 1.
[22] Cf. Ahlers et al. (2015), pp. 955.
[23] Cf. Cholakova and Clarysse (2015), pp. 145.
[24] Cf. Hornuf and Schwienbacher (2014a), pp. 2; Hornuf and Schwienbacher (2014b), pp. 2.
[25] Cf. Bradford (2012), pp. 1; Belleflamme and Lambert (2014b), pp. 2.

Ernst&Young (EY) (2014)[26] and Institut für Mittelstandsforschung (IfM) Bonn (2015)[27] published surveys about the needs of start-ups and the growth of crowdinvesting in Germany. Nevertheless, there are also some other academic papers regarding crowdinvesting in Germany. For example, Kortleben and Vollmar (2012), who give an initial overview over the German crowdinvesting market in the beginning and highlight the needs of a due diligence and reduced risk.[28] Hagedorn and Pinkwart (2013) as well as Mäschle (2012) analysed the German crowdinvesting market with a focus on platforms. But the majority of these platforms have already left the market or changed their business model.[29] Thus, crowdinvesting is still an under-researched area of early-stage venture finance in Germany. Furthermore, the conception is still in a developing phase and therefore continuously changing.[30] On this account, the investigation of this thesis involves several aspects to cover the most important dimensions of crowdinvesting, which leads to the formulation of the following research question:

Is the concept of crowdinvesting a viable alternative to traditional capital sources for start-ups and an attractive investment opportunity for investors in Germany?

First of all, the entire thesis is divided into one theoretical and one empirical part. The first chapter is intended to introductory questions concerning the motivation and relevance of the topic. The second part is motivated by the theoretical framework of this analysis, which introduces a definition of start-ups and Web 2.0 as a basis for crowdinvesting. Furthermore, this section presents the traditional forms of start-up finance as well as the new form of crowdinvesting, including its definition and origin, development, stakeholders, crowdinvesting process as well as regulations. This leads to the empirical and third part of this thesis, for which methods of qualitative research are used. It is introduced by the conceptual framework and study objectives (chapter three), followed by a crowd investing SWOT analysis (chapter four), a study of the three biggest German platforms (chapter five). Chapter 6 covers an introduction to qualitative content analysis and an evaluation of 14 expert interviews according to Mayring (chapter six), representing the most significant proportion and core of the empirical section. The results of those studies are discussed in chapter eight, while chapter nine deals with the limitations of the analysis. Last but not least, a conclusion and an outlook are given in chapter nine. The following Figure 1 summarises the structure of this thesis.

[26] Cf. EY (2014), pp. 1.
[27] Cf. Löher et al. (2015), pp. 1.
[28] Cf. Kortleben and Vollmar (2012), pp. 1.
[29] Cf. Hagedorn and Pinkwart (2013), pp. 1; Mäschle (2012), pp. 1.
[30] Cf. Hornuf and Schwienbacher (2014b), p. 3.

ity of the information. In addition, no evidence of body language can be taken into account.[440] As already noted, no pre-test was executed for the investigation. Although, this is not a mandatory requirement, it may result to a loss of data as adjustments are made in the interview guide after the first interview. This means that this interview might not have fully met its purpose.

Crowdfunding is a relatively new phenomenon, thus it should be noted that there is a lack of data about the long term development, for example failure rates of start-ups financed by the crowd compared with start-ups financed through traditional forms of financing in the early stage. The minimum contractual duration of a crowdinvestment is five years. Thus, so far none of the funded start-ups in Germany reached that date and therefore there are also no appropriate data about what happens on maturity and afterwards.

9. Conclusion and Outlook

The last chapter of the thesis summarises the main findings, which result from the collected academic literature and the empirical studies. After this, an outlook and further research needs will be given. Start-ups are a major source of growth and innovation as well as job creation in Germany. Thus, they need adequate financing sources. However, the past financial crises and the resulting tightening of the regulations for financial institutions and the high risk of investments in early stage ventures leads to a funding gap for start-ups. In this regard, crowdinvesting provides new opportunities not only start-ups, but also for investors.

The concept is based on the phenomenon of Web 2.0 and since the first successful funding on a German crowdinvesting platform in 2011, crowdinvesting has shown an enormous growth in Germany, but also in other parts of the world, for example in the US and the UK. The concept allows start-ups to collect money from a large audience of typically small investors through an open call on a web-based platform. However, the growth declined during 2015 from 8% to 5% per quarter, which may be a result of the new Kleinanlegerschutzgesetz as well as the first bankruptcies of crowdinvested start-ups. In the course of this investigation, 14 experts from the crowdinvesting space, consisting of four investors, eight start-ups, and two platforms, were interviewed. The evaluation of the generated data is based on the structured content analysis of Mayring. In addition, a brief SWOT analysis and an analysis of the three biggest German platforms were conducted. It needs to be differentiated whether

[440] Cf. Gläser and Laudel (2010), pp. 153.

this concept serves as valuable funding source for start-ups and as attractive investment opportunity for investors.

Generally, the concept is better to evaluate for the perspective of start-ups rather than crowdinvestors. Crowdinvesting opened the opportunity for start-ups to collect money from a source, which had not been available before. Furthermore, it enables the matching of capital seeking start-ups and investors. While traditional investors like business angels and venture capitalists demand many voting rights, start-ups funded via crowdinvesting benefit from no loss of voting rights and control. Thus, many entrepreneurs decide to do crowdinvesting consciously rather than in the last instance, which in turn reduces the risk of adverse selection. Another major advantage is the resulting marketing and multiplication effect due to a wide dissemination through the Internet and social media as well as the crowdinvestors themselves, which enables access to new customers and investors. Moreover, start-ups can test their business idea at a relatively low risk, especially because no collateral is required as it is the case for bank loans, but the large number of crowdinvestors also result in high administrative and personal costs. Platforms require the disclosure of certain data of the start-up which are distributed to the public. This results in the risk that ideas get stolen. The large number of small investors, the related participation structure and increasing expenditures of administration und communication might complicate a follow-up investment by traditional investors. For that reason, start-ups should choose a platform with a business model that pools the investors. Furthermore, crowdinvesting is not suitable for every founder and start-up, for example if the required financing amount is too high, or the founder shuns publicity. Even if there were some larger amounts raised successful in the past, the average amount is still relatively small. Nevertheless, as also shown in the interviews, the concept is generally suitable for every business regardless of the nature of the business, even if some ideas might require more preparation and attention. Overall, the preparation of the campaign might be more important for its success than the actual product. Generally, for a start-up which needs capital raising money is better than not raising money. Thus, if a start-up has no opportunity to receive money from another source they should try to do crowdinvesting because their project might otherwise fail.

Crowdinvesting grants retail investors access to a new asset class with the chance of a large return. However, the high return is also associated with a high risk due to the large percentage of start-ups that fail. The average performance per year since 2012 of crowdinvested start-ups on Companisto was below the performance of the DAX. Furthermore, the platforms usually do not carry out a due diligence and usually provide too little information for the investors to do one on their own, making well thought-out investment decision difficult for the crowd. Thus, crowdinvestments are complex and might be difficult to understand for inexperienced investors. According to those facts, crowdinvesting is not an attractive investment opportunity in terms of risk and (monetary) reward. Nevertheless, emotional reasons seem to play an important role. The investors want to support the founder and be part of the next “big thing”, or just want to gamble. Overall, crowdinvesting might be a good diversification for an existing portfolio, but only in a small portfolio share, while the investor should not be dependent on the money invested.

Both parties should carefully think about the platform they choose for crowdinvesting. A platform with a business model that pools all crowdinvestors in an associated company or SPV increases the chance for a follow-up investment by traditional investors as they only have to negotiate with one central contact point rather than hundreds or thousands of individual crowdinvestors. Usually, further financing rounds are required to implement the product or service successfully in the market. Thus, both parties have an interest in a follow-up investment, even if that might result in a dilution of investors.

To put it in a nutshell, the concept of crowdinvesting is still in an early phase, but it can be a valuable additional method for start-up finance. However, given current market volumes and growth rates, it will most likely not replace traditional investors in the medium to longer term. Moreover, there will be further developments towards a cooperation of crowdinvestors and traditional investors, which allow start-ups to use the benefits provided by each of the investor group. However, in such concepts, start-ups have to surrender shares to the lead investors, which is actually one major reason for start-ups to favour crowdinvesting over traditional financing sources. Thus, both business models will most likely co-exist in the future.

The approach of the underlying thesis with the topic “Analysis of Start-up Finance with Crowdinvesting” was to provide an assessment whether crowdinvesting is a viable alternative funding source for start-ups as well as an attractive investment opportunity. The knowledge gained in this investigation could serve as a basis for a quantitative analysis as well as a repeated approach based on the quantitative results using grounded theory. For a more sophisticated analysis, for example an investigation by means of questionnaires can be imagined in order to determine the absolute and relative frequency distributions. In the course of a more extensive survey, the respondents could be differentiated according to and within the different parties, for example with respect to the size and form of the company, the background of the crowdinvestors, and the business models of platforms surveyed.

Further future research needs especially relate to the crowd, including their background, experience in financial markets and level of professionalism, motives and approaches for crowdinvesting, and research behavior. One possibility to meet crowdinvestors might be a crowdinvestor event organized by start-ups or platforms during the funding period. But there was no appropriate event during the compilation time of this thesis. Deeper insights into the screening process of platforms and the impact of crowdinvesting for the follow-up investments for start-ups are needed to further evaluate the concept. Moreover, to obtain a better understanding of crowdinvesting, long-term data is required to see how the start-ups and investors deal with the end of the notice period, to compare the performance of crowdinvested start-ups with other start-ups, to see how the platforms further develop, whether it comes to a consolidation and what happens if it comes to a crash, etc. Also the external impacts need to be further analysed, for example the consequences of the Kleinanlegerschutzgesetz and the interest rate environment. Crowdinvesting is a new phenomenon which is continuously changing. Thus, also the fields which have already been analysed in the past need to be reviewed constantly.